AGENDA

SOUTHERN NEVADA WATER AUTHORITY

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS

REGULAR MEETING
9:00 A.M. – JULY 16, 2015

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

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

John J. Entsminger, General Manager

Date Posted: 07/09/15

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 meeting minutes from May 21, 2015.

2. *For Possible Action:* Appoint a chairman and vice chairman to preside over the Board of Directors for fiscal year 2015/2016, and appoint three directors to serve as commissioners of the Colorado River Commission for one-year terms.

CONSENT AGENDA **Items 3 - 8 are routine and can be taken in one motion unless a Director requests that an item be taken separately.**

3. *For Possible Action:* Approve and authorize the General Manager to sign three amendments to existing agreements between the Moapa Valley Water District and the Authority: 1) First Amendment to Moapa Transmission System Design, Construction, Operation and Maintenance Agreement; 2) First Amendment to Cooperative Agreement; and 3) First Amendment to Memorandum of Understanding Regarding the Development of Coyote Spring Groundwater Resources.

4. *For Possible Action:* Approve and authorize the General Manager to sign Change Order No. 24 to Contract No. 070F 01 C1, Lake Mead Intake No. 3 Shafts and Tunnel, and extend the final completion date by 77 calendar days.

5. *For Possible Action:* Approve and authorize the Chair to sign an amendment to the existing agreement between Montgomery Watson/CH2M Hill and the Authority for lead design engineering services for the Authority's capital improvement program.

6. *For Possible Action:* Approve a subgrant agreement between the Nevada Division of Environmental Protection and the Authority to accept grant funding for regional water quality activities and related public outreach initiatives.

7. *For Possible Action:* Approve an interlocal agreement between the Nevada Department of Wildlife and the Authority to accept grant funding for ecological restoration of streams on the Warm Springs Natural Area that are habitat for the endangered Moapa dace.

8. *For Possible Action:* Approve a resolution authorizing the submission of a grant proposal to the Bureau of Reclamation WaterSMART: Drought Resiliency Project Grants for Fiscal Year 2015.

BUSINESS AGENDA

9. *For Possible Action:* Adopt the 2015 Las Vegas Wash Capital Improvements Plan.

10. *For Possible Action:* Approve and authorize the General Manager to sign the Consent and Agreement among River Mountains Solar, LLC, Deutsche Bank Trust Company Americas, and the Authority; and the Acknowledgement and Confirmation and First Amendment to the Solar Project Power Purchase Agreement between River Mountains Solar, LLC, and the Authority; and authorize the General Manager to execute ministerial documents and other agreements necessary to effectuate the transaction and/or other terms of the Solar Project Power Purchase Agreement on the same substantive terms already approved by the Board.

11. *For Possible Action:* Approve and authorize the General Manager to sign a Water Service Agreement between the City of North Las Vegas and the Authority regarding water service to Garnet Valley and the Apex area.

12. *For Possible Action:* Authorize the General Counsel to intervene in Public Utility Commission Docket 15-07004, Nevada Power Company's Triennial Integrated Resource Plan.

13. *For Possible Action:* Authorize the General Manager to negotiate and execute: 1) an amendment(s) to the Agreement for a Pilot Program for Funding the Creation of Colorado River System Water through Voluntary Water Conservation and Reductions in Use; and 2) miscellaneous agreements to effectuate the Colorado River System Conservation Pilot Program and to secure additional federal grants.

14. *For Possible Action:* Receive an update on conservation efforts and authorize the General Manager, or his designee, to temporarily increase incentive rates to an amount not to exceed $2.00 per square foot for the Authority's Water Smart Landscapes Program to strengthen program participation.

15. *For Possible Action:* Approve a professional services agreement between R&R Partners, Inc., and the Authority to provide integrated marketing, communications and public outreach services for the Authority's water efficiency public education campaign and comprehensive water conservation initiatives, with the option to renew the agreement for five additional one-year periods and authorize an increase not to exceed 10 percent for each renewal term.

16. *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 construction activities near Lake Mead.

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
MAY 21, 2015
MINUTES

CALL TO ORDER	9:03 a.m., Colorado River Conference Rooms, Southern Nevada Water Authority, 100 City Parkway, Seventh Floor, Las Vegas, Nevada
BOARD MEMBERS PRESENT	Mary Beth Scow, Chair Sam Bateman, Vice Chair (Left the meeting at item no. 13) Susan Brager Bob Coffin Duncan McCoy Steve Sisolak Anita Wood
BOARD MEMBERS ABSENT	None
STAFF PRESENT	John Entsminger, Greg Walch, Julie Wilcox, Dave Johnson, Marc Jensen, Scott Krantz
OTHERS PRESENT	None

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

COMMENTS BY THE GENERAL PUBLIC
For complete comments, audio is available online at snwa.com

Lee Garland, HD Supply Waterworks, spoke about item no. 8. He disputed the claims made by staff regarding proper document submittal and requested that item no. 8 be removed from the consent agenda and be considered separately.

1. ***For Possible Action:*** **Approval of Agenda & Minutes**

FINAL ACTION: A motion was made by Director Brager to approve the meeting's agenda and the meeting minutes of January 15, 2015, and the special meeting from April 29, 2015. The motion was approved.

2. ***For Possible Action:*** Conduct a Public Hearing on the Tentative Budget for the Authority and subsequently adopt a Final Budget for fiscal year 2015/2016.

John Entsminger, General Manager, gave a presentation on the Authority's Tentative Budget for fiscal year 2015/2016. A copy of his presentation is included with the minutes.

Director Wood asked if the excess funds earned from underestimated connection charge fees would be utilized to stabilize the water rates. Mr. Entsminger recommended not utilizing these funds immediately, but instead segregating the funds into the Authority's Rate Stabilization Fund and at a later time determining how the fund should be directed.

Director Brager noted the market's volatility and emphasized that Connection Fee surpluses are not consistent.

FINAL ACTION: A motion was made by Vice Chair Bateman to follow staff's recommendation. The motion was approved.

CONSENT AGENDA **Items 3 - 8 are routine and can be taken in one motion unless a Director requests that an item be taken separately.**

3. ***For Possible Action:*** **Approve and authorize the General Manager to enter into an assistance agreement between the Bureau of Reclamation and the Authority to accept a grant for an amount not to exceed $107,224 for cultural research and mitigation activities along the Las Vegas Wash, and authorize the General Manager to approve future modifications only if the future modifications do not fiscally impact the Authority.**

4. ***For Possible Action:*** **Approve and authorize the General Manager to enter into an assistance agreement between the Bureau of Reclamation and the Authority to accept a grant for an amount not to exceed $60,044, for water quality monitoring in the Las Vegas Wash, and authorize the General Manager to approve future modifications only if the future modifications do not fiscally impact the Authority.**

5. ***For Possible Action:*** **Approve and authorize the General Manager to enter into an assistance agreement between the Bureau of Reclamation and the Authority for an amount not to exceed $174,554 to accept a grant for revegetation activities in the Las Vegas Wash, and authorize the General Manager to approve future modifications only if the future modifications do not fiscally impact the Authority.**

6. ***For Possible Action:*** **Approve and authorize the General Manager to enter into an assistance agreement between the Bureau of Reclamation and the Authority to accept a grant for an amount not to exceed $101,324 for Las Vegas Wash Coordination Committee program management, and authorize the General Manager to approve future modifications only if the future modifications do not fiscally impact the Authority.**

7. ***For Possible Action:*** **Approve and authorize the Chair to sign 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 2015/2016.**

FINAL ACTION: A motion was made by Director Sisolak to remove item no. 8 from the Consent Agenda and to follow staff's recommendations. The motion was approved.

8. ***For Possible Action:*** **Reject the bid of Houston Valve Sales and approve the award of Bid No. 2285-15, API 600 Wedge Gate Isolation Valves, to Ferguson Enterprises, Inc., in an amount not to exceed $834,491, or take other action as appropriate.**

Dave Johnson, Deputy General Manager, noted that the Authority could not locate Houston Valve Sales (HVS) as part of its internal process to evaluate bids. During the process, HVS met with staff twice to discuss their bid submittal. During the review, the Authority determined that Ferguson Enterprises Company, who had completed the formal submittal by the deadline of April 15th, was the lowest and most responsive bidder.

Director Sisolak asked how a company could put in a bid and the Authority was not able to find said company. Mr. Johnson noted that anyone can submit on an advertised bid, and the Authority then evaluates those that are responsive and have met the established deadlines. Mr. Johnson also noted that HVS did not submit a protest over the documentation.

FINAL ACTION: A motion was made by Vice Chair Bateman to follow staff's recommendation. The motion was approved.

BUSINESS AGENDA

9. ***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 construction activities near Lake Mead.**

Mr. Entsminger gave an update on Colorado River drought conditions and the current construction projects. He stated that Colorado River System has experienced some recent inflow volatility; and therefore, it is difficult to predict next year's release from Lake Powell. Mr. Entsminger also noted that construction continues on the third intake project, which includes laying chemical feed lines and other associated projects and that work is beginning on the Low Lake Level Pumping Station.

NO ACTION TAKEN.

10. ***For Possible Action:*** **Approve the amended Major Construction and Capital Plan dated May 2015.**

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

11. ***For Possible Action:*** **Award Contract No. 070F 07 C1, Owner-CMAR Pre-Construction Services Agreement for the Lake Mead Intake No. 3 Low Lake Level Pumping Station to Barnard of Nevada, Inc. in an amount not to exceed $5,800,000, or take other action as appropriate.**

Mr. Entsminger noted the rationale behind selecting a Construction Manager At-Risk (CMAR) to design and construct the Low Lake Level Pumping Station, considering its scale and complexity. It provides for a collaborative construction process, and noted previous working relationships with Barnard.

Director Sisolak asked if a local workforce would be utilized, and questioned if the company is authorized to work in Clark County. Mr. Entsminger confirmed that the contractor, Barnard, is authorized to work in Clark County, and that the workforce will be local because it is covered by the Authority's Project Labor Agreement. Marc Jensen, Engineering Director, reported that the company has all of the qualifications that a local provider does, and will operate a local office when working here.

Director Brager noted that achieving housing for the duration necessary will be a lengthy. She asked if the company will be held to normal travel policies or a special one for this contractor. Mr. Entsminger affirmed that the contractor will be utilizing a standard travel policy, and that contractors of this duration will establish a local office while construction activities are ongoing.

Director Coffin stated that none of this process is necessary if the Authority simply selects a local company. He asked what gave Barnard the edge over other bidders, and whether they will be supervising in Las Vegas or out of state. Mr. Entsminger assured that the company will have supervisors located in Las Vegas while the project is active to manage the staff and project effectively.

Mr. Jensen noted that the Authority has completed three projects with this company in the past, and the company itself has extensive experience in similar projects.

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

12. ***For Possible Action:*** **Award Contract No. 070F 07 C2, Low Lake Level Pumping Station – Surface Mass Excavation to Las Vegas Paving Corporation for the amount of $3,143,875, authorize a change order contingency amount not to exceed $300,000, and authorize the execution of the contract agreement.**

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

13. ***For Possible Action:*** **Approve and authorize the General Manager to sign an agreement, in substantially the same form, between Black & Veatch Corporation and the Authority for professional engineering services for Project No. 320O, AMSWTF Filter Improvements Demonstration, for an amount not to exceed $636,038.**

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

14. ***For Possible Action:*** **Approve and authorize the General Manager to sign an agreement between Argus Engineering, Inc., and the Authority for professional engineering services to support and maintain the control systems operated by the Authority, in an annual amount not to exceed $130,000, with an option to renew for four additional one-year periods.**

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

15. ***For Possible Action*: Approve and authorize the General Manager to sign an agreement between Carollo Engineers, Inc., and the Authority for professional services to conduct a Sodium Hypochlorite Generation System Evaluation Study for an amount not to exceed $185,000.**

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

16. ***For Possible Action:* Approve and authorize the General Manager or his designee to execute an asset purchase and sale agreement, in substantial conformance with the financial provisions, between NV Energy and the Authority for the sale of the Authority's 25 percent ownership interest in the Silverhawk Generating Station, and to execute any ministerial documents necessary to effectuate the transaction.**

Mr. Entsminger gave a presentation that outlined the history and terms of the proposed sale agreement. A copy of his presentation is included with these minutes.

Director Brager asked if the Authority would be able to secure the terms of the sale agreement. Mr. Entsminger noted that the Authority needs the agreement locked into place before it goes to other regulatory entities for approval. He clarified that he is asking the Board to approve the terms stated within the agreement.

Chairwoman Scow asked what the cost difference was between purchasing electricity on the open market versus owning the facility. Mr. Entsminger reported that the Authority is paying more with transmission costs, and operation and maintenance costs than we are with owning the facility; however, he projected that sale proceeds will provide for cost savings over time.

Director Coffin asked how staff determined that selling the facility will provide cost savings over owning the facility. Mr. Entsminger stated that the Authority and NV Energy have an operating agreement, which outlines operating and maintenance costs. Mr. Entsminger noted that these facilities are best utilized when temperatures are high; however, the Authority utilizes their pumps at night. Therefore, entering into power purchase agreements for off-peak power rates will prove to be more cost-effective in the long run.

Director Coffin noted that the Authority had attempted to be involved with the energy business in the past. Mr. Entsminger assured that since the formation of Silver State Energy Association, the public power users are in a cooperative situation now. He noted that the Authority has managed resources and stabilized money spent on power.

Director Wood asked what the Authority will be doing with the proceeds from the lowered energy costs. Mr. Entsminger stated that since the proceeds are not expected until 2017 when the agreement is finalized, it would be premature to discuss their segregation at this time. He recommended bringing back this discussion to the Board when the agreement is finalized.

Director Sisolak asks how far into the future the Authority can enter into power purchase agreements to lock-down energy rates. Scott Krantz, SNWA Director of Energy, noted that the Authority purchases energy through the Silver State Energy Association and typically buys on five-year terms. Director Sisolak asked if longer terms were available. Mr. Krantz noted that they would be; however, based on the advisement of risk managers and other members of the Silver State Energy Association, a five-year term is considered a best practice.

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

17. ***For Information Only:* Recognize the efforts of the Finance Department for the Authority's receiving the "Distinguished Budget Presentation Award" for the fiscal year beginning July 1, 2014, and the "Certificate of Achievement for Excellence in Financial Reporting" for its Comprehensive Annual Financial Report for the fiscal year ended June 30, 2014.**

Mr. Entsminger recognized Gina Neilson, Matt Chorpening and the SNWA Finance Department for their efforts in preparing the organization's annual budget and Comprehensive Annual Financial Report.

Chairwoman Scow asks for the status of the Distribution Employees injured while working on the street last month. Mr. Johnson noted that two individuals were hit by an errant driver while performing road work. Both individuals were sent to the hospital and sustained broken bones and lacerations; however, both are expected to make a full recovery.

NO ACTION TAKEN.

Public Comment
There were no persons wishing to speak.

Adjournment
There being no further business to come before the board, the meeting adjourned at 9:53 a.m.

APPROVED:

Mary Beth Scow, Chair

John J. Entsminger, 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.

Silverhawk Generating Station
Asset Purchase and Sale Agreement

BACKGROUND

During the western energy crisis in the early 2000s, the SNWA purchased a 25% interest in the Silverhawk Power Plant to protect itself from high electricity prices for $101 million.

Later, NV Energy became the majority owner and operator of the facility. NV Energy, through a series of agreements, operates SNWA's portion of the plant for a guaranteed supply of firm energy at a predictable rate.

Since that time, the value of Silverhawk to SNWA has diminished; SNWA's costs have increased to the point of exceeding benefits.

ASSET SALE

NV Energy has made an offer to purchase
SNWA's interest for $77 million, effective May 1, 2017.

Book value = $63,990,879

Comparable sale of Apex Power Plant (2013)

- $73.8 million (for equivalent 25% share)
- Identical plant size, location, type and age

Transaction will be contingent upon regulatory approvals:
Federal Energy Regulatory Commission
Public Utilities Commission of Nevada

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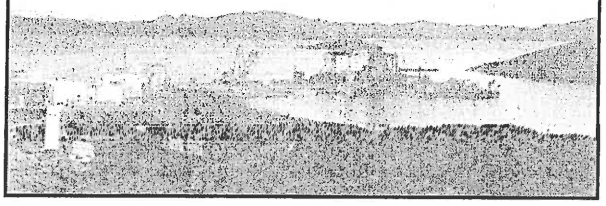
SOUTHERN NEVADA WATER AUTHORITY
Fiscal Year 2015-16 Budget Hearing



Credit Rating Upgraded

On April 22, Moody's upgraded the LVVWD's credit rating from Aa2 to Aa1.

- **Reflects near-term completion of Intake No. 3 to increase security of region's water supply.**
- **Accounts for actions to reduce capital and operating expenses since economic downturn**
- **Recognizes the agency's commitment to monitor drought conditions and respond as needed to maintain reliable water supply for community**

New for Fiscal Year 2015-16

Continued implementation of IRPAC Phase I & II recommendations

Capital Improvements
- Intake No. 3 completion
- Low lake level pumping station design and construction activities

New bond issuance

Funding Sources: Overview

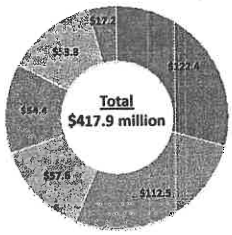
- **The Infrastructure Charge, Commodity Charge and Reliability Charge projections reflect IRPAC-recommended rate modifications**
- **Connection charge revenues are increasing**
- **Grant proceeds reflect the winding down of Las Vegas Wash capital projects**
- **Other Revenues have increased due to SNPLMA funding**
- **Debt issuance of $520 million**
  - **New money only; does not include refundings**
  - **No new money issuances since 2012-13**

SNWA Funding Sources

	Actual 2013-14	Budget 2014-15	Tentative Budget 2015-16	Budget-to-Budget Variance
Sources				
Wholesale Delivery Charge	$ 121.1	$ 123.4	$ 122.4	$ (1.0)
Infrastructure Charge	80.3	87.2	112.5	25.3
Commodity Charge	43.4	49.4	57.6	8.2
Connection Charge	44.8	30.7	53.8	23.1
Reliability Surcharge	4.8	4.9	5.1	0.2
Sales Tax	52.3	53.7	54.4	0.7
Interest Income	2.3	1.5	1.3	(0.2)
Groundwater Management Fees	0.8	0.9	0.9	-
LV Wash Program Fees	0.4	0.7	0.4	(0.3)
Grant Proceeds	9.7	9.5	0.6	(8.9)
Other Revenues	6.8	2.7	8.9	6.2
Subtotal	$ 366.7	$ 364.6	$ 417.9	$ 53.3
Debt Issuance Proceeds	-	-	520.4	520.4
Total Sources	$ 366.7	$ 364.6	$ 938.3	$ 573.7

SNWA Funding Sources

*Does not include debt issuance proceeds



- Wholesale Delivery Charges
- Infrastructure Charges
- Commodity Charges
- Sales Tax
- Connection Charges
- Other Funding Sources

Uses of Funds

Energy costs are down 18.1%
- Lower energy prices
- Lower O&M costs at Silverhawk

Payroll assumed a 3.5% increase per employee
- COLA (1.5%)
- Merit (2%)

Total wages and benefits increased 1%

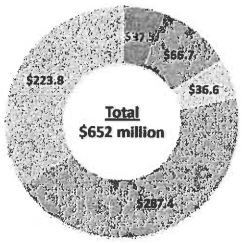
The number of full-time employees (430) remains the same as 2014-15 budget

Operating expenses for 2015-16 increased $0.9 million

Uses of Funds

	Actual 2013-14	Budget 2014-15	Tentative Budget 2015-16	Budget-to-Budget Variance
Uses				
Energy	$ 53.4	$ 45.8	37.5	$ (8.3)
Payroll & Related	70.0	66.0	66.7	0.7
Operating Expenses	34.5	35.7	36.6	0.9
Capital Expenditures	97.9	146.0	287.4	141.4
Debt Service	163.4	170.5	223.8	53.3
Total Uses	$ 419.2	$ 464.0	$ 652.0	$ 188.0

Uses of Funds



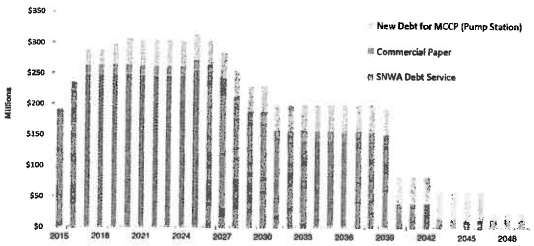
SNWA BUDGET SUMMARY

	Actuals 2013-14	Budget 2014-15	Tentative Budget 2015-16	Budget-to-Budget Variance
Sources				
Wholesale Delivery Charge	$ 121.1	$ 123.4	$ 122.4	$ (1.0)
Infrastructure Charge	80.3	87.2	112.5	25.3
Commodity Charge	43.4	49.4	57.6	8.2
Connection Charge	44.8	30.7	53.8	23.1
Reliability Surcharge	4.8	4.9	5.1	0.2
Sales Tax	52.3	53.7	54.4	0.7
Interest Income	2.3	1.5	1.3	(0.2)
Groundwater Management Fees	0.8	0.9	0.9	-
LV Wash Program Fees	0.4	0.7	0.4	(0.3)
Grant Proceeds	9.7	9.5	0.6	(8.9)
Other Revenues	6.8	2.7	8.9	6.2
Subtotal	$ 366.7	$ 364.6	$ 417.9	$ 53.3
Debt Issuance Proceeds	-	-	520.4	520.4
Total Sources	$ 366.7	$ 364.6	$ 938.3	$ 573.7
Uses				
Energy	$ 53.4	$ 45.8	37.5	$ (8.3)
Payroll & Related	**70.0**	**66.0**	66.7	0.7
Operating Expenses	34.5	35.7	36.6	0.9
Capital Expenditures	97.9	146.0	287.4	141.4
Debt Service	163.4	170.5	223.8	53.3
Total Uses	$ 419.2	$ 464.0	$ 652.0	$ 188.0
Total Net Surplus/(Deficit)	*$ (52.5)*	*$ (99.4)*	*$ 286.3*	*$ 385.7*

IRPAC

- **The rate model used to evaluate impacts of IRPAC recommendations projected the New Expansion Debt Service Sub Fund balance to be $350.4 million at June 30, 2016.**
- **With Connection Charges expected to exceed expectations, the sub fund balance is now projected to be $449.4 million at June 30, 2016.**
- **The $99.0 million difference will be segregated in the rate stabilization fund/reserves.**

SNWA Debt Service



SOUTHERN NEVADA WATER AUTHORITY
AGENDA ITEM

July 16, 2015

Subject: Appointment of Chairman and Vice Chairman, and Appointment of Authority Directors to the Colorado River Commission	**Director's Backup**
Petitioner: John J. Entsminger, General Manager	
Recommendations: That the Board of Directors appoint a chairman and vice chairman to preside over the Board of Directors for fiscal year 2015/2016, and appoint three directors to serve as commissioners of the Colorado River Commission for one-year terms.	

Fiscal Impact:
None by approval of the above recommendation.

Background:
Section 20(a) of the SNWA 1995 Amended Cooperative Agreement requires the Board of Directors to appoint a chairman and vice chairman from its membership. Currently, Mary Beth Scow serves as chair and Sam Bateman serves as vice chair.

NRS 538.051 provides for the appointment of three directors of the Authority to serve as commissioners on the seven-member Colorado River Commission of Nevada (CRC). Currently, Directors Bob Coffin, Duncan McCoy, and Steve Sisolak serve as Authority representatives on the CRC.

At this time, the Board is being asked to appoint a chairman and vice chairman for fiscal year 2015/2016, and appoint three of its directors to serve as commissioners of the CRC for a one-year term.

This action is authorized pursuant to NRS 538.051 and Section 20(a) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved this item.

Respectfully submitted:

John J. Entsminger, General Manager
JJE:PDS:JAW:AMB:KH:NL

AGENDA ITEM # 2

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

July 16, 2015

Subject: Amendments	**Director's Backup**
Petitioner: David L. Johnson, Deputy General Manager, Engineering/Operations	

Recommendations:
That the Board of Directors approve and authorize the General Manager to sign three amendments to existing agreements between the Moapa Valley Water District and the Authority: 1) First Amendment to Moapa Transmission System Design, Construction, Operation and Maintenance Agreement; 2) First Amendment to Cooperative Agreement; and, 3) First Amendment to Memorandum of Understanding Regarding the Development of Coyote Spring Groundwater Resources.

Fiscal Impact:
The required $200,000 is available in the Authority's Operating Budget. As under the existing agreements, the Moapa Valley Water District and the Authority will pay for actual capital and operation and maintenance costs based on the amount of water the Moapa Valley Water District and the Authority convey through the Moapa Transmission System each year. If no water is being conveyed through the Moapa Transmission System, the Authority will pay 100 percent of the capital and operation and maintenance costs. Future Authority expenses under these amendments would be included in the Authority's annual Operating Budget.

Background:
On July 18, 2002, the Board of Directors approved a Memorandum of Understanding (2002 MOU) with Moapa Valley Water District (MVWD) establishing mutual commitment to work cooperatively to resolve regional water supply issues, including development of groundwater resources in the Coyote Spring Valley and construction of water delivery infrastructure for development of water rights in Coyote Spring Valley. In the 2002 MOU, the Authority and MVWD also agreed to negotiate in good faith to exchange Coyote Spring Valley groundwater rights owned by the Authority for Muddy River water rights owned by MVWD. The Authority and MVWD anticipated that the Authority would charge MVWD a wheeling fee to be applied against MVWD's share of capital costs for the conveyance of such exchanged water.

On March 16, 2006, the Board approved a Cooperative Agreement (2006 Agreement) between MVWD and the Authority for use of water rights leased from the Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter-day Saints (LDS Lease). The 2006 Agreement provides that MVWD and the Authority shall each have a right to utilize 50 percent of the water rights leased annually and that either MVWD or the Authority may use all of the water rights in any year that the other party does not utilize its full entitlement. The 2006 Agreement provides that MVWD would pay 50 percent of the $100 per acre-foot surcharge for any water utilized outside of MVWD's service territory, but allows MVWD to use 500.25 acre-feet per year without charge.

AGENDA ITEM # 3

On August 20, 2009, the Board approved the Moapa Transmission System Design, Construction, Operation and Maintenance Agreement between MVWD and the Authority (2009 O&M Agreement). The 2009 O&M Agreement delineates the ownership, design, construction, and operation and maintenance responsibilities of MVWD and the Authority for the Moapa Transmission System. The Moapa Transmission System treats and conveys the Authority's Coyote Spring Valley groundwater rights to MVWD's distribution system for eventual delivery to Lake Mead, enabling the Authority to create Intentionally Created Surplus credits. Currently, the Authority is not utilizing all of its Colorado River resources and there is only a need to operate the Moapa Transmission System intermittently. However, the 2009 O&M Agreement does not address the temporary suspension of operations and intermittent use of the Moapa Transmission System. It also does not clearly define the Authority's financial obligation to MVWD for a wheeling fee to move the Authority's Coyote Spring Valley groundwater through MVWD's distribution system.

If approved, the attached amendments would release both the Authority and MVWD from payment of various fees, both past and future. Neither party would pay the other any wheeling fees under the 2009 O&M Agreement or the 2002 MOU. MVWD would be released from paying surcharges due to the Authority's use of water from the LDS Lease, both past and future, and MVWD would no longer receive 500.25 acre-feet per year without charge under the LDS Lease.

The amendment to the 2009 O&M Agreement addresses temporary suspension of operations and intermittent use of the Moapa Transmission System, allows for costs to be calculated on a fiscal year basis, and clarifies various other provisions. The amendment waives any payments for capital facilities costs, wheeling fees, and operation and maintenance costs for the years 2010 to 2015 that would have been due to either MVWD or the Authority. The Authority will pay MVWD $200,000 per year to reimburse MVWD for the maintenance necessary to keep the Moapa Transmission System in working order and ready for operation. The $200,000 payment also compensates MVWD for using other water sources instead of Jones Spring or Coyote Spring Valley groundwater pursuant to environmental compliance required for the Moapa Transmission System. MVWD still agrees to accept 6,200 gallons per minute (gpm) of Authority Coyote Spring Valley groundwater into MVWD's system, but the Authority agrees that MVWD may issue new water commitments as long as those commitments don't interfere with the Authority's ability to convey 3,750 gpm. In the event MVWD's distribution system capacity needs to increase in the future to accommodate both MVWD's actual customer demands and the Authority's reserved capacity, the parties will negotiate a separate agreement regarding capacity and whether costs, if any, may be shared.

These amendments are 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 the amendments.

Respectfully submitted:

John J. Entsminger, General Manager
JJE:PDS:DLJ:ZLM:JAJ:DRW:tad
Attachments

FIRST AMENDMENT
TO
MOAPA TRANSMISSION SYSTEM
DESIGN, CONSTRUCTION, OPERATION AND MAINTENANCE
AGREEMENT

This First Amendment to the Moapa Transmission System Design, Construction, Operation and Maintenance Agreement ("Amendment") is entered into this _____ day of _____, 2015, ("Execution Date") by and between the Moapa Valley Water District ("MVWD"), a political subdivision of the State of Nevada created by Chapter 477, Statutes of Nevada 1983, and the Southern Nevada Water Authority ("SNWA"), a political subdivision of the State of Nevada and a joint powers authority created on July 25, 1991, through a Cooperative Agreement entered into pursuant to Nevada Revised Statutes Chapter 277. MVWD and SNWA are sometimes herein collectively referred to as the "Parties" or individually as a "Party." Capitalized terms in this Amendment shall have the same meaning as defined in the August 20, 2009, Moapa Transmission System Design, Construction, Operation, and Maintenance Agreement.

RECITALS

A. On August 20, 2009, the Parties entered into the Moapa Transmission System Design, Construction, Operation, and Maintenance Agreement ("Agreement"). The Agreement delineates the ownership, design, construction, operational, and maintenance responsibilities of the Parties with regard to the Moapa Transmission System ("MTS"). The MTS treats and conveys groundwater from Coyote Spring Valley to MVWD's distribution system to facilitate the Order 1169 pump test and allow SNWA to convey the groundwater to Lake Mead.

B. The Order 1169 pump test began on November 15, 2010, and the Nevada State Engineer declared the pump test to be completed as of December 31, 2012, in Order 1169A. Although the pump test is complete, SNWA may continue to use the MTS as one part of its water resources portfolio, but there may be instances where SNWA does not need the MTS to operate on a full time basis.

C. Currently, the Agreement does not fully address the temporary suspension of operations and intermittent use of the MTS.

D. On April 20, 2006, SNWA, MVWD, CSI, the Moapa Band of Paiute Indians, and the United States Fish and Wildlife Service entered into a Memorandum of Agreement ("2006 MOA") regarding protection of the Moapa Dace and development of groundwater in and around the Coyote Spring Valley hydrographic basin. In the 2006 MOA, SNWA agreed to transfer 724 acre-feet per year ("afy") from Permit No. 49414 to MVWD to effectuate the dedication of in-stream flows in the Apcar Stream (a tributary of the Muddy River). In exchange, MVWD agreed to suspend diversion of MVWD's 724 acre-feet per year Jones Spring water right (Certificate No. 10060).

E. In the Agreement, "Substitute Water" is defined as 724 afy of Coyote Spring Valley groundwater from Permit No. 49414, which SNWA agreed to transfer to MVWD in the 2006 MOA to effectuate the dedication of in-stream flows in the Apcar Stream, to substitute for MVWD's suspension of utilization of its 724 afy Jones Spring water right.

F. Concurrently with execution of the 2006 MOA, MVWD entered into the Jones Spring Agreement with the Muddy Valley Irrigation Company and U.S. Fish and Wildlife Service. The Jones Spring Agreement provides that as long as MVWD is in full compliance with the

terms of the 2006 MOA, MVWD is able to resume use of Jones Spring water in the event Substitute Water from SNWA is unavailable or unusable to meet MVWD's municipal needs.

G. Currently, the Agreement does not address provision of Substitute Water in times when the MTS is not operating to produce Coyote Spring Valley groundwater for MVWD to use instead of MVWD's Jones Spring water right.

H. Due to the federal environmental permit requirements for the MTS and Coyote Spring Valley groundwater pumping, it is essential to the Parties that MVWD continue to refrain from diverting its Jones Spring water right, even in times when SNWA is unable to provide Substitute Water from Coyote Spring Valley.

I. The Parties intend to amend the Agreement to address temporary suspension of operations and intermittent use of the MTS, to allow for costs to be calculated on a fiscal year basis, and to add or clarify various other provisions in the Agreement.

NOW, THEREFORE, in consideration of the mutual promises and commitments described herein, the Parties agree as follows:

AGREEMENT

1. Section 1.38 is hereby deleted.

2. Section 1.39 is hereby deleted and replaced with the following Section 1.39:

   1.39 "Year" means fiscal year, which begins on July 1st and ends on June 30th. It is the intent of the Parties that every time "Year" or "year" appears in the Agreement, it shall refer to a fiscal year and not a calendar year. Any reference to

the term "quarter" in this Agreement shall refer to a fiscal quarter (ie. July to September, October to December, January to March, April to June).

3. The fourth and fifth sentences in Section 4.2.1 of the Agreement are hereby deleted and replaced with the following sentences:

> Water entering the MVWD Distribution System will have a chlorine residual in the range of 0.2 mg/L to 1.0 mg/L. To monitor this, MVWD shall provide SNWA with chlorine residual readings taken once a month at the entry point to the MVWD 3MG Reservoir.

4. As described in Section 12.1 of the Agreement, the final repayment schedules for the SNWA Capital Facilities Costs and the MVWD Capital Facilities Costs are attached hereto and incorporated herein as Exhibit A to this Amendment.

5. The following sentence is hereby added to the end of Section 12.1.1:

> To the extent that the Parties owe each other payments for Annual Capital Facilities Costs for 2010, 2011, 2012, 2013, 2014, and 2015, the Parties hereby release each other from any obligation to pay any Annual Capital Facilities Costs for those years.

6. A new Section 12.1.3 is hereby added to the Agreement as follows:

> 12.1.3 In any year when SNWA conveys less than the full amount of Substitute Water through the MTS, SNWA shall be responsible for payment of 100% of the Parties' Annual Capital Facilities Costs.

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7. Section 12.3 is hereby deleted and replaced with the following Section 12.3:

12.3 Wheeling Fee. To the extent that a Wheeling Fee was due and payable for 2010, 2011, 2012, 2013, 2014, and 2015, MVWD hereby releases SNWA from any obligation to pay the Wheeling Fee for those years. No Wheeling Fee shall be paid by SNWA for the remaining term of this Agreement, as MVWD is being fully compensated by the other payments SNWA will make to MVWD pursuant to the terms of this Agreement.

8. The following three sentences are hereby added to Section 12.4 of the Agreement:

The Parties may agree during the annual meeting to adjust the first quarter payment of each Year to reflect payment for the invoice for additional funds due or a credit for the refund for overpayments in-lieu of a separate payment or refund. To the extent that the Parties owe each other additional payments for Annual O&M Costs for 2010, 2011, 2012, 2013, 2014, and 2015, the Parties hereby release each other from any obligation to pay any unpaid Annual O&M Costs for those years. In any year when SNWA conveys less than the full amount of Substitute Water through the MTS, SNWA shall pay 100% of the Parties' Annual O&M Costs which consist of the minimal maintenance costs necessary to keep facilities ready for future start up.

9. Section 13 of the Agreement is hereby deleted and replaced with the following Section 13:

13. Annual Meeting of the Parties. On or before March 15 of each year this Agreement is in effect, the Parties shall meet to discuss operation and maintenance of the Project for the coming year, including whether any water will be conveyed through the Project. Both Parties should also be prepared to discuss whether they anticipate needing to convey water through the Project anytime during the next five years. No later than 10 business days before the Annual

Meeting, each Party shall provide the other with its estimate of water deliveries for the coming year, if any; estimated quarterly and Annual O&M Costs; estimated funding needs for the O&M Emergency Reserve Funds (as defined in Section 16.1); and other information concerning the Project to ensure the Project is operated to the benefit of both Parties.

10. Section 16 of the Agreement is hereby deleted and replaced with the following Section 16:

16. Emergency Repair and Response. The Parties shall develop an Emergency Preparedness Plan for facilities each Party operates and maintains under this Agreement and shall make the plan available for review by the other Party. If an emergency occurs, each Party shall use its best efforts to deal with the emergency, make repairs, and to maintain or restore normal operations, and shall make every reasonable effort to contact the other Party to receive prior authorization for any needed emergency repairs and expenditures. If a Party is not available to authorize such emergency expenditures, the other Party may proceed without authorization, provided that that Party notifies the other Party within 24 hours of the occurrence and provided that the emergency expenditure is less than $10,000. Any emergency expenditure greater than $10,000 requires prior authorization by the other Party.

16.1 O&M Emergency Reserve Funds. The Parties shall establish and/or maintain their own O&M Emergency Reserve Funds to be used by the Parties only to fund emergency repairs when such repairs are needed to maintain or restore normal operations of Project facilities. At each Annual Meeting of the Parties held pursuant to Section 13, the Parties shall determine the yearly amount of funding to be contributed by the Parties to the O&M Emergency Reserve Funds.

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11. A new Section 28 is added to the Agreement as follows:

28. Jones Spring. Upon request by SNWA or for so long as the 2006 MOA or the federal environmental permit conditions for the MTS rights of way require it, MVWD agrees not to divert or use its Jones Spring water right (Certificate No. 10060) upstream of the Moapa gage. In any year when MVWD does not request the delivery of Substitute Water, and in exchange for MVWD's agreement not to use Jones Spring, SNWA agrees to pay MVWD $200,000 per year to cover MVWD's incremental costs of using other water sources instead of Jones Spring water or Substitute Water. The $200,000 per year payment also includes reimbursement to MVWD for performing the minimal maintenance necessary to keep the MTS facilities ready for future start up, as described on and attached hereto and incorporated herein as Exhibit B to this Amendment. MVWD agrees not to request delivery of Substitute Water before February 1, 2025, unless there is an unforeseen short term emergency need due to temporary constraints in the MVWD Distribution System. Each time MVWD requests delivery of Substitute Water a $50,000 start-up charge will be deducted from the $200,000 payment. Additionally, the $200,000 payment will be decreased by a pro-rated amount during any temporary emergency provision of Substitute Water based on the percentage of Substitute Water provided. For example, if 362 acre-feet of Substitute Water (50% of the 724 acre-feet) is delivered to MVWD, SNWA would pay MVWD $100,000 (50% of the $200,000 fee), less the $50,000 start-up charge. After February 1, 2025, MVWD may choose to request delivery of Substitute Water instead of receiving the $200,000 per year payment from SNWA. The first $200,000 payment will be made no later than 30 days after the Execution Date

of this Amendment. Future payments will be made before the new fiscal year begins, no later than June 30th of each year.

12. A new Section 29 is added to the Agreement as follows:

29. SNWA Reserved Capacity in MVWD Distribution System. While MVWD still agrees to accept 6,200 gpm (8.9 mgd) of SNWA Coyote Spring Groundwater into the MVWD Distribution System, based on the current capacity of the pump in the MX-5 well, SNWA currently may convey only 3,750 gpm (5.4 mgd) to the MVWD Distribution System. SNWA agrees that it will not use more than 3,750 gpm (5.4 mgd) of capacity in the MVWD Distribution System unless SNWA gives MVWD a minimum of two years prior notice. MVWD may issue new water commitments without regard to SNWA's reservation of 6,200 gpm (8.9 mgd) but will not issue new water commitments that would interfere with SNWA's ability to convey 3,750 gpm (5.4 mgd). Upon notice that SNWA intends to convey more than 3,750 gpm (5.4 mgd), the Parties will negotiate a separate agreement regarding provision of capacity to SNWA and how costs will be shared, if any new costs are necessary. In the event MVWD finds that the MVWD Distribution System capacity will need to be increased to accommodate both the actual demands of MVWD customers and SNWA's 3,750 gpm (5.4 mgd), MVWD will give SNWA two years prior written notice of the need for the capacity increase. At that time, the Parties will decide how best to increase the capacity in the MVWD Distribution System. However, rather than share in the cost to increase MVWD Distribution System Capacity, SNWA may choose, in its sole and absolute discretion, to reduce the amount of SNWA Coyote Spring Groundwater conveyed through the MVWD Distribution System.

13. Nothing in this Amendment shall be construed to amend the terms of the Jones Spring Agreement in any way, including but not limited to, MVWD's ability to resume use of Jones Spring as provided in the Jones Spring Agreement.

14. All other terms of the Agreement remain in full force and effect.

IN WITNESS HEREOF, each of the Parties has executed this Amendment as of the date and year first above written.

MOAPA VALLEY WATER DISTRICT

_____
Joseph Davis, General Manager

Approved as to form:

_____
Byron Mills, Esq., Counsel for MVWD

SOUTHERN NEVADA WATER AUTHORITY

_____
John J. Entsminger, General Manager

Approved as to form:

Dana Walsh
_____
Dana R. Walsh, Director of Legal Services

Moapa Transmission System - MVWD Capital Costs
25 Year Repayment Schedule

Capital Facilities Costs	$ 732,156.26
Interest and Finance Fees	5.20%
Payback Period in Years	25

Year	Interest	Principal	Annual Payment	Remaining Balance
1	$ 38,072.13	$ 14,922.34	$ 52,994.47	$ 717,233.92
2	$ 37,296.16	$ 15,698.31	$ 52,994.47	$ 701,535.61
3	$ 36,479.85	$ 16,514.62	$ 52,994.47	$ 685,020.99
4	$ 35,621.09	$ 17,373.38	$ 52,994.47	$ 667,647.61
5	$ 34,717.68	$ 18,276.79	$ 52,994.47	$ 649,370.82
6	$ 33,767.28	$ 19,227.19	$ 52,994.47	$ 630,143.63
7	$ 32,767.47	$ 20,227.00	$ 52,994.47	$ 609,916.63
8	$ 31,715.66	$ 21,278.81	$ 52,994.47	$ 588,637.83
9	$ 30,609.17	$ 22,385.30	$ 52,994.47	$ 566,252.52
10	$ 29,445.13	$ 23,549.34	$ 52,994.47	$ 542,703.18
11	$ 28,220.57	$ 24,773.90	$ 52,994.47	$ 517,929.28
12	$ 26,932.32	$ 26,062.15	$ 52,994.47	$ 491,867.13
13	$ 25,577.09	$ 27,417.38	$ 52,994.47	$ 464,449.75
14	$ 24,151.39	$ 28,843.08	$ 52,994.47	$ 435,606.67
15	$ 22,651.55	$ 30,342.92	$ 52,994.47	$ 405,263.75
16	$ 21,073.71	$ 31,920.75	$ 52,994.47	$ 373,342.99
17	$ 19,413.84	$ 33,580.63	$ 52,994.47	$ 339,762.36
18	$ 17,667.64	$ 35,326.83	$ 52,994.47	$ 304,435.53
19	$ 15,830.65	$ 37,163.82	$ 52,994.47	$ 267,271.71
20	$ 13,898.13	$ 39,096.34	$ 52,994.47	$ 228,175.37
21	$ 11,865.12	$ 41,129.35	$ 52,994.47	$ 187,046.02
22	$ 9,726.39	$ 43,268.08	$ 52,994.47	$ 143,777.94
23	$ 7,476.45	$ 45,518.02	$ 52,994.47	$ 98,259.93
24	$ 5,109.52	$ 47,884.95	$ 52,994.47	$ 50,374.97
25	$ 2,619.50	$ 50,374.97	$ 52,994.47	$ -
Total	$ 592,705.49	$ 732,156.26	$ 1,324,861.75	

SNWA

Moapa Transmission System - SNWA Capital Costs

25 Year Repayment Schedule

Capital Facilities Costs	$52,208,659
Interest and Finance Fees	5.20%
Payback Period in Years	25

Year	Interest ($)	Principal ($)	Annual Payment ($)	Remaining Balance ($)
1	2,714,850.27	1,064,083.76	3,778,934.03	51,144,575.24
2	2,659,517.91	1,119,416.11	3,778,934.03	50,025,159.13
3	2,601,308.27	1,177,625.75	3,778,934.03	48,847,533.37
4	2,540,071.74	1,238,862.29	3,778,934.03	47,608,671.08
5	2,475,650.90	1,303,283.13	3,778,934.03	46,305,387.95
6	2,407,880.17	1,371,053.85	3,778,934.03	44,934,334.10
7	2,336,585.37	1,442,348.65	3,778,934.03	43,491,985.45
8	2,261,583.24	1,517,350.78	3,778,934.03	41,974,634.66
9	2,182,681.00	1,596,253.02	3,778,934.03	40,378,381.64
10	2,099,675.85	1,679,258.18	3,778,934.03	38,699,123.46
11	2,012,354.42	1,766,579.61	3,778,934.03	36,932,543.85
12	1,920,492.28	1,858,441.75	3,778,934.03	35,074,102.10
13	1,823,853.31	1,955,080.72	3,778,934.03	33,119,021.39
14	1,722,189.11	2,056,744.91	3,778,934.03	31,062,276.47
15	1,615,238.38	2,163,695.65	3,778,934.03	28,898,580.82
16	1,502,726.20	2,276,207.82	3,778,934.03	26,622,373.00
17	1,384,363.40	2,394,570.63	3,778,934.03	24,227,802.37
18	1,259,845.72	2,519,088.30	3,778,934.03	21,708,714.06
19	1,128,853.13	2,650,080.90	3,778,934.03	19,058,633.17
20	991,048.92	2,787,885.10	3,778,934.03	16,270,748.06
21	846,078.90	2,932,855.13	3,778,934.03	13,337,892.94
22	693,570.43	3,085,363.59	3,778,934.03	10,252,529.34
23	533,131.53	3,245,802.50	3,778,934.03	7,006,726.84
24	364,349.80	3,414,584.23	3,778,934.03	3,592,142.61
25	186,791.42	3,592,142.61	3,778,934.03	0.00
Total	42,264,691.67	52,208,659.00	94,473,350.67	

EXHIBIT B

The following are the types of minimal maintenance activities MVWD agrees to perform in order to keep the MTS ready for future start up:

- Upkeep of electrical power to the site
- Upkeep of the fire protection system with water in the regulating tank or with Fire Department approval to disconnect
- Rodent protection
- Vandalism protection
- Pumping the well to waste on a regular basis

FIRST AMENDMENT
TO
COOPERATIVE AGREEMENT BETWEEN SOUTHERN NEVADA WATER AUTHORITY AND MOAPA VALLEY WATER DISTRICT

This First Amendment to the March 16, 2006, Cooperative Agreement Between Southern Nevada Water Authority and Moapa Valley Water District ("Amendment") is entered into this _____ day of _____, 2015, ("Execution Date") by and between the Moapa Valley Water District ("MVWD"), a political subdivision of the State of Nevada created by Chapter 477, Statutes of Nevada 1983, and the Southern Nevada Water Authority ("SNWA"), a political subdivision of the State of Nevada and a joint powers authority created on July 25, 1991, through a Cooperative Agreement entered into pursuant to Nevada Revised Statutes Chapter 277. MVWD and SNWA are sometimes herein collectively referred to as the "Parties" or individually as "Party." Capitalized terms in this Amendment shall have the same meaning as defined in the March 16, 2006, Cooperative Agreement Between Southern Nevada Water Authority and Moapa Valley Water District ("2006 Cooperative Agreement").

RECITALS

A. In the 2006 Cooperative Agreement, MVWD agreed to pay 50% of any Surcharge assessed by CPB for use of the leased water outside of MVWD's service area.

B. Since 2008, when use of leased water outside of the Moapa Valley began, SNWA has paid 100% of the Surcharge assessed by CPB for use of the leased water outside of MVWD's service area.

C. Simultaneously with the execution of this Amendment, the Parties have also entered into an amendment to the August 20, 2009, Moapa Transmission System Design, Construction, Operation, and Maintenance Agreement ("O&M Amendment").

D. In the O&M Amendment, the Parties agreed to waive SNWA's payment for any wheeling fees that may have been due in 2010, 2011, 2012, 2013, 2014 and 2015. The Parties wish to waive MVWD's payment of the Surcharge that would be due under the 2006 Cooperative Agreement for calendar year 2008 through the Execution Date of this Amendment.

E. The Parties also wish to release MVWD from payment of 50% of the Surcharge in the future and make other changes to the 2006 Cooperative Agreement.

NOW, THEREFORE, in consideration of the mutual promises and commitments described herein, the Parties agree as follows:

AGREEMENT

1. Section 3(b) of the Agreement is hereby deleted.

2. Section 3(c) of the Agreement is hereby deleted and replaced with the following Section 3(c):

> MVWD and SNWA shall each pay CPB for the amount of Church Water each of them uses.

3. Section 3(d) of the Agreement is hereby deleted and replaced with the following Section 3(d):

> If a Surcharge is assessed by CPB in any year during the term of the Lease for Church Water used by SNWA outside MVWD's service area, SNWA will pay 100% of such assessed Surcharge. If a Surcharge is assessed by CPB in any year during the term of the Lease for Church Water used by MVWD outside MVWD's service area, MVWD will pay 100% of such assessed Surcharge.

4. SNWA hereby releases MVWD from any obligation to repay SNWA for the Surcharge applicable to water used during calendar year 2008 through the Execution Date of this Amendment.

5. All other terms of the Agreement remain in full force and effect.

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IN WITNESS HEREOF, each of the Parties has executed this Amendment as of the date and year first above written.

MOAPA VALLEY WATER DISTRICT

_____

Joseph Davis, General Manager

Approved as to form:

_____

Byron Mills, Esq., Counsel for MVWD

SOUTHERN NEVADA WATER AUTHORITY

_____

John J. Entsminger, General Manager

Approved as to form:

Dana Walsh

Dana R. Walsh, Director of Legal Services

FIRST AMENDMENT
TO
MEMORANDUM OF UNDERSTANDING
BETWEEN THE SOUTHERN NEVADA WATER AUTHORITY AND
THE MOAPA VALLEY WATER DISTRICT REGARDING THE
DEVELOPMENT OF COYOTE SPRING GROUNDWATER RESOURCES

This First Amendment to the Memorandum of Understanding Between the Southern Nevada Water Authority and the Moapa Valley Water District Regarding the Development of Coyote Spring Groundwater Resources ("Amendment") is entered into this _____ day of _____, 2015, ("Execution Date") by and between the Moapa Valley Water District ("MVWD"), a political subdivision of the State of Nevada created by Chapter 477, Statutes of Nevada 1983, and the Southern Nevada Water Authority ("SNWA"), a political subdivision of the State of Nevada and a joint powers authority created on July 25, 1991, through a Cooperative Agreement entered into pursuant to Nevada Revised Statutes Chapter 277. MVWD and SNWA are sometimes herein collectively referred to as the "Parties" or individually as "Party." Capitalized terms in this Amendment shall have the same meaning as defined in the August 2, 2002 Memorandum of Understanding Between the Southern Nevada Water Authority and the Moapa Valley Water District Regarding the Development of Coyote Spring Groundwater Resources.

RECITALS

A. On August 2, 2002, the Parties entered into the Memorandum of Understanding Between the Southern Nevada Water Authority and the Moapa Valley Water District Regarding the Development of Coyote Spring Groundwater Resources ("2002 MOU"). In the 2002 MOU, the Parties memorialized their mutual commitment to work cooperatively to resolve regional water

supply issues, including development of groundwater resources in Coyote Spring Valley and construction of water delivery infrastructure in three phases. In the 2002 MOU, SNWA and MVWD also agreed to negotiate in good faith to exchange Coyote Spring Valley groundwater rights owned by SNWA for Muddy River water rights owned by MVWD. SNWA and MVWD anticipated that SNWA would charge MVWD a wheeling charge to be applied against MVWD's share of funding the capital costs for the conveyance of such exchanged water.

B. On April 17, 2008, SNWA and MVWD entered into a Cooperative Water Resource Agreement which provided that MVWD may acquire up to 6,000 acre-feet per year of SNWA's permitted Coyote Spring Valley groundwater rights by exchanging a like amount of Muddy River water rights owned by MVWD or others.

C. Simultaneously with the execution of this Amendment, the Parties have also entered into an amendment to the August 20, 2009, Moapa Transmission System Design, Construction, Operation, and Maintenance Agreement ("O&M Amendment").

D. In the O&M Amendment, the Parties agreed to waive SNWA's payment for any wheeling fees that may have been due in 2010, 2011, 2012, 2013, 2014 and 2015.

E. Also simultaneously with the execution of this Amendment, the Parties have also entered into an amendment to the March 16, 2006, Cooperative Agreement Between Southern Nevada Water Authority and Moapa Valley Water District ("Cooperative Agreement Amendment").

F. In the Cooperative Agreement Amendment, MVWD is released from payment of the 50% surcharge imposed by the Corporation of the Presiding Bishop ("CPB") for use of water leased from CPB outside of MVWD's service area.

G. The Parties wish to waive MVWD's payment of any wheeling fees that MVWD would need to pay SNWA pursuant to the 2002 MOU.

NOW, THEREFORE, in consideration of the mutual promises and commitments described herein, the Parties agree as follows:

AGREEMENT

1. Paragraph III(B)(3) is hereby deleted and replaced with the following Paragraph III(B)(3):

   3. MVWD Funding Sources. It is anticipated that MVWD's funding contribution will be financed in part by MVWD using all reasonable means to secure federal funding available through the Water Resources Development Act of 1999 and the Energy and Water Appropriations Act of 2002 together with any required matching funds by MVWD ("Federal Funds"). SNWA will not charge MVWD a wheeling fee for conveyance of any MVWD Coyote Spring Valley groundwater through the Moapa Transmission System.

2. All other terms of the 2002 MOU remain in full force and effect.

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IN WITNESS HEREOF, each of the Parties has executed this Amendment as of the date and year first above written.

MOAPA VALLEY WATER DISTRICT

_____

Joseph Davis, General Manager

Approved as to form:

_____

Byron Mills, Esq., Counsel for MVWD

SOUTHERN NEVADA WATER AUTHORITY

_____

John J. Entsminger, General Manager

Approved as to form:

Dana Walsh

Dana R. Walsh, Director of Legal Services

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

July 16, 2015

Subject: Change Order	**Director's Backup**
Petitioner: David L. Johnson, Deputy General Manager, Engineering/Operations	
Recommendations: That the Board of Directors approve and authorize the General Manager to sign Change Order No. 24 to Contract No. 070F 01 C1, Lake Mead Intake No. 3 Shafts and Tunnel, for the amount of $ 2,663,287, and extend the final completion date by 77 calendar days.	

Fiscal Impact:
The requested $2,663,287 is available in the Authority's Capital Budget.

Background:
On March 20, 2008, the Board of Directors awarded Contract No. 070F 01 C1 to Vegas Tunnel Constructors (VTC) in the amount of $447,085,629 for construction of the Intake No. 3 Shafts and Tunnel project that will provide a new and deeper intake in Lake Mead, located as generally shown on Attachment A. The Board further authorized a change order contingency in the amount of $40 million to be utilized by the General Manager in accordance with Resolution No. 96-003. To date, the General Manager has approved 20 change orders and 9 work change directives for an aggregate increase of $17,564,117, and extended the final completion date by 15 days. The Board has approved three change orders for an aggregate increase of $39,545,016.46, and extended the final completion date a total of 1,090 days.

On September 26, 2013, the Board ratified a change order to Contract No. 070F 02 C2 providing for work by Renda Pacific to connect Intake No. 1 to the Intake No. 3 Connector Tunnel. This connection ensured operation of Intake Pumping Station No. 1 (IPS-1) down to Lake Mead elevation 1,050 feet and will allow for Intake No. 3 to supply better quality water to the Alfred Merritt Smith Water Treatment Facility through IPS-1, once Intake No. 3 goes into service. This connection also meant that Intake No. 1, like Intake No. 2, would need to be closed in order to draw water from Intake No. 3 rather than Intake No. 1.

In addition, Authority staff has been evaluating means for controlling quagga mussel infestation in the water intakes since their discovery in Lake Mead in 2007. The best method currently available is a low concentration blend of chlorine and ammonia. Staff recommends installation of additional facilities in Intake No. 3 to establish this quagga mussel control mechanism, as well as raw water sampling capabilities.

If approved, the attached Change Order No. 24 would direct VTC to install closure mechanisms on Intake No. 1 and Intake No. 2 as part of the work to place Intake No. 3 in service, and to install piping and equipment to allow for quagga mussel control and water sampling in Intake No. 3.

AGENDA ITEM # 4

This change order is being presented for Board approval as the recommended time extension exceeds the General Manager's authorization under Resolution No. 96-003.

This action is authorized pursuant to NRS 338.1711 and Section 5(d), 5(e), 5(g), 6(e), and 6(j) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved the change order.

Respectfully submitted:

John J. Entsminger, General Manager
JJE:PDS:DLJ:MRJ:EPM:djt
Attachments

DISCLOSURE OF OWNERSHIP/PRINCIPALS

Business Entity Type							
☐ Sole Proprietorship	☐ Partnership	☐ Limited Liability Company	☐ Privately Held Corporation	☐ Publically Traded Corporation	☐ Trust	☐ Non-Profit Organization	☒ Other

Business Designation Group					
☐ MBE	☐ WBE	☐ SBE	☐ PBE	☐ ESB	☐
Minority Business Enterprise	Women-Owned Business Enterprise	Small Business Enterprise	Physically Challenged Business Enterprise	Emerging Small Business	

Corporate/Business Entity Name:	VEGAS TUNNEL CONSTRUCTORS		
(Include d.b.a., if applicable)			
Street Address:	244 LAKESHORE ROAD	**Website:**	WWW.SAHEALY.COM
City, State and Zip Code:	BOULDER CITY, NV 89005	**POC Name and Email:**	jnickerson@vtcgl.com
Telephone No:		**Fax No:**	702-893-2301
Local Street Address:		**Website:**	
City, State and Zip Code:		**Local Fax No:**	
Local Telephone No:	702-893-2300	**Local POC Name Email:**	
Number of Clark County, Nevada Residents Employed:	96		

All entities, with the exception of publicly-traded and non-profit organizations, must list the names of individuals, either directly or indirectly, holding more than five percent (5%) ownership or financial interest in the business entity appearing before the SNWA Board of Directors.

Publicly-traded entities and non-profit organizations shall list all Corporate Officers and Directors in lieu of disclosing the names of individuals with ownership or financial interest. The disclosure requirement, as applied to land-use applications, extends to the applicant and the landowner(s).

Entities include all business associations organized under or governed by Title 7 of the Nevada Revised Statutes, including but not limited to private corporations, close corporations, foreign corporations, limited liability companies, partnerships, limited partnerships, and professional corporations.

Full Name	Title	% Owned (Not required for Publicly Traded Corporations/Non-profit organizations)
GIUSEPPE QUARTA	PRESIDENT / CEO	0%
CHANDRA BHANU VADASSERI	TREASURER	0%
CLIFF FOX	SECRETARY	0%

This section is not required for publicly-traded corporations.

1. Are any individual members, partners, owners or principals, involved in the business entity, an SNWA full-time employee(s), or appointed/elected official(s)?

   ☐ Yes ☒ No (If yes, please note that SNWA employee(s), or appointed/elected official(s) may not perform any work on professional service contracts, or other contracts, which are not subject to competitive bid.)

2. Do any individual members, partners, owners or principals have a spouse, registered domestic partner, child, parent, in-law or brother/sister, half-brother/half-sister, grandchild, grandparent, related to an SNWA full-time employee(s), or appointed/elected official(s)?

   ☐ Yes ☒ No (If yes, please complete the Disclosure of Relationship form on Page 2. If no, please print N/A on Page 2.)

I certify under penalty of perjury, that all of the information provided herein is current, complete, and accurate. I also certify that the entity is not on the federal government's Excluded Parties List, as defined by 2 CFR § 180.945. I further understand that the SNWA will not take action on land-use approvals, contract approvals, land sales, leases or exchanges without the completed disclosure form.

Signature

Title: PROJECT MANAGER

Print Name: JAMES D. NICKERSON

Date: 7-1-2015

Revised 10/30/14

DISCLOSURE OF RELATIONSHIP

List any disclosures below:
(Mark N/A, if not applicable.)

NAME OF BUSINESS OWNER/PRINCIPAL	NAME OF SNWA EMPLOYEE OR OFFICIAL AND JOB TITLE	RELATIONSHIP TO SNWA EMPLOYEE OR OFFICIAL	SNWA EMPLOYEE'S/OFFICIAL'S DEPARTMENT
N/A	N/A	N/A	N/A

"Consanguinity" is a relationship by blood. "Affinity" is a relationship by marriage.

"To the second degree of consanguinity" applies to the candidate's first and second degree of blood relatives as follows:

- Spouse – Registered Domestic Partners – Children – Parents – In-laws (first degree)
- Brothers/Sisters – Half-Brothers/Half-Sisters – Grandchildren – Grandparents – In-laws (second degree)

For SNWA Use Only:

If no Disclosure or Relationship is noted above or if the section is marked N/A, please check this box:

☒ No Disclosure

If any Disclosure of Relationship is noted above, please complete the following:

☐ Yes ☐ No Is the SNWA employee(s) noted above involved in the contracting/selection process for this particular agenda item?

☐ Yes ☐ No Is the SNWA employee(s) noted above involved in any way with the business in performance of the contract?

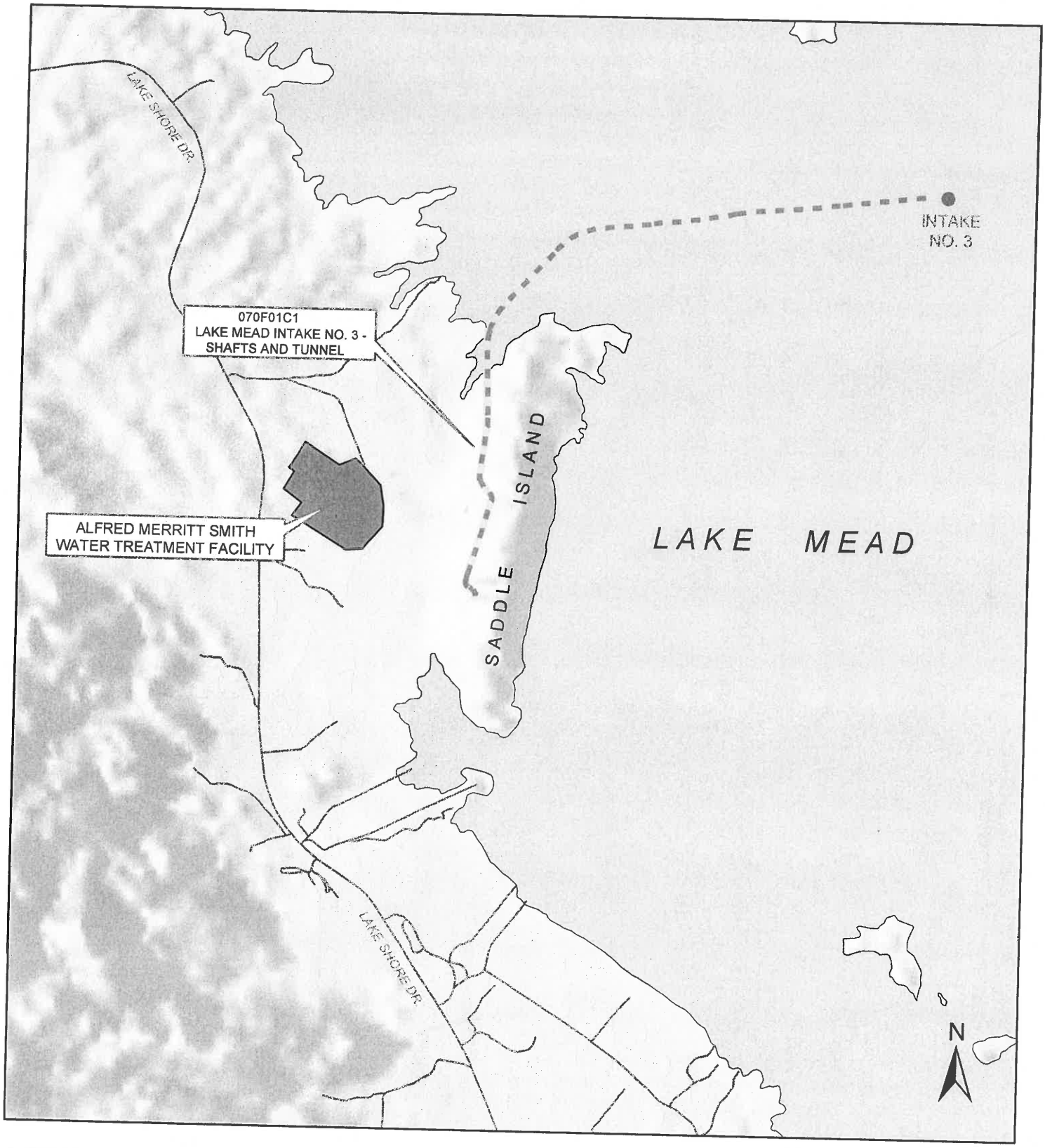
Notes/Comments:

Erika P. Moon
Signature

Erika P. Moonin
Print Name
Authorized Department Representative

BOARD OF DIRECTORS
AGENDA ITEM

SNWA CONTRACT NO. 070F 01 C1
LAKE MEAD INTAKE NO. 3 -
SHAFTS AND TUNNEL



SHEET 1 OF 1

ATTACHMENT A

SOUTHERN NEVADA WATER AUTHORITY

CHANGE ORDER NO. 024
CONTRACT NO. 070F 01 C1
LAKE MEAD INTAKE NO. 3 SHAFTS AND TUNNEL

DESIGN-BUILDER: Vegas Tunnel Constructors
244 Lakeshore Road
Boulder City, NV 89005

ITEM NO.	DESCRIPTION OF CHANGE	ADD/DEDUCT	AMOUNT
CO024.1	Install Authority-supplied Hinged Flap Gates at Intake No. 1 & 2; Add Sample Pump, Add Ammonia Piping, Extend Chemical and Sample Lines Up the Shaft and to Contract 070F02C2 Construction Area	ADD	$2,663,287.00

Design-Builder shall furnish all labor, material, equipment, and services required to perform the following:

1. Design-Builder shall procure and replace the O-ring on the Authority-supplied Intake No. 1 temporary bulkhead (see attached O-ring PO for O-ring supplier).

2. Design-Builder shall lock out/tag out the isolation gate shaft control panel and Intake Pumping Station No. 1.

3. Design-Builder shall remove the ellipsoidal head from Intake No. 1 and store it on the lake bottom approximately 27 feet north of the intake. The fourteen 3-¼ inch SS bolts, removed during the removal of the ellipsoidal head, shall be turned over to the Authority (see attached drawings AD-03-303-A-203 and S-13).

4. Design-Builder shall install the Authority-supplied Intake No. 1 temporary bulkhead including a Design-Builder-supplied vent line to lake surface (see attached drawing WT1).

5. Design-Builder shall dewater the Contract 070F02C2 underground works.

6. Design-Builder shall close the valve on the vent line from the Intake No. 1 temporary bulkhead once the Contract 070F02C2 underground works are dewatered.

7. Design-Builder shall remove the tunnel bulkhead between Contracts 070F01C1 and 070F02C2 (the direct cost of this item has been paid for in full by Change Order No. 17).

8. After removal of the temporary bulkhead between Contracts 070F01C1 and 070F02C2, Design-Builder shall open the valve on the vent line of the Intake No. 1 temporary bulkhead.

9. Design-Builder shall initiate flooding of the Contract 070F02C2 underground works in coordination with the Authority.

10. Design-Builder shall remove the Intake No. 1 temporary bulkhead and vent line from Intake No. 1, after flooding of the Contract 070F02C2 underground works, and transport the temporary bulkhead to the Authority's storage facility at AMSWTF. Design-Builder shall dispose of the vent line.

11. Design-Builder shall install the Authority-supplied hinged flap gate in Intake No. 1 (see attached drawing E1).

12. Design-Builder shall remove its lock out/tag out of the isolation gate shaft control panel and Intake Pumping Station No. 1.

13. Design-Builder and the Authority will coordinate so that the Design-Builder

will not be delayed and work in the vicinity of Intake No. 2 can be done safely.

14. Design-Builder shall remove the rock deflector manhole lid from intake No. 2 and store it on the manhole lid landing pad on lake bottom (see attached drawings 5-S-14 through 5-S-19).

15. Design-Builder shall retrieve the Authority-supplied hinged intake plug from its storage location on lake bottom and install it on Intake No. 2.

16. Design-Builder shall install piping for aqueous ammonia solution from the Intake Structure to the Contract 070F02C2 construction area as shown on the attached drawings.

17. Design-Builder shall support the aqueous ammonia piping in the tunnel per Design-Builder drawing 4-M-498.

18. Thread sealing compounds, if any, used by the Design-Builder for the ammonia solution piping shall be compatible with an aqueous ammonia solution of ammonia concentration ranging from 0.25% to 2%.

19. Design-Builder shall modify routing of titanium (TI) Chemical Piping and Sample Line Piping. Instead of installing in stub tunnel, all piping shall extend up the Contract 070F01C1 Access Shaft as shown on the attached drawings.

20. Support of the piping in the Contract 070F01C1 Access Shaft shall be per attached revised and marked-up Drawings S-1, S-2, S-3, S-4, S-5 and S-6.

21. Design-Builder shall use flanged joint TI pipe materials purchased by SNWA Contract 070F 02C2 and transferred to Design-Builder. Design-Builder shall

make modifications to pre-purchased pipe as necessary to route pipe generally as shown and complete the installation.

22. Design-Builder shall supply and install one 8-inch Type L copper pump well and one 8-inch Sch. 20 Type 316 stainless steel pump well as shown on the attached drawings.

23. Design-Builder shall supply and install a 6-inch Grundfos Model No. 85S100-9 (10 HP), multi-stage submersible turbine type pump or equal as shown on attached Drawings S-3 and 1-M-1, and attached marked-up Drawings 1-M-2, 1-E-1 and 1-E-2. The pump bowls and impellers shall be Type 316 stainless steel. Shaft shall be Type 431 stainless steel and shall be supported by a bearing at each impeller stage. The pump motor shall be Type 316 stainless steel jacketed, water cooled, 460 Volt and three-phase. The pump manufacturer shall provide a continuous waterproof cable for connection of the motor to a terminal junction box above the top of the casing in the access shaft. The pump shall be equipped with a non-return valve (check valve) preventing back flow in connection with pump stoppage. The pump inlet shall be un-screened and the discharge shall be 3-in diameter minimum. Pump performance shall match the performance points on the attached performance curve. Rubber centering spiders shall be installed on the pump discharge pipe within the pump well. Spiders shall be sized for the discharge pipe and pump well diameter and spaced in accordance with the pump manufacturer's recommendation. Spider shall be a heavy wall spider type manufactured by Newby Rubber, Inc. or approved equal.

24. Design-Builder shall supply and install pump discharge pipe, fittings and appurtenances within the pump casing and until outside the shaft to the transition point to PVC pipe as shown on attached marked-up Drawing 1-M-2. Pump discharge pipe, fittings and appurtenances shall be 3-inch Sch. 80 Type 316 SST.

25. Design-Builder shall supply and install one 6-inch Sch. 80 PVC chlorine pipe, one 4-inch Sch. 80 PVC raw water pipe and one 3-inch Sch. 80 PVC ammonia pipe from top of Contract 070F01C1 shaft to the Contract 070F02C2 construction area as shown on attached Drawings C-1 and C-4.

26. Design-Builder shall use Weld-On 724 PVC cement for the PVC piping.

27. Design-Builder shall hydrostatic test the piping outside of the shaft and tunnel to 100 psi at the low point of the piping. Hydrostatic testing of the piping (not including the pump wells) within the shaft, tunnel and Intake Structure shall be as follows: titanium chlorine solution pipe – 250 psi; stainless steel ammonia pipe – 250 psi; HDPE raw water pipe – 250 psi. All pressure test values are maximum and shall be referenced at the lowest point in the piping (assumed elevation 811 feet). If pressure gauges are set at another elevation, Design-Builder shall calculate appropriate gauge reading based on the elevation difference between the referenced elevation of 811 feet and the actual gauge elevation. The 8-inch copper and 8-inch stainless steel pump wells shall be leak tested by filling them with water to approximate elevation 1215 feet and verifying the water level does not change in a one hour period.

28. Design-Builder shall supply and install gate and fencing per attached

Drawings C-1 and C-6.

29. Design-Builder shall supply and install vent scrubbers and air/vacuum valves as shown on attached Drawings C-1, C-2, C-3, S-2 and S-3.

30. Design-Builder shall supply and fabricate all necessary supports to install the vent piping and attach the chlorine scrubber and air/vacuum valve to the chemical and raw water piping as shown on attached Drawings C-1, C-2, C-3, S-2 and S-3.

31. Design-Builder shall supply and install a vent scrubber, air/vacuum valve, and air release valve and all necessary supports similar to Drawing C-3 near the crossing of the BWC 40-inch raw water pipe.

32. Any unused flanged joint TI pipe materials or 6-inch HDPE pipe materials purchased under Contract 070F02C2 shall be turned over to the Authority.

33. The three newly-purchased Flygt B2400 submersible pumps, pump starter panels, and electrical cables used by the Design-Builder for the dewatering of the Contract 070F02C2 underground works shall be turned over to the Authority.

34. The Design-Builder shall remove all of its stored equipment and materials from Contract Work Area F (see attached map) by September 30, 2015.

35. This Change Order compensates the Design-Builder for all time impacts for removal of temporary segment bolts.

Modification of Completion Dates in Agreement:

Revise the dates in paragraph 3.02.A and 3.02.B, Dates for Substantial Completion and Final Completion in Section 00520, "AGREEMENT BETWEEN SOUTHERN NEVADA WATER AUTHORITY AND DESIGN-BUILDER", as follows:

A. "Substantial Completion" from July 15, 2015 to October 9, 2015.

B. "Final Completion" from October 15, 2015 to December 31, 2015.

All other Contract Documents and Reference Documents remain in effect.

TOTAL CHANGE IN CONTRACT TIME FOR FINAL COMPLETION	**ADD**	**77 Calendar Days**
TOTAL CHANGE IN CONTRACT PRICE	**ADD**	**$2,663,287.00**

All necessary adjustments to all other portions of the original Contract Documents, including but not limited to all applicable Specification and Drawing notes and details, resulting from or as required by these changes, are hereby made.

This Change Order, executed by the AUTHORITY and DESIGN-BUILDER, shall constitute a full and final settlement of any and all Claims by the DESIGN-BUILDER for time extensions and/or additional costs arising out of or related to this Change Order. This settlement constitutes an agreement not to use this Change Order in association with any other Claim. All other requirements of Contract 07F 01 C1 remain unchanged.

Acceptance by DESIGN-BUILDER:

By: _____ 6·30·2015
Jim Nickerson, Project Manager — Date

Authorized by SNWA:

By: _____ _____
John J. Entsminger, General Manager — Date

Duplicate Originals: (1) Authority (1) Design-Builder

NORTHWEST STEEL FAB, INC.

2205 E. Crawford Avenue, Deer Park, WA 99006
509.276.1592 ~ 509.276.7216 Fax

PURCHASE ORDER # 1916-1028

Date: 10/28/2013
Terms: Net 30
Ship Via: Your Truck
FOB: Boulder City, NV
Ordered By: Armin Vogt

To: Gasket Specialties, Inc
13035 NE Airport Way
Portland, OR 97230
Tel: (509) 993-7921
Fax:

Attn: Amy Quigley

Special Instructions

Deliver By: 11/5/13

[X] Mill Test Reports representing heat number traceable to the order, if possible, are required with delivery.

Please confirm receipt of order, thanks!

Quantity	Description	Price
2	11'- 4" ID O-ring - 1" diameter cross section with 70 durometer hardness.	140.00 ea
	Dimensional Verification of O-ring Required	
	Ship to:	
	Renda Pacific	
	244 Lake Shore Rd	
	Boulder City, NV 89005	
	Shipping	
	Tax	

Gasket Specialties, Inc.

13035 N.E. Airport Way
Portland. OR 97230
Ph: (503) 257-8816 Fax (503) 254-8703
www.gasketspecialties.com

DATE

11/4/2013

Sales Order

80477

BILL TO

Northwest Steel Fab Inc
2205 E. Crawford Avenue,
Deer Park, Wa. 99006
509-276-1592 Fax 509-276-7216

ORDER DATE

11-04-13

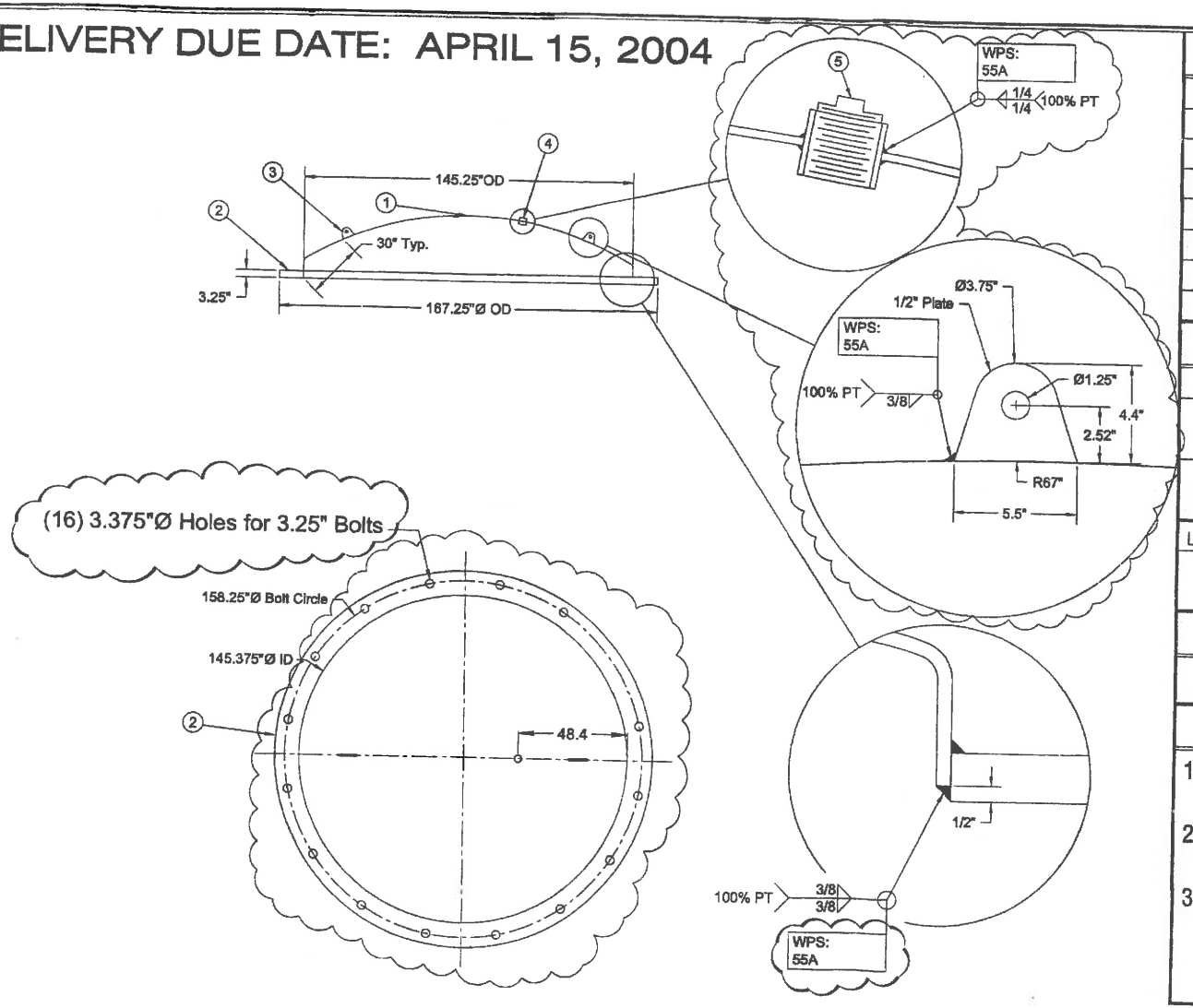
SHIP TO

Renda Pacific
244 Lake Shore RD
Boulder City, NV. 89005

ACCT. NO.	P.O. NUMBER	TERMS	ORDER DUE	W/B	SHIP VIA	ORDERED BY	B/O FROM:	B/O TO:
	1916-1028	VISA/MC	11-06-13	RH	UPS RED PP&A	Armin		

QTY. ORD.	QTY. B/O	QTY. SHPD	PART NO.	DESCRIPTION	CODE	PRICE EACH	AMOUNT
2ea		2	N/A-18	136" id x 1" dia Xsection Nitrile 70 O-Ring	18	140.00	280.00
1ea		1	Freight	UPS RED Fee	16	32.00	32.00

DELIVERY DUE DATE: APRIL 15, 2004



MATERIAL LIST

#	QTY	DESCRIPTION	REF
1	1	145.25"OD 2:1 Elipsoidal Head, 3/8" Thick	316L
2	1	FLG: 167.25"OD x 145.375"ID x 3.25"Thk	316L
3	2	Picking eye 1/2"Thk	316L
4	1	3" NPT Threaded coupling	316L
5	1	3" NPT Square head Threaded plug installed	316L

PIPE DATA

STEEL	ASTM A240, Type 316L		
LINING	None		
COATING	None		
LAY LENGTH	N/A	TOTAL LENGTH	N/A
	HEAD	FLANGE	TOTAL
WEIGHT	3,000 Lbs	5,200 Lbs	8,200 Lbs

MARK NUMBERS

3

Notes:

1.) Testhead Material is to be in accordance with ASTM A240, Type 316L, including fittings and picking eyes.

2.) Flange Material is to be in accordance with ASTM A240, Type 316L.

3.) All welds are to be "Pickle and Passified" to remove Carbon contamination.

Length Tolerance: +0.125" -0.125"

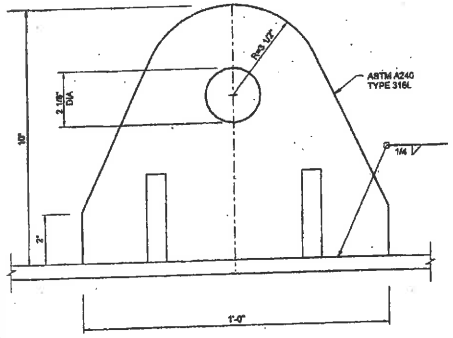
NORTHWEST PIPE COMPANY
12351 Rancho Road. Adelanto, CA 92301 (760) 246-3191

Project No. 320G, Lake Mead Intake No. 1 Modifications
Southern Nevada Water Authority

BY: Thompson | DATE: Dec 11, 2003
DRAWING #: AD-03-303-A-203

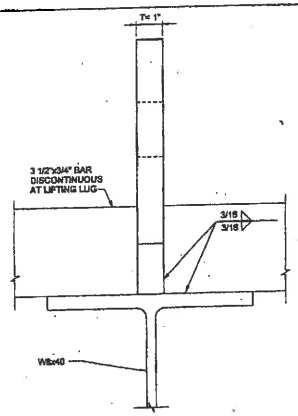
1) 1-5-04, JET, CORRECTED BOLT HOLE INFORMATION
2) 2-13-04 Added picking eyes and Threaded coupling
3) 2-27-04 DDM, revised bolt FLG bolt hole pattern

REV 3

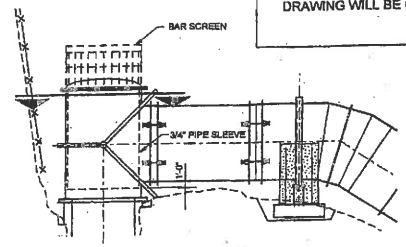


CENTER ON W8x40 (4 PLACES)

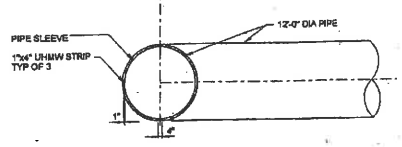
LIFTING LUG (1) S-11 S-12
HALF SCALE



ALL EQUIPMENT SHOWN ON THIS DRAWING WILL BE OWNER SUPPLIED.

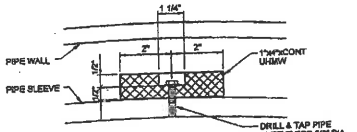


ELEVATION



SECTION

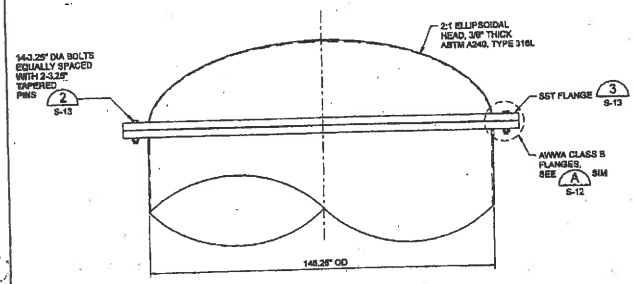
PIPE SLEEVE (5)
1/8"=1'-0"



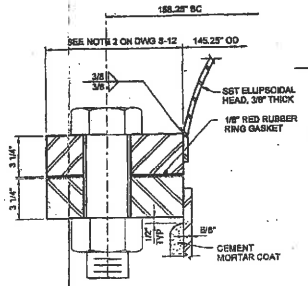
DETAIL (6) S-12
6"=1'-0"

NOTES:

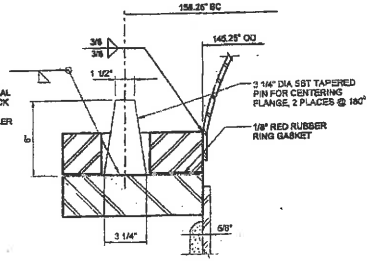
1. UHMW SHALL BE ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE PLASTIC, 100% CROSS-LINKED FOR ABRASION RESISTANCE AND ULTRAVIOLET (UV) STABILIZED WITH A MINIMUM OF 0.5% CARBON BLACK. THE POLYETHYLENE SHALL BE COMPOSED OF 100% VIRGIN UHMW POLYETHYLENE MATERIAL.
2. UHMW TO BE MACHINED SUCH THAT THE TOTAL CLEARANCE DOES NOT EXCEED 3" OF PIPE ID AFTER MACHINING.
3. SUPPLY UHMW STRIPS IN TWO SECTIONS TO MINIMIZE THERMAL DISTORTION. TAPER ENDS OF STRIP TO PROVIDE SMOOTH TRANSITION.
4. MANUFACTURER: ULTRA POLY, INC. TACOMA, WA.



BLIND FLANGE DETAIL (4) C-2
NTS



DETAIL (3) S-13
3"=1'-0"



DETAIL (2) S-13
3"=1'-0"

SOUTHERN NEVADA WATER AUTHORITY
1900 E. FLAMINGO ROAD SUITE 170
LAS VEGAS, NEVADA 89119
(702) 862-3400
PROJECT LOCATION: CLARK CO., NV

VERIFY SCALE
1/8" 1/4" 1/2"
BAR REPRODUCED FROM ORIGINAL DRAWING. SCALES ON COPY MAY NOT MATCH ORIGINAL

PROJECT NO. 320G LAKE MEAD INTAKE NO. 1 MODIFICATIONS

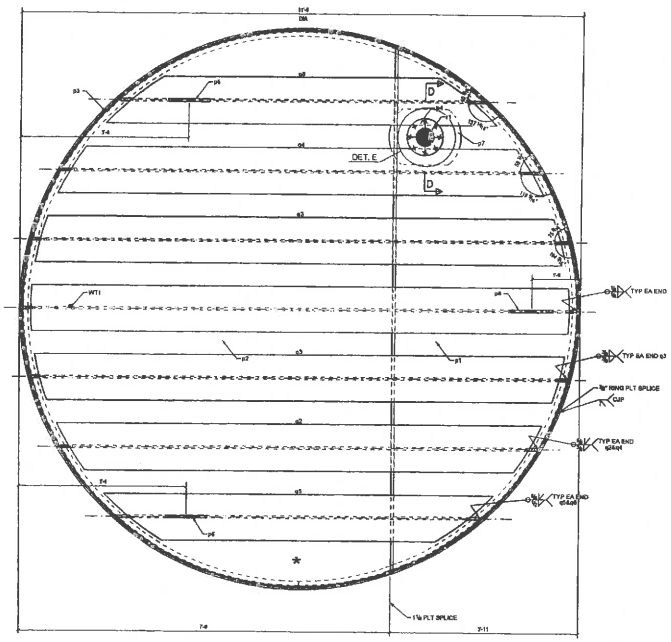
BAR SCREEN DETAILS

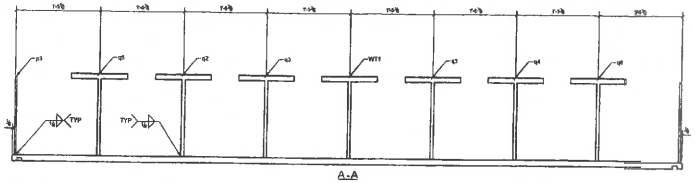
SCALE: AS SHOWN
PLOT DATE: 10-13-2005
FILENAME: Rmp1470L_S5S12_dgn/LO1 DATED 03-DEC-2003

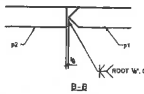
MW/Hill
A Joint Venture
LAS VEGAS, NEVADA
(702) 878-8010

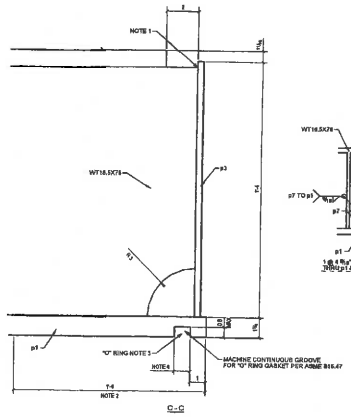
DRAWN: D.W. TONEY
CHK'D: G.D. SUNDERING
APV'D: ST. DAVIS
DWG: AS SHOWN

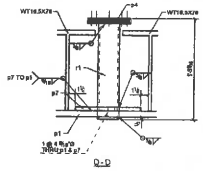
CONTRACT NO. 320G 01 C1
DRAWING NO. S-13
SHEET 23 OF 23

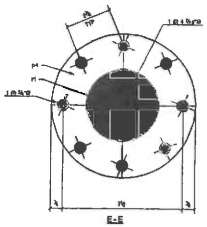




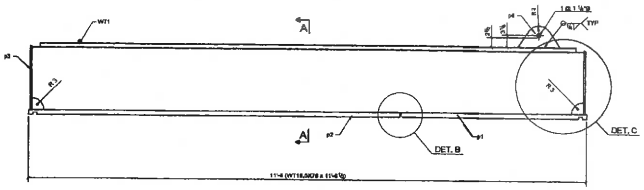








* WELD "BULKHEAD MAX WATER EL. 1,112 FT." IN 1" LETTERING
** AFTER FABRICATION IS COMPLETE THE FABRICATOR SHALL WEIGH THE BULKHEAD AND WELD A SIGN INDICATING THE BULKHEAD WEIGHT TO THE TOP OF THE BASE PLATE. LETTERING SHALL BE IN 1" HIGH LETTERING.



NOTES:

1. CONTINUE WELD AROUND END OF WT WEB TO CREATE A COMPLETE SEAL WELD.
2. A 12 INCH WIDE STRIP AROUND THE CIRC. OF THE BASE PLATE SHALL BE MACHINED TO A FLATNESS OF +/- 1/16" WITH NO LOCATIONS AROUND THE PERIMETER GREATER THAN 1/8" DIFFERENCE FROM EACH OTHER. THE MACHINED SURFACE SHALL ALLOW THE BULKHEAD TO BEAR ON A FLAT SURFACE WITH NO GAPS GREATER THAN 1/8". THE SUPPORTING FLAT SURFACE ONLY NEEDS TO BE AROUND THE PERIMETER OF THE BULKHEAD MATCHING THE AREA WHERE IT WILL BE SUPPORTED BY THE PIPE "T" LANDING PLATE IN THE INSTALLED CONDITION. ALL MACHINING SHALL BE COMPLETED AND THE FLATNESS CRITERIA SHALL BE MEASURED AFTER ALL WELDING IS COMPLETE.
3. THE "O"RING SHALL BE A MINIMUM 1" DIAMETER NEOPRENE WITH A SHORE DUROMETER HARDNESS BETWEEN 55 AND 60. THE RING SHALL BE CONTINUOUS WITH A VULCANIZED SPLICE. THE "O" RING GROOVE SHAPE SHALL BE SELECTED BY THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT EVIDENCE THAT THE SELECTED SURFACE FINISH AND RING AND GROOVE COMBINATION HAS SAFELY RESISTED DESIGN PRESSURES EXCEEDING 200PSI. THE GROOVE SHALL BE MACHINED INTO THE FLANGE AFTER THE FLANGE HAS BEEN MACHINED.
4. AS REQUIRED FOR PROPER "O" RING INSTALLATION.

SUBMITTAL STATUS:
FOR FABRICATION

TOLERANCES:
STANDARD PER AISC U.N.O.

ONE - TEMP. BULKHEAD - WT1

BILL OF MATERIAL

SHIP	MARK	QTY	DESCRIPTION	LENGTH	WGT	REMARKS
1	WT1	1	WT16.0X70	10'-0 1/2"		
		1	PL1.5X48	5'-0 1/16"	p1	ASM-BLR
		1	PL1.5X24	7'-0"	p2	ASM-BLR
		1	PL.5X16	10'-1 3/16"	p3	ASM-BLR
		1	PL1.5X9	7'-0"	p4	CK - WING CNT. CLAMP
		3	PL.5X5.5/2	8'-11 1/2"	p5	ASM-BLR
		1	PL.5X7/8	1'-4"	p7	ASM-BLR
		1	WT16.0X14	10'-1 3/4"	s2	A50
		2	WT16.0X14	10'-1 1/8"	s3	A50
		1	WT16.0X16	10'-1 3/8"	s4	A50
		1	WT16.0X16	9'-1 5/8"	s5	A50
		1	WT16.0X20	8'-1 5/8"	s6	A50
		1	PIPE24X	2'-0 3/16"	r1	A53

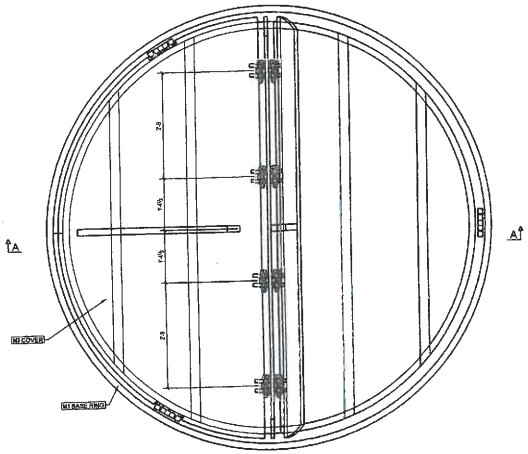
REV	DESCRIPTION	DATE	DWN	CHK
1	PWR FABRICATION	11/04/2013	ST	RVW/PM
2	PWR FABRICATION	12/11/2013	ST	RVW/PM
A	PWR APPROVAL	05/01/2013	ST	RVW/PM

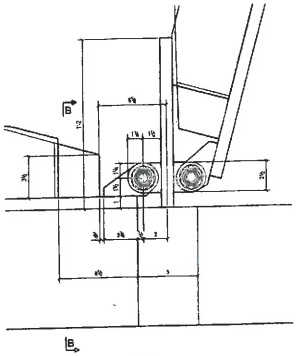
GENERAL NOTES

MATERIAL: SEE B.O.M. PLATE/PIPE: A36/A53 GR. B, STAINLESS: 304/304L
FABRICATING: SEPO-SP SEE SPEC
PAINTING: SEE SPEC
DESCRIPTION:
PROJECT: SOUTH NEVADA WATER AUTHORITY
LOCATION: NEVADA
CONTRACTOR: MARHILL JOINT VENTURE

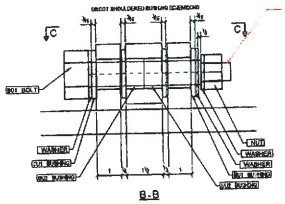
NORTHWEST STEEL FAB, INC.
1200 E COLUMBIA BLVD, PO BOX 1, VANCOUVER, WA 98661 (360) 695-0551 FAX (360) 695-0552

DATE: 10/01/2013
SCALE: NONE
DWN: JM
CHK: PM
DWG NO: 1816-WT1
REV: 1



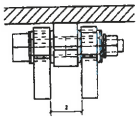


DETAIL 1



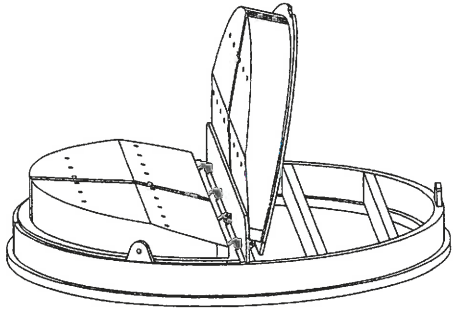
B - B

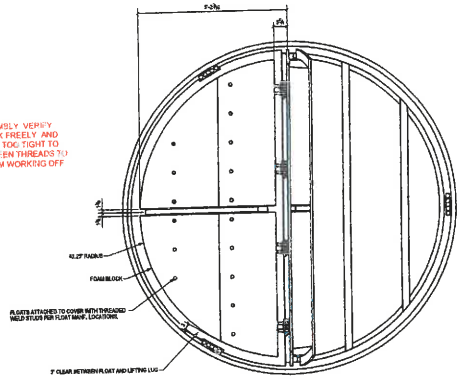
AFTER FINAL ASSEMBLY VERIFY THAT HINGES WORK FREELY AND BOLT/NUT ARE NOT TOO TIGHT TO CAUSE BINDING. PEEN THREADS TO PREVENT NUT FROM WORKING OFF OF BOLT



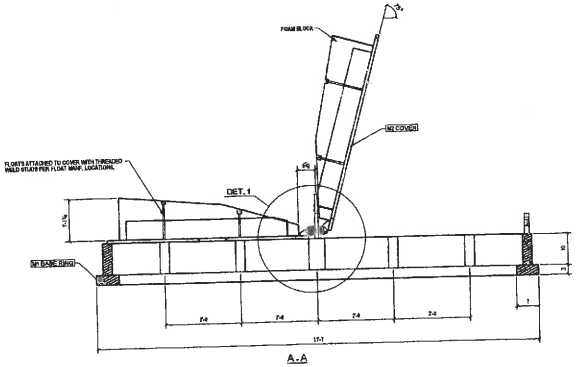
C - C

HINGE BORES CENTER MUST BE ALIGNED WITH ONE OF THE POSITION, IT IS RECOMMENDED THAT COVER BE PLACED ON BASE, THEN LOCATE HINGES AND USE ONE LONG SHAFT FOR ALIGNMENT. THEN BEGIN WELDING HINGES TO COVER AND RING.





FLOAT LAYOUT PLAN



A - A

REV.	DESCRIPTION	DATE	DWN	CHK
C	RE-SUBMIT FOR APPROVAL	3/24/14	MJ	ACR
B	RE-SUBMIT FOR APPROVAL	2/4/14	MJ	ACR
A	SUBMIT FOR APPROVAL	1/24/14	MJ	ACR

GENERAL NOTES

1.) ALL CLOUDED DIMENSIONS AND QUESTIONS MUST BE ADDRESSED. REDLINES WITH UNMARKED DIMENSIONS, AND UNANSWERED QUESTIONS ARE ASSUMED TO BE CORRECT AND FABRICATION WILL BEGIN.

2.) ALL DIMED ELEVATIONS, TOP OF CONCRETE ELEVATIONS AND STEEL PLACEMENT MUST BE DONE ACCORDING TO THIS DRAWING. DEVIATION FROM THIS DRAWING WITHOUT CALLING FIRST IS DONE AT THE USER'S RISK.

JOB USE	
SHOP	
APPROVAL	

DESCRIPTION: GENERAL ARRANGEMENT

PROJECT NAME: SOUTHERN NEVADA INTAKE COVER

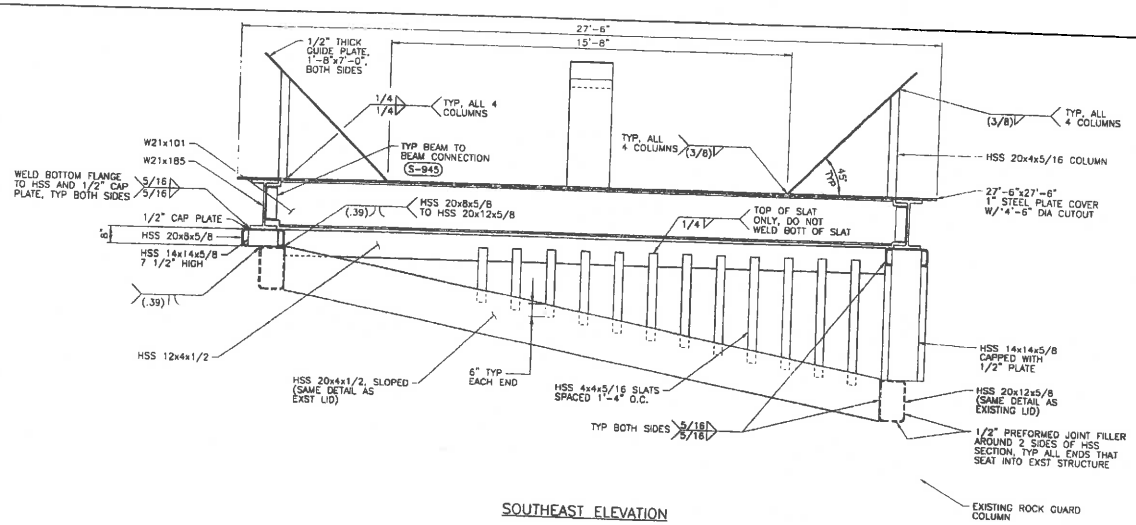
LOCATION: PROJ.ADDRESS

DETAILER: ACURITE DRAFTING - (509) 468-5199 - WWW.ACURITEDETAIL.COM

N.W. STEEL FAB.
2205 E. CRAWFORD AVE.
DEER PARK, WA 99006
509-276-1592
www.nwsfab.com
FAX # 509-276-7216

DRAWN BY	DATE
M.J.	01/02/2014
CHKD. BY	DATE
ACR	03/24/2014
JOB NO.	DWG. NO. / REV.
	S1 / C

SUBMITTAL STATUS:
FOR APPROVAL

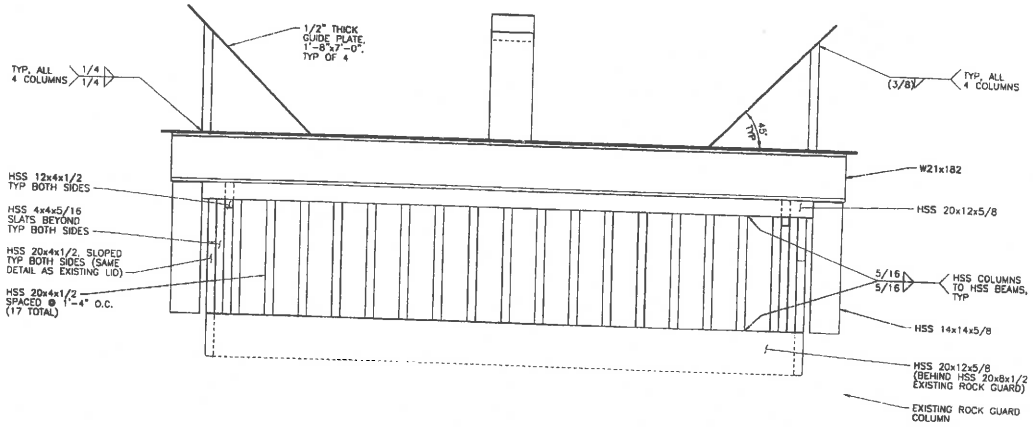


SOUTHEAST ELEVATION

GENERAL NOTES:

1. VERIFY ALL COLUMN ELEVATIONS. ENSURE PLATE BEARS FULLY ON LEVEL WIDE FLANGE SECTIONS. ADJUST AS NECESSARY WITH LEVELING PAD.
2. SEAL WELD ALL CONNECTIONS.
3. CLOSE ALL HSS END SECTIONS AND SEAL WELD.

Note: Rock Deflector Roof was not painted. Bare steel finish. Reference Submittal No. 05500-1-3 Misc. Metal work for shop drawing of all marine metals.



Approximate Weight: 87,000 LBS. (Dry Weight)

NORTHEAST ELEVATION

ROCK DEFLECTOR ROOF

1/2"=1'-0"

RICHARD A. JOHNSON
NEVADA ENGINEER
No. 10716
EXP. 6-30-09

SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO., NV

VERIFY SCALE
1/2" 0 1/2"

BAR REPRESENTS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY

INTAKE NO. 2 CONNECTION AND MODIFICATIONS

INTAKE NO.2 MODIFICATIONS
GENERAL ELEVATION

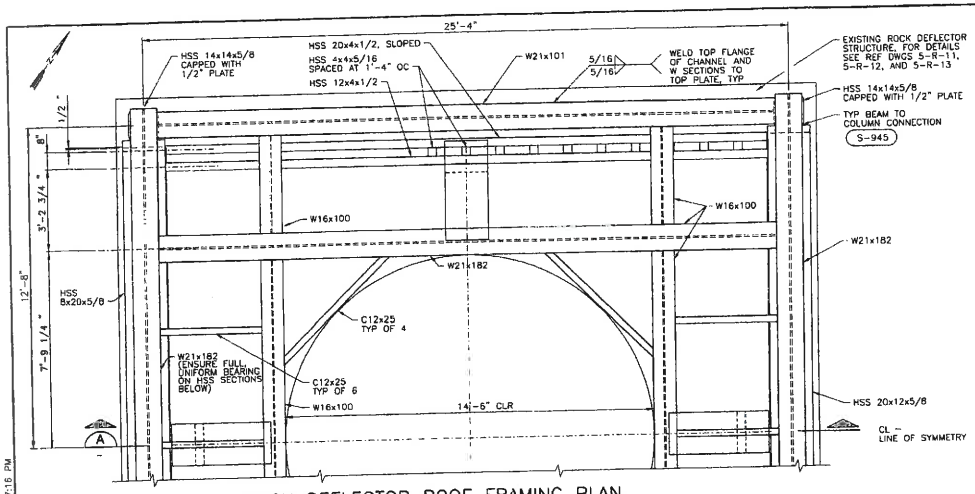
SCALE: AS SHOWN
DATE: 3/21/2008
FILE: C-070F05C1-S-S6-S514.dgn

MW/HILL
A Joint Venture
2400 WEST SUNSET ROAD, STE. 100
LAS VEGAS, NEVADA 89118-2944

DSGNR: L. ELKINS
DR: F. FOON
CHK: C. SUNDBERG
APVD: R. JOHANNESON

CONTRACT NO. 070F-05-C1
DRAWING NO. 5-S-14
SHEET 56 OF 85

CI-070F05C1-S-S6-S514.dgn 2/21/2008 5:24:31 PM

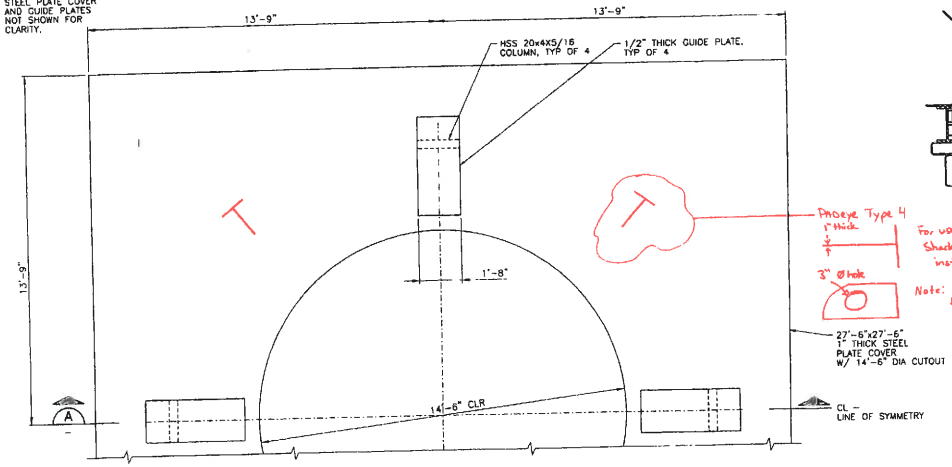


ROCK DEFLECTOR ROOF FRAMING PLAN

1/2"=1'-0"

Approximate Weight: 87,008 LBS (Dry Weight)

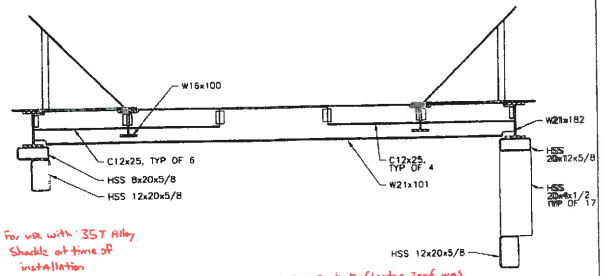
NOTE:
MANHOLE LID, STEEL PLATE COVER AND GUIDE PLATES NOT SHOWN FOR CLARITY.



NOTE:
ROOF FRAMING SHOWN AS SCREENED

ROCK DEFLECTOR COVER PLATE AND GUIDE PLATES

1/2"=1'-0"



Note: Rock Deflector Roof was shop fabricated in 2 pieces, bolted together in field, and then the flanges were welded together.

SECTION A

3/8"=1'-0"

GENERAL NOTES:
1. VERIFY ALL COLUMN ELEVATIONS. ENSURE PLATE BEARS FULLY ON LEVEL WIDE FLANGE SECTIONS SURFACE. ADJUST AS NECESSARY WITH LEVELING PAD.
2. SEAL WELD ALL CONNECTIONS.
3. CLOSE ALL HSS END SECTIONS AND SEAL WELD.

RICHARD J. JOHANNESON
No. 14100
EXP. 6-30-09

SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO., NV

VERIFY SCALE
1/2 0 1/2 1
EMP. REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

INTAKE NO. 2 CONNECTION AND MODIFICATIONS
INTAKE NO. 2
ROCK DEFLECTOR ROOF MODIFICATIONS
PLAN AND ELEVATIONS

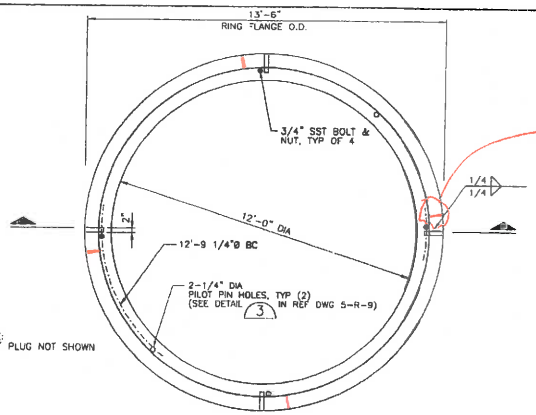
SCALE: AS SHOWN
DATE: 2/21/2008
FILE: C:\070F05C1-S-57-5515.dgn

MW/HILL
A Joint Venture
3100 SOUTH PARADISE BLVD.
LAS VEGAS, NEVADA 89102-1944

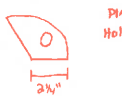
DSGN: T. SCHOFIELD
DWN: L. EUKINS
CHK: C. SHANDERS
APVD: R. JOHANNESON
DR: F. HOON

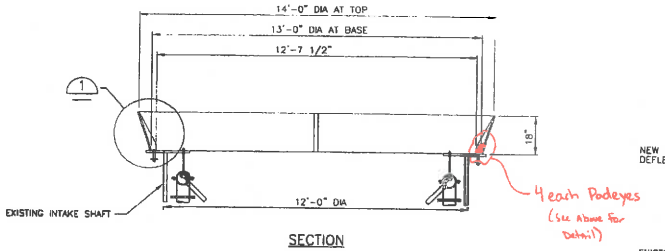
CONTRACT NO. 070F-05-C1
DRAWING NO. 5-S-15
SHEET 57 OF 85

C:\070F05C1-S-57-5515.dgn 2/21/2008 5:27:16 PM



PLAN

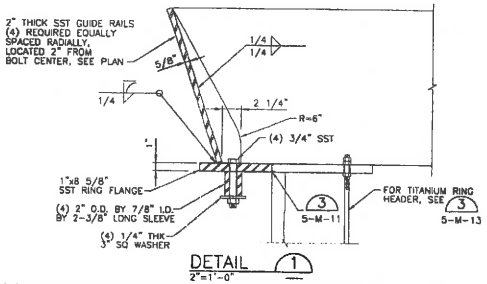




SECTION

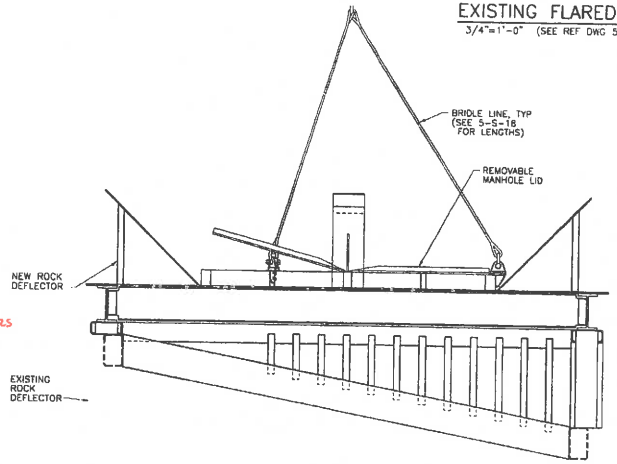
NEW SST LOW PROFILE INLET

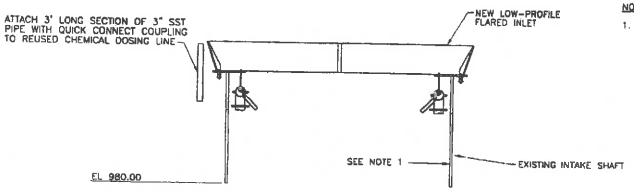
1/2"=1'-0" Approximate Weight: 6,800 LBS (Dry Weight)



DETAIL 1

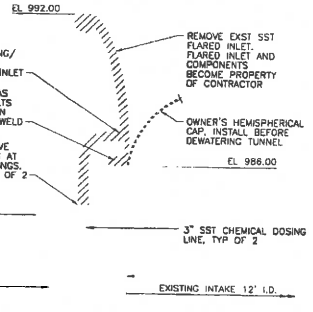
2"=1'-0"





INTAKE NO.2 MODIFICATIONS

3/8"=1'-0"



EXISTING FLARED INLET DEMOLITION

3/4"=1'-0" (SEE REF DWG 5-R-10 FOR DETAILS)

NOTE:

1. APPLY 1-1/2" THICK CEMENT MORTAR PROTECTIVE LINING FROM EL 980.00 TO TOP OF INLET, AS SPECIFIED IN SECTION 03330, SHOTCRETE.

RICHARD FARNING — EXP. 6-30-08

SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO. NV

VERIFY SCALE 1/2 0 1/2 1

BAR REPRESENTS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH, ADJUST SCALES ACCORDINGLY

INTAKE NO. 2 CONNECTION AND MODIFICATIONS

INTAKE NO.2 MODIFICATIONS
FLARED INLET

SCALE: AS SHOWN
DATE: 2/21/2008
FILE: C:\070F05C1-S-5B-S516.dgn

MW/HILL
A Joint Venture
3010 WEST CHARLESTON BLVD.
LAS VEGAS, NEVADA 89102-1984

DSGN: L. ELKINS
CHK: C. SUNDBERG
DR: F. POON
APVD: R. JOHANNESSON

CONTRACT NO. 070F-05-C1
DRAWING NO. 5-S-16
SHEET 58 OF 85

2/12/2008 8:28:13 PM
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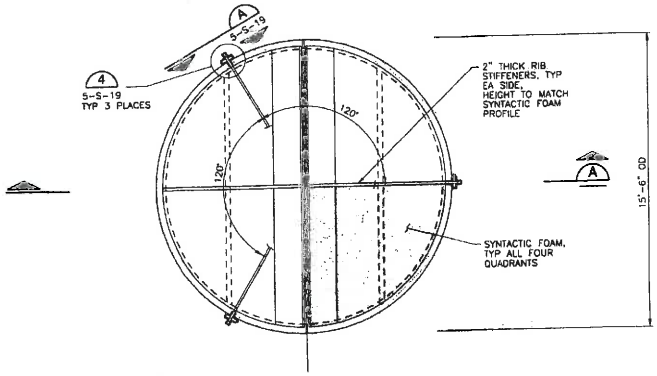


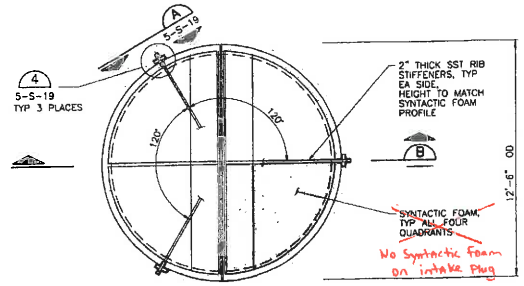
NOTE: SUPPORT DETAILS BELOW NOT SHOWN FOR CLARITY.

PLAN

ROCK DEFLECTOR MANHOLE LID

3/8" = 1'-0"

Approximate weight: 24,500 LBS (Dry Weight)

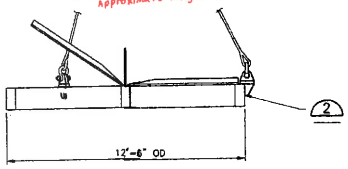


PLAN

INTAKE PLUG

3/8" = 1'-0"

Approximate weight: 22,000 LBS (Dry Weight)



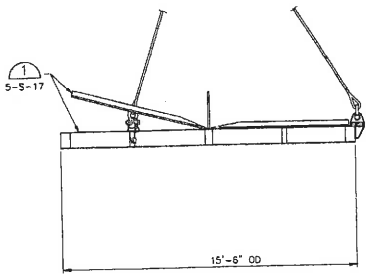
SECTION B

3/8" = 1'-0"

5-S-17

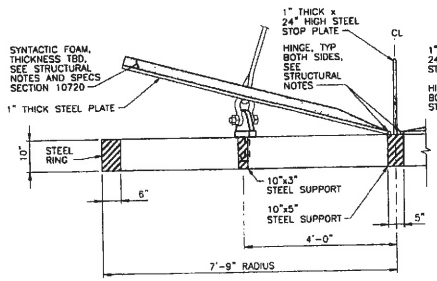
STRUCTURAL NOTES:

1. DESIGN LID AND PLUG BUOYANT WEIGHT: MIN 18,500 LBS., MAX 20,000 LBS. DESIGN SYNTACTIC FOAM TO COMPENSATE ACTUAL WEIGHT TO DESIRED BUOYANT WEIGHT RANGE.
2. HINGE MECHANISMS FOR THE PLUG AND MANHOLE LID FLAP GATES MUST BE DETAILED TO RESIST A WORKING LOAD OF 4.5K OF TENSION FORCE AND 25.5K OF SHEAR FORCE. THE HINGES SHALL HAVE AN OPERATING RANGE OF 0 TO 80° FROM HORIZONTAL.
3. SYNTACTIC FOAM AND RIB STIFFENERS SHALL BE CONTOURED TO NOT CONFLICT WITH THE STOP PLATE WHEN THE GATE IS IN THE FULLY OPEN POSITION (8=80).



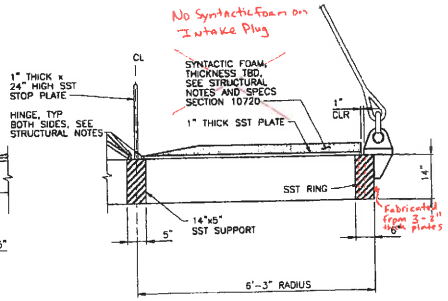
SECTION A

3/8" = 1'-0"



MANHOLE DETAIL 1

3/4" = 1'-0"



PLUG DETAIL 2

3/4" = 1'-0"

RICHARD A. YOUNG
NO. 9900
STATE OF NEVADA
PROFESSIONAL ENGINEER
EXP. 6-30-09
7/8/2008

SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO., NV

VERIFY SCALE
1/2 1 1/2
BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

INTAKE NO. 2 CONNECTION AND MODIFICATIONS
INTAKE NO.2 MODIFICATIONS
ROCK DEFLECTOR MANHOLE LID AND INTAKE PLUG

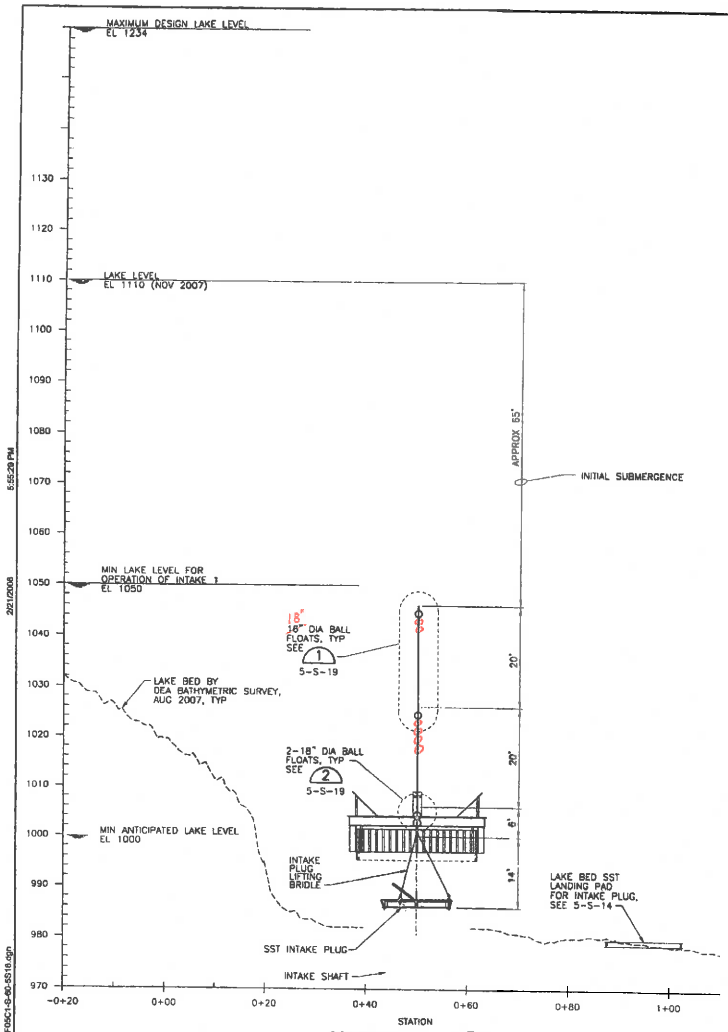
SCALE: AS SHOWN
DATE: 2/4/2008
FILE: C:\070F05C1-5-S9-S517.dgn

MW/HILL
A Joint Venture
3111 WEST CHARLESTON BLVD.
LAS VEGAS, NEVADA 89102-1944

DESIGN: L. ELIAS
CHKD: C. SANDBERG
APVD: R. JOHANNSON
DR: F. POON

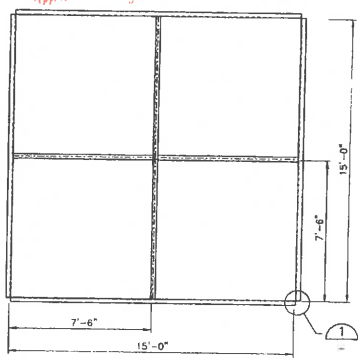
CONTRACT NO. 070F-05-C1
DRAWING NO. 5-S-17
SHEET 59 OF 85

10:46:50 AM 2/4/2008 C:\070F05C1-5-S9-S517.dgn



SECTION A
1"=10'
5-C-16

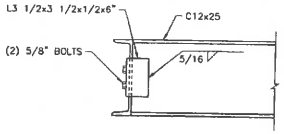
Approximate Weight: 4,400 LBS each (Dry Weight)



PLAN

NOTE:
TWO LANDING PADS REQUIRED.
(1) FOR MANHOLE LID, ALL CARBON STEEL COMPONENTS.
AND (1) ~~FOR INTAKE PLUG ALL SST COMPONENTS.~~
Both Landing Pads fabricated from carbon steel and the top surface covered with a poly ethylene pad.

LANDING PAD
3/8"=1'-0"

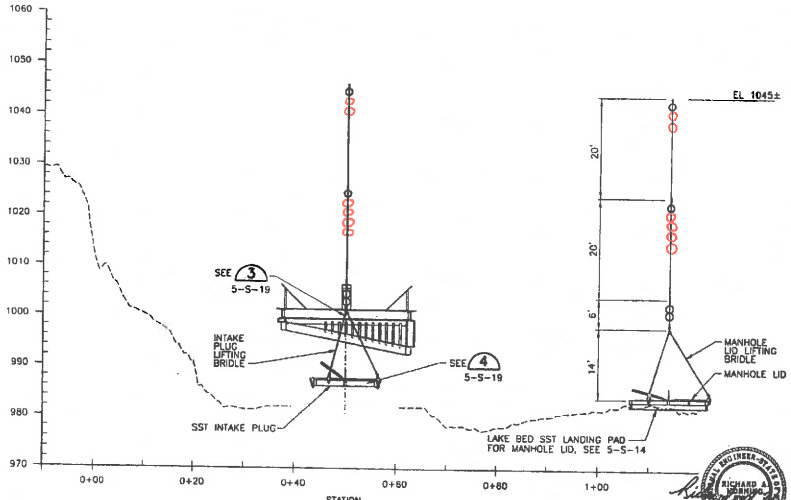


NOTE:
CONNECTION DETAIL SIMILAR FOR ALL INTERIOR AND EXTERIOR BEAM CONNECTIONS.

DETAIL 1
1 1/2"=1'-0"

20-FOOT LONG BUOY PENNANT SCHEDULE		
	20' SECTIONS TOTAL REQUIRED	20' SECTIONS INSTALLED
MANHOLE LID	10	2
INTAKE PLUG	10	2

NOTES:
1. TETHER AND BUOY SYSTEM IS SAME CONFIGURATION FOR INTAKE PLUG AND MANHOLE LID.
2. LANDING PADS SHALL BE PLACED AND LEVELED TO ASSURE PROTECTION FOR MANHOLE LID AND INTAKE PLUG.



SECTION B
1"=10'
5-C-16

RICHARD A. JOHNSON
NEVADA PE 10798
EXP. 6-30-09
7/1/2008

SOUTHERN NEVADA
WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO. NV

VERIFY SCALE
1/2 0 1/2 1

BAR REPRESENTS ONE INCH ON ORIGINAL PLOTTED ON ORIGINAL

INTAKE NO. 2 CONNECTION AND MODIFICATIONS
INTAKE NO. 2
BUOY SYSTEMS

SCALE AS SHOWN
DATE: 3/21/2008
FILE: C:\070F05C1-S-80-S518.dgn

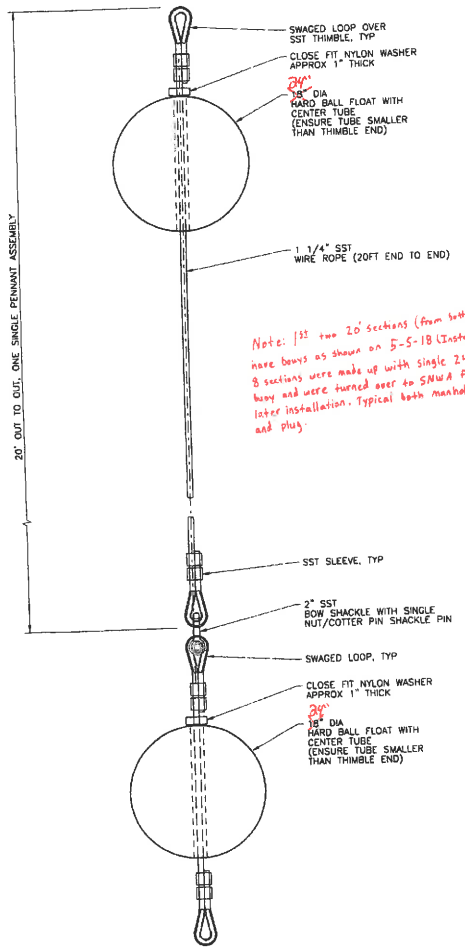
MW/HILL
A Joint Venture
3012 WEST CHARLESTON BLVD.
LAS VEGAS, NEVADA 89102-1944

DSGN: L. CLARKE
CHK: E. SLAUGHTER
DR: R. BROWN
APVD: R. JOHNSON

CONTRACT NO.
070F-05-C1
DRAWING NO.
5-S-18
SHEET 60 OF 85

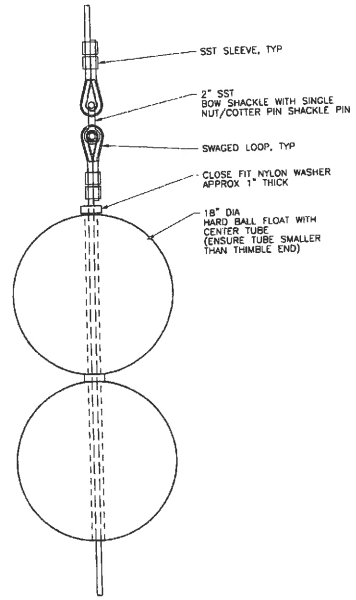
TOP. 6-30-09

2/21/2008 5:55:29 PM
C:\070F05C1-S-80-S518.dgn

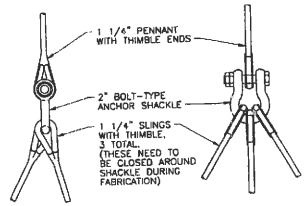


Note: 1st two 20' sections (from bottom) have bouys as shown on 5-S-18 (Installed as shown) 8 sections were made up with single 24" buoy and were turned over to SNWA for later installation. Typical both manhole lid and plug.

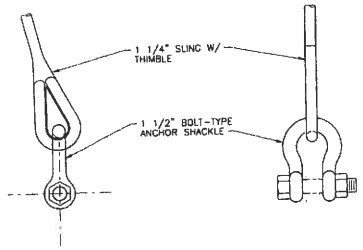
TETHER LINE DETAIL 1
2"=1'-0"
5-S-18



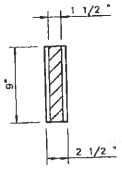
TETHER LINE DETAIL 2
2"=1'-0"
5-S-18

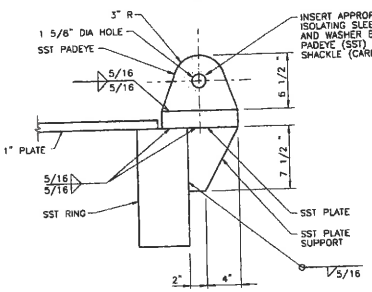


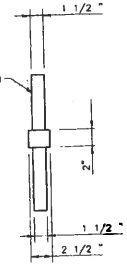
DETAIL 3
2"=1'-0"
5-S-18



DETAIL 4
5-S-18







NOTE:
SYNTACTIC FOAM, RING SUPPORT DETAILS FOR MANHOLE LID AND PLUG ARE NOT SHOWN FOR CLARITY.

SECTION A
2"=1'-0"
5-S-17

RICHARD A. DRENNING
NEVADA
EXP. 6-30-09

SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO. NV

VERIFY SCALE
1/2 1 0 1/2 1
BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

INTAKE NO. 2 CONNECTION AND MODIFICATIONS
INTAKE NO. 2
BUOY SYSTEMS DETAILS

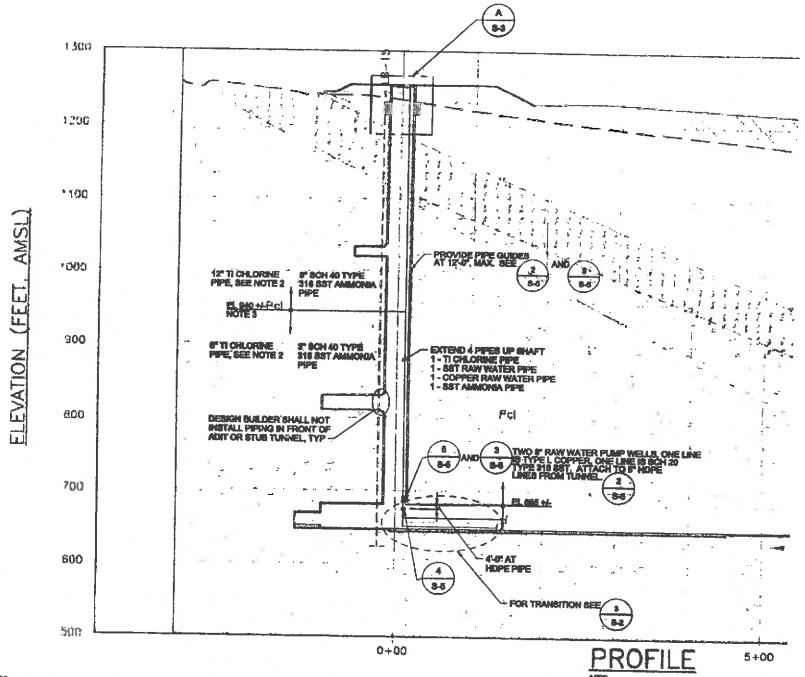
SCALE: AS SHOWN
DATE: 2/5/2008
FILE: C:\070F05C1-5-S1-5S19.dgn

MW/HILL
A Joint Venture
2880 SOUTH JONES BLVD.
LAS VEGAS, NEVADA 89102-1944

DSGN: L. ELKINS
CHK: C. SANDBERG
APVD: R. JOHANNSON
DRN: R. BROWN

CONTRACT NO. 070F-05-C1
DRAWING NO. 5-S-19
SHEET 61 OF 85

2/5/2008 8:45:02 AM
C:\070F05C1-5-S1-5S19.dgn



PROFILE

NTS

NOTES:

1. DESIGN BUILDER SHALL MODIFY ROUTING OF TI CHEM PIPING AND SAMPLE LINE PIPING, INSTEAD OF INSTALLING IN STUB TUNNEL. ALL PIPING SHALL EXTEND UP, DESIGN BUILDERS SHAFT AS SHOWN.
2. DESIGN BUILDER SHALL USE FLANGED JOINT TI PIPE MATERIALS PURCHASED BY SNWA CONTRACT 070F 02 C2. LAY SHEET SUBMITTAL IS AVAILABLE FROM THE CONSTRUCTION MANAGER. CONTRACTOR SHALL MAKE MODIFICATIONS TO PRE-PURCHASED PIPE AS NECESSARY TO ROUTE PIPE GENERALLY AS SHOWN AND COMPLETE THE INSTALLATION.
3. CONTRACTOR SHALL MAKE PIPE B22 TRANSITION WITH CONCENTRIC REDUCER, DIMENSIONED PER ASME B16.9.
4. DESIGN BUILDER SHALL SUPPLY NECESSARY COMPONENTS TO TRANSITION FROM 6" HDPE TO 6" COPPER AND 6" SST PIPES.
5. DESIGN BUILDER MAY USE 6" HDPE PIPE MATERIALS PURCHASED UNDER SNWA CONTRACT 070F 02 C2 TO MAKE UP ANY SHORTAGE IN LENGTH FROM ORIGINAL CONTRACT QUANTITIES. DESIGN BUILDER SHALL PROVIDE COMPONENTS NECESSARY TO TRANSITION FROM 6" TO 6" HDPE AS NECESSARY.
6. ALL OTHER MATERIALS NOT OTHERWISE INDICATED AS PROVIDED BY OTHERS SHALL BE PROVIDED BY THE DESIGN BUILDER.
7. SUBMIT SHOP DRAWINGS FOR FABRICATED ITEMS AND MATERIAL/PRODUCT DATA SHEETS FOR PRE-ENGINEERED PRODUCTS AND ADHESIVE ANCHORS.
8. ALL MATERIALS SHALL BE STAINLESS STEEL 316. WHERE STEEL IS REQUIRED TO BE WELDED IT SHALL BE SST 316L.
9. ALL ADHESIVE ANCHORS SHALL BE HILTI RE-500 SD. ANCHORS SHALL BE INSTALLED BY PERSONNEL CERTIFIED BY THE ANCHOR MANUFACTURER AND THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM. ANCHOR MATERIAL SHALL BE STAINLESS STEEL 316L.
10. CONTRACTOR SHALL SUBMIT ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATE FOR ALL PERSONNEL INSTALLING ADHESIVE ANCHORS.
11. INSTALLATION OF ADHESIVE ANCHORS SHALL BE SPECIAL INSPECTED IN ACCORDANCE WITH IBC 2012 TABLE 1705.3.
12. PIPING SHALL NOT BE PLACED UNDER A CONDITION WHERE THERE IS A LARGE BUOYANT FORCE ON THE PIPES. PIPES SHALL BE FILLED WITH WATER AT THE SAME RATE AS THE TUNNEL AND SHAFT. PIPES SHALL BE DEWATERED AT THE SAME RATE AS THE TUNNEL AND SHAFT.
13. COPPER AND TITANIUM MATERIALS SHALL BE ELECTRICALLY ISOLATED FROM STAINLESS STEEL BOLT, FLANGE, AND PIPE ISOLATION KITS SHALL BE PROVIDED BY DESIGN BUILD CONTRACTOR TO ELECTRICALLY ISOLATE MATERIALS.
14. BRAZING OF FLANGES TO COPPER PIPE SHALL BE PERFORMED WITH QUALIFIED PROCEDURES, USING QUALIFIED WELDERS, IN ACCORDANCE WITH ANSI/ AWS B22 STANDARD FOR BRAZING PROCEDURES AND PERFORMANCE QUALIFICATIONS.

PUMP DESIGN CRITERIA:

FLOW = 80 gpm
TDH = 344 ft
LAKE EL. > 1000 ft MSL

SOUTHERN NEVADA WATER AUTHORITY
1900 E. FLAMINGO ROAD SUITE 170
LAS VEGAS, NEVADA 89119
(702) 862-3400
PROJECT LOCATION: CLARK CO., NV

VERIFY SCALE
1/2 0 1/2 1
BAR REPRESENTS ONE INCH ON ORIGINAL DRAWING

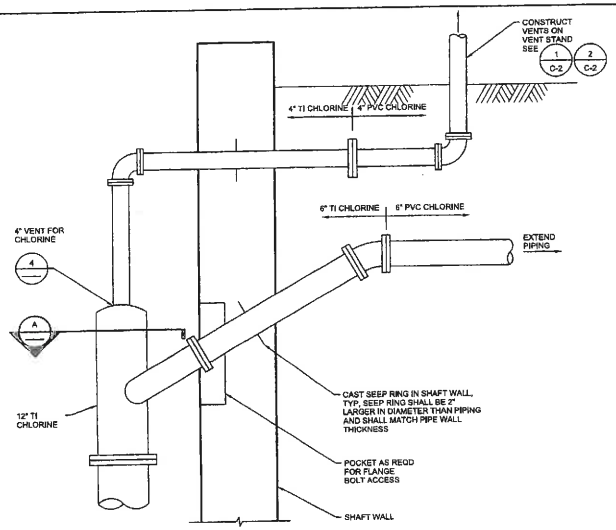
LAKE MEAD INTAKE NO. 3
INTAKE TUNNEL
KEY PLAN AND SHEET LAYOUT

SCALE: NTS
DATE: 2013-11-15 PM
TIME: 2:07:11 PM
FILE: S70F-01-C1-S-1.DGN

MW/HILL
A JOINT VENTURE
2818 SOUTH CHEYENNE AVENUE
LAS VEGAS, NEVADA 89102-1544

DESIGN: N. WALLACE
CHK: T. DAVIS
DR: A. RYAN
APVD: D. BURLEY

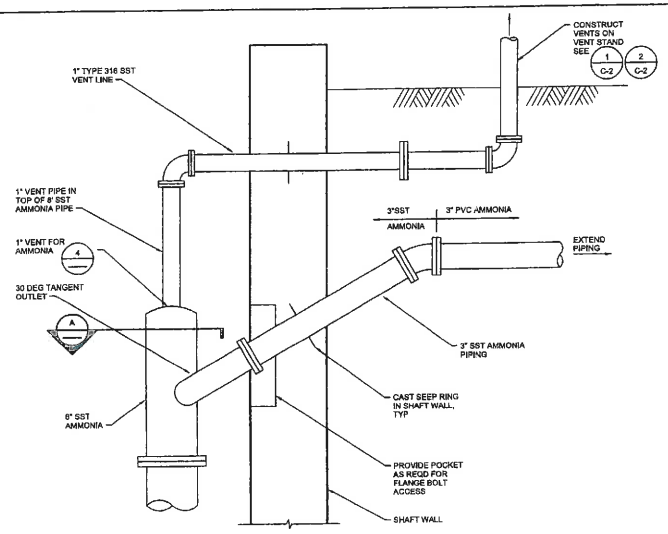
CONTRACT NO. 070F-01-C1
DRAWING NO. S-1
SHEET 7 OF 16



1 CHLORINE PIPING TRANSITION AT TOP OF SHAFT

1"=1'-0"

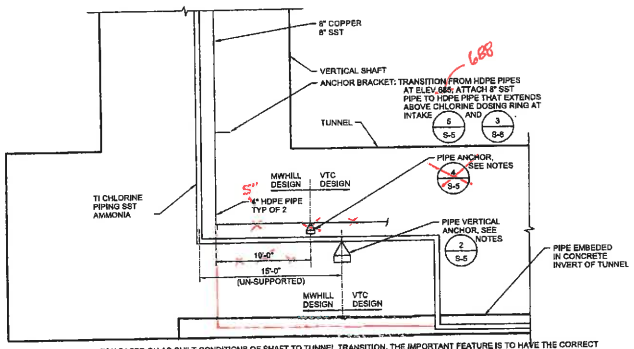
S-3



2 AMMONIA PIPING TRANSITION AT TOP OF SHAFT

1"=1'-0"

S-3



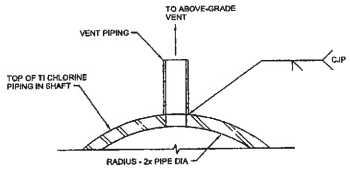
NOTES:

1. DETAIL MAY REQUIRE MODIFICATION BASED ON AS-BUILT CONDITIONS OF SHAFT TO TUNNEL TRANSITION. THE IMPORTANT FEATURE IS TO HAVE THE CORRECT UN-SUPPORTED HORIZONTAL LENGTHS SHOWN FOR CHEMICAL FEED PIPING TO ALLOW FOR TEMPERATURE EXPANSION OF THE VERTICAL SHAFT PIPING.
2. MINIMUM BOLT LENGTH FOR PIPE ANCHORS ATTACHED IN SHOTCRETE AREAS SHALL BE 12".
3. INSTALL PIPE SUPPORTS AFTER PIPE HAS BEEN FULLY SUPPORTED IN SHAFT.

3 PIPE SUPPORT TRANSITION

3/16"=1'-0"

S-1

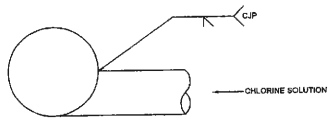


NOTES:

1. TI CHLORINE PIPING SHOWN. SST AMMONIA PIPING, SIMILAR.
2. AT TOP OF VERTICAL PIPE, CONTRACTOR MAY SUBSTITUTE FLANGED CONNECTION, AND TAPPED BLIND FLANGE IN PLACE OF DOMED TOP. FLANGE MATERIAL TO MATCH PIPING.

4 OUTLET WELD

NTS



NOTE:

TI CHLORINE PIPING SHOWN. SST AMMONIA PIPING, SIMILAR.

A BURIED PIPING TO SHAFT TRANSITION

NTS

SOUTHERN NEVADA WATER AUTHORITY
1900 E. FLAMINGO ROAD SUITE 170
LAS VEGAS, NEVADA 89119
(702) 862-3400
PROJECT LOCATION: CLARK CO., NV

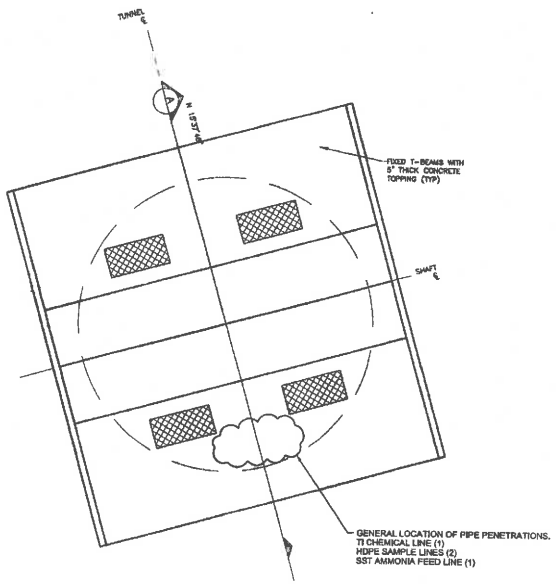
VERIFY SCALE
BAR REPRESENTS 1 INCH ON ORIGINAL
1/2 8 1/2 1

LAKE MEAD INTAKE NO. 3
CHEM FEED CO DWG 4
GENERAL ARRANGEMENT OF CHEM FEED PIPING

SCALE NTS
DATE: 6/22/2015
TIME: 1:02:31 AM
FILE: 070F-01-C1-S-2.dgn

MW/HILL
A Joint Venture
LAS VEGAS, NEVADA
DSGN: N. WALLACE
DRN: A. RYAN
CHK: T. DAVIS
APVD: J. LINDELL

CONTRACT NO. 070F-01-C1
DRAWING NO. S-2
SHEET 8 OF 16

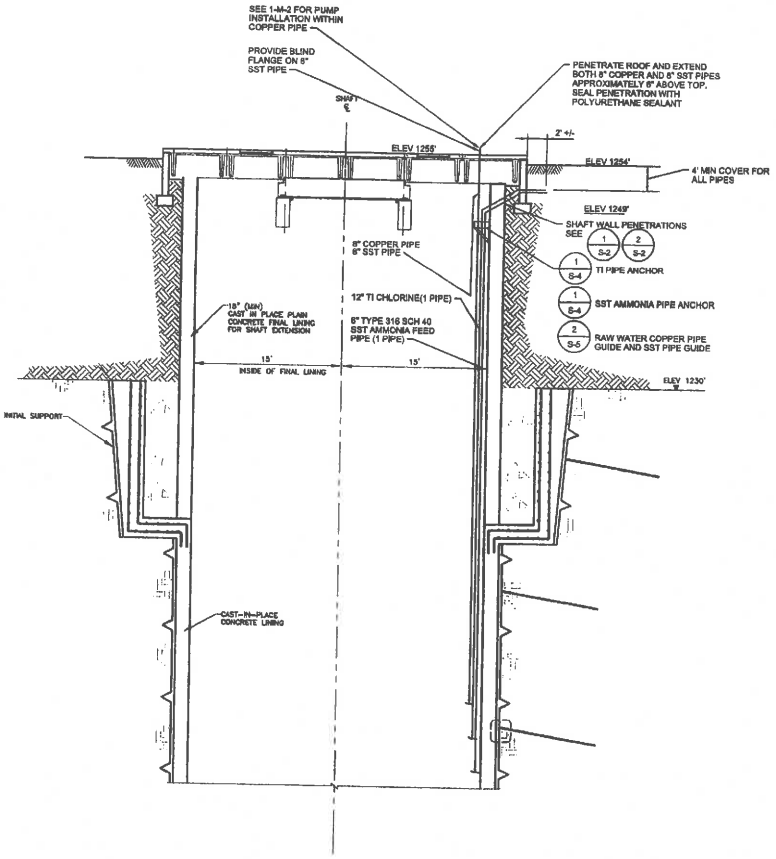


PLAN AT ELEV 1255

SCALE: 1" = 5'

5' 0 5' 10'

SCALE FEET



SECTION A
1"=5'

SOUTHERN NEVADA WATER AUTHORITY
1900 E. FLAMINGO ROAD SUITE 170
LAS VEGAS, NEVADA 89119
(702) 862-3400
PROJECT LOCATION CLARK CO. NV

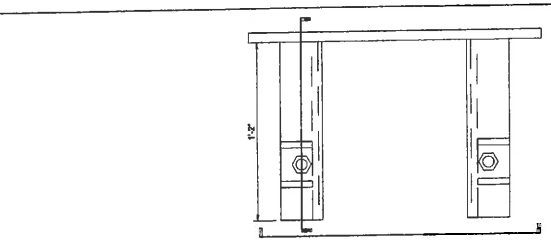
VERIFY SCALE
1/2 0 1
BAR REPRESENTS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH, ADJUST SCALES ON ORIGINAL

LAKE MEAD INTAKE NO. 3
TUNNEL ACCESS SHAFT
SHAFT EXTENSION - PLAN AND SECTION

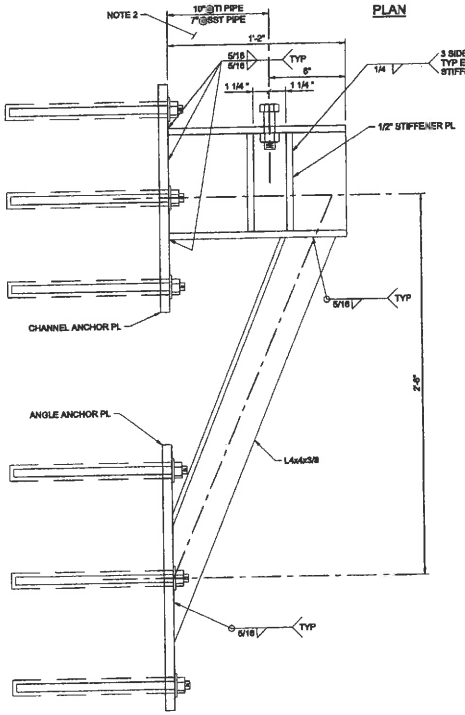
SCALE NTS
DATE: 8/22/2013
TIME: 12:59:23 PM
FILE: 070F-01-C1-S-3.dgn

MW/HILL
A Joint Venture
LAS VEGAS, NEVADA
DESIGN N. WALLACE
CHKD T. DAVIS
DRN A. RIVAS
APVD. G. BURLEY

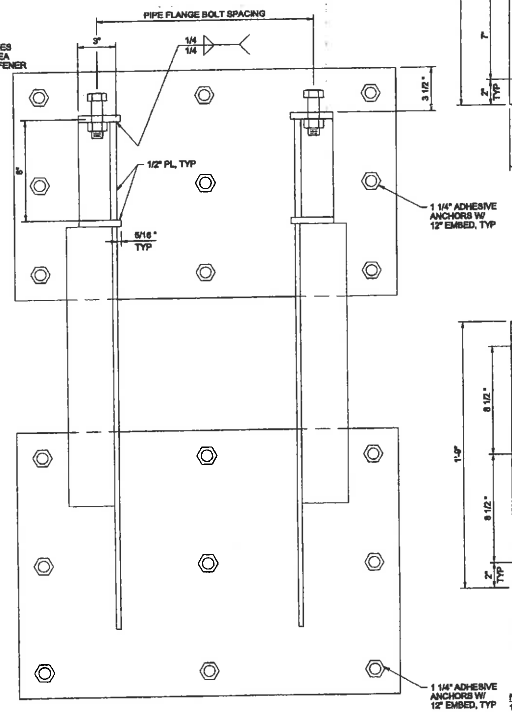
CONTRACT NO. 070F-01-C1
DRAWING NO. S-3
SHEET 9 OF 16



PLAN



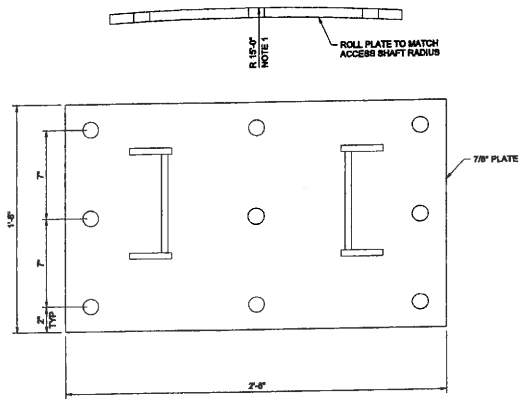
SECTION



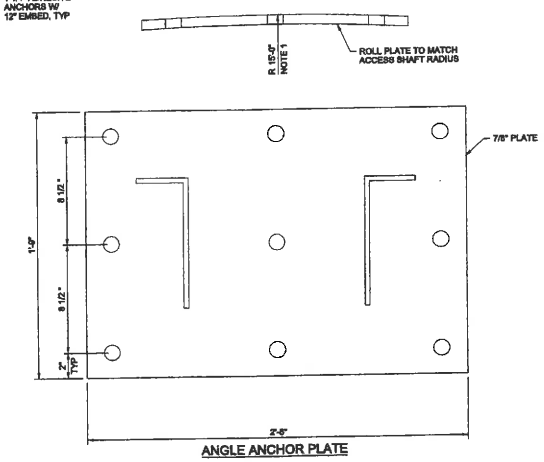
ELEVATION

TITANIUM PIPE AND SST
AMMONIA PIPE TOP SUPPORT

1 S-3 3"=1'-0"



CHANNEL ANCHOR PLATE



ANGLE ANCHOR PLATE

NOTES:

1. CONTRACTOR TO FIELD VERIFY RADIUS PRIOR TO FABRICATION.
2. PIPE ANCHOR COLLAR (1 / S-6), BOLT TO TOP SUPPORT.
3. ALL PIPE SUPPORTS SHALL BE 316L SST.
4. ALL HARDWARE SHALL BE 316 SST.

SOUTHERN NEVADA WATER AUTHORITY
1900 E. FLAMINGO ROAD SUITE 170
LAS VEGAS, NEVADA 89119
(702) 862-3400
PROJECT LOCATION: CLARK CO. NV

VERIFY SCALE
1/2" 0 1/2 1

BAR REPRESENTS ONE INCH ON ORIGINAL DRAWING

LAKE MEAD INTAKE NO. 3
INTAKE TUNNEL
DETAILS

SCALE NTS
DATE: 2/21/08
TIME: 2:51:39 PM
FILE: 070F-01-C1-S-4.DGN

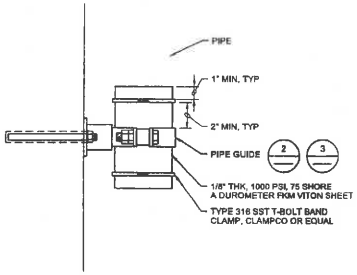
MW/HILL
A JOINT VENTURE
3816 WEST CHARLESTON BLVD
LAS VEGAS, NEVADA 89102-1944

DSGN: N. WALLACE
CHK: T. DAVIS
DR: A. RYAN
APVD: J. LINDELL

CONTRACT NO.
070F-01-C1

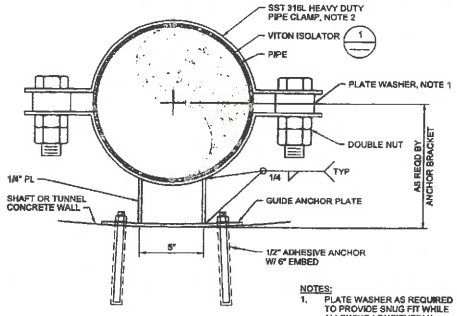
DRAWING NO.
S-4

SHEET 10 OF 16

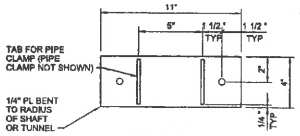


NOTE:
PROVIDE AT GUIDES FOR COPPER AND TITANIUM PIPES.

1 PIPE ISOLATION DETAIL
3"=1-0"

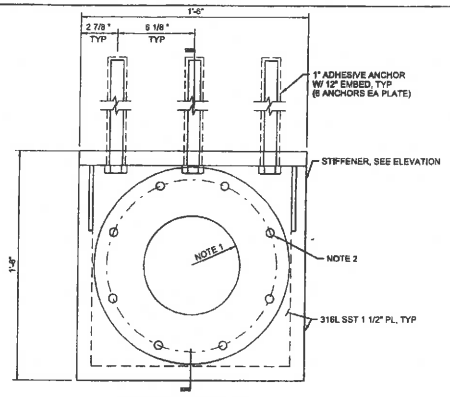


NOTES:
1. PLATE WASHER AS REQUIRED TO PROVIDE SNUG FIT WHILE ALLOWING LONGITUDINAL MOVEMENT OF PIPE.
2. PRE-ENGINEERED PIPE CLAMP; 316L OR FABRICATED FROM 1/4" SST 316L PLATE IS ACCEPTABLE. B-LINE FIG 3142 SIM W/ ALL MATERIALS CONSISTING OF SST 316 .

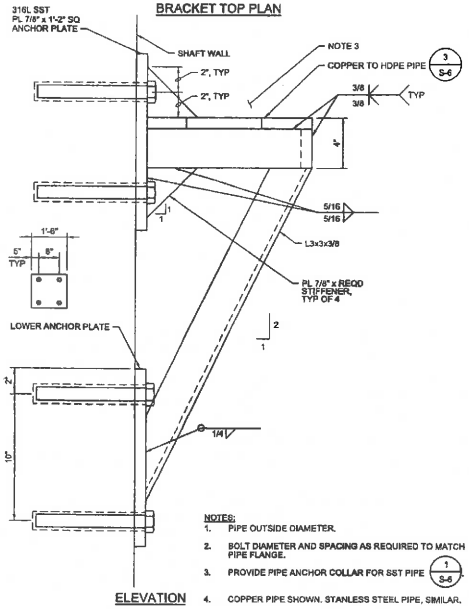


GUIDE ANCHOR PLATE

3 12" DIA PIPE GUIDE
3"=1-0"



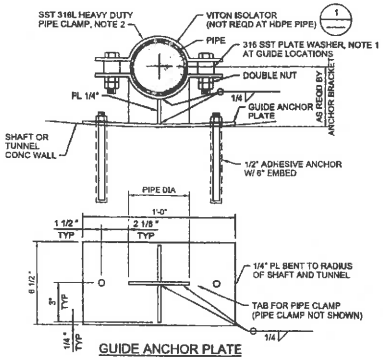
BRACKET TOP PLAN



NOTES:
1. PIPE OUTSIDE DIAMETER.
2. BOLT DIAMETER AND SPACING AS REQUIRED TO MATCH PIPE FLANGE.
3. PROVIDE PIPE ANCHOR COLLAR FOR SST PIPE
4. COPPER PIPE SHOWN. STAINLESS STEEL PIPE, SIMILAR.

ELEVATION

5 SST/COPPER/HDPE PIPE ANCHOR BRACKET
3"=1-0"
S-1 S-3



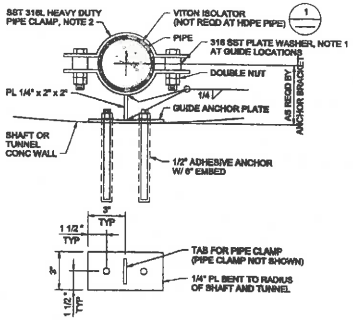
GUIDE ANCHOR PLATE

NOTES:
1. PLATE WASHER'S THICKNESS AS REQUIRED TO PROVIDE SNUG FIT WHILE ALLOWING LONGITUDINAL MOVEMENT OF PIPE.
2. 316 SST PRE-ENGINEERED PIPE CLAMP OR FABRICATED FROM 1/4" SST 316L PLATE IS ACCEPTABLE. B-LINE FIG 3142 SIM W/ ALL MATERIALS CONSISTING OF SST 316 .
3. WHERE ANCHOR SUPPORT IS REQUIRED DO NOT PROVIDE PLATE WASHER SPACERS, TIGHTEN CLAMP AS RECOMMENDED BY MANUFACTURER TO RESIST LOADING PARALLEL TO THE LENGTH OF THE PIPE.

2 3"- 8" DIA PIPE GUIDE
3"=1-0"
S-1 S-2

1 on SST pipe horizontal
1 on TI pipe horizontal

GENERAL NOTES:
1. ALL PIPE SUPPORTS SHALL BE 316L SST.
2. ALL HARDWARE SHALL BE 316 SST.

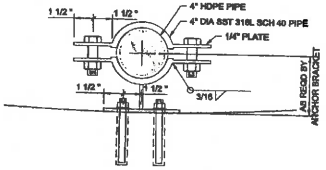


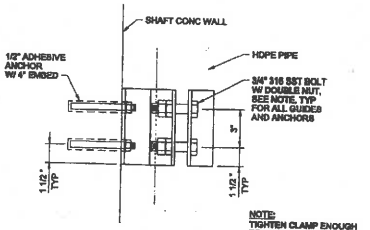
GUIDE ANCHOR PLATE

NOTES:
1. PLATE WASHER'S THICKNESS AS REQUIRED TO PROVIDE SNUG FIT WHILE ALLOWING LONGITUDINAL MOVEMENT OF PIPE.
2. 316 SST PRE-ENGINEERED PIPE CLAMP OR FABRICATED FROM 1/4" SST 316L PLATE IS ACCEPTABLE. B-LINE FIG 3142 SIM W/ ALL MATERIALS CONSISTING OF SST 316 .
3. WHERE ANCHOR SUPPORT IS REQUIRED DO NOT PROVIDE PLATE WASHER SPACERS, TIGHTEN CLAMP AS RECOMMENDED BY MANUFACTURER TO RESIST LOADING PARALLEL TO THE LENGTH OF THE PIPE.

2 3"- 8" DIA PIPE GUIDE
3"=1-0"
S-1 S-2

this detail everywhere else





NOTE:
TIGHTEN CLAMP ENOUGH TO ANCHOR PIPE WITHOUT DAMAGING IT.

ELEVATION

4 HDPE PIPE ANCHOR
3"=1-0"
S-1

SOUTHERN NEVADA WATER AUTHORITY
1900 E. FLAMINGO ROAD SUITE 170
LAS VEGAS, NEVADA 89119
(702) 862-3400
PROJECT LOCATION: CLARK CO., NV

VERIFY SCALE
BAR REPRESENTS ONE-HALF INCH IF ORIGINAL

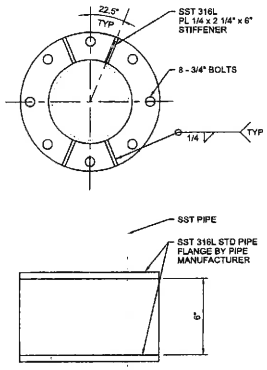
LAKE MEAD INTAKE NO. 3
INTAKE TUNNEL DETAILS

SCALE: NTS
DATE: 5/25/2018
TBMD: 4-DRAWN PM
FILE: 070F-01-C1-S-5.dgn

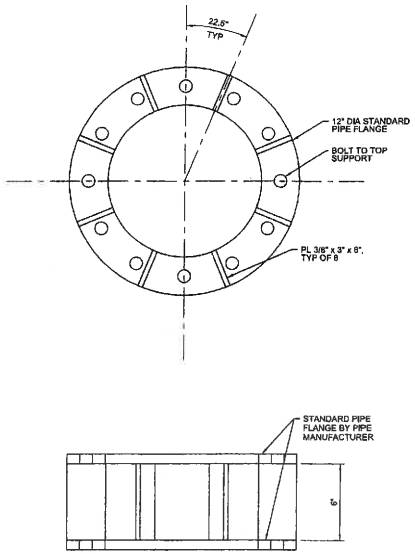
MW/HILL
A Joint Venture
3918 WEST CHARLESTON BLVD.
LAS VEGAS, NEVADA 89102-7114

DESIGN: N. WALLACE
CHK: T. DAVIS
APVD: J. LINDELL
DRN: A. RYAN

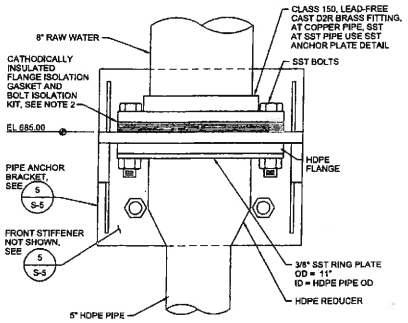
CONTRACT NO. 070F-01-C1
DRAWING NO. S-5
SHEET 11 OF 16



1 PIPE ANCHOR COLLAR
S-3
3"=1'-0"



2 TITANIUM PIPE ANCHOR COLLAR
S-4
3"=1'-0"



NOTES:
1. COPPER PIPE SHOWN. STAINLESS STEEL PIPE, SIMILAR.
2. FLANGE INSULATING KITS SHALL INCLUDE THE FOLLOWING:
   - -FULL-FACED TYPE E ELASTOMERIC SEALANT ELEMENT (VITON)
   - -FIBERGLASS REINFORCED EPOXY (NEMA G-10) BOLT SLEVES
   - -FIBERGLASS REINFORCED EPOXY (NEMA G-10) WASHERS
   - -TYPE 316 SST WASHERS BETWEEN BOLTS/NUTS AND G-10 WASHERS
   - -MANUFACTURERS: GPT OR ADVANCE PRODUCTS AND SYSTEMS

3 COPPER AND HDPE PIPE ASSEMBLY DETAIL
S-1
S-5
3"=1'-0"

SOUTHERN NEVADA
WATER AUTHORITY
1900 E. FLAMINGO ROAD SUITE 170
LAS VEGAS, NEVADA 89119
(702) 862-3400
PROJECT LOCATION: CLARK CO. NV

VERIFY SCALE
BAR REPRESENTS
ONE INCH ON ORIGINAL
DRAWING IF NOT FULL
1/2 1 1/2 2

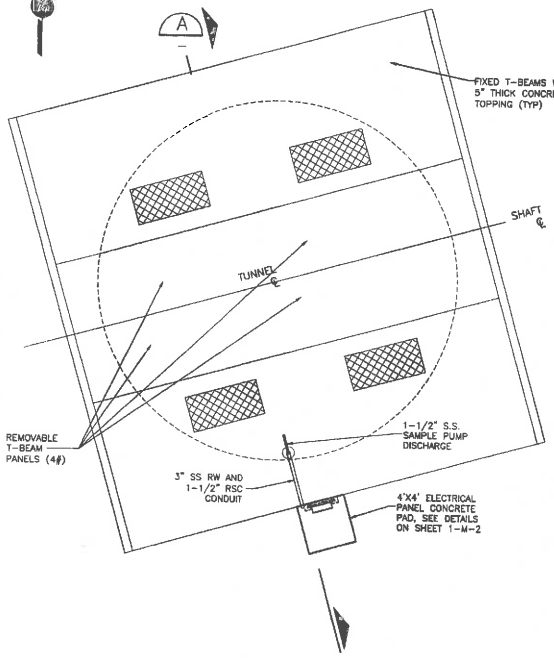
LAKE MEAD INTAKE NO. 3
INTAKE TUNNEL
DETAILS

SCALE N.T.S.
DATE: 6/25/2008
TIME: 4:25:07 PM
FILE: 070F-01-C1-S-6.dgn

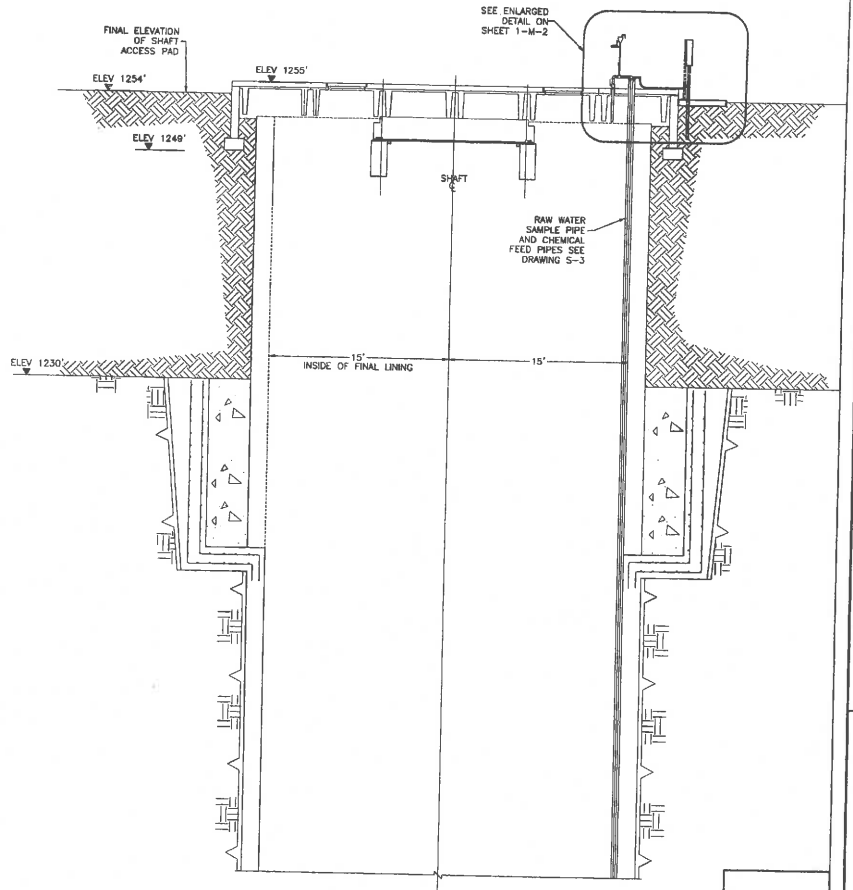
MW/HILL
A Joint Venture
3808 WEST CHARLESTON BLVD.
LAS VEGAS, NEVADA 89102-1944

DSGN: N. WALLACE
DRN: A. RYAN
CHKD: T. DAVIS
APVD: J. LINDELL

CONTRACT NO.
070F-01-C1
DRAWING NO.
S-6
SHEET 12 OF 16



PLAN AT ELEV 1255 (1)
SCALE: 1/4" = 1'-0"



SECTION (A)
NTS

SOUTHERN NEVADA WATER AUTHORITY
1001 S. VALLEY VIEW BLVD.
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO. NV

PROFESSIONAL ENGINEER - STATE OF NEVADA
ROBERT J. DEVANEY
No. 10828

LAKE MEAD INTAKE NO. 3
CHEMICAL FEED SYSTEM CAP 23

TUNNEL ACCESS SHAFT
PLAN AND SECTION (SAMPLE PUMP)

DESIGNED: KS
DRAWN: LBDA
CHECKED: KS
APPROVED: ERIKA MOORIN

C:\USERS\VACEDUA\DOCUMENTS\070F D2 - DRAWINGS FOR VEC\070F01C1-M-1 TO M-2.DWG

CONTRACT NO. 070F-01-C1
DRAWING NO. 1-M-1
SHEET 13 OF 16

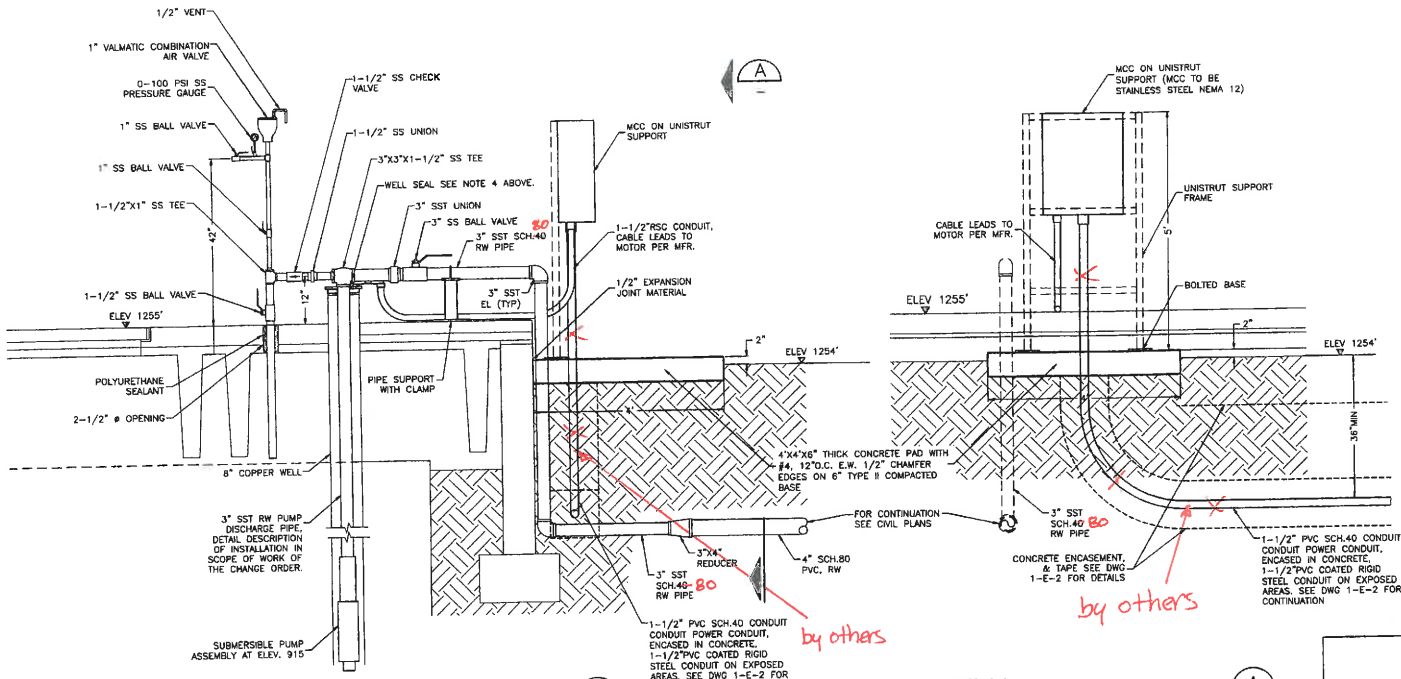
NOTES:

1) THE PUMP CONTROLS SHALL BE MOUNTED ON A 1-5/8" UNISTRUT GALVANIZED FRAME, OR EQUAL. THE FRAME SHALL CONSIST OF TWO, 60-INCH HIGH COLUMNS AND THREE CROSS BRACING MEMBERS CONNECTED WITH FLAT-PLATE FITTINGS ACCORDING TO THE MANUFACTURER'S DESIGN MANUAL. CORNER FITTINGS SHALL BE P1334 AND TEE FITTINGS SHALL BE P1356 SERIES. POST BASES SHALL BE SERIES P2072A ANCHORED TO THE CONCRETE SAMPLING PAD WITH 5/8" X 4-INCH GALVANIZED CONCRETE WEDGE ANCHORS, MANUFACTURED BY RED HEAD, OR EQUAL. CHANNELS SHALL BE P2000 SERIES, 16 GA. (1.5MM) ASTM A653, GR 33. CHANNELS, FITTINGS AND ALL CONNECTORS SHALL BE COLD FORMED TO SIZE FROM LOW-CARBON STRIP STEEL AND HOTDIPPED GALVANIZED, CONFORMING TO ASTM A123 OR A153.

2) THE COMBINATION AIR VALVE SHALL BE VALMATIC, MODEL 201C.25V, OR EQUAL, AND BE AUTOMATIC FLOAT OPERATED, DESIGNED TO RELEASE ACCUMULATED AIR FROM A PIPING SYSTEM WHILE THE SYSTEM IS IN OPERATION AND UNDER PRESSURE, MANUFACTURED AND TESTED IN ACCORDANCE WITH AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARD C512. THE COVER SHALL BE BOLTED TO THE VALVE BODY AND SEALED WITH A FLAT GASKET. RESILIENT SEATS SHALL BE REPLACEABLE AND PROVIDE DROP TIGHT SHUT OFF TO THE FULL VALVE PRESSURE RATING. FLOATS SHALL BE UNCONDITIONALLY GUARANTEED AGAINST FAILURE INCLUDING PRESSURE SURGES. MECHANICAL LINKAGE SHALL PROVIDE SUFFICIENT MECHANICAL ADVANTAGE SO THAT THE VALVE WILL OPEN UNDER FULL OPERATING PRESSURE. SIMPLE LEVER DESIGNS SHALL CONSIST OF A SINGLE PIVOT ARM AND A RESILIENT ORIFICE BUTTON. COMPOUND LEVER DESIGNS SHALL CONSIST OF TWO LEVERS AND AN ADJUSTABLE THREADED RESILIENT ORIFICE BUTTON. BODY MATERIAL SHALL BE ASTM A351 GRADE CF8M STAINLESS STEEL.

3) UNLESS OTHERWISE INDICATED, STAINLESS STEEL PIPE SHALL BE TYPE 316 SCHEDULE 80 THREADED PIPE CONFORMING TO ASTM A 312 WITH STAINLESS STEEL THREADED FITTINGS, OR WITH STAINLESS STEEL WELDING FITTINGS, WHERE INDICATED. ALL THREADED FITTINGS SHALL BE INSTALLED USING FOOD GRADE SEALANT MEETING NSF STANDARD 61, RECOMMENDED FOR STAINLESS STEEL THREADED FITTINGS, LOCTITE 565, OR EQUAL.

4) WELL SEAL SHALL BE SOLID TOP PLATE, CLASS 25 NON-TOXIC LEAD FREE PAINTED CAST IRON WITH ZINC PLATED STEEL BOLTS AND 3/4" MOLDED RUBBER GASKET. PROVIDE A 3"DROP PIPE OPENING, A 1" CABLE HOLE TAP AND A 1/2" SCREENED GOOSE NECK VENT. SIMMONS MANUFACTURING CO. OR EQUAL.



ENLARGE DETAIL 1 / 1-M-1
SCALE: 1"=1'-0"

SECTION A
SCALE: 1"=1'-0"

SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO. NV

PROFESSIONAL ENGINEER - STATE OF NEVADA
ROBERT J. DEVANEY
No. 16939

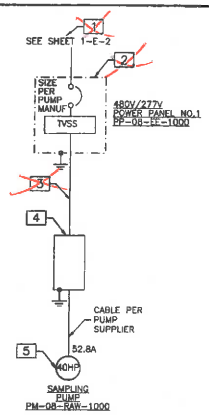
LAKE MEAD INTAKE NO. 3
CHEMICAL FEED SYSTEM CAP 23

SECTION & ELEVATION (SAMPLE PUMP)

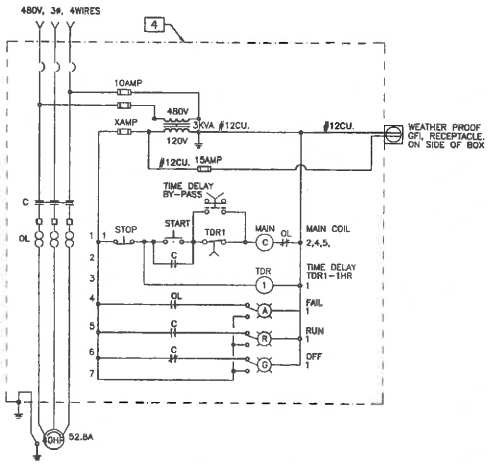
DESIGNED: RJD
CHECKED:
DRAWN: ABQA
APPROVED: ERIKA MOONIN

CONTRACT NO. 070F-01-C1
DRAWING NO. 1-M-2
SHEET 14 OF 16

C:\USERS\ABQA\DOCUMENTS\070F D2 - DRAWINGS FOR VTC\070F01C1-M-1 TO M-2.DWG



SAMPLE PUMP SINGLE LINE DIAGRAM



SAMPLE PUMP RECOMMENDED CONTROL DIAGRAM

by others

PLAN NOTES:

1. PRIMARY SERVICE SWITCHYARD; CONTRACTOR SHALL PROVIDE OR RELOCATE EXISTING TEMP. POWER 69kV/4.16kV XFMR AND 4.16kV/.48kV XFMR COMPLETE WITH CONCRETE AND OIL CONTAINMENT PAD AND CHAIN LINK FENCE AND GATE AROUND TRANSFORMERS. 69kV WIRES BY CRC. VERIFY LOCATIONS WITH OWNER.
2. PROVIDE AND INSTALL 480V, 3ø, 4WIRES DISTRIBUTION POWER PANEL. VERIFY LOCATION WITH OWNER.
3. PROVIDE AND INSTALL 1-1/2" SCH.40 PVC CONDUIT WITH #6 & 1#10 GND AWG THHN COPPER (OR AS REQUIRED BY PUMP MANUFACTURER). ENCASE CONDUIT WITH 12"X12" RED CONCRETE AND ELECTRICAL WARNING TAPE. ENCASEMENT TO BE 36"MINIMUM AND WARNING TAPE TO BE 18" DEPTH FROM FINAL GRADE. ALL ELBOWS TRANSITION FROM BELOW GRADE SHALL BE RIGID STEEL CONDUIT 90° ELBOWS WITH THERMAL PVC WRAPPED TO BE AT LEAST 10" ABOVE FINISHED GRADE.
4. PROVIDE AND INSTALL 480V, 3ø, 4WIRES MOTOR CONTROL PANEL. SEE SAMPLE PUMP RECOMMENDED CONTROL DIAGRAM AND SPECIFICATIONS ON SHEET 1-E-2
5. PROVIDE 480V, 3ø SUBMERSIBLE SAMPLE PUMP AS SPECIFIED IN CHANGED ORDER OR AS REQUIRED (VERIFY) AND INSTALL IN COPPER WELL AS SHOWN ON SHEET 1-M-2.
6. PROVIDE AND INSTALL UNI-STRUT SYSTEM FOR EQUIPMENT SUPPORT AS REQUIRED. SEE SHEET 1-M-2 FOR SPECIFICATIONS.

ELECTRICAL SPECIFICATIONS

A. THE MANUFACTURER OF THE LOW VOLTAGE MOTOR CONTROL CENTER SHALL ALSO BE THE MANUFACTURER OF MAJOR ELECTRICAL COMPONENTS IN THE MOTOR CONTROL CENTER INCLUDING AT LEAST THE FOLLOWING:

1. MOLDED CASE CIRCUIT BREAKERS UP TO AND INCLUDING 100 AMPERE FRAME SIZE.
2. DISCONNECT SWITCHES.
3. MAGNETIC MOTOR STARTERS.
4. CONTROL AND TIMING RELAYS (600 VAC)
5. PUSHBUTTONS, LEDS, AND SELECTOR SWITCHES, INCLUDING REMOTE MOUNTED CONTROL STATIONS.
6. METERS, INCLUDING AMMETER, VOLTMETER, AND SOLID-STATE METERING DEVICES.

B. THE MOTOR CONTROL RECEIVES POWER FROM A 3-PHASE, WYE CONNECTED 277/480 VOLT TRANSFORMER WITH A GROUNDED NEUTRAL. POWER DISTRIBUTION FROM THE MCC WILL BE 480 VOLT, 3-PHASE, 3-WIRE, HOWEVER THE MC SHALL INCLUDE PROVISION FOR TERMINATION OF AN INCOMING NEUTRAL CONDUCTOR IN CONFORMANCE TO NEC REQUIREMENTS FOR SERVICE ENTRANCE.

C. STRUCTURAL MEMBERS SHALL BE FABRICATED OF NOT LESS THAN 12 GAUGE STEEL AND SIDE AND TOP PANELS AND DOORS SHALL BE NOT LESS THAN 14 GAUGE STEEL.

D. ENCLOSURE SHALL BE NEMA TYPE 12 ENCLOSURE. COMPARTMENT DOOR SHALL BE INTERLOCKED WITH COMPARTMENT CIRCUIT BREAKERS. THE INTERLOCK SHALL BE FITTED WITH A MAINTENANCE OVERRIDE. THE ENCLOSURE SHALL BE MANUFACTURED BY THE SAME COMPANY AS THE EQUIPMENT.

E. ALL POWER BUSES AND BREAKERS SHALL BE BRACED TO WITHSTAND 22,000 AMPERES.

F. FINISH FOR MOTOR CONTROL CENTER SHALL BE ANSI 61. THE PANELS SHALL BE GIVEN 2 COATS OF PRIMER INSIDE AND OUT AND 2 COATS OF ENAMEL FINISH. EXTERNAL COLORS OTHER THAN ANSI 61 WILL NOT BE ACCEPTABLE.

G. CIRCUIT BREAKER DISCONNECT OPERATORS SHALL BE CAPABLE OF ACCOMMODATING 3 PADLOCKS FOR LOCKING IN THE "OPEN" POSITION.

1.2 MOTOR STARTERS

A. MOTOR STARTER UNIT SHALL CONSIST OF A COMBINATION MAGNETIC CONTACTOR WITH THERMAL OVERLOAD RELAY AND SHORT CIRCUIT PROTECTIVE DEVICE, ALL MOUNTED IN A COMPLETELY ENCLOSED CUBICLE. SHORT CIRCUIT PROTECTIVE DEVICE SHALL BE AN INSTANTANEOUS, MAGNETIC ONLY CIRCUIT BREAKER, WESTINGHOUSE TYPE HMCP, SQUARE-D MOTOR CIRCUIT PROTECTOR, OR EQUAL. ALL CIRCUIT BREAKERS PROVIDED AS PART OF A MOTOR STARTER UNIT SHALL BE CAPABLE OF BEING PADLOCKED IN THE OPEN POSITION. RESET OF THERMAL OVERLOAD ELEMENTS SHALL BE POSSIBLE WITH UNIT DOOR CLOSED. THREE PHASE OVERLOAD TRIP UNITS SHALL BE FURNISHED TO SUIT THE FULL LOAD CURRENT OF THE EQUIPMENT INSTALLED.

B. MAGNETIC STARTERS SHALL HAVE AUXILIARY CONTACTS AS REQUIRED BY ELECTRICAL MOTOR CONTROL DIAGRAMS INCLUDING ONE SPARE, N-O, AND N-C CONTACTS AS INDICATED. THE COMBINATION MOTOR STARTERS SHALL BE DRAWOUT-TYPE FOR SIZE 5 AND BELOW

C. STARTER UNIT SHALL HAVE ITS OWN CONTROL POWER TRANSFORMER. IT SHALL HAVE A 115-VOLT GROUNDED SECONDARY. ONE SECONDARY FUSE AND 2 PRIMARY FUSES SHALL BE PROVIDED. UNIT CONTROL POWER TRANSFORMERS SHALL BE SIZED TO ACCOMMODATE THE CONTROL DEVICES INDICATED AND A 15 AMPERE RECEPTACLE. LOCAL CONTROL DEVICES SHALL BE MOUNTED INDEPENDENTLY OF THE COVER DOOR. ALL STARTERS SHALL HAVE A LOCAL "RED" RUNNING LAMP, A "GREEN" OFF LIGHT TO INDICATE THE PRESENCE OF CONTROL POWER WHEN THE MOTOR IS NOT RUNNING. ALL LIGHTS SHALL BE LEDS. STARTERS SHALL BE PROVIDED WITH HAND/OFF/AUTO SELECTOR SWITCHES, AND OTHER DEVICES, AS SPECIFICALLY INDICATED.

D. MOTOR STARTERS SHALL BE DESIGNED TO NEMA STANDARDS. STARTERS DESIGNED TO IEC STANDARDS OR WITH DUAL IEC/NEMA RATINGS WILL NOT BE ACCEPTABLE, EITHER AS PART OF ANY MCC, AS REMOTE STARTERS, OR AS PART OF AN EQUIPMENT PACKAGE.

1.3 CONTROL DEVICES

A. PRODUCTS OF THE SAME TYPE SHALL BE OF THE SAME MAKE. THIS REQUIREMENT APPLIES TO ALL CONTROL DEVICES, AND INSOFAR AS PRACTICAL, TO EQUIPMENT MANUFACTURED ON A PRODUCTION BASIS. IT ALSO APPLIES WITHOUT EXCEPTION TO EQUIPMENT CUSTOM FABRICATED FOR THIS PROJECT.

B. PUSHBUTTONS, LIGHTS, AND SELECTOR SWITCHES SHALL BE OF THE SAME MANUFACTURER AS THE MOTOR CONTROL CENTER.

SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO. NV

PROFESSIONAL ENGINEER, STATE OF NEVADA
JAVIER BING Q. ARCEO
Exp. 12/31/11
ELECTRICAL
No. 11864

LAKE MEAD INTAKE NO. 3
CHEMICAL FEED SYSTEM CAP 23

SINGLE LINE DIAGRAM
SAMPLE PUMP CONTROL DIAGRAM

DESIGNED: JBGA
DRAFTED: JBGA
CHECKED: DT
APPROVED: ERIKA MOONEN

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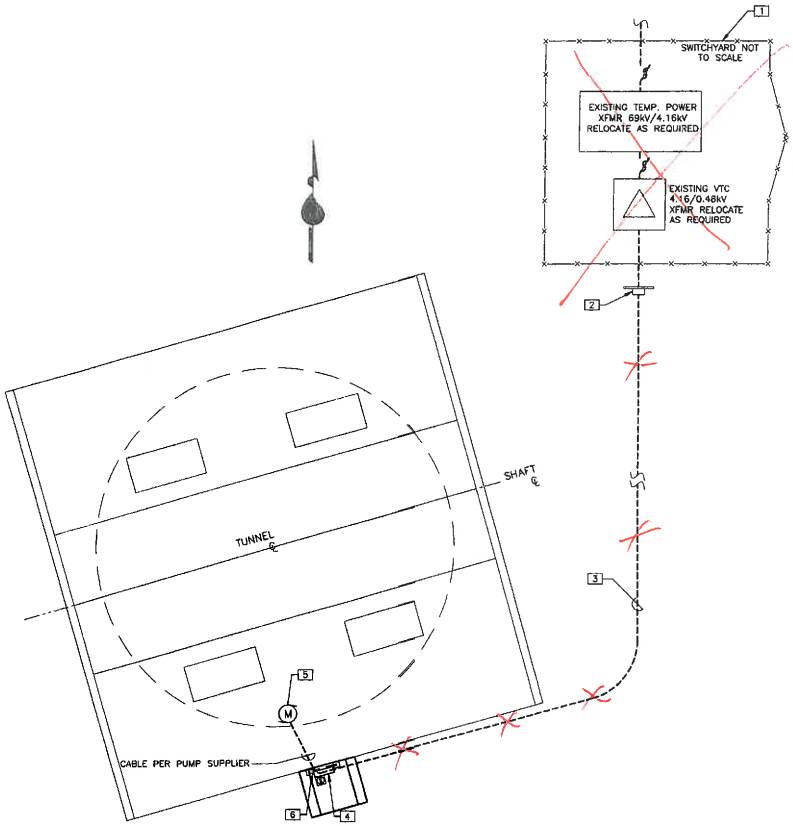
CONTRACT NO. 070F-01-C1
DRAWING NO. 1-E-1
SHEET 15 OF 16



SAMPLE PUMP ELECTRICAL PLAN (1)
SCALE: 1/4" = 1'-0"

PLAN NOTES:

1. PRIMARY SERVICE SWITCHYARD; CONTRACTOR SHALL PROVIDE OR RELOCATE EXISTING TEMP. POWER 69kV/4.16kV XFMR AND 4.16kV/.48kV XFMR COMPLETE WITH CONCRETE AND OIL CONTAINMENT PAD AND CHAIN LINK FENCE AND GATE AROUND TRANSFORMERS. 69kV WIRES BY CRC, VERIFY LOCATIONS WITH OWNER.
2. PROVIDE AND INSTALL 480V, 3ø, 4WIRES DISTRIBUTION POWER PANEL, VERIFY LOCATION WITH OWNER.
3. PROVIDE AND INSTALL 1-1/2" SCH-40 PVC CONDUIT WITH 4#6 & 1#10 GND AWG THHN COPPER (OR AS REQUIRED BY PUMP MANUFACTURER). ENCASE CONDUIT WITH 12"X12" RED CONCRETE AND ELECTRICAL WARNING TAPE. ENCASEMENT TO BE 36"MINIMUM AND WARNING TAPE TO BE 12" DEPTH FROM FINAL GRADE. ALL ELBOWS TRANSITION FROM BELOW GRADE SHALL BE RIGID STEEL CONDUIT 90° ELBOWS WITH THERMAL PVC WRAPPED TO BE AT LEAST 10" ABOVE FINISHED GRADE.
4. PROVIDE AND INSTALL 460V, 3ø, 4WIRES MOTOR CONTROL PANEL. SEE SAMPLE PUMP RECOMMENDED CONTROL DIAGRAM AND SPECIFICATIONS ON SHEET 1-E-2
5. PROVIDE 460V, 3ø SUBMERSIBLE SAMPLE PUMP AS SPECIFIED IN CHANGED ORDER OR AS REQUIRED (VERIFY) AND INSTALL IN COPPER WELL AS SHOWN ON SHEET 1-M-2.
6. PROVIDE AND INSTALL UNI-STRUT SYSTEM FOR EQUIPMENT SUPPORT AS REQUIRED. SEE SHEET 1-M-2 FOR SPECIFICATIONS.

by others

SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO. NV

PROFESSIONAL ENGINEER - STATE OF NEVADA
JAVIER BINO-O ARCEO
No. 20314
ELECTRICAL
No. 1186

LAKE MEAD INTAKE NO. 3
CHEMICAL FEED SYSTEM CAP 23

SAMPLE PUMP ELECTRICAL PLAN

DESIGNER: JBOA
DRAFTER: JBOA
CHECKER: DT
APPROVED: KERYN MOONIN

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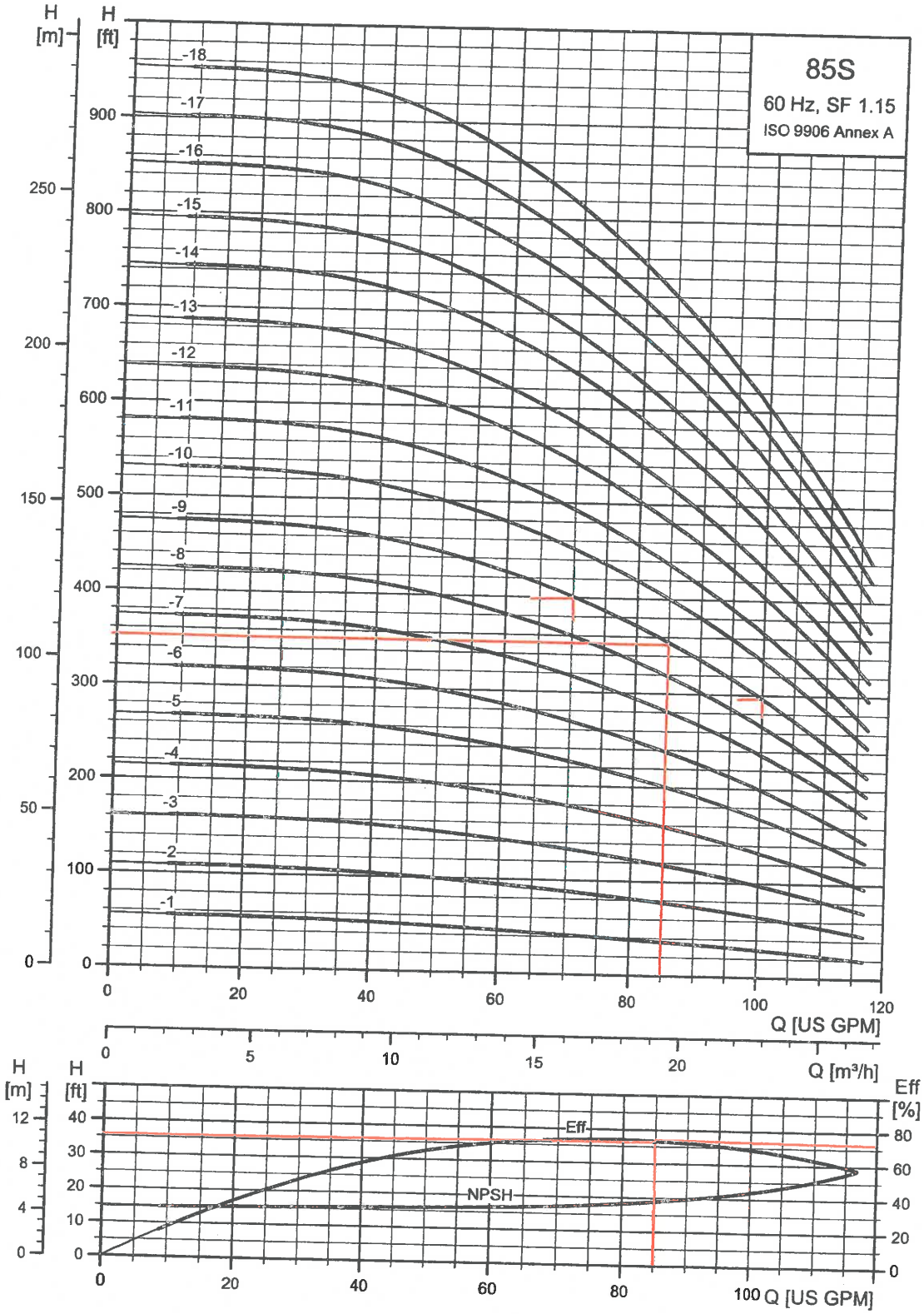
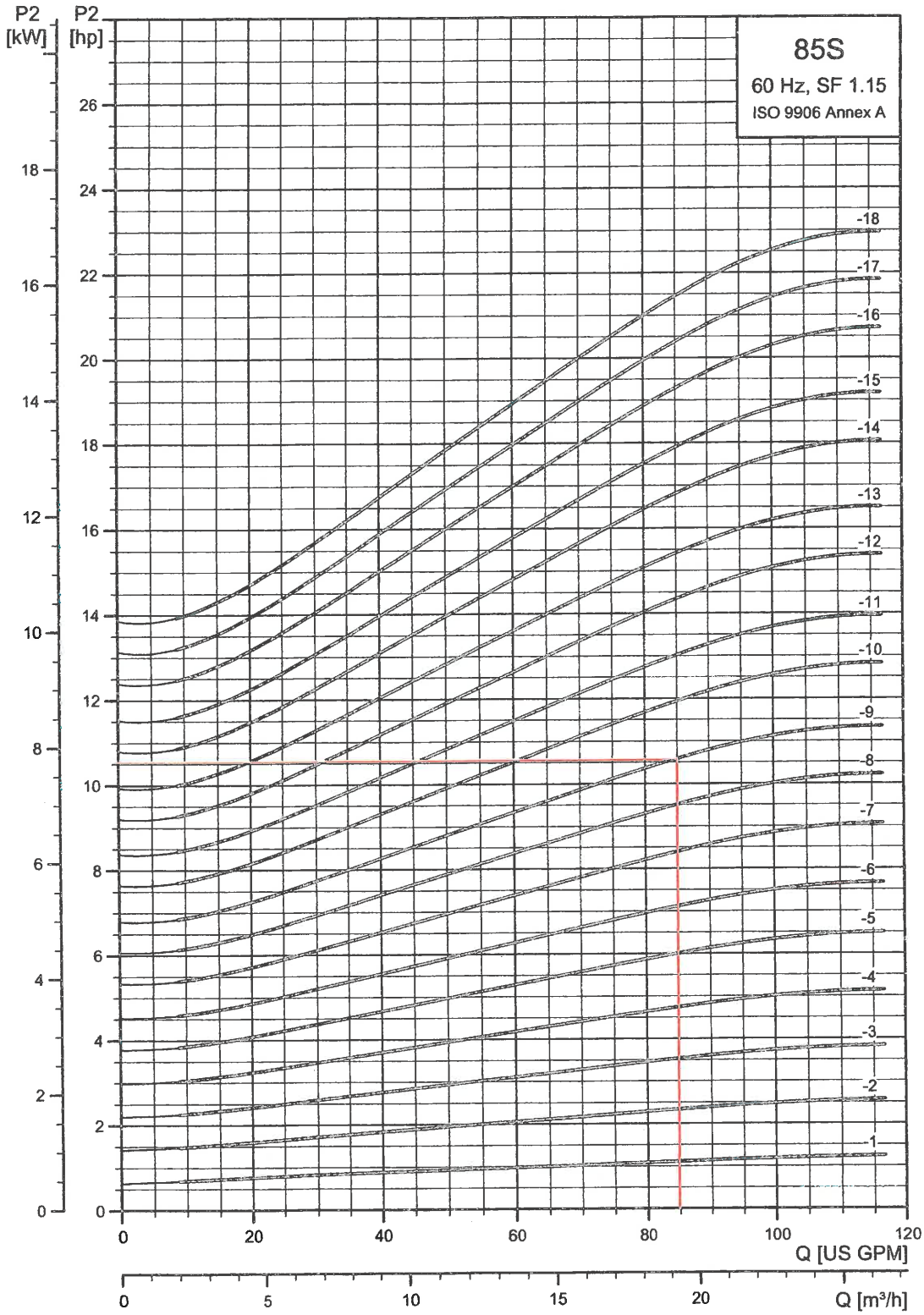
CONTRACT NO. 070F-01-C1
DRAWING NO. 1-E-2
SHEET 16 OF 16

85S (85 gpm)



TM05 0235 0112

85S (85 gpm) pump power requirement (P2)



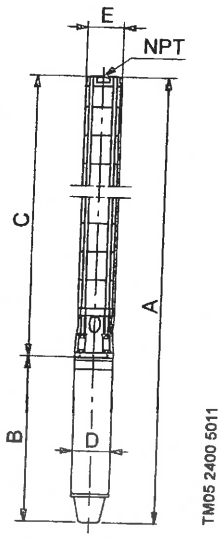
TM05 0237 0112

85S (85 gpm)

Pump model	Nom. head [ft]	Ph	Volts [V]	Motor [Hp]		Dimensions A [in (mm)]	B [in (mm)]	C [in (mm)]	D [in (mm)]	E [in (mm)]	Net weight (complete) [lb]
85S - Motor dia. 4 inch, 3 wire motor, 60 Hz, rated flow 85 gpm (3" NPT)											
85S15-1	35	1	230	1.5	■	27.60 (701)	15.24 (387)	12.36 (314)	3.74 (95)	5.16 (131)	29.7
		3	230	1.5	■	26.02 (661)	13.66 (347)	12.36 (314)	3.74 (95)	5.16 (131)	29.7
		3	460	1.5	■	26.02 (661)	13.66 (347)	12.36 (314)	3.74 (95)	5.16 (131)	29.7
85S30-2	74	1	230	3	●	32.69 (951)	22.72 (577)	14.72 (374)	3.74 (95)	5.16 (131)	55.8
		3	230	3	●	32.69 (830)	17.96 (456)	14.72 (374)	3.74 (95)	5.16 (131)	47.7
		3	460	3	●	32.69 (830)	17.96 (456)	14.72 (374)	3.74 (95)	5.16 (131)	47.7
85S50-3	114	1	230	5	●	43.78 (1112)	26.65 (677)	17.13 (435)	3.74 (95)	5.16 (131)	67.5
		3	230	5	●	39.80 (1011)	22.69 (576)	17.13 (435)	3.74 (95)	5.16 (131)	51.3
		3	460	5	●	39.80 (1011)	22.69 (576)	17.13 (435)	3.74 (95)	5.16 (131)	51.3
85S50-4	154	1	230	5	●	43.78 (1112)	26.65 (677)	17.13 (435)	3.74 (95)	5.16 (131)	69.3
		3	230	5	●	39.80 (1011)	22.69 (576)	17.13 (435)	3.74 (95)	5.16 (131)	61.2
		3	460	5	●	39.80 (1011)	22.69 (576)	17.13 (435)	3.74 (95)	5.16 (131)	61.2
85S75-5	194	3	230	7.5	●	48.50 (1232)	26.62 (676)	21.89 (556)	3.74 (95)	5.16 (131)	73.8
		3	460	7.5	●	48.50 (1232)	26.62 (676)	21.89 (556)	3.74 (95)	5.16 (131)	73.8
85S75-6	234	3	230	7.5	●	50.87 (1292)	26.62 (676)	24.25 (616)	3.74 (95)	5.16 (131)	85.5
		3	460	7.5	●	50.87 (1292)	26.62 (676)	24.25 (616)	3.74 (95)	5.16 (131)	76.5
85S100-7	274	3	460	10	●	57.21 (1453)	30.56 (776)	26.65 (677)	3.74 (95)	5.16 (131)	136.8
85S100-8	314	3	460	10	●	59.57 (1513)	30.56 (776)	29.02 (737)	3.74 (95)	5.16 (131)	138.6
85S100-9	353	3	460	10	●	61.98 (1574)	30.56 (776)	31.42 (798)	3.74 (95)	5.16 (131)	140.4

85S - Motor dia. 6 inch, 3 wire motor, 60 Hz, rated flow 85 gpm (3" NPT)											
85S75-5	194	3	230	7.5	▲	44.76 (1137)	22.52 (565)	22.52 (572)	5.63 (143)	5.59 (142)	98.1
		3	460	7.5	▲	44.76 (1137)	22.52 (565)	22.52 (572)	5.63 (143)	5.59 (142)	98.1
85S75-6	234	3	230	7.5	▲	47.12 (1197)	22.24 (565)	24.88 (632)	5.63 (143)	5.59 (142)	99.9
		3	460	7.5	▲	47.12 (1197)	22.24 (565)	24.88 (632)	5.63 (143)	5.59 (142)	99.9
85S100-7	274	3	230	10	▲	50.51 (1283)	23.23 (590)	27.28 (693)	5.63 (143)	5.59 (142)	103.5
		3	460	10	▲	50.51 (1283)	23.23 (590)	27.28 (693)	5.63 (143)	5.59 (142)	103.5
85S100-8	314	3	230	10	▲	52.87 (1343)	23.23 (590)	29.65 (753)	5.63 (143)	5.59 (142)	105.3
		3	460	10	▲	52.87 (1343)	23.23 (590)	29.65 (753)	5.63 (143)	5.59 (142)	105.3
85S100-9	353	3	230	10	▲	55.28 (1404)	23.23 (590)	32.05 (814)	5.63 (143)	5.60 (142)	108.0
		3	460	10	▲	55.28 (1404)	23.23 (590)	32.05 (814)	5.63 (143)	5.60 (142)	108.0
85S150-10	393	3	230	15	▲	62.29 (1582)	27.88 (708)	34.41 (874)	5.63 (143)	5.60 (142)	122.4
		3	460	15	▲	62.29 (1582)	27.88 (708)	34.41 (874)	5.63 (143)	5.60 (142)	122.4
85S150-11	433	3	230	15	▲	64.69 (1643)	27.88 (708)	36.82 (935)	5.63 (143)	5.60 (142)	126.0
		3	460	15	▲	64.69 (1643)	27.88 (708)	36.82 (935)	5.63 (143)	5.60 (142)	126.0
85S150-12	473	3	230	15	▲	67.05 (1703)	27.88 (708)	39.18 (995)	5.63 (143)	5.60 (142)	133.2
		3	460	15	▲	67.05 (1703)	27.88 (708)	39.18 (995)	5.63 (143)	5.60 (142)	133.2
85S150-13	513	3	230	15	▲	69.45 (1764)	27.88 (708)	41.58 (1056)	5.63 (143)	5.60 (142)	135.0
		3	460	15	▲	69.45 (1764)	27.88 (708)	41.58 (1056)	5.63 (143)	5.60 (142)	135.0

85S

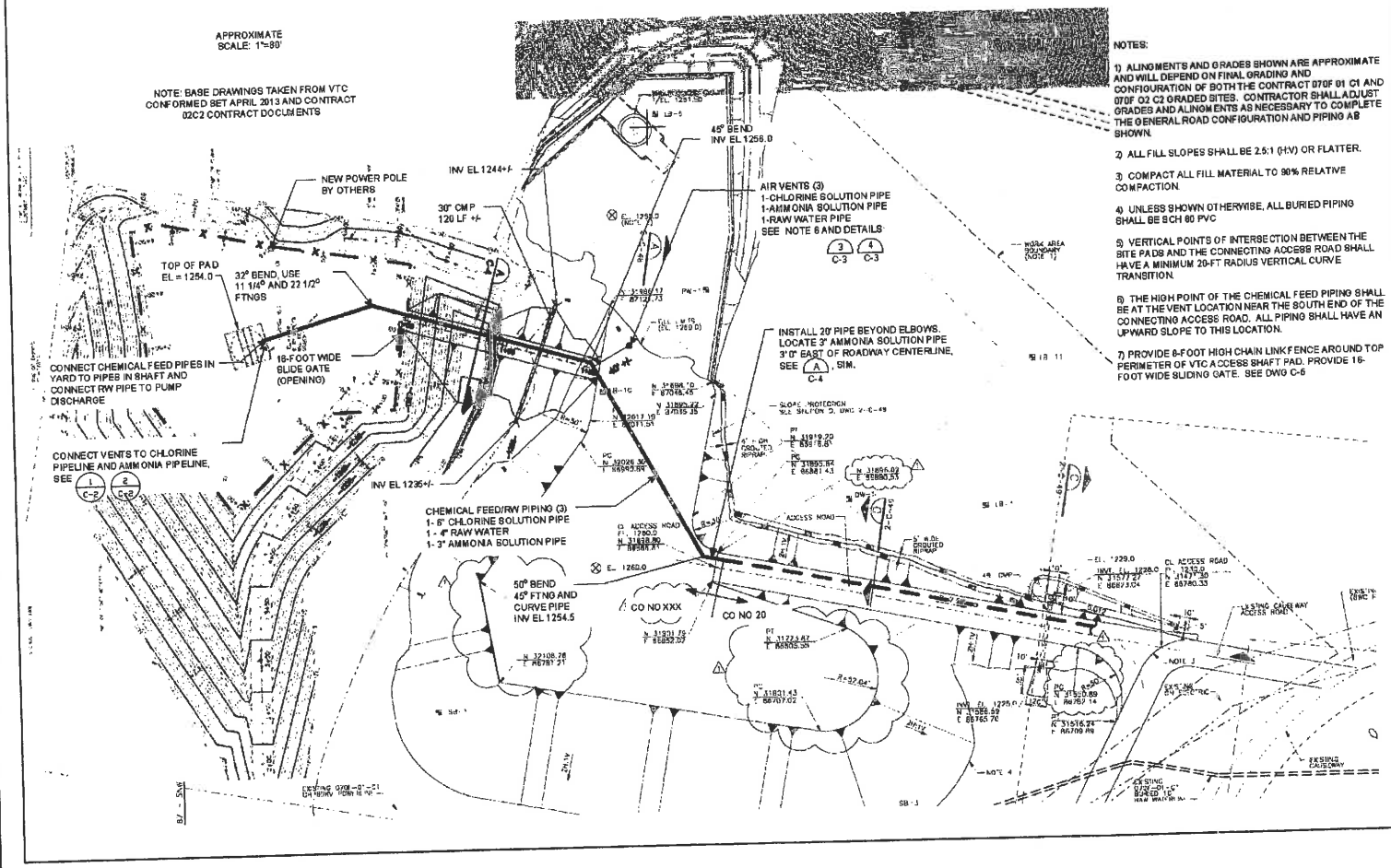


E = Maximum diameter of pump including cable guard and motor.

Notes:
Control box is required for 3-wire, single-phase applications. Data does not include control box.
■ MS402 motor.
● MS4000 motor.
▲ MS6 motor.
Λ MMS6000 motor.
★ MMS8000 motor.
♦ Takes MS6 motor; not available as complete.
☼ Takes MMS6000 motor; not available as complete.
* Takes MMS8000 motor; not available as complete.
† Takes MMS10000 motor; not available as complete.

APPROXIMATE
SCALE: 1"=80'

NOTE: BASE DRAWINGS TAKEN FROM VTC
CONFORMED SET APRIL 2013 AND CONTRACT
02C2 CONTRACT DOCUMENTS



NOTES:

1) ALINGMENTS AND GRADES SHOWN ARE APPROXIMATE AND WILL DEPEND ON FINAL GRADING AND CONFIGURATION OF BOTH THE CONTRACT 070F 01 C1 AND 070F 02 C2 GRADED SITES. CONTRACTOR SHALL ADJUST GRADES AND ALINGMENTS AS NECESSARY TO COMPLETE THE GENERAL ROAD CONFIGURATION AND PIPING AS SHOWN.

2) ALL FILL SLOPES SHALL BE 2.5:1 (H:V) OR FLATTER.

3) COMPACT ALL FILL MATERIAL TO 90% RELATIVE COMPACTION.

4) UNLESS SHOWN OTHERWISE, ALL BURIED PIPING SHALL BE SCH 80 PVC

5) VERTICAL POINTS OF INTERSECTION BETWEEN THE SITE PADS AND THE CONNECTING ACCESS ROAD SHALL HAVE A MINIMUM 20-FT RADIUS VERTICAL CURVE TRANSITION.

6) THE HIGH POINT OF THE CHEMICAL FEED PIPING SHALL BE AT THE VENT LOCATION NEAR THE SOUTH END OF THE CONNECTING ACCESS ROAD. ALL PIPING SHALL HAVE AN UPWARD SLOPE TO THIS LOCATION.

7) PROVIDE 8-FOOT HIGH CHAIN LINK FENCE AROUND TOP PERIMETER OF VTC ACCESS SHAFT PAD. PROVIDE 16-FOOT WIDE SLIDING GATE. SEE DWG C-6

SOUTHERN NEVADA
WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO., NV

VERIFY SCALE
1/2 0 1/2 1
BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

INTAKE NO. 3 - CONNECTOR TUNNEL
MISCELLANEOUS PIPING AT SHAFT AND TUNNEL
GENERAL SITE PIPING ARRANGEMENT

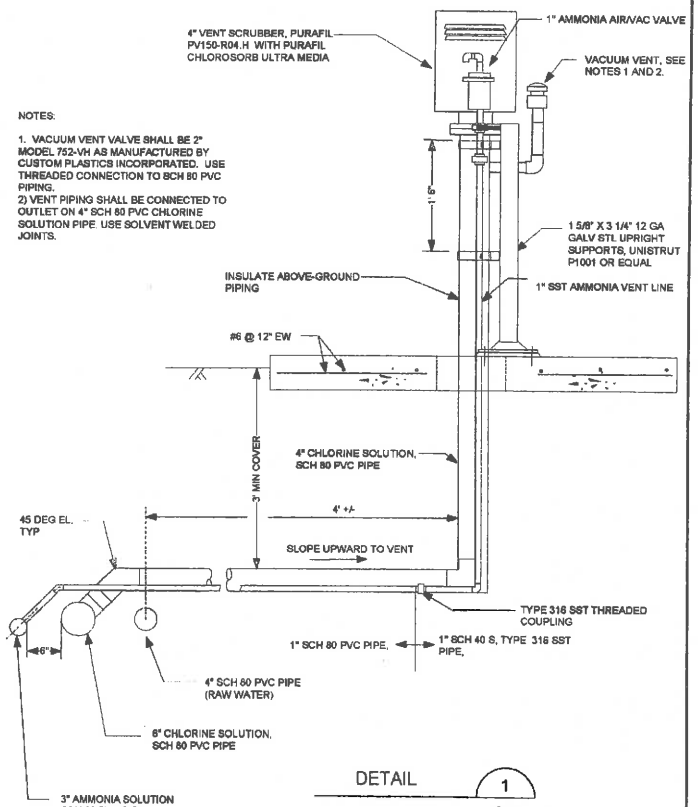
SCALE 1"=20'
DATE: 2014/10/29
FILE: C-1.DGN

MW/HILL
A JOINT VENTURE
2635 E. FLAMINGO, SUITE B
LAS VEGAS, NEVADA 89121-1944

DESIGN: T. DAVIS
CHK: T. DAVIS
APVD: T. DAVIS
DR: G. BURLEY

CONTRACT NO.
070F-02-C2
DRAWING NO.
C-1
SHEET 1 OF 16

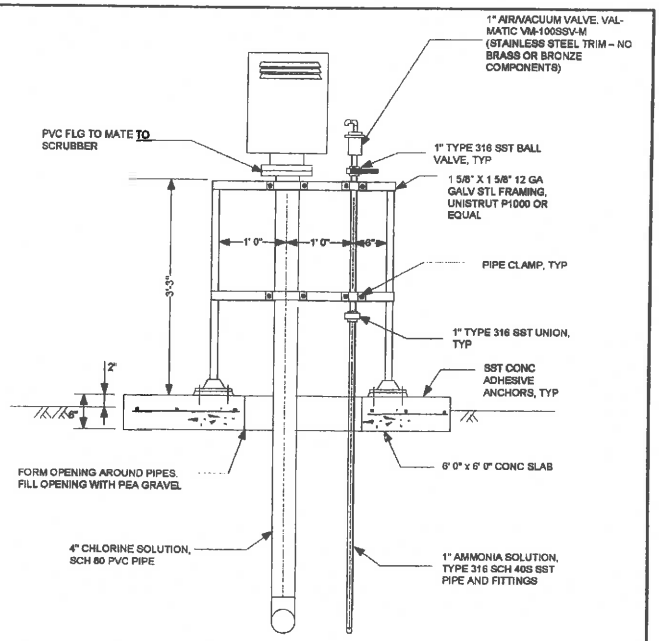
2014/10/29 2:20:11 PM
C-1.dgn



NOTES:

1. VACUUM VENT VALVE SHALL BE 2" MODEL 752-VH AS MANUFACTURED BY CUSTOM PLASTICS INCORPORATED. USE THREADED CONNECTION TO SCH 80 PVC PIPING.
2) VENT PIPING SHALL BE CONNECTED TO OUTLET ON 4" SCH 80 PVC CHLORINE SOLUTION PIPE. USE SOLVENT WELDED JOINTS.

DETAIL 1
C-1
S-2
S-3



NOTES:

1. COAT ALL ABOVE-GROUND PVC PIPING WITH WHITE ACRYLIC LATEX, AMERON 220, CARBOLINE 3359, TNEMEC 6, OR EQUAL. PRIME COAT 2-3 MILS DRY FILM THICKNESS (DFT) AS RECOMMEND BY THE MFR. APPLY 2 OR MORE FINISH COATS, 5-6 MILS DFT. 7-9 MILS TOTAL SYSTEM DFT.

1. ALL EXPOSED PIPING SHALL BE COVERED WITH 1-INCH THICK MOLDED FIBERGLASS PIPE INSULATION. ALL INSULATION SHALL BE COVERED WITH ALUMINUM JACKETING.

DETAIL 2
C-1
S-2
S-3

SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO. NV

VERIFY SCALE
1/2 0 1/2 1
BAR REPRESENTS 1/2 INCH WHEN PRINTED ON ORIGINAL

INTAKE NO. 3 - CONNECTOR TUNNEL
VENT DETAILS AT VTC SHAFT

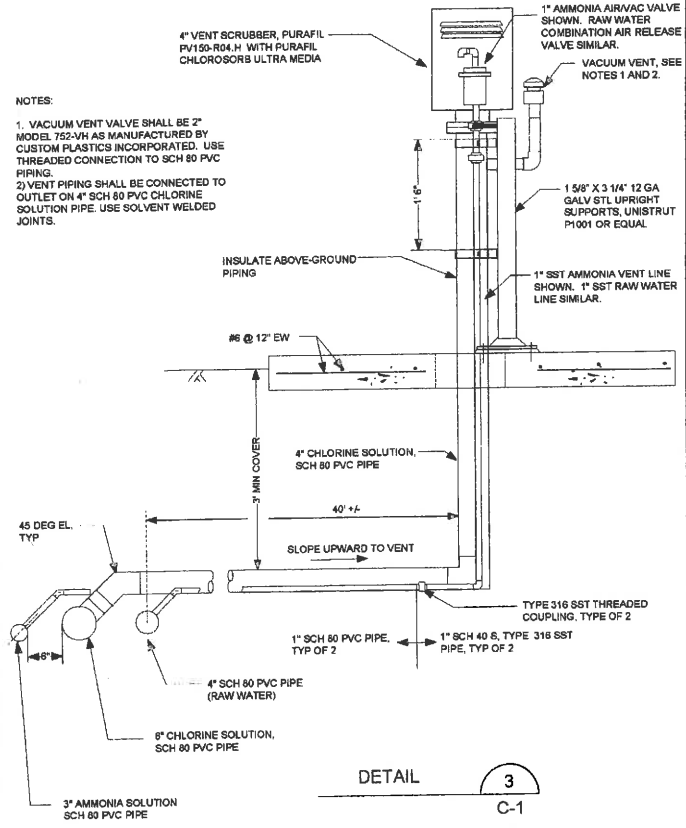
SCALE 1'-20"
DATE 2014\10\23
FILE C-2.DGN

MW/HILL
A JOINT VENTURE
3818 WEST CHARLESTON BLVD.
LAS VEGAS, NEVADA 89102-7544

DSGN: T. DAVIS
CHKD: T. DAVIS
DRN: G. BURLEY
APVD: T. DAVIS

CONTRACT NO. 07BF-02-C2
DRAWING NO. C-2
SHEET 2 OF 16

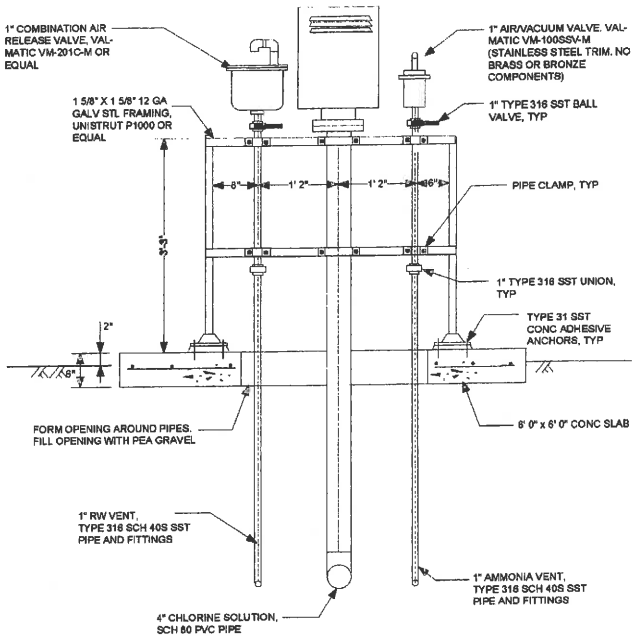
C-2.dgn 2014\10\29 2:01:00 PM



NOTES:

1. VACUUM VENT VALVE SHALL BE 2" MODEL 752-VH AS MANUFACTURED BY CUSTOM PLASTICS INCORPORATED. USE THREADED CONNECTION TO SCH 80 PVC PIPING.
2) VENT PIPING SHALL BE CONNECTED TO OUTLET ON 4" SCH 80 PVC CHLORINE SOLUTION PIPE. USE SOLVENT WELDED JOINTS.

DETAIL 3 / C-1



NOTES:

1. COAT ALL ABOVE-GROUND PVC PIPING WITH WHITE ACRYLIC LATEX, AMERON 220, CARBOLINE 3359, TNEMEC 6, OR EQUAL. PRIME COAT 2-3 MILS DRY FILM THICKNESS (DFT) AS RECOMMEND BY THE MFR. APPLY 2 OR MORE FINISH COATS, 5-6 MILS DFT. 7-9 MILS TOTAL SYSTEM DFT.

2. ALL EXPOSED PIPING SHALL BE COVERED WITH 1-INCH THICK MOLDED FIBERGLASS PIPE INSULATION. ALL INSULATION SHALL BE COVERED WITH ALUMINUM JACKETING.

DETAIL 4 / C-1

SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO., NV

VERIFY SCALE
1/2" 0 1/2 1
BAR REPRESENTS 1/2" WHEN PLOTTED ON ORIGINAL INCHES OR ORIGINAL

INTAKE NO. 3 - CONNECTOR TUNNEL
VENT DETAILS NEAR 02C2 SHAFT

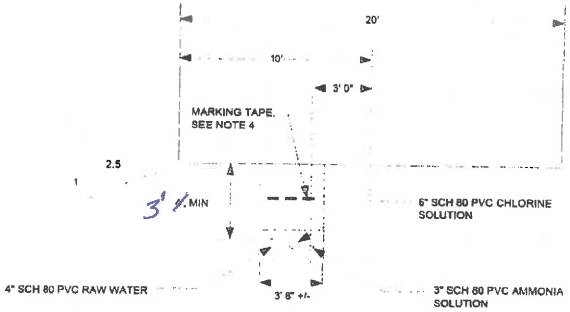
SCALE 1"=20"
DATE: 2014-10-21
FILE: C-3.DGN

MW/HILL
A JOINT VENTURE
LAS VEGAS, NEVADA

DSGN:	T. DAVIS	CHK: T. DAVIS
DRN:	G. BURLEY	APVD: T. DAVIS

CONTRACT NO. 07DF-02-C2
DRAWING NO. C-3
SHEET 3 OF 18

C-3.dgn 25148 PM 2014/10/29



NOTES

1. INSTALL PIPES WITH 6-INCH MINIMUM CLEAR SPACE BETWEEN.
2. BED PIPES A MINIMUM OF 6 INCHES ALL AROUND WITH COMPACTED SAND.
3. BACKFILL OVER PIPE BEDDING WITH 1" MINUS SELECT/SCREENED NATIVE MATERIAL.
4. INSTALL TRACER WIRE ALONG ENTIRE PIPELINE LENGTH. INSTALL MARKER TAPES TO IDENTIFY EACH SERVICE (AMMONIA, CHLORINE, SPARE). FOIL DETECTOR TAPE MAY BE USED IN-LIEU OF TRACER WIRE
5. ALL PIPING SHALL BE THOROUGHLY CLEANED AND TESTED. PIPING OUTSIDE OF THE SHAFT/TUNNEL SHALL BE TESTED TO 100 PSI.
6. PIPES SHALL BE LEFT CLEAN ~~AND DRAINED OF WATER~~. SEAL BOTH ENDS OF SPARE PIPE WITH PVC END CAPS.

A SECTION
NTS
C-1

SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO., NV

VERIFY SCALE
BAR REPRESENTS 1 INCH IF PRINTED ON ORIGINAL

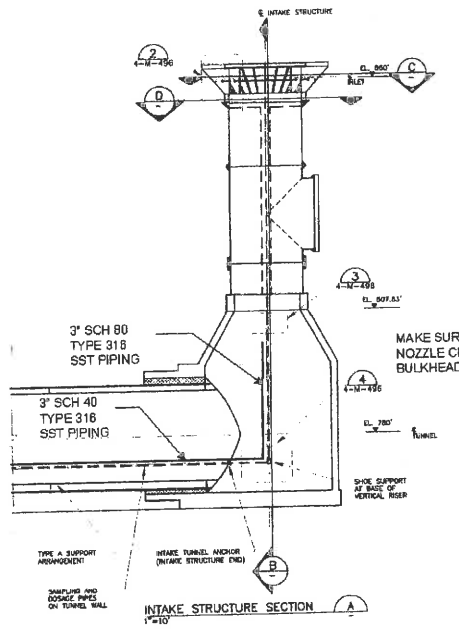
INTAKE NO. 3 - CONNECTOR TUNNEL
VENT DETAILS VTC SHAFT

SCALE 1" = 20'
DATE: 2013-11-15 10:12:29
FILE: 4-1.DGN

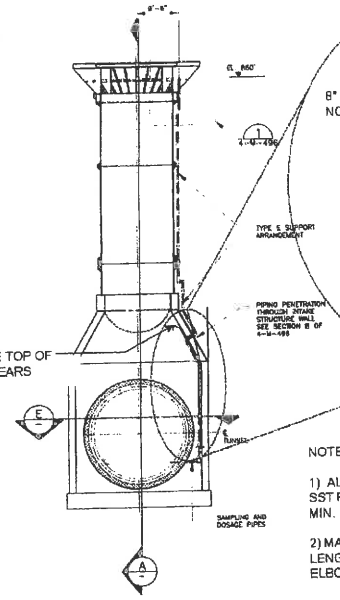
MW/HILL
A JOINT VENTURE
3800 WEST CHARLESTON BLVD.
LAS VEGAS, NEVADA 89102-1944

DSGN: T. DAVIS
CHK: T. DAVIS
APVD: T. DAVIS
DRN: G. BURLEY

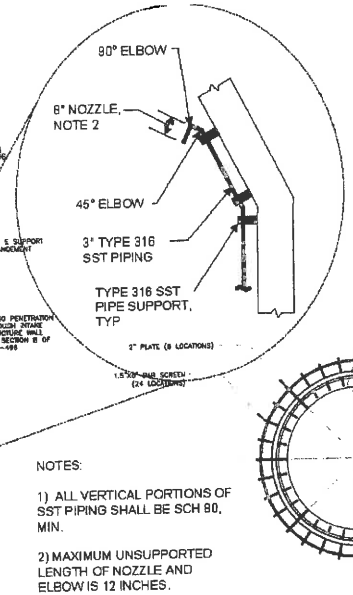
CONTRACT NO. 070F-02-C2
DRAWING NO. C-4
SHEET 4 OF 16



INTAKE STRUCTURE SECTION A
1"=10'



SECTION B
1"=10'



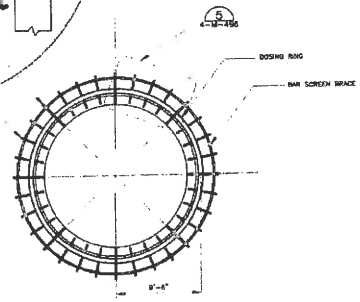
NOTES:

1) ALL VERTICAL PORTIONS OF SST PIPING SHALL BE SCH 80, MIN.

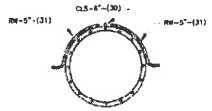
2) MAXIMUM UNSUPPORTED LENGTH OF NOZZLE AND ELBOW IS 12 INCHES.

NOTES:

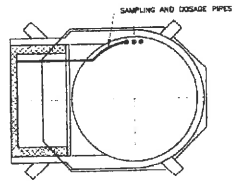
1. THE 8M VALVES ARE TO BE MANUALLY OPERATED WITH HAND WHEEL OPERATION. POSITIVE OPEN/CLOSED STOPS ARE TO BE PROVIDED
2. PUDDLE FLANGE DETAILS TO BE CONFIRMED.
3. VALVES TO BE CLOSED DURING INTAKE STRUCTURE INSTALLATION AND HOOK UP OF LINES THROUGH INTAKE TUNNEL. VALVES TO BE OPENED TO EFFECT CONTROLLED FLOODING OF DOSING AND SAMPLING LINES. VALVES TO BE LOCKED OPEN FOR NORMAL OPERATION.
4. EXTERNAL LINES ARE TO BE PROVIDED WITH CATHODIC PROTECTION DURING MARINE WORKS AND INSTALLATION OF THE INTAKE STRUCTURE.



SECTION C
1"=5'



SECTION D
1"=10'



SECTION E
1"=10'

SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO., NV

VERIFY SCALE
1/2 1 1/2 2
BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

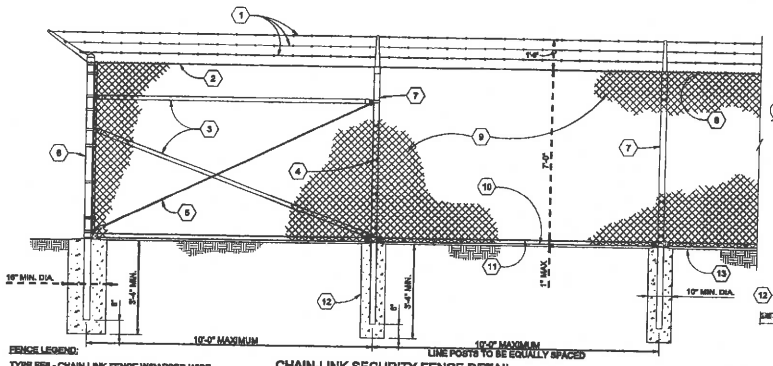
INTAKE NO. 3 - CONNECTOR TUNNEL
SAMPLING AND DOSAGE PIPES

SCALE: 1"=20'
DATE: 08/14/18 (V2)
FILE: C-5.DGN

MW/HILL
A JOINT VENTURE
LAS VEGAS, NEVADA
DESIGN: T. DAVIS
DRN: T. DAVIS
APVD: T. DAVIS
DRN: G. BURLEY

CONTRACT NO. 878F-02-C2
DRAWING NO. C-5
SHEET 5 OF 16

23:03:21 PM
2014/10/29
C-5.dgn



CHAIN-LINK SECURITY FENCE DETAIL
NTS

FENCE LEGEND:

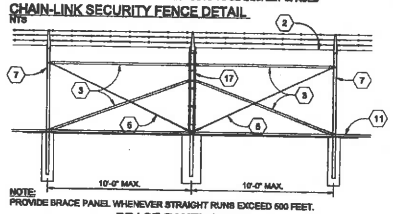
TYPE F69 - CHAIN-LINK FENCE W/BARBED-WIRE ON SINGLE OUTRIGGER

NOTES:

A. WIRE TIES, RAILS, POSTS, AND BRACES SHALL BE CONSTRUCTED ON THE SECURE SIDE OF THE FENCE ALIGNMENT. CHAIN-LINK FABRIC SHALL BE PLACED ON THE SIDE OPPOSITE THE SECURE AREA.

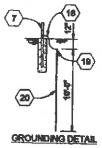
B. ONLY 9-GAGE GALVANIZED STEEL TIE WIRES SHALL BE USED FOR FASTENING THE FENCE FABRIC TO FENCE POSTS AND RAILS.16-GAGE, STAINLESS STEEL TIE WIRES SHALL BE USED FOR FASTENING FENCE FABRIC TO TENSION WIRES.

STEEL POST SCHEDULE	
USE AND SECTION	MIN. OUTSIDE DIAMETER
CORNER, END & PULL POSTS	
TUBULAR - ROUND	2.375" O.D.
LINE POSTS	
TUBULAR - ROUND	1.90" O.D.
BOTTOM & BRACE RAILS	
TUBULAR - ROUND	1.66" O.D.
TUBULAR - SQUARE	1.63" SQ.
H-SECTION	1.66" x 1.66"
C-SECTION (ROLL-FORMED)	1.63" x 1.06"

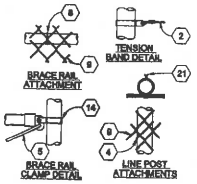


NOTE:
PROVIDE BRACE PANEL WHENEVER STRAIGHT RUNS EXCEED 500 FEET.

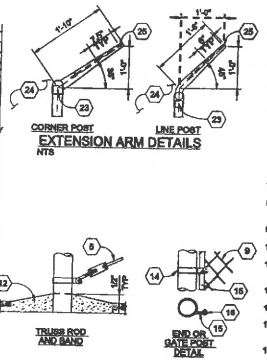
BRACE PANEL DETAIL
NTS



GROUNDING DETAIL



FASTENING DETAILS

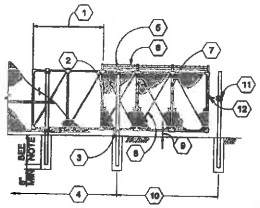


EXTENSION ARM DETAILS
NTS

KEYED NOTES:

1. 3 STRAND ZINC-COATED BARBED-WIRE (ASTM A121) APRON ON EXTENSION ARMS
2. TOP TENSION WIRE (ASTM A824, TYPE II, CLASS 2)
3. BRACE RAIL
4. 9-GAGE STEEL TIE WIRES, 18" O.C. MAX & WITH 4" FROM TOP & BOTTOM OF FABRIC
5. TRUSS ROD (3/8" MIN. DIA.)
6. CORNER, END, OR PULL POST (SCH 40 PIPE, ASTM F1083, ZINC-COATED, ASTM 1043 INSIDE AND OUTSIDE)
7. LINE POST
8. 9-GAGE STEEL TIE WIRES (TYP.) (12" O.C. MAX.) (ASTM A392 GALVANIZED, CLASS1)
9. CHAIN-LINK FABRIC (9 GAGE, 2" MESH)
10. BOTTOM OF FABRIC
11. BOTTOM TENSION WIRE (ASTM A824, TYPE II, CLASS 2)
12. CONCRETE BASE
13. GRADE LINE
14. TENSION BAND (18" O.C. MAX. & WITH 4" FROM TOP & BOTTOM OF FABRIC)
15. TENSION BAR TO ENGAGE EACH FABRIC LINK
16. 3/8" CARRIAGE BOLT W/PEENED THREADS
17. PULL POST
18. #8 AWG SOLID COPPER WIRE
19. MOLDED EXOTHERMIC WELD OR APPROVED CLAMP-TYPE FITTING OF COPPER
20. 3/4" DIA. COPPER-CLAD STEEL GROUND ROD
21. ENDS TWISTED AT LEAST THREE FULL TURNS
22. NOT USED
23. 3/8" PLAIN PSN RIVETED FLUSH (TYP.)
24. NOT USED
25. LOCK PIN, TYP

1 CHAIN LINK FENCE
NTS



KEYED NOTES:

1. OVERHANG, OMIT FABRIC AND WIRE
2. STRETCH BAR AND BANDS
3. GUIDE ROLLER ASSEMBLY
4. CHAIN LINK FENCE
5. TRUCK ASSEMBLY
6. BARBED WIRE
7. TIE WIRES, SAME AS FENCE
8. BRACE, TYP
9. 2" MIN; 6" MAX
10. GATE OPENING BETWEEN POSTS
11. CATCH
12. LATCH

NOTE:

1. SLIDING GATE PER ASTM F1184, TYPE II, CLASS1
2. POST SETS PER MANUFACTURER'S RECOMMENDATIONS FOR GATE OPENING AND GATE POST SIZES.

2 CANTILEVER SLIDE GATE
NTS

SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO., NV

VERIFY SCALE — BAR REPRESENTS ONE INCH WHEN PRINTED FULL SIZE ON ORIGINAL

INTAKE NO. 3 - CONNECTOR TUNNEL
FENCING AND GATE DETAILS

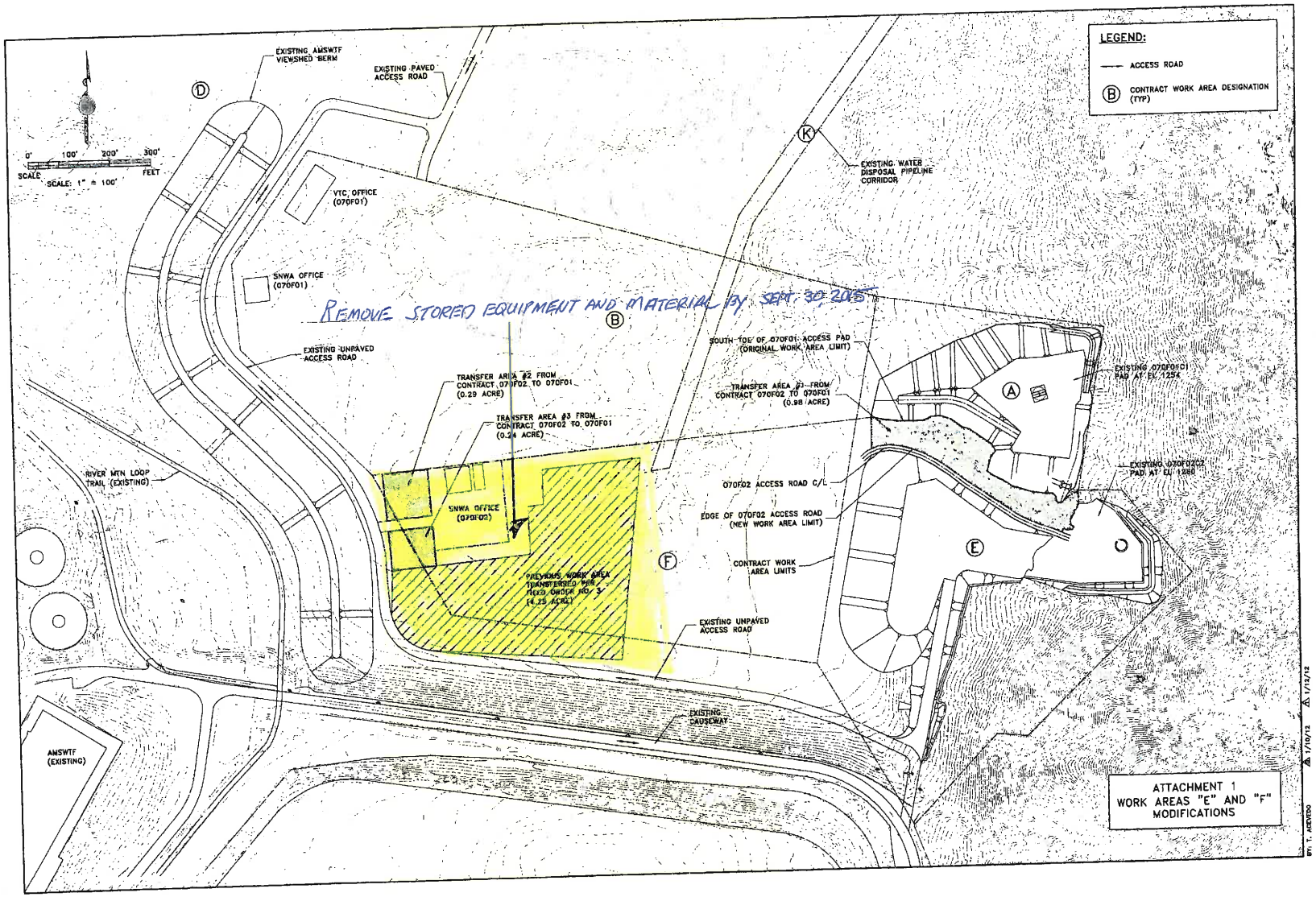
SCALE 1"=20'
DATE 03/14/19 3:25
FILE: C-6.DGN

MW/HILL
A JOINT VENTURE
100 WEST CLIFF, SUITE 400
LAS VEGAS, NEVADA 89101-1944

DSGN: T. DAVIS
CHK: T. DAVIS
APVD: T. DAVIS
DR: G. BURLEY

CONTRACT NO. 070F-02-C2
DRAWING NO. C-6
SHEET 6 OF 16

C-6.dgn 2014/10/28 2:34:28 PM



ATTACHMENT 1
WORK AREAS "E" AND "F"
MODIFICATIONS

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

July 16, 2015

Subject: Amendment	**Director's Backup**
Petitioner: David L. Johnson, Deputy General Manager, Engineering/Operations	
Recommendations: That the Board of Directors approve and authorize the Chair to sign an amendment to the existing agreement between Montgomery Watson/CH2M Hill and the Authority for lead design engineering services for the Authority's capital improvement program for an amount not to exceed $16,000,000.	

Fiscal Impact:
If the above recommendation is approved, funds for the multi-year services provided by this amendment are available and included in this year's budget and will be included in subsequent budgets to complete the anticipated work.

Background:
On December 16, 1993, the Board of Directors approved Agreement No. SNWA94-C-0002 with the Montgomery Watson/CH2M Hill joint venture for lead design engineering services for the Authority's capital improvement program. The Board previously approved amendments to fund engineering design and support services, including services for Lake Mead Intake No. 3.

On December 10, 2014, the Board adopted the recommendations of the Integrated Resource Planning Advisory Committee. Among those recommendations is to begin design and construction of a new low lake level water pumping station within the swiftest feasible timeframe. To accomplish this objective, staff proposed to continue utilizing the services of Montgomery Watson/CH2M Hill for the design of the pumping station as part of the Lake Mead Intake No. 3 project. On January 15, 2015, the Board approved an amendment to the existing agreement with Montgomery Watson/CH2M Hill, increasing the contract amount by $10,000,000, for design of the underground portion of the pumping station.

If approved, the attached amendment will provide funds in an amount of $16,000,000 for design-related engineering services for the above-ground facilities of the new low lake level pumping station and related engineering services during construction. Design of the above-ground facilities include electrical control equipment, overhead cranes, discharge piping and valves, pressure surge control facilities, and incorporation of the critical, state-of-art deep lake pumping units into the pumping station package.

With this amendment and the previously approved amendment, the expected cost for design and engineering services during construction of the low lake level pumping station is approximately $26,000,000, substantially less than the $30,000,000 cost originally estimated.

This amendment is being entered into pursuant to NRS 332.115(1)(b) and Section 6(j) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved the amendment.

Respectfully submitted:

John J. Entsminger, General Manager
JJE:PDS:DLJ:MRJ:EPM:djt
Attachments

AGENDA ITEM # 5

DISCLOSURE OF OWNERSHIP/PRINCIPALS

Business Entity Type							
☐ Sole Proprietorship	☒ Partnership	☐ Limited Liability Company	☐ Privately Held Corporation	☐ Publically Traded Corporation	☐ Trust	☐ Non-Profit Organization	☐ Other

Business Designation Group					
☐ MBE	☐ WBE	☐ SBE	☐ PBE	☐ ESB	☐
Minority Business Enterprise	Women-Owned Business Enterprise	Small Business Enterprise	Physically Challenged Business Enterprise	Emerging Small Business	

Corporate/Business Entity Name:	Montgomery Watson/CH2M HILL (Joint Venture)		
(Include d.b.a., if applicable)			
Street Address:	2785 Village View Drive	**Website:**	ch2m.com
City, State and Zip Code:	Henderson, NV 89074	**POC Name and Email:**	
Telephone No:	702-369-6175	**Fax No:**	702-369-1107
Local Street Address:	2785 Village View Drive	**Website:**	CH2m.com
City, State and Zip Code:	Henderson, NV 89074	**Local Fax No:**	702-369-1107
Local Telephone No:	702-369-6175	**Local POC Name Email:**	
Number of Clark County, Nevada Residents Employed:	87		

All entities, with the exception of publicly-traded and non-profit organizations, must list the names of individuals, either directly or indirectly, holding more than five percent (5%) ownership or financial interest in the business entity appearing before the SNWA Board of Directors.

Publicly-traded entities and non-profit organizations shall list all Corporate Officers and Directors in lieu of disclosing the names of individuals with ownership or financial interest. The disclosure requirement, as applied to land-use applications, extends to the applicant and the landowner(s).

Entities include all business associations organized under or governed by Title 7 of the Nevada Revised Statutes, including but not limited to private corporations, close corporations, foreign corporations, limited liability companies, partnerships, limited partnerships, and professional corporations.

Full Name	Title	% Owned (Not required for Publicly Traded Corporations/Non-profit organizations)
MWH Americas, Inc.		50%
CH2M HILL Engineers, Inc.		50%

This section is not required for publicly-traded corporations.

1. Are any individual members, partners, owners or principals, involved in the business entity, an SNWA full-time employee(s), or appointed/elected official(s)?

   ☐ Yes ☒ No (If yes, please note that SNWA employee(s), or appointed/elected official(s) may not perform any work on professional service contracts, or other contracts, which are not subject to competitive bid.)

2. Do any individual members, partners, owners or principals have a spouse, registered domestic partner, child, parent, in-law or brother/sister, half-brother/half-sister, grandchild, grandparent, related to an SNWA full-time employee(s), or appointed/elected official(s)?

   ☐ Yes ☒ No (If yes, please complete the Disclosure of Relationship form on Page 2. If no, please print N/A on Page 2.)

I certify under penalty of perjury, that all of the information provided herein is current, complete, and accurate. I also certify that the entity is not on the federal government's Excluded Parties List, as defined by 2 CFR § 180.945. I further understand that the SNWA will not take action on land-use approvals, contract approvals, land sales, leases or exchanges without the completed disclosure form.

Signature

Administrative Manager
Title

Julian R. Hoyle
Print Name

December 30, 2014
Date

Revised 10/30/14

DISCLOSURE OF RELATIONSHIP

List any disclosures below:
(Mark N/A, if not applicable.)

NAME OF BUSINESS OWNER/PRINCIPAL	NAME OF SNWA EMPLOYEE OR OFFICIAL AND JOB TITLE	RELATIONSHIP TO SNWA EMPLOYEE OR OFFICIAL	SNWA EMPLOYEE'S/OFFICIAL'S DEPARTMENT
N/A			

"Consanguinity" is a relationship by blood. "Affinity" is a relationship by marriage.

"To the second degree of consanguinity" applies to the candidate's first and second degree of blood relatives as follows:

- Spouse – Registered Domestic Partners – Children – Parents – In-laws (first degree)
- Brothers/Sisters – Half-Brothers/Half-Sisters – Grandchildren – Grandparents – In-laws (second degree)

For SNWA Use Only:

If no Disclosure or Relationship is noted above or if the section is marked N/A, please check this box:

☒ No Disclosure

If any Disclosure of Relationship is noted above, please complete the following:

☐ Yes ☐ No Is the SNWA employee(s) noted above involved in the contracting/selection process for this particular agenda item?

☐ Yes ☐ No Is the SNWA employee(s) noted above involved in any way with the business in performance of the contract?

Notes/Comments:

Erika Moonin
Signature

Erika Moonin
Print Name
Authorized Department Representative

AMENDMENT OF AGREEMENT/WORK AUTHORIZATION

AMENDMENT/CHANGE NO.	AGREEMENT OR WORK AUTHORIZATION NO.
A023	SNWA94-C-0002
Amendment : [x] Change [ ]	EFFECTIVE DATE: July 16, 2015
NAME AND ADDRESS OF CONTRACTOR: Montgomery Watson/CH2M Hill (JV) 2485 Village View Drive, suite 350 Henderson, NV 89074 Attn: Julian Hoyle	ISSUED BY: Southern Nevada Water Authority 100 City Parkway, Suite 700 Las Vegas, Nevada 89106

CONTRACTOR [x] IS : [ ] IS NOT: REQUIRED TO SIGN AND RETURN TO ISSUING OFFICE.

DESCRIPTION OF AMENDMENT/CHANGE:

Amendment No. 23 will provide funds for design services and engineering services during construction for the Low Lake Level Pumping Station above-ground facilities.

Except as provided herein, all terms and conditions of the document referenced above, as heretofore changed, remains unchanged and in full force and effect.

AMOUNT OF AMENDMENT/CHANGE NTE $16,000,000	IF REVISED, COMPLETION DATE N/A

APPROPRIATION DATA:

Previous Funding	NTE	$ 176,400,000
Current Funding	NTE	$ 16,000,000
Total Agreement Funding	NTE	$ 192,400,000

Approved as to legality:

Laura E. Browning, Legal Counsel for the Southern Nevada Water Authority — Date: 7-6-15

NAME & TITLE OF SIGNER (Type or Print)		NAME & TITLE OF AUTHORITY OFFICIAL (Type or Print)	
Julian Hoyle *Agreement Administrator*		*Mary Beth Scow* *Chairwoman*	
	7/21/15		
SIGNATURE OF PERSON AUTHORIZED TO SIGN	DATE	AUTHORITY OFFICIAL	DATE

C:\USERS\HOYLE\APPDATA\LOCAL\MICROSOFT\WINDOWS TEMPORARY INTERNET FILES\CONTENT.OUTLOOK\8U40ZDOT\AMEND23MWHILL.DOC

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

July 16, 2015

Subject: Agreement	**Director's Backup**
Petitioner: Julie A. Wilcox, Deputy General Manager, Administration	
Recommendations: That the Board of Directors approve a subgrant agreement between the Nevada Division of Environmental Protection and the Authority to accept grant funding in the amount of $62,700 for regional water quality activities and related public outreach initiatives.	

Fiscal Impact:
The total project cost is $148,452. The Nevada Division of Environmental Protection will provide funding in the amount of $62,700 for costs associated with the subgrant projects. The Authority will provide a matching contribution of $60,752, which is available in the Authority's Operating Budget, and the Clark County Regional Flood Control District will provide a matching contribution of $25,000.

Background:
In December 2014, the Nevada Department of Environmental Protection approved the Authority's subgrant application requesting $62,700 in Clean Water Act funding. The subgrant application was submitted in partnership with Clark County Regional Flood District (Regional Flood) and the Conservation District of Southern Nevada (CDSN) for related public outreach initiatives.

If approved, this subgrant agreement will provide funds to support regional water quality objectives, which include revegetation, erosion control, water quality improvement, public education, and outreach efforts including two "Green-Up" events at the Las Vegas Wash. The amounts of $25,000 and $5,200 will be distributed to Regional Flood and the CDSN, respectively, for approved project components.

This agreement is being entered into pursuant to NRS 445A.265 and 445A.450, and Section 6(j) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved the subgrant agreement.

Respectfully submitted:

John J. Entsminger, General Manager
JJE:PDS:JAW:ZLM:AMB:KH:kf
Attachment

AGENDA ITEM # 6

SUB-GRANT AGREEMENT

A Sub-grant awarded by:

Department of Conservation and Natural Resources, Division of Environmental Protection
901 S. Stewart Street, Carson City, NV 89701-5249
Phone: (775) 687-4670 Fax: (775) 687-9561

and awarded to Sub-grantee:

Southern Nevada Water Authority
hereinafter the "Sub-grantee"
1001 South Valley View Blvd, m/s 760
Las Vegas, NV 89153
702/258-3173

WHEREAS, 40 CFR Part 31.37, NRS 445A.265 and NRS 445A.450 authorize the Division of Environmental Protection to award sub-grants of federal financial assistance to local governments for the purposes set forth in authorizing statutes; and

WHEREAS, it is deemed that the project purposes hereinafter set forth are consistent with the federal grant agreement that provides support of the sub-grant;

NOW, THEREFORE, in consideration of the aforesaid premises, the parties mutually agree as follows:

1. REQUIRED APPROVAL. This Sub-grant shall not become effective until and unless approved by appropriate official action of the governing body of each party.
2. DEFINITIONS. "State" means the State of Nevada and any state agency identified herein, its officers, employees and immune contractors as defined in NRS 41.0307.
3. SUB-GRANT TERM. This Sub-grant shall be effective from Nevada Division of Environmental Protection Administrator's approval to **December 31, 2016**, unless sooner terminated by either party as set forth in this Sub-grant.
4. TERMINATION. This Sub-grant may be terminated by either party prior to the date set forth in paragraph (3), provided that a termination shall not be effective until **30** days after a party has served written notice upon the other party. This Sub-grant may be terminated by mutual consent of both parties or unilaterally by either party without cause. The parties expressly agree that this Sub-grant shall be terminated immediately if for any reason State and/or federal funding ability to satisfy this Sub-grant is withdrawn, limited, or impaired.
5. NOTICE. All notices or other communications required or permitted to be given under this Sub-grant shall be in writing and shall be deemed to have been duly given if delivered personally in hand, by telephonic facsimile with simultaneous regular mail, or mailed certified mail, return receipt requested, postage prepaid on the date posted, and addressed to the other party at the address set forth above.
6. INCORPORATED DOCUMENTS. The parties agree that the services to be performed shall be specifically described; this Sub-grant incorporates the following attachments in descending order of constructive precedence:

ATTACHMENT A: SCOPE OF WORK (consisting of 10 pages)
ATTACHMENT B: ADDITIONAL AGENCY TERMS & CONDITIONS (consisting of 3 pages)
ATTACHMENT C: THIRD PARTY MATCH RECORD-KEEPING REQUIREMENTS (consisting of 1 page)

7. CONSIDERATION. Sub-grantee agrees to provide the services set forth in paragraph (6) at a cost of $N/A per N/A with the total Sub-grant or installments payable: **Quarterly** not exceeding **$62,700.00**. In addition, the State does not agree to reimburse Sub-grantee for expenses unless otherwise specified in the incorporated documents. Any intervening end to an annual or biennial appropriation period shall be deemed an automatic renewal (not changing the overall Sub-grant term) or a termination as the results of legislative appropriation may require.

8. ASSENT. The parties agree that the terms and conditions listed on incorporated attachments of this Sub-grant are also specifically a part of this Sub-grant and are limited only by their respective order of precedence and any limitations expressly provided.

9. INSPECTION & AUDIT.

a. Books and Records. Each party agrees to keep and maintain under general accepted accounting principles full, true and complete records, agreements, books, and documents as are necessary to fully disclose to the other party, the State or United States Government, or their authorized representatives, upon audits or reviews, sufficient information to determine compliance with any applicable regulations and statutes.

b. Inspection & Audit. Each party agrees that the relevant books, records (written, electronic, computer related or otherwise), including but not limited to relevant accounting procedures and practices of the party, financial statements and supporting documentation, and documentation related to the work product shall be subject, at any reasonable time, to inspection, examination, review, audit, and copying at any office or location where such records may be found, with or without notice by the other party, the State Auditor, Employment Security, the Department of Administration, Budget Division, the Nevada State Attorney General's Office or its Fraud Control Units, the State Legislative Auditor, and with regard to any federal funding, the relevant federal agency, the Comptroller General, the General Accounting Office, the Office of the Inspector General, or any of their authorized representatives.

c. Period of Retention. All books, records, reports, and statements relevant to this Sub-grant must be retained by each party for a minimum of three years from the date of final payment by the State to the Sub-grantee, and all other pending matters are closed. Retention time shall be extended when an audit is scheduled or in progress for a period reasonably necessary to complete an audit and/or to complete any administrative and judicial litigation which may ensue.

10. BREACH; REMEDIES. Failure of either party to perform any obligation of this Sub-grant shall be deemed a breach. Except as otherwise provided for by law or this Sub-grant, the rights and remedies of the parties shall not be exclusive and are in addition to any other rights and remedies provided by law or equity, including but not limited to actual damages. If the court awards reasonable attorney's fees to the prevailing party, reasonable shall be deemed $125 per hour.

11. LIMITED LIABILITY. The parties will not waive and intend to assert available NRS chapter 41 liability limitations in all cases. Sub-grant liability of both parties shall not be subject to punitive damages. To the extent applicable, actual Sub-grant damages for any breach shall be limited by NRS 353.260 and NRS 354.626.

12. FORCE MAJEURE. Neither party shall be deemed to be in violation of this Sub-grant if it is prevented from performing any of its obligations hereunder due to strikes, failure of public transportation, civil or military authority, act of public enemy, accidents, fires, explosions, or acts of God, including, without limitation, earthquakes, floods, winds, or storms. In such an event the intervening cause must not be through the fault of the party asserting such an excuse, and the excused party is obligated to promptly perform in accordance with the terms of the Sub-grant after the intervening cause ceases.

13. INDEMNIFICATION. Neither party waives any right or defense to indemnification that may exist in law or equity.

14. INDEPENDENT PUBLIC AGENCIES. The parties are associated with each other only for the purposes and to the extent set forth in this Sub-grant, and in respect to performance of services pursuant to this Sub-grant, each party is and shall be a Sub-grantee separate and distinct from the other party and, subject only to the terms of this Sub-grant, shall have the sole right to supervise, manage, operate, control, and direct performance of the details incident to its duties under this Sub-grant. Nothing contained in this Sub-grant shall be deemed or construed to create a partnership or joint venture, to create relationships of an employer-employee or principal-agent, or to otherwise create any liability for one agency whatsoever with respect to the indebtedness, liabilities, and obligations of the other agency or any other party.

15. WAIVER OF BREACH. Failure to declare a breach or the actual waiver of any particular breach of the Sub-grant or its material or nonmaterial terms by either party shall not operate as a waiver by such party of any of its rights or remedies as to any other breach.

16. SEVERABILITY. If any provision contained in this Sub-grant is held to be unenforceable by a court of law or equity, this Sub-grant shall be construed as if such provision did not exist and the nonenforceability of such provision shall not be held to render any other provision or provisions of this Sub-grant unenforceable.
17. ASSIGNMENT. Neither party shall assign, transfer or delegate any rights, obligations or duties under this Sub-grant without the prior written consent of the other party.
18. OWNERSHIP OF PROPRIETARY INFORMATION. Unless otherwise provided by law or this Sub-grant, any reports, histories, studies, tests, manuals, instructions, photographs, negatives, blue prints, plans, maps, data, system designs, computer code (which is intended to be consideration under this Sub-grant), or any other documents or drawings, prepared or in the course of preparation by either party in performance of its obligations under this Sub-grant shall be the joint property of both parties.
19. PUBLIC RECORDS. Pursuant to NRS 239.010, information or documents may be open to public inspection and copying. The parties will have the duty to disclose unless a particular record is made confidential by law or a common law balancing of interests.
20. CONFIDENTIALITY. Each party shall keep confidential all information, in whatever form, produced, prepared, observed or received by that party to the extent that such information is confidential by law or otherwise required by this Sub-grant.
21. PROPER AUTHORITY. The parties hereto represent and warrant that the person executing this Sub-grant on behalf of each party has full power and authority to enter into this Sub-grant and that the parties are authorized by law to perform the services set forth in paragraph (6).
22. GOVERNING LAW; JURISDICTION. This Sub-grant and the rights and obligations of the parties hereto shall be governed by, and construed according to, the laws of the State of Nevada. The parties consent to the jurisdiction of the Nevada district courts for enforcement of this Sub-grant.
23. ENTIRE AGREEMENT AND MODIFICATION. This Sub-grant and its integrated attachment(s) constitute the entire agreement of the parties and such are intended as a complete and exclusive statement of the promises, representations, negotiations, discussions, and other agreements that may have been made in connection with the subject matter hereof. Unless an integrated attachment to this Sub-grant specifically displays a mutual intent to amend a particular part of this Sub-grant, general conflicts in language between any such attachment and this Sub-grant shall be construed consistent with the terms of this Sub-grant. Unless otherwise expressly authorized by the terms of this Sub-grant, no modification or amendment to this Sub-grant shall be binding upon the parties unless the same is in writing and signed by the respective parties hereto.

IN WITNESS WHEREOF, the parties hereto have caused this Sub-grant to be signed and intend to be legally bound thereby.

SUB-GRANTEE

By:_____
Signature – Southern Nevada Water Authority

Name:_____

Title:_____**Date:**_____

Southern Nevada Water Authority
Approved as to form:

By: _____ **Date:** 06/17/15

DIVISION

By:_____
Signature

Name: Colleen Cripps, Ph.D.

Title: Administrator **Date:**_____

Sub-grant Control Number: DEP-S 15-019
CFDA Number: 66.460

ATTACHMENT A

Scope of Work

ATTACHMENT "A"
Scope of Work and Budget
Initiatives to Reduce NPS Pollution in Southern Nevada, 2015

SUB-GRANTEE ORGANIZATION: Southern Nevada Water Authority
(SNWA)
DUNS#: 13-596-5650

PROJECT BUDGET PROJECTION:

319(h) funds awarded	$62,700.00
Total amount of non-federal match funds	$85,752.00
Total Project Cost	$148,452.00

SUB-GRANTEE CONTACT PERSONS: Kathy Flanagan,
Assistant Management Analyst

Southern Nevada Water Authority
1001 South Valley View Boulevard, m/s 760
Las Vegas, NV 89153
702-258-3173
kathy.flanagan@snwa.com

NDEP CONTACT PERSONS:

CONTRACT COORDINATOR: Jon Paul Kiel
Environmental Scientist
(775) 687-9558
jpkiel@ndep.nv.gov

NDEP CONTRACT MANAGER: Stephanie Simpson
Contract Manager, Bureau of Water Quality Planning
(775) 687-9455
ksertic@ndep.nv.gov

Nevada Division of Environmental Protection
Bureau of Water Quality Planning
901 South Stewart Street, Suite 4001
Carson City, Nevada 89701

Project Location: USGS Hydrographic Region: Colorado River/Las Vegas Wash
Clark County
8-Digit USGS HUCs: 15010005 Lake Mead
15010010 Lower Virgin
15010012 Muddy
15010015 Las Vegas Wash

Sub-grant Term: NDEP Sub-grant Approval – December 31, 2016

Project Summary

Project funding will be used to implement objectives of the Las Vegas Wash Comprehensive Adaptive Management Plan (CAMP) and Lake Mead Water Quality Forum. These objectives include re-vegetation, erosion control, water quality improvement, and public education and outreach efforts. Specific tasks identified for funding include (1) Implementation of two Wash "Green-Up" events; (2) Mabel Hoggard Math and Science Magnet School field trips for elementary students; (3) The airing of a variety of storm water public service announcements all with the shared theme of non-point source pollution prevention; and (4) Completion of a Stormwater Pollution Poster Contest.

Project Partners

The Southern Nevada Water Authority (SNWA) is the lead agency on this project and will coordinate with the Lake Mead Water Quality Forum and the Las Vegas Wash Coordination Committee. Elements of this project will be performed by the Clark County Regional Flood Control District and the Conservation District of Southern Nevada.

The Lake Mead Water Quality Forum members include(d): Colorado River Commission, Nevada Division of Environmental Protection, Nevada State Health Division, Nevada Department of Wildlife, University of Nevada System, Clark County Department of Comprehensive Planning, Clark County Department of Parks & Recreation, Clark County Health District, Clark County Regional Flood Control District, Clark County Water Reclamation District, City of Henderson, City of Las Vegas, City of North Las Vegas, Southern Nevada Water Authority, U.S. EPA, U.S. Fish & Wildlife Service, U.S. Geological Survey, National Park Service, U.S. Natural Resources Conservation Service, and the U.S. Bureau of Reclamation.

Partners of the Las Vegas Wash Coordination Committee include: Clark County, Clark County Regional Flood Control District, City of Henderson, City of Las Vegas, City of North Las Vegas, Clark County Water Reclamation District, Clark County Department of Comprehensive Planning, CC Department of Parks and Recreation, Southern Nevada Health District, Lake Las Vegas Resort, Las Vegas Boat Harbor, Water Quality Citizens Advisory Committee, Desert Wetlands Conservancy, University of Nevada – Las Vegas,

Nevada Department of Wildlife, Nevada State Health Division, Conservation District of Southern Nevada, Colorado River Commission, National Park Service, U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, U.S. Environmental Protection Agency, U.S. Fish & Wildlife Service, U.S. Geological Survey, Natural Resource Conservation Service, and, Basic Management Inc.

I. Introduction

In 1997, the SNWA convened the Water Quality Citizens Advisory Committee to address water quality issues affecting Lake Mead. After several months of discussion, the advisory committee recommended the development of a management plan for the Las Vegas Wash (Wash) and the formation of an inter-agency management entity to oversee these activities. Based on these recommendations, the Las Vegas Wash Coordination Committee ("Coordination Committee") was established.

The Coordination Committee is comprised of representatives from 30 different federal, state and local agencies, as well as representatives from local businesses and environmental groups. A primary objective in forming this group was to ensure that all relevant and interested stakeholders have a voice in the long-term management and restoration of the Wash. In 2000, the Coordination Committee completed the CAMP document, which identified 44 recommendations for restoring the health and water quality of the Wash. Objectives of the CAMP include the construction of erosion control structures and re-vegetation of wetlands habitat, while involving the public via education and outreach programs, to improve water quality in Lake Mead, the primary source of Southern Nevada's drinking water.

The CAMP was certified by the U.S. Environmental Protection Agency as meeting the nine required elements of a watershed plan. The Wash also has been identified by the U.S. Environmental Protection Agency as a Category I Priority Watershed under the 1998 Unified Watershed Assessment. All tasks included in this project proposal implement or support components of the CAMP.

Since 2000, significant progress has been made in stabilizing the Wash. The implementation of CAMP recommendations has helped to reduce erosion, while increasing sedimentation and wetlands habitat, ultimately improving downstream water quality. Public education and other outreach efforts have contributed by increasing awareness and fostering a sense of community in the effort to reduce non-point source pollution and restore the Wash.

Also in 1997, in response to growing concerns over water quality issues in Lake Mead and the Las Vegas Wash, the Nevada Division of Environmental Protection created the Lake Mead Water Quality Forum to support the protection of human health and the environment, and to preserve and improve the water quality of the Las Vegas Wash, Las Vegas Bay and Lake Mead.

The elements of this proposal further regional water quality and non-point source pollution reduction initiatives by stabilizing the Wash and restoring wetland habitat. This includes continued implementation of Wash "Green-Up" events; implementing and expanding work with the Mabel Hoggard Math and Science Magnet School by bringing elementary-school students to the Wash to learn about water quality, wetlands, the complexity of biological communities, and the importance of resource stewardship; the airing of a variety of public service announcements implemented by the Clark County Regional Flood Control District; and by conducting the Stormwater Pollution Poster Contest with the Conservation District of Southern Nevada.

II. Scope of Work

Goal #1. Improve water quality in the Las Vegas Wash and Las Vegas Bay of Lake Mead towards meeting water quality standards for the support of beneficial uses.

Objective 1.a. Stabilize the Las Vegas Wash channel to reduce sediment loads to Lake Mead.

Task 1 - Fall 2015 and Spring 2016 "Green-Up" Events.
Involve the community in re-vegetation and habitat restoration activities by implementing two Wash "Green-Up" events that will result in the likely re-vegetation of 16-20 acres at two locations in the Wash. Re-vegetation efforts include the introduction of a variety of native-stock emergents, as well as trees and shrubs such as willows, creosote, mesquite and cottonwoods. This work will be implemented according to methods outlined in the CAMP and the Las Vegas Wash Re-vegetation Management Plan. It is anticipated that both Green-Up events will be held on the south side of the Wash, with the fall 2015 event located adjacent to the Homestead Weir and the spring 2016 event located near the Bostick Weir. These projections are only for general planning purposes and may be adjusted due to construction schedules and unforeseen developments. This action supports Goals 1 and 2.

Goal #2. Address non-point source pollution through public education and outreach.

Objective 2.a. Perform outreach activities to inform and educate the community and encourage local stewardship.

Task 1. Implement two "Wash Green-Up" events to allow the community an opportunity to volunteer in the re-vegetation and restoration of the Las Vegas Wash. Green-Up events consist of more than 1,000 volunteers planting native trees and shrubs each year in areas recently cleared of invasive plant species. (See Objective 1.a., Task 1 above and Project Location Map below).

Task 2 - Mabel Hoggard Math and Science Magnet School Field Trips
The Las Vegas Wash Coordination Committee has partnered with the Mabel Hoggard Math and Science Magnet School for 15 years to introduce elementary-school students to the Wash. Nevada Division of Environmental Protection grants have previously funded each student with a "reconnaissance backpack" filled with a set of binoculars and a notebook for students to record field data and to keep for their reference. The current field trip itinerary allows each fifth grade class to spend a half day at Lake Mead on the Desert Princess and a half day at the Wash. The proposed funds would be used to cover equipment replacement, transportation and other related costs associated with the field trips. This action supports Goal 2.

Task 3 - Public Service Announcements
Broadcast stormwater public service announcements with a shared theme of non-point source pollution prevention. These announcements will be implemented by the Clark County Regional Flood Control District and broadcast on major network television stations during the fall of 2015 and/or the spring of 2016. This action supports Goal 2.

Task 4 - Stormwater Pollution Poster Contest
Conduct an educational campaign culminating in a stormwater pollution poster contest implemented by the Conservation District of Southern Nevada. The campaign will be facilitated by distribution of Stormwater Workbooks to students prior to promotion of the Poster Contest. The contest winner's reward (A field trip to Mandalay Bay's Shark Reef) is shared with his/her classmates. This task includes updating the appearance of the workbook that has been in circulation for years. This action supports Goal 2.

III. Monitoring and Maintenance Program

A comprehensive monitoring program will be implemented to meet the goals and objectives outlined in this proposal.

Task 1 -Fall 2015 and Spring 2016 "Green-Up" Events.

(1) Conduct vegetation monitoring according to the Vegetation Monitoring Plan. The main goal of the monitoring plan is to ensure a minimum 80 percent survival rate for at least two consecutive years, through either active plantings or passive re-establishment of native vegetation at each restoration site. To measure this goal, the Vegetation Monitoring Plan describes specific vegetation monitoring techniques that are implemented at all planting sites in the Wash. Data will be collected on species composition, percent cover, survival rates, and encroachment of non-native species. This information will ensure that what is learned in terms of success and/or failure from active planting activities will be adaptively applied to future plantings. In addition, photo documentation at permanently established photo points (confirmed via GPS) will assist in tracking changes in vegetation communities over time. Subsequently, SNWA will use the data gathered from implementing these techniques to compile a list of specific planting methods that have been successful in the Wash and are therefore recommended specifically for the Wash.

Quantities for sediment, nitrogen, and phosphorus as a result of project implementation are to be derived by NDEP in consultation with SNWA. Should SNWA estimate load reductions, loading reduction for sediment shall be reported in tons; Reductions in nitrogen and phosphorus shall be reported in pounds. If estimated by SNWA, the method of load reduction calculation (by direct measurement, indirect measurement, or employment of a model) shall be described in the report.

(2) Track volunteer turnout at "Green-Up" events.

(3) Conduct water quality, biological, vegetation and wildlife monitoring on a regular basis to evaluate program effectiveness.

Task 2 - Mabel Hoggard Math and Science Magnet School Field Trips

(1) Track success of Mabel Hoggard educational outreach by administering surveys to students after field trips. The survey will provide a measure of success in communicating watershed concepts to students during class visits and field trips. Success will be measured in the percentage of correct responses to questions in the survey, with a target of 85%.

Task 3 - Public Service Announcements

(1) Track success of public service announcements by performing annual survey of residents' awareness and behavior changes.

Task 4 - Stormwater Pollution Poster Contest

(1) Track success of poster contest by comparing the number of workbooks sent to schools with the number of poster contest entries received, as well as the number of entries received from the current versus previous years' contests.

IV. Measures of Success:

Achievement of long-term goals and overall success of the program will be measured by (1) improved water quality in the Wash and Lake Mead, including reduced total suspended solids concentrations; (2) increased native habitat; and (3) a more informed and environmentally aware public.

Short-term benefits from public education efforts with the goal of changing attitude and behavior are not easily measured. While the true indicator of success is ultimately dependent upon changes in behavior (such as decreased use of turf fertilizers and proper disposal of household chemicals), a number of other indicators will be used to identify short-term program effectiveness.

V. Contingency Plan

There is a great deal of flexibility built into this project. Activities can be reconfigured or relocated to reflect a variety of priorities, such as taking advantage of funding opportunities or shifting restoration to different locations. Similarly, shortfalls in funding can be accommodated by scaling back or modifying activities.

VI. Acknowledgements

When issuing statements, press releases, printed materials or other items describing any aspect of activities supported in whole or in part with funds provided under this contract, SNWA will ensure that the Nevada Division of Environmental Protection and the USEPA are acknowledged.

VII. Deliverables

1. Two Wash Green-Up events, resulting in the re-vegetation of approximately 16-20 acres of habitat in the Las Vegas Wash and increased community awareness and understanding.
2. Implementation of Mabel Hoggard Field Trip Program.
3. Run a variety of Public Service Announcements (PSAs) all with the shared theme of non-point source pollution prevention.
4. Quarterly and annual reports[1] summarizing project accomplishments and activities.
5. Documentation supporting project expenditures and match amounts.
6. Final report detailing all activities and summary of activities, including evaluation of monitoring results and public outreach evaluation.
7. Other updates as requested by NDEP.

[1] To facilitate NDEP annual grant program reporting to and required by the US EPA, an Annual Project Report will be submitted to NDEP on or before July 15th in electronic format (MS WORD and/or MS Excel as appropriate). The Annual Report shall describe project activity during the previous 4 quarters (July through June) and shall include the following information:

1. A Summary of Progress made towards completion of the project; including:

    a. Project budget, scheduling status and forecasts (Under or over budget? Behind or ahead of schedule?).

    b. A description of any problems encountered during project implementation, and whether technical assistance is requested of NDEP, or if any contract amendments are anticipated to facilitate completion of the project.

    c. A description of how pollutant load reductions will be calculated.

    d. Pollutant load reductions thus far to include pounds of nitrogen and phosphorus, and tons of sediment captured.

    e. An updated estimate of Pollutant Load Reduction expected upon completion of the project, or upon completion of project tasks at the end of the calendar year for those projects with recurring, ongoing installations of Best Management Practices.

    f. A description of project successes, including photographs of project activities if appropriate.

    g. An assessment as to whether match requirements are being met in a timely fashion.

VIII. Project Timeline

Task 1: "Green-Up" Events

Fall 2015	Green-Up Event 1
Spring 2016	Green-Up Event 2

Task 2: Mabel Hoggard Math and Science Magnet School Field Trips

Fall 2015	Field trip equipment replaced
December 2015-June 2016	Field trips

Task 3: Public Service Announcements

Fall 2015 and Spring 2016	Broadcast public service announcements

Task 4: Stormwater Pollution Poster Contest

January - March 2016 Distribution of workbooks and contest information; event judging; winner announcement and prize distribution.

Monitoring

Ongoing through 12/31/16	Conduct water quality, biological, vegetation and wildlife monitoring Report results with analysis and evaluation of effectiveness of the program

Public Outreach Evaluation

Ongoing through 12/31/16	Assess response of public to outreach efforts Report results with analysis and evaluation of effectiveness of the program

IX. Detailed Project Budget

Detailed Project Budget: Initiatives to Reduce Non-Point Source Pollution in Southern Nevada, 2015

Division #s: To be Determined
Subgrant Control # DEP S 15-019
SubGrantee: Southern Nevada Water Authority
SubGrantee Contact: Flanagan, Kathy
NDEP Contract Monitor: Kiel, Jon Paul

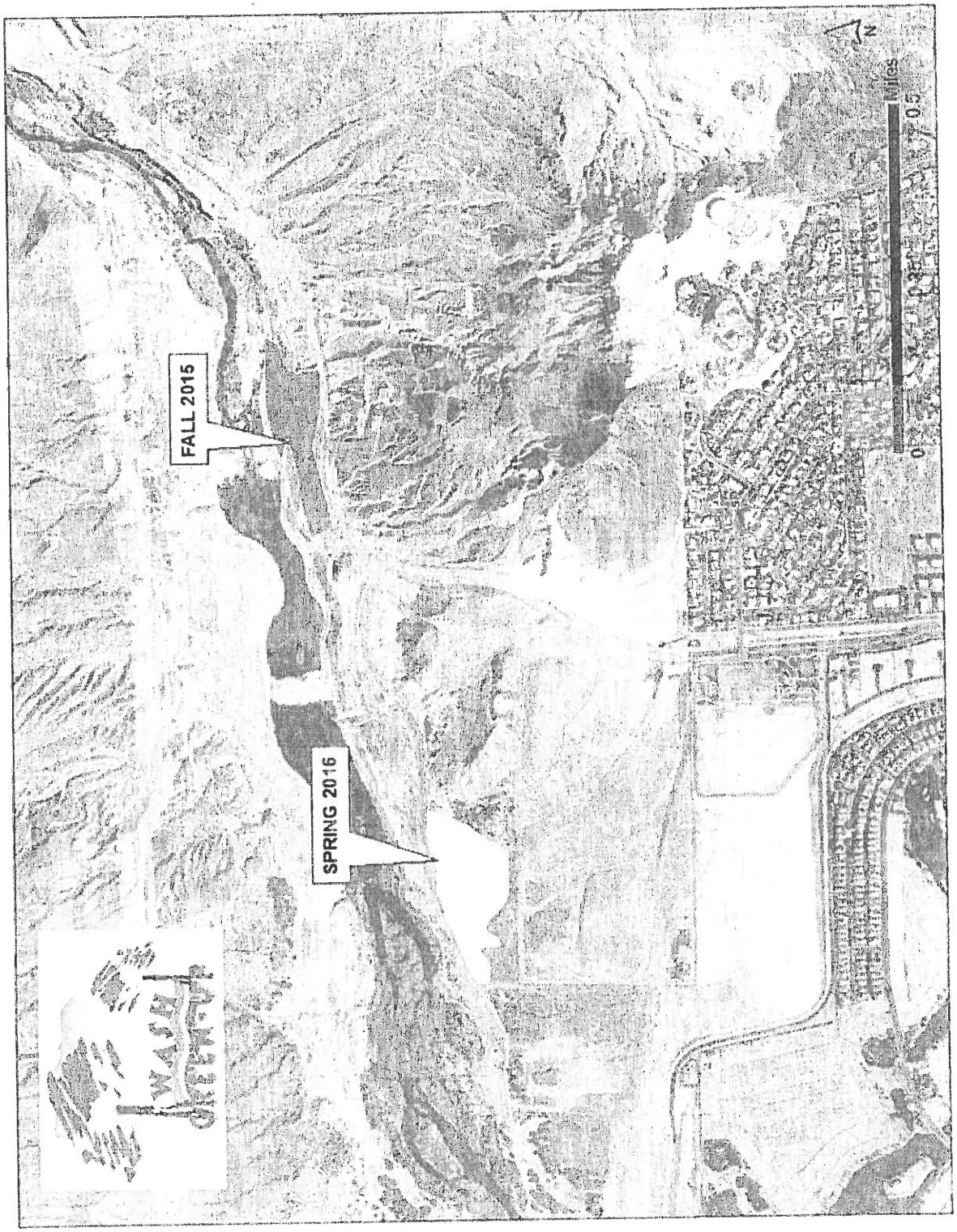
Contract Award: $62,700.00

REIMBURSIBLE EXPENDITURE BREAK-OUT - 319(h) FUNDS

Task	319(h)	Match - Cash	Match - Inkind	Project Totals
Green-Up Event Supplies	$19,000.00			$19,000.00
Green-Up Event Volunteer Lunch	$10,000.00			$10,000.00
Green-Up Event Volunteer Labor			$40,000.00	$40,000.00
Green-Up Event Staff Salaries		$10,000.00		$10,000.00
PSA Airtime	$25,000.00	$25,000.00		$50,000.00
Mabel Hoggard Equipment Costs	$1,500.00			$1,500.00
Mabel Hoggard Field Trip Costs	$2,000.00			$2,000.00
Mabel Hoggard Field Trip Staff Salaries		$10,752.00		$10,752.00
Stormwater Pollution Poster Contest: Includes expenditures on Workbook and Certificate Production/Printing, Workbook Distribution, Student Awards, Field Trip Transportation, Field Trip Lunch*	$5,200.00			$5,200.00
Sub-Totals	**$62,700.00**	**$45,752.00**	**$40,000.00**	**$148,452.00**

*Poster Field Trip Lunch NTE $300.

X. Project Location Map, Green-Up Areas



ATTACHMENT B

Additional Agency Terms & Conditions

ATTACHMENT B:
ADDITIONAL AGENCY TERMS & CONDITIONS
SUB-GRANT CONTROL #DEP-S 15-019
Southern Nevada Water Authority

1. The Nevada Division of Environmental Protection shall pay no more compensation that the federal Executive Service Level 4 (U.S. Code) daily rate (exclusive of fringe benefits) for individual consultants retained by the Sub-grantee or by the Sub-grantee's contractors or subcontractors. This limitation applies to consultation services of designated individuals with specialized skills who are paid at a daily or hourly rate. The current Level 4 rate is **$75.27** per hour.

2. ***NDEP shall only reimburse the Sub-grantee for actual cash disbursed.*** Original invoices (facsimiles are not acceptable) must be received by NDEP no later than forty (40) calendar days after the end of a month or quarter except at the end of the fiscal year of the State of Nevada (June 30th), at the expiration date of the grant, or the effective date of the revocation of the Sub-grant, at which times original invoices must be received by NDEP no later than thirty-five (35) calendar days after this date. Failure of the Sub-grantee to submit billings according to the prescribed timeframes authorizes NDEP, in its sole discretion, to collect or withhold a penalty of ten percent (10%) of the amount being requested for each week or portion of a week that the billing is late. The Sub-grantee shall provide with each invoice a detailed fiscal summary that includes the approved Sub-grant budget, expenditures for the current period, cumulative expenditures to date, and balance remaining for each budget category. If match is required pursuant to paragraph 3 below, a similar fiscal summary of match expenditures must accompany each invoice. The Sub-grantee shall obtain prior approval to transfer funds between budget categories if the funds to be transferred are greater than ten percent (10%) cumulative of the total Sub-grant amount.

3. The Sub-grantee shall, as part of its approved scope of work and budget under this Sub-grant, provide third party match funds of not less than: **$85,752.00**. If match funds are required, the Sub-grantee shall comply with additional record-keeping requirements as specified in 40 CFR 31.24 and Attachment **C** (Third Party Match Record-Keeping Requirements) which is attached hereto and by this reference is incorporated herein and made part of this Sub-grant.

4. Unless otherwise provided in Attachment A (Scope of Work), the Sub-grantee shall submit quarterly reports or other deliverables within ten (10) calendar days after the end of each quarter.

5. All payments under this Sub-grant are contingent upon the receipt by NDEP of sufficient funds, necessary to carry out the purposes of this Sub-grant, from either the Nevada Legislature or an agency of the United States. NDEP shall determine if it has received the specific funding necessary for this Sub-grant. If funds are not received from either source for the specific purposes of this Sub-grant, NDEP is under no obligation to supply funding for this Sub-grant. The receipt of sufficient funds as determined by NDEP is a condition precedent to NDEP's obligation to make payments under this Sub-grant. Nothing in this Sub-grant shall be construed to provide the Sub-grantee with a right of payment over any other entity. If any payments that are otherwise due to the Sub-grantee under this Sub-grant are deferred because of the unavailability of sufficient funds, such payments will promptly be made to the Sub-grantee if sufficient funds later become available.

6. Notwithstanding the terms of paragraph 5, at the sole discretion of NDEP, payments will not be made by NDEP unless all required reports or deliverables have been submitted to and approved by NDEP within the schedule stated in Attachment A.

7. Any funds obligated by NDEP under this Sub-grant that are not expended by the Sub-grantee shall automatically revert back to NDEP upon the completion, termination or cancellation of this Sub-grant. NDEP shall not have any obligation to re-award or to provide, in any manner, such unexpended funds to the Sub-grantee. The Sub-grantee shall have no claim of any sort to such unexpended funds.

8. The Sub-grantee shall ensure, to the fullest extent possible, that at least the "fair share" percentages as stated below for prime contracts for construction, services, supplies or equipment are made available to organizations owned or controlled by socially and economically disadvantaged individuals (Minority Business Enterprise (MBE) or Small Business Enterprise (SBE)), women (Women Business Enterprise (WBE)) and historically black colleges and universities.

	MBE/SBE	WBE
Construction	3%	1%
Services	1%	1%
Supplies	1%	1%
Equipment	2%	1%

The Sub-grantee agrees and is required to utilize the following seven affirmative steps:

a. Include in its bid documents applicable "fair share" percentages as stated above and require all of its prime contractors to include in their bid documents for subcontracts the "fair share" percentages;
b. Include qualified Small Business Enterprises (SBEs) Minority Business Enterprises (MBEs), and Women Business Enterprises (WBEs) on solicitation lists;
c. Assure that SBEs, MBEs, and WBEs are solicited whenever they are potential sources;
d. Divide total requirements, when economically feasible, into small tasks or quantities to e. permit maximum participation of SBEs, MBEs, and WBEs;
e. Establish delivery schedules, where the requirements of the work permit, which will encourage participation by SBEs, MBEs, and WBEs;
f. Use the services and assistance of the Small Business Administration and the Minority Business Development Agency, U.S. Department of commerce as appropriate; and
g. If a subcontractor awards contracts/procurements, require the subcontractor to take the affirmative steps in subparagraphs a. through e. of this condition.

9. The Sub-grantee shall complete and submit to NDEP a Minority Business Enterprise/Woman Business Enterprise (MBE/WBE) Utilization Report (Standard Form 334) within fifteen (15) calendar days after the end of each federal fiscal year (September 30th) for each year this Sub-grant is in effect and within fifteen (15) calendar days after the termination date of this Sub-grant.

10. The books, records, documents and accounting procedures and practices of the Sub-grantee or any subcontractor relevant to this Sub-grant shall be subject to inspection, examination and audit by the State of Nevada, the Division of Environmental Protection, the Attorney General of Nevada, the Nevada State Legislative Auditor, the federal or other funding agency, the Comptroller General of the United States or any authorized representative of those entities.

11. All books, reports, studies, photographs, negatives, annual reports or other documents, data, materials or drawings prepared by or supplied to the Sub-grantee in the performance of its obligations under this Sub-grant shall be the joint property of both parties. Such items must be retained by the Sub-grantee for a minimum of three years from the date of final payment by NDEP to the Sub-grantee, and all other pending matters are closed. If requested by NDEP at any time within the retention period, any such materials shall be remitted and delivered by the Sub-grantee, at the Sub-grantee's expense, to NDEP. NDEP does not warrant or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, report or product of any kind that the Sub-grantee may disclose or use for purposes other than the performance of the Sub-grantee's obligations under this Sub-grant. For any work outside the obligations of this Sub-grant, the Sub-grantee must include a disclaimer that the information, report or products are the views and opinions of the Sub-grantee and do not necessarily state or reflect those of NDEP nor bind NDEP.

12. Unless otherwise provided in Attachment A, when issuing statements, press releases, requests for proposals, bid solicitations and other documents describing projects or programs funded in whole or in part with funds provided under this Sub-grant, the Sub-grantee shall clearly state that funding for the project or program was provided by the Nevada Division of Environmental Protection and, if applicable, the U.S. Environmental Protection Agency. The Sub-grantee will insure that NDEP is given credit in all official publications relative to this specific project and that the content of such publications will be coordinated with NDEP prior to being published.

13. Unless otherwise provided in Attachment A, all property purchased with funds provided pursuant to this Sub-grant is the property of NDEP and shall, if NDEP elects within four (4) years after the completion, termination or cancellation of this Sub-grant or after the conclusion of the use of the property for the purposes of this Sub-grant during its term, be returned to NDEP at the Sub-grantee's expense.

Such property includes but is not limited to vehicles, computers, software, modems, calculators, radios, and analytical and safety equipment. The Sub-grantee shall use all purchased property in accordance with local, state and federal law, and shall use the property only for Sub-grant purposes unless otherwise agreed to in writing by NDEP.

For any unauthorized use of such property by the Sub-grantee, NDEP may elect to terminate the Sub-grant and to have the property immediately returned to NDEP by the Sub-grantee at the Sub-grantee's expense. To the extent authorized by law, the Sub-grantee shall indemnify and save and hold the State of Nevada and NDEP harmless from any and all claims, causes of action or liability arising from any use or custody of the property by the Sub-grantee or the Sub-grantee's agents or employees or any subcontractor or their agents or employees.

14. The Sub-grantee shall use recycled paper for all reports that are prepared as part of this Sub-grant and delivered to NDEP. This requirement does not apply to standard forms.

15. The Sub-grantee, to the extent provided by Nevada law, shall indemnify and save and hold the State of Nevada, its agents and employees harmless from any and all claims, causes of action or liability arising from the performance of this Sub-grant by the Sub-grantee or the Sub-grantee's agents or employees or any subcontractor or their agents or employees. NDEP, to the extent provided by Nevada law, shall indemnify and save and hold the Sub-grantee, its agents and employees harmless from any and all claims, causes of action or liability arising from the performance of this Sub-grant by NDEP or NDEP's agents or employees.

16. The Sub-grantee and its subcontractors shall obtain any necessary permission needed, before entering private or public property, to conduct activities related to the work plan (Attachment A). The property owner will be informed of the program, the type of data to be gathered, and the reason for the requested access to the property.

17. This Sub-grant shall be construed and interpreted according to the laws of the State of Nevada and conditions established in OMB Circular A-102. Nothing in this Sub-grant shall be construed as a waiver of sovereign immunity by the State of Nevada. Any action brought to enforce this Sub-grant shall be brought in the First Judicial District Court of the State of Nevada. The Sub-grantee and any of its subcontractors shall comply with all applicable local, state and federal laws in carrying out the obligations of this Sub-grant, including all federal and state accounting procedures and requirements established in OMB Circular A-87 and A-133. The Sub-grantee and any of its subcontractors shall also comply with the following:

a. 40 CFR Part 7 - Nondiscrimination In Programs Receiving Federal Assistance From EPA
b. 40 CFR Part 29 - Intergovernmental Review Of EPA Programs And Activities.
c. 40 CFR Part 31 - Uniform Administrative Requirements For Grants And Cooperative Agreements To State and Local Governments;
d. 40 CFR Part 32 – Government-wide Debarment And Suspension (Non-procurement) And Government-wide Requirements For Drug-Free Workplace (Grants);
e. 40 CFR Part 34 - Lobbying Activities;
f. 40 CFR Part 35, Subpart O - Cooperative Agreements And Superfund State Contracts For Superfund Response Actions (Superfund Only); and
g. The Hotel And Motel Fire Safety Act of 1990.

18. The Sub-grantee shall neither assign, transfer nor delegate any rights, obligations or duties under this Sub-grant without the prior written consent of NDEP.

ATTACHMENT C

Third Party Match Record Keeping Requirements

ATTACHMENT C
To the Sub-grant between
Nevada Division of Environmental Protection
And
Clark County
DEP-S 15-018

THIRD PARTY MATCH RECORD-KEEPING REQUIREMENTS

A. If not included in the budget submitted in Attachment A of the contract, the Sub-grantee shall provide to the Nevada Division of Environmental Protection (NDEP) a detailed match budget clearly distinguishing between cash and non-cash (in-kind) contributions, prior to submittal of the first invoice.

B. With each invoice, the Sub-grantee shall submit a detailed match schedule that includes: (1) the total match budget; (2) match expenditures for the current period; (3) cumulative match expenditures; and (4) balance remaining. Cash and in-kind expenditures must be identified separately

C. The Sub-grantee shall establish a file dedicated to this contract that includes the following:

1. For any declared in-kind contributions:
   (a) An itemized listing of each employee's hourly rate, including the justification for the rate such as the current "Prevailing Wage Rates for Nevada Counties", NRCS cost-share rates, etc. .
   (b) A Fringe Benefit detail and explanation.
   (c) A copy of an approved Overhead/Indirect Cost Allocation Plan.
   (d) An itemization of per diem rates, equipment rental/usage rates, etc.
   (e) Copies (or originals) of timesheets, with employee's and supervisor's signature, noting dates, hours, and projects worked.
   (f) Copies (or originals) of logs/schedules for equipment usage.
   (g) Signed statements noting fair market value for in-kind donations of materials or supplies.

2. For any declared cash contributions,
   (a) An itemization of each employee's hourly rate including fringe benefits, overhead, and indirect cost.
   (b) An itemization of per diem rates, equipment rental/usage rates, etc.
   (c) Copies (or originals) of timesheets, with employee's and supervisor's signature, noting dates, hours, and projects worked.
   (d) Copies (or originals) of logs/schedules for equipment usage.
   (e) Copies (or originals) of invoices for materials, supplies, equipment, etc.

D. The Sub-grantee agrees and acknowledges that:

1. Neither the costs nor the values of third party match contributions being used to satisfy the match requirements of the attached contract have been or will be used to satisfy a cost share or match requirement of another federal grant agreement, federal procurement contract, or any other award of federal funds.

2. Third-party match contributions or expenditures must be made within the effective dates of:
   October 1, 2009 through September 30, 2016.

3. All financial records, including match documentation, relevant to this project shall be retained by the Sub-grantee for three years from the date of final payment by NDEP to the Sub-grantee, and all other pending matters are closed.

4. Reported match contributions deemed inappropriate or unreasonable during the invoice review process may be disallowed.

5. NDEP may, at any time, audit the Sub-grantees contract files to ensure compliance with the Third Party Match Record-Keeping Requirements. Reported match contributions deemed inappropriate or unreasonable during an audit may be disallowed.

6. NDEP may require the Sub-grantee to repay any funds provided to the Sub-grantee under the attached contract that the Sub-grantee is unable to match or provide adequate documentation for the reported match.

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

July 16, 2015

Subject: Agreement	**Director's Backup**
Petitioner: Julie A. Wilcox, Deputy General Manager, Administration	
Recommendations: That the Board of Directors approve an interlocal agreement between the Nevada Department of Wildlife and the Authority to accept grant funding in the amount of $60,720 for ecological restoration of streams on the Warm Springs Natural Area that are habitat for the endangered Moapa dace.	

Fiscal Impact:
None by approval of the above recommendation.

Background:
In 2014, the Nevada Department of Wildlife obtained a grant titled "Eradication of exotic species from the Muddy River" from the U.S. Fish and Wildlife Service. A subgrant for $60,720 has been approved for use by the Authority.

If approved, this interlocal agreement will provide funds to support improvements to streams and riparian corridors on the Warm Springs Natural Area that provide habitat for the endangered Moapa dace. Improvements will include habitat restoration, the narrowing of a stream channel, removal of stream sediment, revegetation and monitoring.

This agreement 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 agreement.

Respectfully submitted:

John J. Entsminger, General Manager
JJE:PDS:JAW:ZLM:AMB:KH:kf
Attachment

AGENDA ITEM # 1

INTERLOCAL AGREEMENT BETWEEN PUBLIC AGENCIES

This Agreement, made and entered into this _____ day of _____, 2015, by and between the **SOUTHERN NEVADA WATER AUTHORITY**, a political subdivision of the State of Nevada, hereinafter called the **"AUTHORITY"** and the **STATE OF NEVADA** acting by and through its **DEPARTMENT OF WILDLIFE**, hereinafter called **"NDOW."** Each referred individually as the "Party" and collectively as the "Parties."

WHEREAS, the parties are authorized to enter into Agreements pursuant to Nevada Revised Statute (NRS) 277.180; and

WHEREAS, it is deemed that the services of the AUTHORITY hereinafter set forth are both necessary to NDOW and in the best interests of the State of Nevada;

NOW, THEREFORE, in consideration of the aforesaid premises, the parties mutually agree as follows:

1. REQUIRED APPROVAL. This Agreement shall not become effective until and unless approved by appropriate official action of the governing body of each party.

2. DEFINITIONS. "State" means the State of Nevada and any state agency identified herein, its officers, employees and immune contractors as defined in NRS 41.0307.

3. TERM. This Agreement shall be effective upon Board of Examiners (BOE) approval to **December 31, 2017**, unless sooner terminated by either party as set forth in this Agreement.

4. TERMINATION. This Agreement may be terminated by either party prior to the date set forth in paragraph (3), provided that a termination shall not be effective until _____30___ days after a party has provided written notice upon the other party. This Agreement may be terminated by mutual consent of both parties or unilaterally by either party without cause. The parties expressly agree that this Agreement shall be terminated immediately if for any reason federal and/or State Legislature funding ability to satisfy this Agreement is withdrawn, limited, or impaired.

5. NOTICE. All notices or other communications required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given if delivered personally in hand, by telephonic facsimile with simultaneous regular mail, or mailed certified mail, return receipt requested, postage prepaid on the date posted, and addressed to the other party at the address set forth above.

6. INCORPORATED DOCUMENTS. The parties agree that the services to be performed shall be specifically described; this Agreement incorporates the following attachments in descending order of constructive precedence:

ATTACHMENT A: SCOPE OF WORK

7. CONSIDERATION. The AUTHORITY agrees to provide the services set forth in paragraph (6) with each Agreement installment payable upon receipt of a valid invoice and approval by the project manager for NDOW, with the total installments under the Agreement not to exceed **$60,720**. Each invoice shall identify the charges therein in the manner and in such detail as set forth in the Budget section of Attachment A. All claims for travel expenses must be made on a travel claim containing the information and accompanied by

the receipts described in the Travel Documentation section of Attachment A. Any intervening end to an annual or biennial appropriation period shall be deemed an automatic renewal (not changing the overall Agreement term) or a termination as the results of legislative appropriation may require.

8. ASSENT. The parties agree that the terms and conditions listed on incorporated attachments of this Agreement are also specifically a part of this Agreement and are limited only by their respective order of precedence and any limitations expressly provided.

9. INSPECTION & AUDIT.

a. Books and Records. Each party agrees to keep and maintain under general accepted accounting principles full, true and complete records, agreements, books, and documents as are necessary to fully disclose to the State or United States Government, or their authorized representatives, upon audits or reviews, sufficient information to determine compliance with all state and federal regulations and statutes.

b. Inspection & Audit. Each party agrees that the relevant books, records (written, electronic, computer related or otherwise), including but not limited to relevant accounting procedures and practices of the party, financial statements and supporting documentation, and documentation related to the work product shall be subject, at any reasonable time, to inspection, examination, review, audit, and copying at any office or location where such records may be found, with or without notice by the State Auditor, Employment Security, the Department of Administration, Budget Division, the Nevada State Attorney General's Office or its Fraud Control Units, the State Legislative Auditor, and with regard to any federal funding, the relevant federal agency, the Comptroller General, the General Accounting Office, the Office of the Inspector General, or any of their authorized representatives.

c. Period of Retention. All books, records, reports, and statements relevant to this Agreement must be retained a minimum three years and for five years if any federal funds are used in this Agreement. The retention period runs from the date of termination of this Agreement. Retention time shall be extended when an audit is scheduled or in progress for a period reasonably necessary to complete an audit and/or to complete any administrative and judicial litigation which may ensue.

10. BREACH; REMEDIES. Failure of either party to perform any obligation of this Agreement shall be deemed a breach. Except as otherwise provided for by law or this Agreement, the rights and remedies of the parties shall not be exclusive and are in addition to any other rights and remedies provided by law or equity, including but not limited to actual damages, and to a prevailing party reasonable attorneys' fees and costs. It is specifically agreed that reasonable attorneys' fees shall include without limitation $125 per hour for State-employed attorneys.

11. LIMITED LIABILITY. The parties will not waive and intend to assert available NRS chapter 41 liability limitations in all cases. Agreement liability of both parties shall not be subject to punitive damages. Actual damages for any State breach shall never exceed the amount of funds which have been appropriated for payment under this Agreement, but not yet paid, for the fiscal year budget in existence at the time of the breach.

12. FORCE MAJEURE. Neither party shall be deemed to be in violation of this Agreement if it is prevented from performing any of its obligations hereunder due to strikes, failure of public transportation, civil or military authority, act of public enemy, accidents, fires, explosions, or acts of God, including, without limitation, earthquakes, floods, winds, or storms. In such an event the intervening cause must not be through the fault of the party asserting such an excuse, and the excused party is obligated to promptly perform in accordance with the terms of the Agreement after the intervening cause ceases.

13. INDEMNIFICATION.

a. To the fullest extent of limited liability as set forth in paragraph (11) of this Agreement, each party shall indemnify, hold harmless and defend, not excluding the other's right to participate, the other from and against all liability, claims, actions, damages, losses, and expenses, including but not limited to reasonable attorneys' fees and costs, arising out of any alleged negligent or willful acts or omissions of the party, its officers, employees and agents. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this paragraph.

b. The indemnification obligation under this paragraph is conditioned upon receipt of written notice by the indemnifying party within 30 days of the indemnified party's actual notice of any actual or pending claim or cause of action. The indemnifying party shall not be liable to hold harmless any attorneys' fees and costs for the indemnified party's chosen right to participate with legal counsel.

14. INDEPENDENT PUBLIC AGENCIES. The parties are associated with each other only for the purposes and to the extent set forth in this Agreement, and in respect to performance of services pursuant to this Agreement, each party is and shall be a public agency separate and distinct from the other party and, subject only to the terms of this Agreement, shall have the sole right to supervise, manage, operate, control, and direct performance of the details incident to its duties under this Agreement. Nothing contained in this Agreement shall be deemed or construed to create a partnership or joint venture, to create relationships of an employer-employee or principal-agent, or to otherwise create any liability for one agency whatsoever with respect to the indebtedness, liabilities, and obligations of the other agency or any other party.

15. WAIVER OF BREACH. Failure to declare a breach or the actual waiver of any particular breach of the Agreement or its material or nonmaterial terms by either party shall not operate as a waiver by such party of any of its rights or remedies as to any other breach.

16. SEVERABILITY. If any provision contained in this Agreement is held to be unenforceable by a court of law or equity, this Agreement shall be construed as if such provision did not exist and the nonenforceability of such provision shall not be held to render any other provision or provisions of this Agreement unenforceable.

17. ASSIGNMENT. Neither party shall assign, transfer or delegate any rights, obligations or duties under this Agreement without the prior written consent of the other party.

18. OWNERSHIP OF PROPRIETARY INFORMATION. Unless otherwise provided by law any reports, histories, studies, tests, manuals, instructions, photographs, negatives, blue prints, plans, maps, data, system designs, computer code (which is intended to be consideration under this Agreement), or any other documents or drawings, prepared or in the course of preparation by either party in performance of its obligations under this Agreement shall be the joint property of both parties.

19. PUBLIC RECORDS. Pursuant to NRS 239.010, information or documents may be open to public inspection and copying. The parties will have the duty to disclose unless a particular record is made confidential by law or a common law balancing of interests.

20. CONFIDENTIALITY. Each party shall keep confidential all information, in whatever form, produced, prepared, observed or received by that party to the extent that such information is confidential by law or otherwise required by this Agreement.

21. PROPER AUTHORITY. The parties hereto represent and warrant that the person executing this Agreement on behalf of each party has full power and authority to enter into this Agreement and that the parties are authorized by law to perform the services set forth in paragraph (6).

22. GOVERNING LAW; JURISDICTION. This Agreement and the rights and obligations of the parties hereto shall be governed by, and construed according to, the laws of the State of Nevada. The parties consent to the jurisdiction of the Nevada district courts for enforcement of this Agreement.

23. ENTIRE AGREEMENT AND MODIFICATION. This Agreement and its integrated attachment(s) constitute the entire agreement of the parties and such are intended as a complete and exclusive statement of the promises, representations, negotiations, discussions, and other agreements that may have been made in connection with the subject matter hereof. Unless an integrated attachment to this Agreement specifically displays a mutual intent to amend a particular part of this Agreement, general conflicts in language between any such attachment and this Agreement shall be construed consistent with the terms of this Agreement. Unless otherwise expressly authorized by the terms of this Agreement, no modification or amendment to this Agreement shall be binding upon the parties unless the same is in writing and signed by the respective parties hereto, approved by the Office of the Attorney General.

...
...
...

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be signed and intend to be legally bound thereby.

SOUTHERN NEVADA WATER AUTHORITY

_____ _____

John J. Entsminger, General Manager (Date)

NEVADA DEPARTMENT OF WILDLIFE

_____ _____

Jack Robb, Deputy Director (Date)

_____ _____

Patrick Cates, Deputy Director (Date)

APPROVED BY BOARD OF EXAMINERS

_____ On _____

Signature – Nevada State Board of Examiners (Date)

Approved as to form by:

_____ On _____

Deputy Attorney General for Attorney General, State of Nevada (Date)

Approved as to form by:

_____ On _____

Tabitha D. Fiddyment, Deputy Counsel, Southern Nevada Water Authority (Date)

Restoration Projects on the South Fork of the Muddy River and Refuge Stream on the Warm Springs Natural Area

Prepared by:

Southern Nevada Water Authority
Warm Springs Natural Area
100 City Parkway, Suite 700
Las Vegas, Nevada 89106

Submitted to:

Nevada Department of Wildlife
1100 Valley Road, Reno NV 89512

June 2015

Restoration Projects on the South Fork of the Muddy River and Refuge Stream on the Warm Springs Natural Area

Background

In 2014, The Nevada Department of Wildlife (NDOW) obtained a grant titled *Eradication of exotic species from the Muddy River* from the U.S. Fish and Wildlife Service (the Service). The overall goal/purpose of the grant is as follows: "The Nevada Department of Wildlife (NDOW) will eradicate blue tilapia (*Oreochromis aureus*) and other exotic species in the Muddy River by chemically treating ponds at Reid Gardner Generating Station and the Muddy River and linked habitats from Warm Springs Road downstream to Wells Siding Diversion." A sub-grant for $60,720 was identified in a modification to the master grant above. These funds were earmarked for the Southern Nevada Water Authority (SNWA). Objectives for the sub-grant as listed in the Master grant are as follows:

- Develop barrier removal and habitat restoration plans for the South Fork of the Muddy River.
- Finalize plans with Service approval.
- Obtain all permits and clearances necessary to implement final restoration plans.
- Implement habitat restoration following fish barrier removal in coordination with the Biological Advisory Committee (BAC).
- Monitor outcomes linked to project work and provide follow-up maintenance to maximize restoration success over the life of the agreement.

The BAC has agreed to use some of the sub-grant funds to restore approximately 1.5 acres of aquatic and upland habitat disturbed during the construction of a new removable fish barrier on the Refuge Stream (also known as the Plummer Stream).

The purpose of this grant proposal is to identify the plans and projects mentioned in the objectives above and propose budgets for those projects.

Scope

South Fork of the Muddy River

In response to threats from invasive blue tilapia and other non-native fish species, a barrier was installed in 2008 across the South Fork near the confluence with the North Fork of the Muddy River. This barrier was constructed of gabions and was intended to be left in place until the tilapia were eradicated from the upper Muddy River. Since 2008, the tilapia have been removed from the upper Muddy River with rotenone treatments and various trapping methods. During this period of eradication, the Moapa dace population has been responding well to various restoration efforts on other streams currently occupied by the Moapa dace. Improvements to the South Fork of the Muddy River and the Refuge Stream should provide additional habitat for the dace. There are some indications that the prime habitat areas in streams currently utilized by the dace (Refuge, Pederson and Apcar) may be reaching capacity. The South fork has not been occupied by dace for several years. The opening of this stream to dace and the improvements proposed in

this document should allow the dace population to expand. The BAC is pursuing removal of the South Fork barrier, which is not part of this scope of work.

Since the installation of the barrier, sediment has accumulated upstream of the barrier. The removal of the barrier will allow much of this sediment to flush downstream. Some of the sediment that is not flushed by the force of the water will be removed with a large tracked excavator. The flushed channel should provide better habitat for Moapa dace.

With the exception of a few mostly undesirable California fan palm trees (*Washingtonia filifera*), the South Fork lacks a riparian tree canopy. The Moapa dace and other species (especially birds) could benefit from this habitat. Unfortunately, due to the entrenched nature of the South Fork, conditions for the establishment of riparian trees are lacking. These conditions will be created by excavating pockets in the stream bank with a large tracked excavator. Propagated velvet ash (*Fraxinus velutina*) and Goodding's willow (*Salix gooddingii*) trees will be planted in these pockets. These pockets will be maintained by removing competing vegetation.

The South Fork is up to 20' wide in some reaches. These slow, cattail-choked waters are poor habitat for Moapa dace. Similar conditions existed in the Apcar Stream until 2012 when SNWA staff and a contractor narrowed the stream with boulders and palm logs. Since these restoration efforts were made, numbers of Moapa dace in this stream has increased dramatically. The same modifications will be made to one of the wide reaches on the South Fork. The reach will be narrowed by constructing a new stream bank with boulders and logs and back filling the area behind the new bank with soil. The new banks will then be revegetated with native riparian plants.

Refuge Stream

In 1998, a barrier was constructed on the Refuge Stream to prevent blue tilapia and other invasive fish from infesting the Refuge Stream and other streams occupied by the Moapa dace. This gabion barrier was intended to be temporary. Due to the successful eradication of the tilapia from the upper Muddy River, and the need for a more flexible, removable barrier, a new barrier was completed in May 2015. The construction of this new barrier necessitated the removal of vegetation and soil from 1.5 acres surrounding the barrier. This disturbed habitat will be restored by preparing the soil by grading and ripping to relieve compaction and then installing approximately 2000 native plants. Most of these plants will be watered with a temporary irrigation system. The revegetated area will be monitored and plants replaced as necessary.

The old barrier on the Refuge Stream trapped a large amount of sediment that stretched nearly 500 feet behind it. Some of this sediment was flushed downstream when the old barrier was removed, however, additional sediment will be removed with a large tracked excavator.

Goals and Objectives

The projects outlined herein are intended to restore and improve aquatic and terrestrial habitat for the endangered Moapa dace and other sensitive species that utilized these habitats. Specific objectives are as follows:

- Reduce the width of the South Fork along a 100' long reach.
- Create tree-planting pockets along the South Fork by excavating selected areas of the stream bank. Install riparian trees in these tree-planting pockets. Maintain these pockets by removing competing vegetation.
- Remove sediment from the South Fork to increase the stream gradient and improve stream features for Moapa dace.
- Remove soil left over from the construction of the fish barrier on the Refuge Stream.
- Remove sediment from the Refuge Stream to increase the stream gradient and improve stream features for Moapa dace.
- Prepare the soils around the fish barrier site on the Refuge stream in anticipation for revegetation by grading, ripping and raking.
- Install native plants at the Refuge fish barrier site.
- Install an irrigation system at the Refuge fish barrier site.
- Monitor restored sites on the South Fork and Refuge Stream and implement measures to ensure success.

Schedule

The following schedule is for planning purposes only.

- Restoration Planning: 6/1/15 – 11/1/15
- Agreement Execution: 9/8/15
- Plant propagation: 7/1/15 – 4/1/17
- Soil preparation, Refuge Stream: 1/1/16 – 3/31/17
- Stream sediment removal, Refuge Stream: 11/1/15 – 12/31/16
- Bank excavations, South Fork: 1/1/16 – 2/28/17
- Stream sediment removal, South Fork: 1/1/16 – 2/28/17
- Stream narrowing, South Fork: 1/1/16 - 4/30/16
- Annual report: 9/30/16
- Plant Installation: 3/1/16 – 4/30/17
- Irrigation system installation: 10/1/16 – 4/30/17
- Plant maintenance: 3/1/16 – 11/30/17
- Plant monitoring: 4/1/16 – 8/31/17
- Final Report submittal: 12/1/17

Reporting

SNWA will submit the following reports to the Nevada Department of Wildlife (NDOW).

- Annual report (September 2016). This interim report will describe work accomplished between 9/15/15 and 8/31/16. It will report the status of work tasks and funds spent.
- Final report (December 2017). This report will describe work accomplished between 9/15/15 and 11/30/17. It will report on all work tasks completed and how funds were spent. Included in the report will be results from plant monitoring.

Budget

This budget covers the period from September 15, 2015 to December 15, 2017.

Item	Cost ($)
South Fork Stream	
Contract Work	
Fish barrier removal (Not part of this scope)	0
Stream narrowing	18,000
Stream sediment excavation	1,000
Stream-bank excavations	7,000
Plant installation	1,000
Plant maintenance	2,000
Equipment and Materials	
Plant materials	500
Miscellaneous tools and materials	200
Refuge Stream	
Contract Work	
Spoil pile removal	4,000
Stream sediment excavation	2,000
Soil preparation (grading, ripping)	4,000
Plant installation	2,000
Irrigation system installation	3,000
Equipment and Materials	
Irrigation piping, filters, pressure reducers, emitters, fittings	3,000
Irrigation pumps	1,000
Plant materials	6,000
Miscellaneous tools and materials	500
Contingency (10%)	5,520
Total NDOW Funding	**60,720**

**The SNWA anticipates expending $71,217 in staff salary/wages and fringe benefits to complete this project. This amount constitutes an in-kind contribution made by SNWA toward the project's overall success.*

Personnel

Restoration Ecologist:	Von K. Winkel, Ph.D. Southern Nevada Water Authority 100 City Parkway, Suite 700 Las Vegas, Nevada 89106
Environmental Biologist II:	Dave J. Syzdek Southern Nevada Water Authority 100 City Parkway, Suite 700 Las Vegas, Nevada 89106
Manager:	Keiba K. Crear Southern Nevada Water Authority 100 City Parkway, Suite 700 Las Vegas, Nevada 89106
NDOW Contact:	Brandon Senger Supervising Fisheries Biologist Nevada Department of Wildlife 4747 Vegas Drive Las Vegas, Nevada 89108

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

July 16, 2015

Subject: Resolution	**Director's Backup**
Petitioner: Julie A. Wilcox, Deputy General Manager, Administration	
Recommendations: That the Board of Directors approve a resolution authorizing the submission of a grant proposal to the Bureau of Reclamation WaterSMART: Drought Resiliency Project Grants for Fiscal Year 2015 Program.	

Fiscal Impact:
If this proposal is accepted by the Bureau of Reclamation, the required $313,968 in matching funds is available in the Authority's Operating Budget.

Background:
The Bureau of Reclamation (BOR) recently announced funding availability for its WaterSMART: Drought Resiliency Project Grants for Fiscal Year 2015 Program. This funding is designed to support projects that will help prepare for and address the impacts of drought and climate change.

In accordance with eligibility requirements, the Board of Directors is being asked to approve a resolution authorizing the submission of a grant proposal to the BOR. The grant proposal seeks $300,000 to support Lake Mead water quality monitoring efforts to mitigate the impacts caused by drought.

If the proposal is accepted by the BOR, a funding agreement will be brought back before the Board for approval.

This resolution is authorized pursuant to NRS Chapter 277 and Section 6(o) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved the resolution.

Respectfully submitted:

John J. Entsminger, General Manager
JJE:PDS:JAW:AMB:SL:kf
Attachment

AGENDA ITEM # 8

RESOLUTION IN SUPPORT OF FUNDING REQUEST FOR
WATERSMART: DROUGHT RESILIENCY PROJECT GRANTS PROGRAM
PROPOSAL TO THE UNITED STATES BUREAU OF RECLAMATION

WHEREAS, the U.S. Bureau of Reclamation WaterSMART: Drought Resiliency Project Grants Program is soliciting proposals for and may provide financial assistance to irrigation districts, water districts and other organizations to implement projects that will help prepare for and address the impacts of drought and climate change; and

WHEREAS, the WaterSMART: Drought Resiliency Project Grants Program specifically allows for project proposals that install water monitoring instrumentation devices to accurately track water supply conditions and assess water quality that results from drought to determine appropriate measures to protect water quality for human consumption; and

WHEREAS, the Southern Nevada Water Authority has adopted a Water Resource Plan that addresses the impact of drought conditions on water quality in Southern Nevada; and

WHEREAS, the Southern Nevada Water Authority will benefit significantly from financial assistance under the WaterSMART: Drought Resiliency Project Grants Program to prepare for and mitigate Southern Nevada's drought-related water quality issues.

NOW, THEREFORE, BE IT RESOLVED that the Southern Nevada Water Authority Board of Directors agrees and authorizes:

1. The submission of an application to the U.S. Bureau of Reclamation WaterSMART: Drought Resiliency Project Grants Program requesting $300,000 to support Lake Mead Water Quality Monitoring to Mitigate the Impacts Caused by Drought.

2. The submission of a proposal, including a funding plan that outlines the applicant's ability to provide up to $313,968 in matching funds, as specified by the WaterSMART: Drought Resiliency Project Grants Program.

3. The Southern Nevada Water Authority's General Manager, or his designee, to execute and file an application and proposal with the U.S. Bureau of Reclamation for funding under the WaterSMART: Drought Resiliency Project Grants Program, as outlined above.

Introduced and passed this 16th day of July, 2015.

Attest:

Southern Nevada Water Authority

John J. Entsminger, Secretary

Mary Beth Scow, Chair

Approved as to form:

Gregory J. Walch, General Counsel

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

July 16, 2015

Subject: Las Vegas Wash Capital Improvements Plan	**Director's Backup**
Petitioner: David L. Johnson, Deputy General Manager, Engineering/Operations	
Recommendations: That the Board of Directors adopt the 2015 Las Vegas Wash Capital Improvements Plan.	

Fiscal Impact:
None by approval of the above recommendation. Costs associated with specific projects will be identified and presented to the Board of Directors for consideration at future meetings.

Background:
On June 20, 2002, the Board of Directors approved the Las Vegas Wash Cooperative Agreement, which sets forth efforts and initiatives to address ongoing issues in the Las Vegas Wash. On October 18, 2007, the Las Vegas Valley Watershed Advisory Committee (LVVWAC) was established to take a regional approach to watershed management, which included management of the Las Vegas Wash. The LVVWAC's First Amended Agreement, approved by the Board on July 19, 2012, requires the Authority to annually prepare and issue a Las Vegas Wash Capital Improvements Plan (Wash CIP). First issued and approved in 2002, the most recent amended Wash CIP was adopted by the Board on March 20, 2014.

The attached 2015 Wash CIP amends the previous plan by identifying specific facilities planned for design and construction through fiscal year 2020-21. The 2015 Wash CIP forecasts a total capital expenditure of $25,539,348 and represents a decrease of $19,747,253 over the previous plan forecast. The proposed revisions in the 2015 Wash CIP reflect adjustments in construction unit prices, projected facility construction costs, environmental mitigation requirements, and completion of previously planned projects.

The overall Las Vegas Wash capital improvements effort is now more than 80 percent complete. Since the start of the stabilization effort at the Wash, the Authority has completed 19 of 21 planned gradient control weirs, installed approximately 12 miles of channel bank protection, and revegetated over 375 acres of disturbed lands.

On May 12, 2015, the LVVWAC reviewed and approved the attached 2015 Wash CIP.

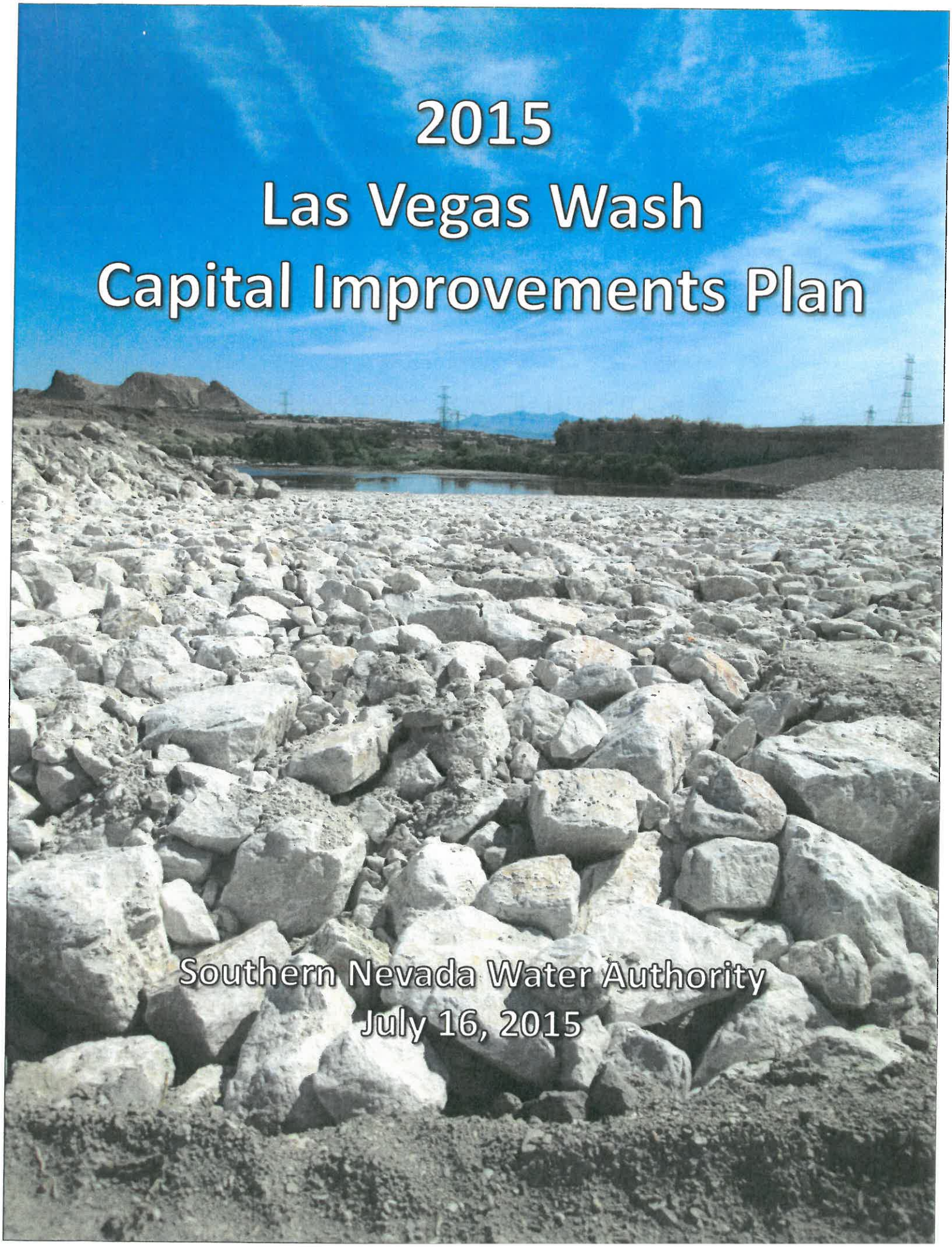
This action is authorized pursuant to NRS 277.045, Section 6(j) of the SNWA 1995 Amended Cooperative Agreement, and Section 7.1 of the Las Vegas Valley Watershed Advisory Committee First Amended Agreement. The office of the General Counsel has reviewed and approved this agenda item.

Respectfully submitted:

John J. Entsminger, General Manager
JJE:PDS:DLJ:MRJ:GAH:djt
Attachment

AGENDA ITEM # 9

2015
Las Vegas Wash
Capital Improvements Plan



Southern Nevada Water Authority

July 16, 2015

Las Vegas Wash
Capital Improvements Plan

July 16, 2015

SOUTHERN NEVADA WATER AUTHORITY™

Board of Directors

Mary Beth Scow, Las Vegas Valley Water District, Chair
Sam Bateman, City of Henderson, Vice Chair
Susan Brager, Clark County Water Reclamation District
Bob Coffin, City of Las Vegas
Duncan McCoy, City of Boulder City
Steve Sisolak, Big Bend Water District
Anita Wood, City of North Las Vegas

John J. Entsminger
General Manager

Philip D. Speight
Assistant General Manager

Julie A. Wilcox
DGM: Administration

Gregory J. Walch
General Counsel

David L. Johnson
DGM: Engineering /Operations

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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 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 29-member interagency group of federal, state, and local agencies, and private interests, was formed and has developed a Comprehensive Adaptive Management Plan (CAMP). The Southern Nevada Water Authority (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. In 2012, the Cooperative Agreement was amended and retitled as the "First Amended Agreement Regarding the Las Vegas Valley Watershed Advisory Committee" (Amended Agreement). As described in the Amended Agreement, the SNWA has been designated by the members of the Las Vegas Valley Watershed Advisory Committee (LVVWAC), 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 Amended Agreement establishes the LVVWAC to provide advice and consultation to SNWA on issues regarding this Wash CIP. 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

2.0 Plan Scope

2.1 General Scope

This Wash CIP covers the geographical area of the 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;
- Revegetation; 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, and 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 or concrete riprap armor and revegetation of stream banks, where appropriate.

Revegetation 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. Revegetation activities may include wetlands or dry land revegetation, 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 this 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 Wash CIP. A unique project number and

letter designation and a location name describe each project. Channel bank protection and revegetation 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 pertaining to the long-term management and enhancement of the 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 current Amended Agreement establishes roles and responsibilities for the above agencies in managing the Wash. The development, review, and update of this Wash CIP are identified in the Amended Agreement as a responsibility of the SNWA. The Amended 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, as necessary to meet the goals and requirements of the Amended 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. Revisions to the Wash CIP reflect the elimination of capital items previously completed or revisions proposed by a party to the Amended 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 Amended 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.

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 Wash currently receives four percent (4%) of a ¼ cent sales tax allocated for funding water and wastewater projects in Clark County. The 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 Wash CIP 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 Wash will exceed available cash on hand generated from sales tax and grant funding. In these cases, the Wash CIP will borrow money from SNWA's New Expansion Debt Service fund accounts, as available.

Funding and funding sources to-date are shown in Table 1 below:

Table 1
Funding-to-Date
1999 – 2014

Funding Source	Estimated Funding-to-Date	%
Sales Tax & Interest (Includes Actuals through December 2014)	$ 47,894,246	34.9
US Bureau of Reclamation Grants	$ 5,979,224	4.3
SNPLMA Funding	$ 39,764,927	29.0
Miscellaneous State and Federal Grants	$ 445,500	0.3
Other Local Agency Funding	$ 14,460,000	10.5
Interfund Borrowings	$ 28,768,611	21.0
Total:	**$ 137,312,508**	**100.0**

5.2 Expenditures

5.2.1 Expenditures-To-Date

From 1999 through December 2014, Wash CIP total expenditures have been as shown in Table 2 below. These expenditures include contributions by other stakeholder agencies for capital improvements to the 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 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 below:

Table 2
Total Expenditures-to-Date
1999 - 2014

Program	Total Expenditures-to-Date	%
Channel Stabilization	$ 103,496,882	74.7
Revegetation	$ 1,918,018	1.4
Comprehensive Programs	$ 8 302,997	6.0
Interfund Borrowing Repayments	$ 24,019,308	17.3
Interfund Borrowing Interest Repayments	$ 852,575	0.6
Total:	**$ 138,589,780**	**100.0**

5.2.2 Future Expenditures

Current projections of future capital expenditures for the Wash CIP are detailed in the Construction Program Master Plan shown in Appendix C. 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 three percent (3%) annual growth. 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 below:

Table 3
Projected Expenditures
2015-2021 (Present $)

Wash CIP Component	Projected Expenditures	%
Channel Stabilization	$ 23,034,104	90.2
Revegetation Programs	$ 1,989,321	7.8
Comprehensive Programs	$ 515,923	2.0
Total Projected Expenditures:	**$ 25,539,348**	**100.0**

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 Appendix E 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. Revegetation investments normally follow channel bed and bank stabilization, where practical. Unless otherwise noted, revegetation projects are planned for implementation following channel stabilization projects and are not shown in a separate priority evaluation within this Wash CIP.

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

Detailed descriptions of these criteria are found in Appendix F 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 LVVWAC. Project activity is then scheduled, as much as practical, to follow priority rankings described in Appendix E. 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 LVWCC 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.

7.0 2015-16 Project Work Plan

The Project Work Plan presented in Appendix A, represents a series of projects scheduled for activity during the next two years for which funding sources have been or are expected to be identified. Approximately 32 percent (32%) of the Project Work Plan will be funded through SMPLA. The remaining funding for individual capital projects will come from revenues generated from sales taxes. Funding commitments for individual projects will be based upon availability of funds at the time the commitment is made. The Project Work Plan is a sub-set of the Construction Program Master Plan detailed in Appendix C.

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 Amended Agreement, SNWA will transfer ownership to Clark County of stabilization facilities, including channel stabilization facilities, revegetated areas, and other facilities when deemed appropriate by the SNWA and Clark County.

9.0 Operations and Maintenance

In accordance with the Amended Agreement, SNWA operates and maintains Wash facilities, including channel stabilization projects and revegetated areas described in this Wash CIP and Project 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 Wash. Currently, SNWA's operations and maintenance activities are financed through assessments levied to individual LVVWAC member agencies, through the utilization of Bureau of Reclamation construction grant funding or through flood control maintenance funds allocated to SNWA by Clark County.

Appendix A
2015-16 Work Plan Budget Allocation

2015 Las Vegas Wash Capital Improvements Plan

2015-16 WORK PLAN BUDGET ALLOCATION

Proj. No.	Project Title	Project Start Date	Project Finish Date	Mid-Point Cost 2015	2016	2017	2018	2019	Total Project Cost
	Design								
810S	Tropicana Outfall Weir	1/1/2015	$42,095	$75,000					$75,000
	Design, Total:			$75,000					$75,000
	Construction								
810K	Three Kids Weir	1/1/2015	6/30/2015	$2,422,399					$2,422,399
810C	Historic Lateral Weir	8/1/2015	7/1/2017	$1,457,901	$3,498,962	$874,741			$5,831,604
810W	Sunrise Mountain Weir	8/1/2015	7/1/2017	$1,384,213	$3,322,110	$830,528			$5,536,851
	Constrution, Total:			$5,264,513	$6,821,072	$1,705,269			$13,790,854
	Revegetation								
880G	Up. Narrows, Duck Cr. Conf., DU No. 1 Weirs	1/1/2015	12/1/2015	$236,558	$236,558				$473,116
880K	Three Kids Weir	9/1/2015	8/30/2017		$79,346	$238,039	$158,693		$476,078
880U	Silver Bowl Weir	9/1/2015	8/30/2017		$43,123	$129,369	$86,246		$258,738
880Z	Archery Weir	9/1/2015	8/30/2017		$43,123	$129,369	$86,246		$258,738
880C	Historic Lateral Weir	9/1/2017	8/30/2019			$21,389	$64,167	$42,778	$128,334
880W	Sunrise Mountain Weir	9/1/2017	8/30/2019			$22,079	$66,237	$44,158	$132,474
	Revegetation Total:			$236,558	$402,150	$540,245	$461,589	$86,936	$1,727,478
	Comprehensive Programs								
860P	Emergency Flood Repair Allocation	1/2/2015	1/1/2017	$50,000	$50,000				$100,000
860P	Flood Damage Repair	2/10/2015	3/11/2017	$171,923					$171,923
860V	BOR Materials and Equipment	2/10/2015	3/11/2017	$122,000	$122,000				$244,000
	Comprehensive, Total:			$343,923	$172,000				$515,923
	Work Plan Cost Summary								
	Design			$75,000					$75,000
	Construction			$5,264,513	$6,821,072	$1,705,269			$13,790,854
	Revegetation			$236,558	$402,150	$540,245	$461,589	$86,936	$1,727,478
	Comprehensive			$343,923	$172,000				$515,923
	Interest Expense			$662,998	$711,637	$857,772	$947,235	$929,378	$4,109,020
	Total Program:			$6,582,992	$8,106,859	$3,103,286	$1,408,824	$1,016,314	$20,218,275

Appendix B
Project Descriptions

Project Descriptions

Project Title:	Historic Lateral Weir Expansion	**Project Number:**	810C
		Project Status:	Bidding

Project Description:

The existing Historic Lateral Weir was constructed as SNWA Project 910AR in 2000. This facility is located at the site of the first Las Vegas Valley Water Lateral crossing of the Las Vegas Wash. This 518 foot long, 9 foot high, rock riprap structure provides channel bed stabilization upstream to the Pabco Road Erosion Control Structure. This project will increase hydraulic capacity and provide channel bed stabilization to the new, downstream C-1 Channel outfall. This Project will be funded by sales tax revenues.

Project Title:	Three Kids Weir	**Project Number:**	810K
		Project Status:	Construction

Project Description:

This project involves the construction of a permanent weir facility to replace an existing temporary facility installed following a 1999 flood event. This new facility will provide toe erosion protection for the future Homestead Weir while controlling approximately 18 feet of vertical erosion potential in the Las Vegas Wash. The Three Kids Weir will be approximately 490 feet in length, 528 feet wide, and 18.5 feet high. This Project is being funded by SNPLMA grants.

Project Title:	Tropicana Outfall Weir	**Project Number:**	810S
		Project Status:	Design

Project Description:

This facility is planned to be located immediately downstream of the confluence of the Tropicana Channel outfall in the Las Vegas Wash, at the Clark County Nature Preserve. The facility is expected to be 9 feet in height and 200 feet long. This Project is currently unfunded.

Project Title:	Sunrise Mountain Weir	**Project Number:**	810W
		Project Status:	Bidding

Project Description:

This facility is to be located approximately 0.4 mile upstream of the Pabco Road Erosion Control Structure. This 350 foot long facility will stabilize approximately five feet of potential channel headcut erosion. This Project will be funded by sales tax revenues.

Project Descriptions

Project Title:	Flood Repair Allocation	**Project Number:**	860P
		Project Status:	Planned

Project Description:

Large flood events may damage existing stabilization facilities or create damage elsewhere in the Las Vegas Wash. This project will allow for the construction repair of stabilization facilities following major flood events where further damage to SNWA stabilization facilities will limit the ability of the facilities to function as intended. This Project will be funded by sales tax revenues.

Project Title:	Historic Lateral Weir Expansion Revegetation	**Project Number:**	880C
		Project Status:	Programmed

Project Description:

This project is intended to replace wetlands and other vegetation removed during weir construction, stabilize the stream banks, provide erosion control and habitat benefits. This Project will be funded by sales tax revenues.

Project Title:	Duck Creek Confluence, Upper Narrows, & DU Wetlands No. 1 Weir Sites Revegetation	**Project Number:**	880G
		Project Status:	Construction

Project Description:

This project is intended to replace wetlands and other vegetation removed during weir construction, stabilize the stream banks, provide erosion control and habitat benefits. This Project is being funded by SNPLMA grants and sales tax revenues.

Project Title:	Three Kids Weir Revegetation	**Project Number:**	880K
		Project Status:	Programmed

Project Description:

This project is intended to replace wetlands and other vegetation removed during weir construction, stabilize the stream banks, provide erosion control and habitat benefits. This Project is being funded by SNPLMA grants and sales tax revenues.

Project Descriptions

Project Title:	Tropicana Outfall Weir Revegetation	**Project Number:**	880S
		Project Status:	Programmed

Project Description:

This project is intended to replace wetlands and other vegetation removed during weir construction, stabilize the stream banks, provide erosion control and habitat benefits. This Project is currently unfunded.

Project Title:	Silver Bowl Weir Revegetation	**Project Number:**	880U
		Project Status:	Construction

Project Description:

This project is intended to replace wetlands and other vegetation removed during weir construction, stabilize the stream banks, provide erosion control and habitat benefits. This Project is being funded by SNPLMA grants and sales tax revenues.

Project Title:	Sunrise Mountain Weir Revegetation	**Project Number:**	880W
		Project Status:	Programmed

Project Description:

This project is intended to replace wetlands and other vegetation removed during weir construction, stabilize the stream banks, provide erosion control and habitat benefits. This Project will be funded by sales tax revenues.

Project Title:	Archery Weir Revegetation	**Project Number:**	880Z
		Project Status:	Construction

Project Description:

This project is intended to replace wetlands and other vegetation removed during weir construction, stabilize the stream banks, provide erosion control and habitat benefits. This Project will be funded by sales tax revenues.

Appendix C
2015 Las Vegas Wash
Construction Program Master Plan

2015 Las Vegas Wash Construction Program Master Plan

Design	Project Name	Start	Finish	Present Value	Future Value	2015	2016	2017	2018	2019	2020	2021	Total
810S	Tropicana Outfall Weir	1/1/2015	4/1/2015	$ 75,000	$ 75,000	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 75,000
			TOTAL	$ 75,000	$ 75,000	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 75,000

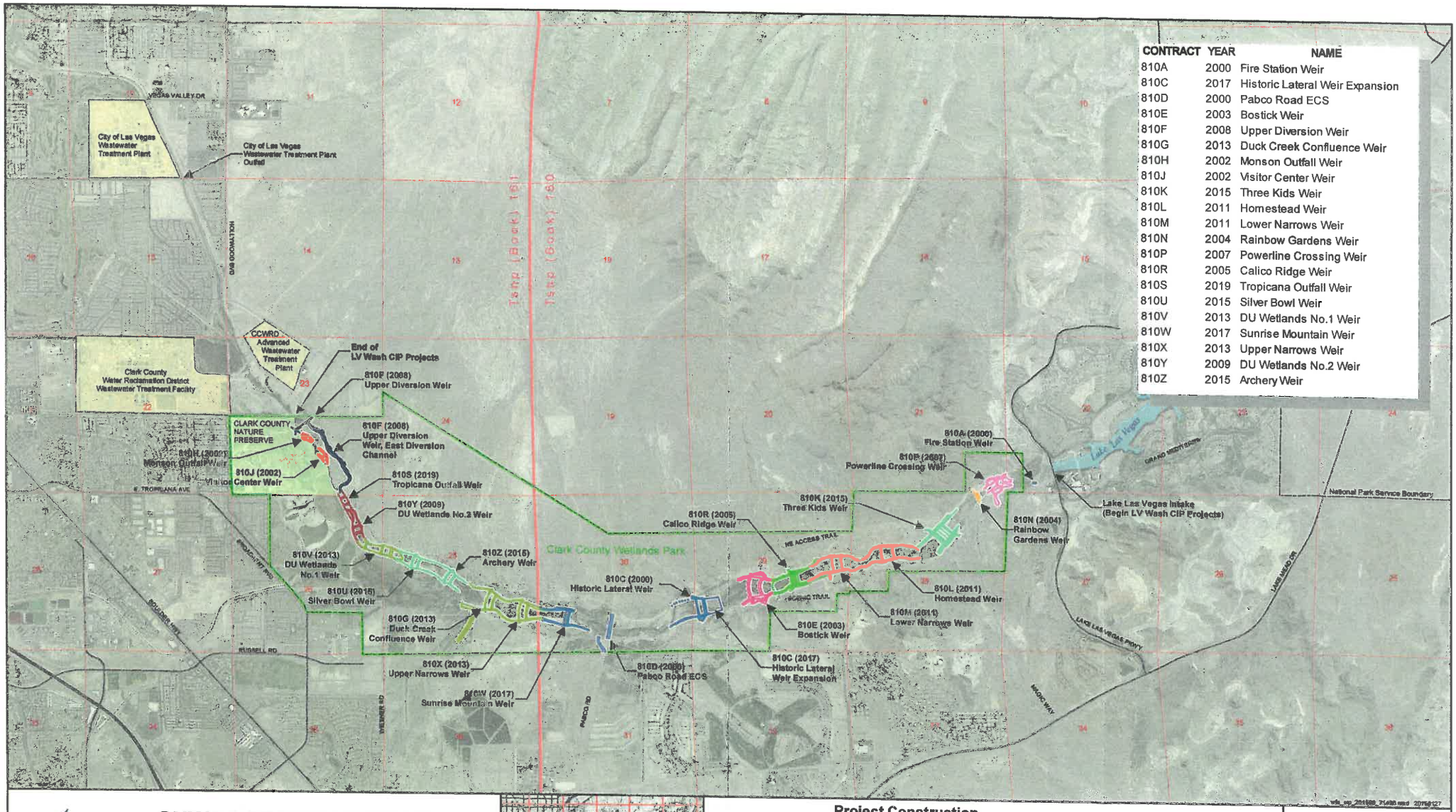
Construction	Project Name	Start	Finish	Present Value	Future Value	2015	2016	2017	2018	2019	2020	2021	Total
810K	Three Kids Weir	1/1/2015	6/18/2015	$ 2,422,399	$ 2,422,399	$ 2,422,399	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,422,399
810C	Historic Lateral Weir Expansion	8/1/2015	7/1/2017	$ 6,706,344	$ 6,706,344	$ 1,457,901	$ 3,498,962	$ 1,749,481	$ -	$ -	$ -	$ -	$ 6,706,344
810W	Sunrise Mountain Weir	8/1/2015	7/1/2017	$ 6,367,378	$ 6,367,378	$ 1,384,213	$ 3,322,110	$ 1,661,055	$ -	$ -	$ -	$ -	$ 6,367,378
810S	Tropicana Outfall Weir	7/1/2018	8/30/2019	$ 7,315,000	$ 7,462,983	$ -	$ -	$ -	$ 3,198,421	$ 4,264,562	$ -	$ -	$ 7,462,983
			TOTAL	$ 22,811,121	$ 22,959,104	$ 5,264,513	$ 6,821,072	$ 3,410,536	$ 3,198,421	$ 4,264,562	$ -	$ -	$ 22,959,104

Revegetation	Project Name	Start	Finish	Present Value	Future Value	2015	2016	2017	2018	2019	2020	2021	Total
880G	Duck Creek Confluence, Upper Narrows, & DU Wetlands No. 1 Weirs	1/1/2015	12/1/2015	$ 465,728	$ 473,116	$ 473,116	$ -	$ -	$ -	$ -	$ -	$ -	$ 473,116
880K	Three Kids Weir	9/1/2015	8/30/2017	$ 460,000	$ 476,078	$ 79,346	$ 238,039	$ 158,693	$ -	$ -	$ -	$ -	$ 476,078
880U	Silver Bowl Weir	9/1/2015	8/30/2017	$ 250,000	$ 258,738	$ 43,123	$ 129,369	$ 86,246	$ -	$ -	$ -	$ -	$ 258,738
880Z	Archery Weir	9/1/2015	8/30/2017	$ 250,000	$ 258,738	$ 43,123	$ 129,369	$ 86,246	$ -	$ -	$ -	$ -	$ 258,738
880C	Historic Lateral Weir Expansion	9/1/2017	8/31/2019	$ 124,000	$ 128,334	$ -	$ -	$ 21,389	$ 64,167	$ 42,778	$ -	$ -	$ 128,334
880W	Sunrise Mountain Weir	9/1/2017	8/31/2019	$ 128,000	$ 132,474	$ -	$ -	$ 22,079	$ 66,237	$ 44,158	$ -	$ -	$ 132,474
880S	Tropicana Outfall Weir	9/1/2018	8/30/2020	$ 253,000	$ 261,843	$ -	$ -	$ -	$ -	$ 43,640	$ 130,921	$ 87,282	$ 261,843
			TOTAL	$ 1,930,728	$ 1,989,321	$ 638,708	$ 496,777	$ 374,653	$ 130,404	$ 130,576	$ 130,921	$ 87,282	$ 1,989,321

Comprehensive	Project Name	Start	Finish	Present Value	Future Value	2015	2016	2017	2018	2019	2020	2021	Total
860P	Flood Repair Allocation	1/2/2015	1/1/2017	$ 100,000	$ 100,000	$ 50,000	$ 50,000	$ -	$ -	$ -	$ -	$ -	$ 100,000
860P	Flood Damage Repair	1/2/2015	5/2/2015	$171,923	$ 171,923	$ 171,923	$ -	$ -	$ -	$ -	$ -	$ -	$ 171,923
860V	BOR Materials & Equipment	2/10/2015	3/11/2017	$ 244,000	$ 244,000	$ 122,000	$ 122,000	$ -	$ -	$ -	$ -	$ -	$ 244,000
			TOTAL	$ 515,923	$ 515,923	$ 343,923	$ 172,000	$ -	$ -	$ -	$ -	$ -	$ 515,923

TOTAL 2015 WASH CIP				**$ 25,332,772**	**$ 25,539,348**	**$ 6,322,144**	**$ 7,489,849**	**$ 3,785,189**	**$ 3,328,825**	**$ 4,395,138**	**$ 130,921**	**$ 87,282**	**$ 25,539,348**

Appendix D
Location Map



CONTRACT	YEAR	NAME
810A	2000	Fire Station Weir
810C	2017	Historic Lateral Weir Expansion
810D	2000	Pabco Road ECS
810E	2003	Bostick Weir
810F	2008	Upper Diversion Weir
810G	2013	Duck Creek Confluence Weir
810H	2002	Monson Outfall Weir
810J	2002	Visitor Center Weir
810K	2015	Three Kids Weir
810L	2011	Homestead Weir
810M	2011	Lower Narrows Weir
810N	2004	Rainbow Gardens Weir
810P	2007	Powerline Crossing Weir
810R	2005	Calico Ridge Weir
810S	2019	Tropicana Outfall Weir
810U	2015	Silver Bowl Weir
810V	2013	DU Wetlands No.1 Weir
810W	2017	Sunrise Mountain Weir
810X	2013	Upper Narrows Weir
810Y	2009	DU Wetlands No.2 Weir
810Z	2015	Archery Weir

SOUTHERN NEVADA WATER AUTHORITY

SNWA LAS VEGAS WASH CAPITAL IMPROVEMENTS PLAN GRADE CONTROL STRUCTURES 2015

Project Construction Year of Completion

2000 · 2002 · 2003 · 2004 · 2005 · 2007 · 2008 · 2009 · 2011 · 2013 · 2015 · 2017 · 2019

0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 8,000 9,000 10,000 Feet

SNWA Wash Facilities Engineering Official Capital Improvements Plan map. Board approval date: March 19, 2015.

Map produced by SNWA Engineering, ETS, Geospatial Solutions Team. (GIS) SPC NV-E, NAD83, US Feet. Analyst: EN

1 Inch = 3000 Feet, or Scale = 1:36,000 (Original 11x17 map only, verify scale)

MAP-ID: WFE-CIP
DATE: 16 JUL 2015

Appendix E
Ranking Criteria Scoring
Channel Bed Stabilization

2014 - 15 Capital Improvements Plan
Ranking Criteria Scoring
Channel Bed Stabilization

Factor	Criteria	Score	Criteria Score																				
			Fire Station	Powerline Crossing	Rainbow Gardens	Three Kids Weir	Homestead	Lower Narrows	Calico Ridge	Bostick	Historic Lateral	Pabco Road	Sunrise Mountain	Upper Narrows	Duck Creek	Archery	Silverbowl	DU Wetlands 1	DU Wetlands 2	Tropicana Outfall	Visitor Center	Monson	Upper Diversion
Upstream Stability	Active headcutting risking upstream channel, structures, or banks	5		5	5	5	5	5	5	5	5	5		5	5	5		5	5				5
	Moderate headcutting in silty or sandy channel bed, some bank stability threat	3	3										3				3				3	3	
	Slow headcutting in caliche or bedrock, little bank stability threat	1																		1			
System Relationship	Provides important foundation or stability support for other facilities	5	5	5	5	5	5	5	5	5	5	5		5		5	5	5	5	5	5	5	5
	Provides moderate foundation or stability support to other Wash features	3											3		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	5	5	5	5	5	5		5	5	5	5		5	5	5	5	5	5			5
	Provides minor capital cost savings for other facilities or minor annual maintenance expected	3							3					3							3	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			5	5	5	5		5	5				5								
	Provides minor volume of sediment capture or 3 or more acres potential wetlands area	3	3	3								3	3	3		3	3	3	3				3
	Provides little or no volume for sediment capture or less than 1 acre of potential wetlands area	1							1											1	1	1	
Ecosystem Enhancement	Provides platform for ecosystem enhancement covering greater than 5 acres	5			5	5	5	5		5	5	5			5				5				
	Provides platform for ecosystem enhancement covering greater than 3 acres	3	3	3									3	3		3	3	3		3			3
	Provides platform for ecosystem enhancement covering 1 acre or more	1							1												1	1	
Recreational Opportunities	Directly reduces threat to recreational features	5		5		5	5	5							5				5		5	5	5
	Provides possible threat reduction to recreational features	3			3					3	3	3		3		3	3	3		3			
	Provides little or no threat reduction to recreational features	1	1						1				1										
Public Safety	Is strongly beneficial to public safety associated with activities in the Wash	5				5	5	5				5								5	5	5	5
	Provides some improvement to public safety associated with activities in the Wash	3		3	3				3	3	3		3	3	3			3	3				
	Provides little improvement to public safety associated with activities in the Wash	1	1													1	1						
Permitting	Relatively minor permitting issues to be resolved	5	5			5	5		5	5			5	5				5	5		5	5	
	Wetlands, WQ, Wildlife, or Archeological issues exist and clearance required	3		3	3			3			3				3	3				3			3
	A sensitive site requiring mitigation or high level of protection	1										1					1						
ROW & Access	Local Government Ownership, relatively easy acquisition	5		5	5		5	5		5	5	5		5	5	5	5	5	5	5	5	5	5
	Federal Ownership, requiring federal review and approval	3							3				3										
	Private Ownership requiring extended negotiations	1	1			1																	
Other Funding	other local, state, or federal funding assistance for > 50% of project cost	5	5	5	5	5	5	5	5		5	5							5		5	5	5
	Identified possibility for additional local, state, federal funding assistance for > 25% of project	3												3	3		3	3					
	No additional funding assistance identified beyond local sales tax revenues or < 25% project	1								1			1			1				1			

= In Construction or Completed

Appendix F
2014-15 Project Prioritization
Channel Bed Stabilization

2014 - 15 Project Prioritization
Channel Bed Stabilization

Facility Description	Channel Station	Facility ID	Priority Factor and Weight										Priority Value	Ranking	In Construction or Completed
			Stability	Relationship	Cost Avoidance	WQ Enhancement	Echosystem Enhancement	Recreational Benefit	Public Safety	Permitting	ROW & Access	Other Funding			
			5	5	5	3.5	3.5	3.5	3.5	2.5	2.5	2.5			
Lower Narrows	9470	810M	5 25	5 25	5 25	5 17.5	5 17.5	5 17.5	5 17.5	3 7.5	5 12.5	5 12.5	177.5		X
Homestead	6740	810L	5 25	5 25	5 25	5 17.5	5 17.5	5 17.5	5 17.5	3 7.5	5 12.5	5 12.5	177.5		X
Three Kids Weir	5150	810K	5 25	5 25	5 25	5 17.5	5 17.5	5 17.5	5 17.5	5 12.5	1 2.5	5 12.5	172.5	1	
Historic Laterial	15400	810C (910AR)	5 25	5 25	5 25	5 17.5	5 17.5	3 10.5	3 10.5	3 7.5	5 12.5	5 12.5	163.5		X
Rainbow Gardens	3120	810N (170A)	5 25	5 25	5 25	5 17.5	5 17.5	3 10.5	3 10.5	3 7.5	5 12.5	5 12.5	163.5		X
Upper Diversion	35650	810F	5 25	5 25	5 25	3 10.5	3 10.5	5 17.5	5 17.5	3 7.5	5 12.5	5 12.5	163.5		X
Pabco Road	20000	810D	5 25	5 25	5 25	3 10.5	5 17.5	3 10.5	5 17.5	1 2.5	5 12.5	5 12.5	158.5		X
Bostick Weir	13300	810E	5 25.0	5 25.0	5 25.0	5 17.5	5 17.5	3 10.5	3 10.5	5 12.5	5 12.5	1 2.5	158.5		X
Powerline Crossing	1950	810P	5 25	5 25	5 25	3 10.5	3 10.5	5 17.5	3 10.5	3 7.5	5 12.5	5 12.5	156.5		X
DU Wetlands 1	29500	810V	5 25	5 25	5 25	3 10.5	3 10.5	3 10.5	3 10.5	5 12.5	5 12.5	5 12.5	154.5		X
Duck Creek Confluence	25330	810G	5 25.0	3 15.0	5 25.0	5 17.5	5 17.5	5 17.5	3 10.5	3 7.5	5 12.5	3 7.5	155.5		X
Upper Narrows	23500	810X	5 25	5 25	3 15	3 10.5	3 10.5	3 10.5	3 10.5	5 12.5	5 12.5	3 7.5	139.5		X
Visitor Center	33850	810J	3 15	5 25	3 15	1 3.5	1 3.5	5 17.5	5 17.5	5 12.5	5 12.5	5 12.5	134.5		X
Monson Weir	34950	810H	3 15	5 25	3 15	1 3.5	1 3.5	5 17.5	5 17.5	5 12.5	5 12.5	5 12.5	134.5		X
DU Wetlands 2	31100	810Y	3 15	3 15	5 25	3 10.5	5 17.5	5 17.5	3 10.5	3 7.5	3 7.5	3 7.5	133.5		X
Calico Ridge	11400	810R	5 25	5 25	5 25	1 3.5	1 3.5	1 3.5	3 10.5	5 12.5	3 7.5	5 12.5	128.5		X
Archery	26500	810Z	5 25	5 25	5 25	3 10.5	3 10.5	3 10.5	1 3.5	3 7.5	5 12.5	1 2.5	132.5	2	
Silver Bowl	28190	810U	3 15	5 25	5 25	3 10.5	3 10.5	3 10.5	1 3.5	1 2.5	5 12.5	3 7.5	122.5	3	
Fire Station	690	810A	3 15	5 25	5 25	3 10.5	3 10.5	1 3.5	1 3.5	5 12.5	1 2.5	5 12.5	120.5		X
Tropicana Outfall	32300	810S	1 5	5 25	5 25	1 3.5	3 10.5	3 10.5	5 17.5	3 7.5	5 12.5	1 2.5	119.5	4	
Sunrise Mountain	22000	810W	3 15	3 15	5 25	3 10.5	3 10.5	1 3.5	3 10.5	5 12.5	3 7.5	1 2.5	112.5	5	

= In Construction or Completed

Appendix G
Sales Tax Received and Distributed

SOUTHERN NEVADA WATER AUTHORITY

Southern Nevada Water Authority
Sale Tax Received and Distributed

Collection Month	Received Date	Receipts: Gross Amount	Distributions: Clark Co. Rural Areas	LV Wash	Wastewater Agencies	SNWA Water
Apr-99	07-Jul-99	3,995,539.18	168,120.30	159,821.57		3,667,597.31
May-99	27-Jul-99	4,083,781.36	171,833.27	163,351.25		3,748,596.84
Jun-99	27-Aug-99	4,466,630.55	187,942.41	178,665.22		4,100,022.92
Jul-99	24-Sep-99	3,876,061.83	163,093.05	155,042.47		3,557,926.31
Aug-99	22-Oct-99	4,056,712.59	170,694.30	162,268.50		3,723,749.79
Sep-99	29-Nov-99	4,389,790.35	184,709.21	175,591.61		4,029,489.53
Oct-99 #	27-Dec-99	4,081,696.66	171,745.55	163,267.87		3,746,683.24
Nov-99	25-Jan-00	4,210,100.80	177,148.41	168,404.03		3,864,548.36
Dec-99	29-Feb-00	5,077,263.36	213,636.01	203,090.53		4,660,536.82
Calendar 1999		38,237,576.68	1,608,922.51	1,529,503.07	0.00	35,099,151.10
Jan-00	24-Mar-00	4,011,032.32	168,772.21	160,441.29		3,681,818.82
Feb-00	25-Apr-00	4,056,424.50	170,682.17	162,256.98		3,723,485.35
Mar-00	26-May-00	4,718,343.86	198,533.75	188,733.75		4,331,076.36
Apr-00	28-Jun-00	4,285,441.90	180,318.54	171,417.68		3,933,705.68
May-00	21-Jul-00	4,403,289.00	185,277.19	176,131.56		4,041,880.25
Jun-00	25-Aug-00	4,816,863.21	202,679.15	192,674.53		4,421,509.53
Jul-00	22-Sep-00	4,316,704.54	181,633.98	172,668.18		3,962,402.38
Aug-00	20-Oct-00	4,470,849.30	188,119.93	178,833.97		4,103,895.40
Sep-00	29-Nov-00	4,819,576.45	202,793.32	192,783.06		4,424,000.07
Oct-00	22-Dec-00	4,363,936.03	183,621.34	174,557.44		4,005,757.25
Nov-00	22-Jan-01	4,423,626.78	186,132.94	176,945.07		4,060,548.77
Dec-00	26-Feb-01	5,353,219.53	225,247.42	214,128.78		4,913,843.33
Calendar 2000		54,039,307.42	2,273,811.94	2,161,572.30	0.00	49,603,923.18
Jan-01	23-Mar-01	4,196,777.45	176,587.80	167,871.10		3,852,318.55
Feb-01	20-Apr-01	4,238,833.88	178,357.41	169,553.36		3,890,923.11
Mar-01	25-May-01	5,122,947.79	215,558.27	204,917.91		4,702,471.61
Apr-01	22-Jun-01	5,101,766.00	191,643.88	182,183.98	1,588,693.23	2,592,078.42
May-01	20-Jul-01	4,811,654.02	202,459.97	192,466.16	1,678,356.60	2,738,371.29
Jun-01	24-Aug-01	4,913,175.32	206,731.68	196,527.01	1,713,768.32	2,796,148.31
Jul-01	21-Sep-01	4,573,130.34	192,423.61	182,925.21	1,595,156.98	2,602,624.54
Aug-01	19-Oct-01	4,769,280.98	200,677.04	190,771.24	1,663,576.43	2,714,256.27
Sep-01	27-Nov-01	4,281,399.03	180,148.43	171,255.96	1,493,397.96	2,436,596.68
Oct-01	26-Dec-01	4,694,971.17	197,550.30	187,798.85	1,637,656.37	2,671,965.65
Nov-01	29-Jan-02	4,472,344.19	188,182.83	178,893.77	1,560,001.69	2,545,265.90
Dec-01	01-Mar-02	5,232,196.78	220,155.14	209,287.87	1,825,046.43	2,977,707.34
Calendar 2001		55,861,310.46	2,350,476.36	2,234,452.42	14,755,654.01	36,520,727.67

Southern Nevada Water Authority
Sale Tax Received and Distributed (continued)

Collection Month	Received Date	Receipts Gross Amount	Distributions Clark Co. Rural Areas	LV Wash	Wastewater Agencies	SNWA Water
Jan-02	25-Mar-02	4,326,824.60	182,059.80	173,072.98	1,509,242.89	2,462,448.93
Feb-02	22-Apr-02	4,349,265.12	183,004.03	173,970.60	1,517,070.38	2,475,220.11
Mar-02	24-May-02	5,103,195.94	214,727.18	204,127.84	1,780,049.55	2,904,291.37
Apr-02	26-Jun-02	4,750,192.16	199,873.84	190,007.69	1,656,918.04	2,703,392.59
May-02	22-Jul-02	4,821,867.75	202,889.73	192,874.71	1,681,919.26	2,744,184.05
Jun-02	26-Aug-02	4,970,041.83	209,124.45	198,801.67	1,733,603.97	2,828,511.74
Jul-02	27-Sep-02	4,749,454.66	199,842.80	189,978.19	1,656,660.79	2,702,972.88
Aug-02	29-Oct-02	5,022,282.62	211,322.59	200,891.30	1,751,826.12	2,858,242.61
Sep-02	27-Nov-02	4,874,255.97	205,094.07	194,970.24	1,700,192.83	2,773,998.83
Oct-02	30-Dec-02	4,823,951.75	202,977.42	192,958.07	1,682,646.18	2,745,370.08
Nov-02	27-Jan-03	4,774,928.64	200,914.67	190,997.15	1,665,546.39	2,717,470.43
Dec-02	28-Feb-03	5,797,103.44	243,924.72	231,884.14	2,022,091.94	3,299,202.64
Calendar 2002		58,363,364.48	2,455,755.30	2,334,534.58	20,357,768.34	33,215,306.26
Jan-03	28-Mar-03	4,691,518.79	197,405.04	187,660.75	1,636,452.14	2,670,000.86
Feb-03	25-Apr-03	4,578,089.84	192,632.29	183,123.59	1,596,886.90	2,605,447.06
Mar-03	30-May-03	5,436,587.00	228,755.27	217,463.48	1,896,339.93	3,094,028.32
Apr-03	27-Jun-03	5,141,703.75	216,347.47	205,668.15	1,793,481.49	2,926,206.64
May-03	28-Jul-03	5,209,543.33	219,201.95	208,381.73	1,817,144.66	2,964,814.99
Jun-03	29-Aug-03	5,479,729.26	230,570.57	219,189.17	1,911,388.42	3,118,581.10
Jul-03	29-Sep-03	5,289,907.96	222,583.46	211,596.32	1,845,176.71	3,010,551.47
Aug-03	24-Oct-03	5,567,908.70	234,280.89	222,716.35	1,942,146.35	3,168,765.11
Sep-03	26-Nov-03	5,593,448.96	235,355.55	223,737.96	1,976,127.81	3,158,227.64
Oct-03	26-Dec-03	5,504,944.68	166,761.51	220,197.79	1,944,834.45	3,173,150.93
Nov-03	30-Jan-04	5,255,726.03	159,211.92	210,229.04	1,856,788.33	3,029,496.74
Dec-03	27-Feb-04	6,274,645.81	190,078.10	250,985.83	2,216,761.11	3,616,820.77
Calendar 2003		64,023,754.11	2,493,184.02	2,560,950.16	22,433,528.30	36,536,091.63
Jan-04	26-Mar-04	5,611,387.95	169,986.00	224,455.52	1,982,439.64	3,234,506.79
Feb-04	30-Apr-04	5,373,732.98	162,786.71	214,949.32	1,898,478.84	3,097,518.11
Mar-04	28-May-04	6,609,509.31	200,222.13	264,380.37	2,335,064.59	3,809,842.22
Apr-04	25-Jun-04	5,958,389.07	180,497.72	238,335.56	2,105,031.20	3,434,524.59
May-04	30-Jul-04	6,248,802.97	189,295.24	249,952.12	2,207,631.13	3,601,924.48
Jun-04	27-Aug-04	6,435,919.54	194,963.57	257,436.78	2,273,737.29	3,709,781.90
Jul-04	24-Sep-04	6,376,347.86	193,158.96	255,053.91	2,252,691.29	3,675,443.70
Aug-04	28-Oct-04	6,277,280.58	190,157.91	251,091.22	2,217,691.95	3,618,339.50
Sep-04	29-Nov-04	6,646,047.72	201,328.99	265,841.91	2,347,973.19	3,830,903.63
Oct-04	23-Dec-04	6,403,723.60	193,988.26	256,148.94	2,262,362.83	3,691,223.57
Nov-04	28-Jan-05	6,306,344.85	191,038.36	252,253.79	2,227,960.03	3,635,092.67
Dec-04	25-Feb-05	7,757,964.11	235,012.32	310,318.56	2,740,800.63	4,471,832.60
Calendar 2004		76,005,450.54	2,302,436.17	3,040,218.02	26,851,862.61	43,810,933.74

Southern Nevada Water Authority
Sale Tax Received and Distributed (continued)

		Receipts	Distributions			
Collection Month	Received Date	Gross Amount	Clark Co. Rural Areas	LV Wash	Wastewater Agencies	SNWA Water
Jan-05	28-Mar-05	6,057,704.65	183,506.29	242,308.19	2,140,118.27	3,491,771.90
Feb-05	29-Apr-05	6,093,734.12	184,597.73	243,749.36	2,152,847.07	3,512,539.96
Mar-05	27-May-05	7,596,621.64	230,124.76	303,864.87	2,683,800.16	4,378,831.85
Apr-05	24-Jun-05	6,875,146.03	208,269.07	275,005.84	2,428,911.02	3,962,960.10
May-05	29-Jul-05	7,140,351.88	216,302.97	285,614.08	2,522,605.24	4,115,829.59
Jun-05	26-Aug-05	7,494,218.54	227,022.66	299,768.74	2,647,622.31	4,319,804.83
Jul-05	30-Sep-05	7,024,506.24	212,793.65	280,980.25	2,481,678.29	4,049,054.05
Aug-05	27-Oct-05	7,060,064.09	213,870.80	282,402.56	2,494,240.47	4,069,550.26
Sep-05	29-Nov-05	7,338,500.94	222,305.50	293,540.04	2,592,609.05	4,230,046.35
Oct-05	30-Dec-05	7,016,781.08	212,559.63	280,671.24	2,478,949.08	4,044,601.13
Nov-05	27-Jan-06	6,888,713.57	208,680.08	275,548.54	2,433,704.28	3,970,780.67
Dec-05	01-Mar-06	8,587,151.26	260,130.92	343,486.05	3,033,743.03	4,949,791.26
Calendar 2005		85,173,494.04	2,580,164.06	3,406,939.76	30,090,828.27	49,095,561.95
Jan-06	31-Mar-06	6,743,202.56	204,272.10	269,728.10	2,382,296.89	3,886,905.46
Feb-06	28-Apr-06	6,815,658.80	488,723.20	272,626.35	2,334,259.32	3,720,049.93
Mar-06	01-Jun-06	8,081,356.22	441,313.10	323,254.25	2,780,379.77	4,536,409.10
Apr-06	03-Jul-06	7,394,367.54	233,875.64	295,774.70	2,608,592.54	4,256,124.66
May-06	28-Jul-06	7,484,834.92	236,737.02	299,393.40	2,640,507.71	4,308,196.79
Jun-06	30-Aug-06	7,993,627.56	252,829.57	319,745.10	2,820,000.10	4,601,052.79
Jul-06	02-Oct-06	7,199,839.98	227,722.95	287,993.60	2,539,966.90	4,144,156.53
Aug-06	31-Oct-06	7,323,145.42	231,622.96	292,925.82	2,583,466.72	4,215,129.92
Sep-06	29-Nov-06	7,582,818.24	239,836.12	303,312.73	2,675,074.37	4,364,595.02
Oct-06	29-Dec-06	7,100,582.95	224,583.56	284,023.32	2,504,950.91	4,087,025.16
Nov-06	27-Jan-07	7,046,861.20	222,884.40	281,874.45	2,485,998.89	4,056,103.46
Dec-06	28-Feb-07	8,573,456.58	271,168.92	342,938.26	3,024,552.77	4,934,796.63
Calendar 2006		89,339,751.97	3,275,569.54	3,573,590.08	31,380,046.89	51,110,545.45
Jan-07	30-Mar-07	6,910,452.75	218,569.95	276,418.11	2,437,876.58	3,977,588.11
Feb-07	27-Apr-07	6,986,205.37	220,965.92	279,448.21	2,464,600.67	4,021,190.57
Mar-07	31-May-07	8,161,104.50	258,126.68	326,444.18	2,879,082.78	4,697,450.86
Apr-07	29-Jun-07	7,153,764.65	226,265.63	286,150.59	2,523,712.40	4,117,636.03
May-07	30-Jul-07	7,417,298.89	201,355.32	296,691.96	2,629,315.61	4,289,936.00
Jun-07	31-Aug-07	7,918,593.34	210,795.25	316,743.73	2,808,600.66	4,582,453.70
Jul-07	28-Sep-07	7,035,190.85	187,278.82	281,407.63	2,495,271.67	4,071,232.73
Aug-07	31-Oct-07	7,030,119.84	187,143.84	281,204.79	2,493,473.06	4,068,298.15
Sep-07	30-Nov-07	7,371,727.70	196,237.53	294,869.11	2,614,636.00	4,265,985.06
Oct-07	31-Dec-07	7,203,146.50	191,749.85	288,125.86	2,554,842.90	4,168,427.89
Nov-07	30-Jan-08	7,001,344.07	186,377.81	280,053.76	2,483,266.75	4,051,645.75
Dec-07	29-Feb-08	8,565,787.90	241,383.90	342,631.52	3,033,073.54	4,948,698.94
Calendar 2007		88,754,736.36	2,526,250.50	3,550,189.45	31,417,752.62	51,260,543.79

Southern Nevada Water Authority
Sale Tax Received and Distributed (continued)

Collection Month	Received Date	Receipts: Gross Amount	Distributions: Clark Co. Rural Areas	LV Wash	Wastewater Agencies	SNWA Water
Jan-08	28-Mar-08	6,498,944.03	205,937.90	259,957.76	2,292,558.38	3,740,489.99
Feb-08	30-Apr-08	6,544,565.49	184,425.86	261,782.62	2,317,375.67	3,780,981.34
Mar-08	30-May-08	7,683,502.55	216,521.10	307,340.10	2,720,663.71	4,438,977.64
Apr-08	27-Jun-08	6,927,959.59	195,229.90	277,118.38	2,453,132.30	4,002,479.00
May-08	31-Jul-08	7,171,986.97	202,106.59	286,879.48	2,539,540.34	4,143,460.55
Jun-08	29-Aug-08	7,242,215.02	204,085.62	289,688.60	2,564,407.51	4,184,033.29
Jul-08	29-Sep-08	6,712,162.02	189,148.73	268,486.48	2,376,720.20	3,877,806.61
Aug-08	30-Oct-08	7,180,617.73	205,186.15	287,224.71	2,541,518.62	4,146,688.25
Sep-08	25-Nov-08	6,622,651.28	189,242.26	264,906.05	2,344,031.14	3,824,471.83
Oct-08	28-Dec-08	6,608,538.41	188,838.99	264,341.54	2,339,036.01	3,816,321.87
Nov-08	30-Jan-09	6,058,232.95	173,114.01	242,329.32	2,144,260.07	3,498,529.55
Dec-08	27-Feb-09	6,913,933.90	197,565.66	276,557.36	2,447,128.15	3,992,682.73
Calendar 2008		82,165,309.94	2,351,402.77	3,286,612.40	29,080,372.10	47,446,922.65
Jan-09	30-Mar-09	5,440,196.44	155,453.61	217,607.87	1,925,511.30	3,141,623.66
Feb-09	30-Apr-09	5,320,985.61	152,047.17	212,839.42	1,883,317.64	3,072,781.38
Mar-09	29-May-09	6,589,177.07	188,285.73	263,567.08	2,332,183.23	3,805,141.03
Apr-09	26-Jun-09	5,838,657.59	166,839.64	233,546.30	2,066,543.24	3,371,728.41
May-09	30-Jul-09	5,790,454.59	165,462.25	231,618.18	2,049,482.19	3,343,891.97
Jun-09	28-Aug-09	5,958,459.00	170,262.97	238,338.36	2,108,945.92	3,440,911.75
Jul-09	29-Sep-09	5,411,300.79	167,577.16	216,452.03	1,910,363.22	3,116,908.38
Aug-09	29-Oct-09	5,435,528.13	168,327.44	217,421.13	1,918,916.24	3,130,863.32
Sep-09	30-Nov-09	5,630,829.06	174,375.51	225,233.16	1,987,863.75	3,243,356.64
Oct-09	30-Dec-09	5,467,931.03	169,330.89	218,717.24	1,930,355.50	3,149,527.40
Nov-09	29-Jan-10	5,421,077.48	167,879.93	216,843.10	1,913,814.69	3,122,539.76
Dec-09	26-Feb-10	6,590,956.06	204,108.73	263,638.24	2,326,819.45	3,796,389.64
Calendar 2009		68,895,552.85	2,049,951.03	2,755,822.11	24,354,116.37	39,735,663.34
Jan-10	31-Mar-10	5,108,795.78	158,209.19	204,351.83	1,803,569.21	2,942,665.55
Feb-10	30-Apr-10	5,108,584.48	158,202.64	204,343.38	1,803,494.61	2,942,543.84
Mar-10	28-May-10	6,069,443.99	187,958.54	242,777.76	2,142,708.92	3,495,998.77
Apr-10	30-Jun-10	5,998,217.64	185,752.80	239,928.71	2,117,563.73	3,454,972.40
May-10	2-Aug-10	5,735,351.33	177,612.36	229,414.05	2,024,763.47	3,303,561.45
Jun-10	31-Aug-10	5,928,143.48	183,582.75	237,125.74	2,092,825.30	3,414,609.69
Jul-10	30-Sep-10	5,654,889.57	188,890.90	226,195.58	1,991,125.17	3,248,677.92
Aug-10	28-Oct-10	5,803,041.71	193,839.66	232,121.67	2,043,290.54	3,333,789.84
Sep-10	30-Nov-10	5,711,559.73	190,783.86	228,462.39	2,011,079.12	3,281,234.36
Oct-10	30-Dec-10	5,601,460.83	187,106.22	224,058.43	1,972,312.55	3,217,983.63
Nov-10	31-Jan-11	5,584,548.13	186,541.28	223,381.93	1,966,357.46	3,208,267.46
Dec-10	28-Feb-11	6,606,718.98	220,684.96	264,268.76	2,326,270.80	3,795,494.46
Calendar 2010		68,910,755.65	2,219,165.16	2,756,430.23	24,295,360.88	39,639,799.37

Southern Nevada Water Authority
Sale Tax Received and Distributed (continued)

		Receipts	Distributions			
Collection Month	Received Date	Gross Amount	Clark Co. Rural Areas	LV Wash	Wastewater Agencies	SNWA Water
Jan-11	31-Mar-11	5,405,921.13	180,574.58	216,236.85	1,903,461.68	3,105,648.02
Feb-11	29-Apr-11	5,353,999.20	178,840.22	214,159.97	1,885,179.63	3,075,819.38
Mar-11	31-May-11	6,697,135.98	223,705.17	267,885.44	2,358,107.24	3,847,438.13
Apr-11	30-Jun-11	6,063,185.70	202,529.26	242,527.43	2,134,889.02	3,483,239.99
May-11	1-Aug-11	6,036,785.75	201,647.42	241,471.43	2,125,593.42	3,468,073.48
Jun-11	31-Aug-11	6,397,099.10	213,683.00	255,883.96	2,252,462.21	3,675,069.93
Jul-11	3-Oct-11	5,879,272.39	196,385.98	235,170.90	2,134,327.71	3,313,387.80
Aug-11	31-Oct-11	5,859,385.06	195,721.68	234,375.40	1,998,933.61	3,430,354.37
Sep-11	29-Nov-11	6,305,007.32	210,606.85	252,200.29	2,220,036.07	3,622,164.11
Oct-11	29-Dec-11	6,129,515.21	204,744.87	245,180.61	2,158,244.10	3,521,345.63
Nov-11	31-Jan-12	6,055,230.26	202,263.52	242,209.21	2,132,087.86	3,478,669.67
Dec-11	29-Feb-12	7,144,138.09	238,636.43	285,765.52	2,515,499.74	4,104,236.40
Calendar 2011		73,326,675.19	2,449,338.98	2,933,067.01	25,818,822.29	42,125,446.91
Jan-12	30-Mar-12	5,658,195.97	189,001.34	226,327.84	1,992,289.38	3,250,577.41
Feb-12	30-Apr-12	5,922,925.06	197,844.12	236,917.00	2,085,502.30	3,402,661.64
Mar-12	31-May-12	6,790,047.64	226,808.71	271,601.91	2,390,822.07	3,900,814.95
Apr-12	29-Jun-12	6,212,889.36	207,529.83	248,515.57	2,187,600.70	3,569,243.26
May-12	30-Jul-12	6,522,231.72	217,862.82	260,889.27	2,296,522.26	3,746,957.37
Jun-12	31-Aug-12	6,742,691.04	225,226.85	269,707.64	2,374,147.49	3,873,609.06
Jul-12	28-Sep-12	6,167,978.96	206,029.68	246,719.16	2,171,787.45	3,543,442.67
Aug-12	31-Oct-12	6,347,611.21	212,029.96	253,904.45	2,235,037.19	3,646,639.61
Sep-12	30-Nov-12	6,574,756.29	219,617.31	262,990.25	2,315,016.52	3,777,132.21
Oct-12	31-Dec-12	6,472,578.79	216,204.25	258,903.15	2,279,039.12	3,718,432.27
Nov-12	31-Jan-13	6,355,186.60	212,283.00	254,207.46	2,237,704.53	3,650,991.61
Dec-12	1-Mar-13	7,550,851.36	252,221.92	302,034.05	2,658,706.25	4,337,889.14
Calendar 2012		77,317,944.00	2,582,659.79	3,092,717.75	27,224,175.26	44,418,391.20
Jan-13	29-Mar-13	6,218,961.23	207,732.65	248,758.45	2,189,738.65	3,572,731.48
Feb-13	30-Apr-13	6,019,983.45	201,086.17	240,799.34	2,119,677.22	3,458,420.72
Mar-13	31-May-13	7,289,671.83	243,497.71	291,586.87	2,566,743.15	4,187,844.10
Apr-13	28-Jun-13	6,577,240.44	219,700.29	263,089.62	2,315,891.20	3,778,559.33
May-13	31-Jul-13	6,958,034.21	232,419.98	278,321.37	2,449,971.79	3,997,321.07
Jun-13	30-Aug-13	6,959,568.24	232,471.22	278,382.73	2,450,511.43	3,998,202.86
Jul-13	30-Sep-13	6,482,577.99	216,538.27	259,303.12	2,282,559.91	3,724,176.69
Aug-13	31-Oct-13	6,620,713.50	221,152.42	264,828.54	2,331,198.36	3,803,534.18
Sep-13	27-Nov-13	7,386,822.58	246,742.85	295,472.90	2,600,950.60	4,243,656.23
Oct-13	30-Dec-13	6,795,438.52	226,988.78	271,817.54	2,392,720.24	3,903,911.96
Nov-13	31-Jan-14	6,824,226.89	227,950.40	272,969.08	2,402,856.82	3,920,450.59
Dec-13	28-Feb-14	7,869,507.13	262,866.01	314,780.29	2,770,907.12	4,520,953.71
Calendar 2013		82,002,746.01	2,739,146.75	3,280,109.85	28,873,726.49	47,109,762.92

Southern Nevada Water Authority
Sale Tax Received and Distributed (continued)

Collection Month	Received Date	Receipts: Gross Amount	Distributions: Clark Co. Rural Areas	LV Wash	Wastewater Agencies	SNWA Water
Jan-14	31-Mar-14	6,437,276.64	215,025.06	257,491.07	2,266,609.00	3,698,151.51
Feb-14	30-Apr-14	6,539,508.61	218,439.93	261,580.34	2,302,605.57	3,756,882.77
Mar-14	30-May-14	8,009,795.77	267,552.09	320,391.83	2,820,303.70	4,601,548.15
Apr-14	30-Jun-14	7,023,201.48	234,596.77	280,928.06	2,472,917.13	4,034,759.52
May-14	31-Jul-14	7,704,199.42	257,344.22	308,167.98	2,712,701.14	4,425,986.08
Jun-14	29-Aug-14	7,432,478.28	248,267.89	297,299.13	2,617,026.28	4,269,884.98
Jul-14	30-Sep-14	7,125,007.53	237,997.41	285,000.30	2,508,763.73	4,093,246.09
Aug-14	30-Oct-14	7,372,268.69	246,256.70	294,890.75	2,595,826.07	4,235,295.17
Calendar 2014 through August		57,643,736.42	1,925,480.07	2,305,749.46	20,296,752.62	33,115,754.27
Total through August 2014		1,120,061,466.12	38,183,714.95	44,802,458.64	357,230,767.05	679,844,525.44
Estimate of Remainder Calendar 2014						
Sep-14	Est	8,225,343.21	274,752.04	329,013.73	2,896,199.42	4,725,378.01
Oct-14	Est	7,566,827.75	252,755.58	302,673.11	2,664,331.64	4,347,067.42
Oct-14	Est	7,598,884.05	253,826.36	303,955.36	2,675,618.88	4,365,483.44
Nov-14	Est	8,762,820.05	292,705.44	350,512.80	3,085,448.68	5,034,153.12
Estimated Calendar 2013		89,797,611.48	2,999,519.49	3,591,904.47	31,618,351.25	51,587,836.27

Appendix H
Sales Tax Revenue Projection

SOUTHERN NEVADA WATER AUTHORITY

CLARK COUNTY WATER AND WASTEWATER INFRASTRUCTURE (QUARTER CENT) SALES TAX
Received by the Southern Nevada Water Authority
Actual / Forecast

Calendar Year	Clark Co. Population (1) Count	% Change	Gross Sales Tax Receipts Per Person	Receipts	% Change	Clark Co Rural Areas	LV Wash	Wastewater Agencies	SNWA 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 *	2,008,654	2.1%	38.49	77,317,944	5.4%	2,582,660	3,092,718	27,224,175	44,418,391
2013 *	2,062,250	2.7%	39.76	82,002,746	6.1%	2,739,147	3,280,110	28,873,726	47,109,763
2014 -	2,103,000	2.0%	42.70	89,797,611	9.5%	2,999,519	3,591,904	31,618,351	51,587,836
2015	2,148,000	2.1%	44.04	94,592,625	5.3%	3,159,688	3,783,705	33,306,708	54,342,524
2016	2,188,000	1.9%	45.42	99,381,091	5.1%	3,319,638	3,975,244	34,992,759	57,093,450
2017	2,226,000	1.7%	46.85	104,287,284	4.9%	3,483,520	4,171,492	36,720,263	59,912,009
2018	2,259,000	1.5%	48.33	109,170,515	4.7%	3,646,635	4,366,821	38,439,682	62,717,377
2019	2,283,000	1.1%	49.86	113,823,818	4.3%	3,802,070	4,552,953	40,078,142	65,390,653
2020	2,307,000	1.1%	51.44	118,662,750	4.3%	3,963,705	4,746,510	41,781,963	68,170,572
2021	2,332,000	1.1%	53.06	123,745,857	4.3%	4,133,497	4,949,834	43,571,760	71,090,766
2022	2,357,000	1.1%	54.74	129,032,332	4.3%	4,310,082	5,161,293	45,433,164	74,127,793
2023	2,383,000	1.1%	56.48	134,584,718	4.3%	4,495,549	5,383,388	47,388,197	77,317,584
2024	2,410,000	1.1%	N/A+	120,503,669	+	4,025,198	4,820,146	42,430,164	69,228,161
				$ 2,300,000,000		$ 77,597,336	$ 92,000,000	$ 772,695,132	$ 1,357,707,533

Totals may be off slightly due to rounding
* Actual Sales Tax receipts
- Partial Year -- Ratios would be skewed if calculated
(1) Source for Clark County Population http://cber.unlv.edu/reports/2014PopulationForecasts.pdf

Appendix I
Interfund Loan Activity

SOUTHERN NEVADA WATER AUTHORITY

Southern Nevada Water Authority
INTERFUND LOAN ACTIVITY
Historical Through June 30, 2014
Projected From July 1, 2012 - June 2025[1/]

HISTORICAL				SOURCES		
Fiscal Year	Beginning Balance	Borrowings	Total Payback	From Sales Tax[2/]	From Grants	Total
2006	$ -	$ 1,771,721	$ 3,246	$ 3,207,620		$ 3,207,620
2007	1,768,475	3,043,206	243,901	3,876,451	$ 255,000	4,131,451
2008	4,567,781	8,128,593	9,997,688	3,487,927	9,322,409	12,810,336
2009	2,698,686	2,145,993	2,775,949	3,107,974	2,553,086	5,661,060
2010	2,068,730	4,884,051	2,194,931	2,719,663	1,063,408	3,783,071
2011	4,757,850	994,459	5,123,444	2,805,838	6,256,818	9,062,656
2012	628,865	2,855,066	1,887,910	2,975,620	5,888,857	8,864,477
2013	1,596,021	51,453	1,647,474	3,153,590	10,831,754	13,985,344
2014	0	4,894,069	144,767	3,356,267	3,593,596	6,949,863
2015	$ 4,749,302					
		$ 28,768,611	$ 24,019,308	$ 28,690,950	$ 39,764,928	$ 68,455,878

PROJECTED						
Fiscal Year	Beginning Balance Interfund Loan	Estimated Construction To be Financed	Construction To be Financed With Sales Tax [3/4/]	Construction To be Paid With Grants	Interest Expense	Sales Tax Receipts
2015	$ 4,749,302	$ 11,654,566	$ 2,844,505	$ 8,810,061	$ 347,338	$ 3,629,822
2016	13,121,384	6,646,936	6,646,936	-	631,319	3,818,479
2017	16,581,160	6,534,480	6,534,480	-	791,954	4,009,323
2018	19,898,271	5,551,122	5,551,122	-	923,590	4,202,033
2019	22,170,949	3,272,833	3,272,833	-	970,880	4,389,765
2020	22,024,897	618,500	618,500	-	887,876	4,576,625
2021	18,954,648	276,500	276,500	-	716,048	4,771,946
2022	15,175,249	42,167	42,167	-	511,013	4,976,076
2023	10,752,353	-	-	-	278,145	5,189,445
2024	5,841,053	-	-	-	24,623	5,348,598
2025	517,084	-	-	-		2,761,345
		$ 34,597,102	$ 25,787,041	$ 8,810,061	$ 6,082,785	$ 47,673,456

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 (NRS 377B.1(2)) allowing the June 30, 2025 (or $2.3 billion), 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.

Appendix J
Completed Las Vegas Wash Weir Projects Summary

Completed Projects Summary

Project No.	Project Title	Year Completed	Cost ($1,000)
	Temporary Demonstration Weir	1999	$173
810A	Fire Station Weir	2000	$63
910-AR (810C)	Historic Lateral Weir	2000	$1,823
810D	Pabco Weir (Clark County)	2000	$5,700
810H	Monson Weir	2002	$152
810J	Visitor Center Weir	2002	$172
810E	Bostick Weir	2003	$5,020
170-A (810N)	Rainbow Gardens Weir	2004	$7,238
810R	Calico Ridge (Landfill Weir)	2005	$1,868
810P	Powerline Crossing Weir	2007	$5,883
810F	Upper Diversion Weir and Outfall Channel	2008	$12,850
810Y	DU Wetlands No. 2 Weir	2009	$3,470
810M	Lower Narrows Weir	2011	$3,494
810L	Homestead Weir	2011	$6,490
810V	DU Wetlands No. 1 Weir	2012	$4,126
810X	Upper Narrows Weir	2013	$6,683
810G	Duck Creek Confluence Weir	2013	$6,683
810U	Silver Bowl Weir	2014	$6,396
810Z	Archery Weir	2014	6396
830C/840C	Bank Protection - Historic Lateral (5,000 lf)	2001	$428
840J	Bank Protection South - Visitor Center (1,100 lf)	2001	$88
840B	Bank Protection South - Demonstration (1,200 lf)	2001	$177
840T	Bank Protection South - D-14 Extension (400 lf)	2001	$44
830N/840N	Bank Protection - Three Kids Wash (Rainbow Gardens) (2,600 lf)	2002	$92
830J	Bank Protection North - Visitor Center (400 lf)	2002	$41
830H/840H	Bank Protection - Monson (400 lf)	2002	$40
830T	Bank Protection North - D-14 Extension (300 lf)	2002	$10
840Q	Bank Protection South - Wells (1,100 lf)	2003	$95
830L	Bank Protection North - Homestead (1,600 lf)	2003	$146
840V	Bank Protection South - DU Wetlands No. 1 (800 lf)	2003	$62
830M	Bank Protection North - Lower Narrows (1,500 lf)	2003	$129
840R	Bank Protection South - Calico Ridge (Landfill) (600 lf)	2003	$50
840X	Bank Protection South - Upper Narrows (900 lf)	2003	$78
830N/840N	Bank Protection - Rainbow Gardens (1,585 lf)	2005	$74
830D	Bank Protection North - Pabco (640 lf)	2005	$68
830E/840E	Bank Protection - Bostick (2,205 lf)	2005	$127
830D/840D	Bank Protection - Pabco (1,725 lf)	2006	$48

Completed Projects Summary

(Continued)

830W/840W	Bank Protection - Sunrise Mtn (1,765 lf)	2006	$74
840S	Bank Protection South - Tropicana (575 lf)	2006	$21
830C/840C	Bank Protection - Historic Lateral (3,075 lf)	2008	$321
840D	Bank Protection South - Pabco (520 lf)	2008	$40
840A	Bank Protection South - Fire Station (630 lf)	2010	$469
840G	Bank Protection South - Duck Creek Confluence (700 lf)	2010	$90
840D	Bank Protection South - Pabco (320 lf)	2011	$122
830C	Bank Protection North - Historic Lateral (400 lf)	2011	$152
830E	Bank Protection North - Bostick (155 lf)	2011	$59
830D	Bank Protection North - Pabco (690 lf)	2012	$65
880B	Revegetation South - Demonstration (4.23 ac)	2000	$63
870C/880C	Revegetation - Historic Lateral (4.90 ac)	2001	$74
880D/870D	Revegetation - Pabco (7.40 ac)	2001	$111
870H/880H	Revegetation - Monson (2.78 ac)	2002	$48
870J/880J	Revegetation - Visitor Center (1.84 ac)	2002	$32
880E	Revegetation South - Bostick (6.55 ac)	2004	$115
870R/880R	Revegetation - Calico Ridge (Landfill) (6.80 ac)	2005	$117
870E	Revegetation North - Bostick (7.85 ac)	2005	$47
870D	Revegetation North - Pabco (3.40 ac)	2005	$2
880P	Revegetation South - Powerline (14.91 ac)	2007	$245
880F	Revegetation South - Upper Diversion (17.58 Ac)	2009	$145
870Y/880Y	Revegetation - DU Wetlands No. 2 (0.89 Ac)	2010	$2
870M/880M	Revegetation - Lower Narrows & Homestead (22.64 Ac)	2011	$3
870M/880M	Revegetation - Lower Narrows & Homestead (5.14 Ac)	2012	$23
870G/880G	Revegetation - Duck Creek Confluence (23.4 Ac)	2013	$223
860A	2000 Materials Transportation Program	2000	$304
860B	2001 Materials Transportation Program	2001	$753
860C	2002 Materials Transportation Program	2002	$866
860D	2003 Materials Transportation Program	2003	$489
860E	2004 Materials Transportation Program	2004	$806
860F	2005 Materials Transportation Program	2005	$216
860G	2006 Materials Transportation Program	2006	$590
860H	2007 Materials Transportation Program	2007	$513
860J	2008 Materials Transportation Program	2008	$667
860K	2009 Materials Transportation Program	2009	$209
860Q	2010 Materials Transportation Program	2010	$329
890A	2011 Materials Transportation Program	2011	$178
890A	2012 Materials Transportation Program	2012	$194
860L	2001 Topographic Mapping	2001	$80
860M	2005 Topographic Mapping	2005	$80
860N	2008 Topographic Mapping	2008	$63
860S	Sediment Study I	2003	$177
860T	Sediment Study 11	2008	$236
	Total		$95,890

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

July 16, 2015

Subject: Consent to Collateral Assignment Agreement, Acknowledgement and Confirmation, and First Amendment to Solar Project Power Purchase Agreement	**Director's Backup**
Petitioner: David L. Johnson, Deputy General Manager, Engineering/Operations	
Recommendations: That the Board of Directors approve and authorize the General Manager to sign the Consent and Agreement among River Mountains Solar, LLC, Deutsche Bank Trust Company Americas, and the Authority; and the Acknowledgement and Confirmation and First Amendment to the Solar Project Power Purchase Agreement between River Mountains Solar, LLC, and the Authority; and authorize the General Manager to execute ministerial documents and other agreements necessary to effectuate the transaction and/or other terms of the Solar Project Power Purchase Agreement with the same substantive terms already approved by the Board.	

Fiscal Impact:
None by approval of the above recommendation.

Background:
On July 17, 2014, the Board of Directors approved a Solar Project Power Purchase Agreement (PPA) between SunEdison dba River Mountains Solar, LLC (RMS), and the Authority to allow for the purchase of electrical power from a solar photovoltaic generation facility (Solar Facility) to be constructed and located at the River Mountains Water Treatment Facility.

During negotiations of the PPA, RMS requested and the Authority agreed to accommodate minor revisions to the PPA and to negotiate and execute documents necessary for RMS to finance the transaction. Specifically, Section 9.4 of the PPA generally provides that in the event RMS transfers, pledges, encumbers or collaterally assigns the PPA to the parties financing the transaction (Lenders), the Authority would agree to do the following: 1) execute an estoppel certificate acceptable to the Lenders; 2) cooperate with RMS to accommodate any minor amendments to the PPA required by the Lenders, providing such amendments do not materially change the original PPA; and 3) negotiate and execute a consent and assignment of the PPA inclusive of specified terms.

In addition, at the time of execution of the PPA the parties agreed that specifics related to interconnection of the facilities would be negotiated in the future. Consequently, the proposed amendment to the PPA (PPA Amendment) includes an amendment to Exhibit M allowing for the agreed upon interconnection.

AGENDA ITEM # 10

If approved, the Authority will accept the terms of the Consent to Collateral Assignment Agreement, the Acknowledgement and Confirmation (estoppel certificate), and the PPA Amendment. The PPA Amendment allows RMS the use of existing unused fiber optic strands owned by the Authority, and further, allows the Authority to grant a license to RMS for its use of existing conduit to house current-carrying conductors and other infrastructure necessary as part of the interconnection between the River Mountains Water Treatment Facility and the Solar Facility. Execution by the General Manager of other documents with the same substantive terms of the PPA may be necessary in the future.

The attached documents are being entered into pursuant to Sections 5(f) and (g) and 6(j) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved the attached documents.

Respectfully submitted:

John J. Entsminger, General Manager
JJE:PDS:DLJ:SPK:GAW:TDF
Attachments

DISCLOSURE OF OWNERSHIP/PRINCIPALS

Business Entity Type						
☐ Sole Proprietorship	☐ Partnership	☒ Limited Liability Company	☐ Corporation	☐ Trust	☐ Non-Profit Organization	☐ Other

Business Designation Group					
☐ MBE	☐ WBE	☐ SBE	☐ PBE	☐	☐
Minority Business Enterprise	Women-Owned Business Enterprise	Small Business Enterprise	Physically Challenged Business Enterprise		

Corporate/Business Entity Name:	River Mountains Solar LLC		
(Include d.b.a., if applicable)			
Street Address:	1875 Lawrence Street, Suite 1150	**Website:** www.sunedison.com	
City, State and Zip Code:	Denver, CO 80202	**POC Name and Email:** Brian S. McCurdy	
Telephone No:	720-445-7830	**Fax No:** (720) 445-7930	
Local Street Address:		**Website:**	
City, State and Zip Code:		**Local Fax No:**	
Local Telephone No:		**Local POC Name Email:**	
Number of Clark County, Nevada Residents Employed:			

All entities, with the exception of publicly-traded and non-profit organizations, must list the names of individuals holding more than five percent (5%) ownership or financial interest in the business entity appearing before the SNWA Board of Directors.

Publicly-traded entities and non-profit organizations shall list all Corporate Officers and Directors in lieu of disclosing the names of individuals with ownership or financial interest. The disclosure requirement, as applied to land-use applications, extends to the applicant and the landowner(s).

Entities include all business associations organized under or governed by Title 7 of the Nevada Revised Statutes, including but not limited to private corporations, close corporations, foreign corporations, limited liability companies, partnerships, limited partnerships, and professional corporations.

SunEdison, Inc., a publicly traded company, is the ultimate parent and 100% owner of River Mountains Solar LLC. Its senior officers are:

Full Name	Title	% Owned (Not required for Publicly Traded Corporations/Non-profit organizations)
Ahmad R. Chatila	President & CEO	N/A
Brian Wuebbels	EVP and CFO	N/A
Carlos Domenech	EVP	N/A
Martin Truong	Secretary	N/A

This section is not required for publicly-traded corporations.

1. Are any individual members, partners, owners or principals, involved in the business entity, an SNWA full-time employee(s), or appointed/elected official(s)?

   ☐ Yes ☐ No (If yes, please note that SNWA employee(s), or appointed/elected official(s) may not perform any work on professional service contracts, or other contracts, which are not subject to competitive bid.)

2. Do any individual members, partners, owners or principals have a spouse, registered domestic partner, child, parent, in-law or brother/sister, half-brother/half-sister, grandchild, grandparent, related to an SNWA full-time employee(s), or appointed/elected official(s)?

   ☐ Yes ☐ No (If yes, please complete the Disclosure of Relationship form on Page 2. If no, please print N/A on Page 2.)

I certify under penalty of perjury, that all of the information provided herein is current, complete, and accurate. I also understand that the SNWA will not take action on land-use approvals, contract approvals, land sales, leases or exchanges without the completed disclosure form.

Frank DeRosa
Signature

Frank DeRosa
Print Name

V.P.
Title

6/26/2014
Date

Approved as to form, 6/25/14 JPH

Verified no changes to Disclosure

Signed Jaith Jidaumat Date 7/8/15

Revised 3/1/11

DISCLOSURE OF RELATIONSHIP

List any disclosures below:
(Mark N/A, if not applicable.)

NAME OF BUSINESS OWNER/PRINCIPAL	NAME OF SNWA EMPLOYEE OR OFFICIAL AND JOB TITLE	RELATIONSHIP TO SNWA EMPLOYEE OR OFFICIAL	SNWA EMPLOYEE'S/OFFICIAL'S DEPARTMENT
N/A			

"Consanguinity" is a relationship by blood. "Affinity" is a relationship by marriage.

"To the second degree of consanguinity" applies to the candidate's first and second degree of blood relatives as follows:

- Spouse – Registered Domestic Partners – Children – Parents – In-laws (first degree)
- Brothers/Sisters – Half-Brothers/Half-Sisters – Grandchildren – Grandparents – In-laws (second degree)

For SNWA Use Only:

If any Disclosure of Relationship is noted above, please complete the following:

☐ Yes ☐ No Is the SNWA employee(s) noted above involved in the contracting/selection process for this particular agenda item?

☐ Yes ☐ No Is the SNWA employee(s) noted above involved in any way with the business in performance of the contract?

Notes/Comments:

Signature

Scott P. Krantz, Director

Print Name
Authorized Department Representative

Acknowledgment and Confirmation

This Acknowledgment and Confirmation, dated as of _____, 2015 (this "Acknowledgment"), is made by the Southern Nevada Water Authority, a political subdivision of the State of Nevada, (the "Purchaser"), with reference to the Solar Project Power Purchase Agreement, dated July 7, 2014 (the "Agreement") entered into between the Purchaser and River Mountains Solar LLC, a Delaware limited liability company (the "Provider"). This Acknowledgment is provided to each of (a) Sun Edison LLC ("SunEd") (b) TerraForm Utility Solar XIX, LLC ("NewCo") and (c) Provider. Capitalized terms not otherwise defined herein have the meaning in the Agreement.

The solar photovoltaic system (the "Solar Energy Facility") installed, operated and maintained by Seller pursuant to the Agreement is located at 1299 Burkholder Blvd., Henderson, NV 89015.

1. Acknowledgments.

   (a) Purchaser acknowledges that it has been advised that NewCo is acquiring 100% of the membership interests in the Provider pursuant to a Master Development, EPC & Purchase Agreement, dated March 30, 2015, from SunEd. Such acquisition is not an assignment of the Agreement within the meaning of Article 9.

   (b) The Purchaser agrees to deliver all notices under the Agreement to NewCo at the following address:

   TerraForm Utility Solar XIX, LLC
   c/o TerraForm Power LLC
   12500 Baltimore Avenue
   Beltsville, MD 20705
   Attention: General Counsel
   Telephone: 443-909-7200
   Facsimile: 240-264-8100

   (c) The Purchaser agrees to make all payments due to NewCo under the Agreement in accordance with the following payment instructions:

   Account Name: Terraform Utility Solar XIX, LLC
   Bank: Wells Fargo
   Account Number: 412-4626763
   Routing Number: 121000248
   SWIFT Code: WFBIUS6S
   Bank: Wells Fargo
   Bank Address: 420 Montgomery Street, San Francisco, CA 94104

2. Confirmation. The Purchaser confirms the following matters for the benefit of each of NewCo, Provider, and SunEd:

(a) To the Purchaser's knowledge, there exists no default and no event, condition or failed condition that would, with the giving of notice or lapse of time, constitute a default, under the Agreement.

(b) The Agreement is in full force and effect and there are no amendments thereto and no other agreements or representations of any kind between the Purchaser and Provider as to the subject matter of the Agreement.

(c) The Agreement has been duly authorized by Purchaser. The Agreement constitutes the legal, valid, binding and enforceable obligation of Purchaser and Purchaser acknowledges that its sovereignty does not render it immune from performance under the Agreement. In accordance with Nevada law and the 1991 Cooperative Agreement, Purchaser is liable for the performance of its obligations under the Agreement to the same extent as a private corporation..

(d) Each of the representations and warranties made by Purchaser under the Agreement is true and accurate as of the date hereof.

Neither this Acknowledgement nor any of the terms hereof may be amended, terminated, supplemented, waived or modified, except pursuant to a written instrument executed by each of NewCo, SunEd, Provider and the Purchaser.

[signature page follows]

PURCHASER:
SOUTHERN NEVADA WATER AUTHORITY

By: _____
Name: John J. Entsminger
Title: General Manager

Approved as to Form:

By: Judith Giddyment for
Name: Gregory L. Walch
Its: General Counsel

PROVIDER:
RIVER MOUNTAINS SOLAR, LLC
a Delaware limited liability company
By: SUNE Southwest Holdings, LLC, its Member

By: _____
Name: Luis Velez
Title: Assistant Secretary

SUNED:
SUN EDISON LLC

By: _____
Name: _____
Title: Authorized Representative

NEWCO:
TERRAFORM UTILITY SOLAR XIX, LLC

By: TerraForm Utility Solar XIX Manager, LLC, its Managing Member

By: _____
Name: _____
Title: Authorized Representative

AMENDMENT TO SOLAR PROJECT POWER PURCHASE AGREEMENT

THIS AMENDMENT TO SOLAR PROJECT POWER PURCHASE AGREEMENT (this "Amendment") is entered into as of this ____ day of July, 2015 (the "Amendment Effective Date"), by and between River Mountains, Solar LLC ("Seller"), and Southern Nevada Water Authority, a political subdivision of the State of Nevada ("SNWA").

RECITALS

A. WHEREAS, SNWA and Seller entered into that certain Solar Project Power Purchase Agreement, executed as of July 7, 2014, as clarified pursuant to that certain letter agreement between Seller and SNWA dated March 18, 2015 (the "Agreement").

B. WHEREAS, SNWA and Seller hereby agreed to modify and amend the Agreement as hereinafter stated upon certain terms and conditions having been met, which terms and conditions have been met as of the date hereof.

AGREEMENT

NOW, THEREFORE, Buyer and Seller, in consideration of the mutual promises contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, agree as follows:

1. Definitions. For purposes of this Amendment, capitalized terms shall have the meanings ascribed to them in the Agreement unless otherwise defined herein.

2. Exhibit M. Exhibit M of the PPA is hereby amended to add the following Section 9 as follows:

> **"9. GRANT OF ACCESS AND USE OF FIBER OPTIC STRANDSAND CONDUIT.**
>
> SNWA and the Colorado River Commission ("CRC") currently have certain telecommunications services available at the Site. SNWA and CRC have contracted with CenturyLink, a third-party provider, for the aforementioned telecommunications services. SNWA controls and has the right to use exclusively pre-existing, unused fiber optic strands (the "Unused Fiber") within the existing facilities which have been made available for use by Seller. SNWA hereby grants Seller the exclusive right and license to use the Unused Fiber for the Term of the Agreement. Seller will be responsible for the creation of a unique account with CenturyLink. A depiction of the fiber ownership is attached as Annex M-1.
>
> Additionally, SNWA hereby grants Seller right and license to use of existing conduit and other infrastructure necessary, as part of the interconnection between Facility and the 13.8 kV Substation (passing through Building 15), and for the

location and routing of the CenturyLink equipment."

3. Effect of Amendment. Except as modified by this Amendment, the Agreement and all the covenants, agreements, terms, provisions and conditions thereof shall remain in full force and effect and are hereby ratified and affirmed. The covenants, agreements, terms, provisions and conditions contained in this Amendment shall bind and inure to the benefit of the parties hereto and their respective successors and, except as otherwise provided in the Agreement, their respective assigns. In the event of any conflict between the terms contained in this Amendment and the Agreement, the terms herein contained shall supersede and control. From and after the date hereof, the term "Agreement" as used in the Agreement shall mean the Agreement, as modified by this Amendment.

4. Miscellaneous. Pursuant to Section 13.14 of the PPA, this Amendment becomes effective only upon execution and delivery hereof by Buyer and Seller. The headings of the paragraphs in this Amendment are inserted and included solely for convenience and shall not be considered or given any effect in construing the provisions hereof.

5. Counterparts. This Amendment may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, SNWA and Seller have caused this Amendment to be duly executed as of the Amendment Effective Date.

SNWA:

Southern Nevada Water Authority

By: _____
Name: John J. Entsminger
Title: General Manager

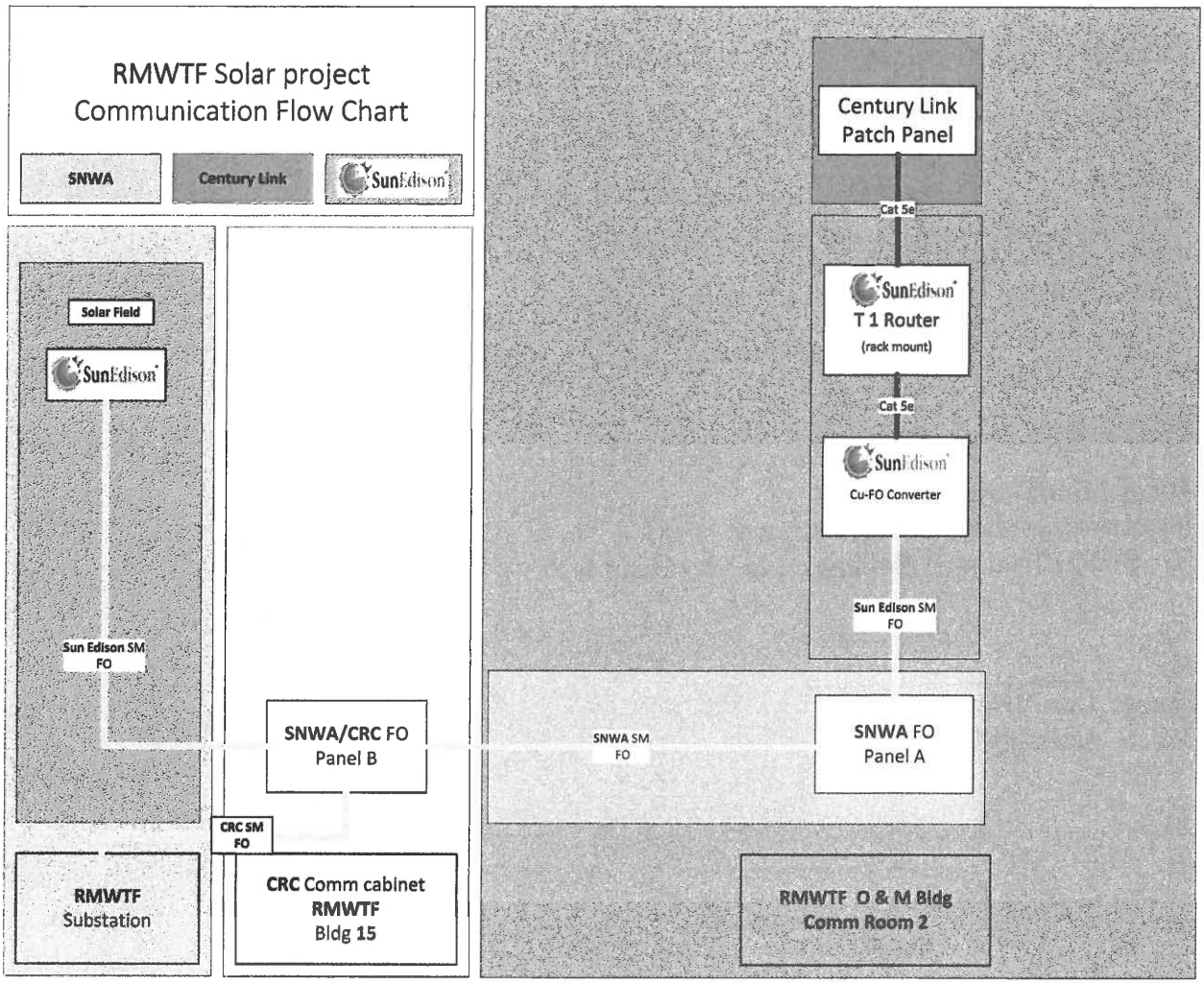
SELLER:

River Mountains Solar, LLC
a Delaware limited liability company
By: SUNE Southwest Holdings, LLC, its Member

By: _____
Name: Luis Velez
Title: Assistant Secretary

[Signature Page to Amendment to Solar Project Power Purchase Agreement]

Annex M-1: SNWA & CRC FIBER OWNERSHIP DESIGNATIONS



CONSENT AND AGREEMENT

This **CONSENT AND AGREEMENT** (this "Consent"), dated as of July ____, 2015, is entered into among Southern Nevada Water Authority, a political subdivision of the State of Nevada (the "Consenting Party"), River Mountains Solar, LLC, a Delaware limited liability company (the "Company"), and Deutsche Bank Trust Company Americas, as Collateral Agent for the Secured Parties (as defined in the Financing Agreement referenced below) (together with its successors in such capacity, the "Collateral Agent") under the Financing Agreement (as defined below).

RECITALS

WHEREAS, the Company intends to develop, construct, own, operate and maintain a 14.4 MW ac photovoltaic solar electric generating facility to be located in Clark County, Nevada (the "Project");

WHEREAS, the Consenting Party and the Company have entered into that certain Solar Project Power Purchase Agreement, dated as of July 7, 2014, as clarified pursuant to that certain letter agreement between the Company and the Consenting Party dated March 18, 2015 (as further amended, restated, modified or otherwise supplemented from time to time in accordance with the terms thereof, the "PPA");

WHEREAS, the Consenting Party and the Company have entered into that certain Amendment to Solar Project Power Purchase Agreement dated as of July __, 2015 (as amended, restated, modified or otherwise supplemented from time to time in accordance with the terms thereof, the "PPA Amendment" and together with the PPA, the "Assigned Agreements");

WHEREAS, pursuant to that certain Financing Agreement, dated as of March 26, 2014, by and among SunE Solar Construction, LLC, a Delaware limited liability company ("SunE Solar"), SunE Solar Construction #2, LLC, a Delaware limited liability company (together with SunE Solar, jointly and severally, the "Borrowers"), the lenders party thereto from time to time (the "Lenders"), Wilmington Trust, National Association, as Administrative Agent, Deutsche Bank Trust Company Americas, as Loan Paying Agent and the Collateral Agent and Deutsche Bank Securities Inc. as Lead Arranger, Bookrunner, Structuring Bank and Documentation Agent (as amended, amended and restated, modified or otherwise supplemented and in effect from time to time, the "Financing Agreement") the Lenders will make certain extensions of credit for the benefit of the Borrowers and the Company (the "Loans");

WHEREAS, as security for the Loans, and all other obligations under the Financing Agreement and related financing documents, the Company has collaterally assigned all of its right, title and interest in, to and under, and granted a security interest in, the Assigned Agreements to the Collateral Agent; and

WHEREAS, it is a requirement under the Financing Agreement that the Company, the Collateral Agent and the Consenting Party execute and deliver this Consent.

NOW, THEREFORE, as an inducement to the Lenders to make the Loans, and in consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound, the parties hereto hereby agree as follows:

1. CONSENT TO ASSIGNMENT, ETC.

(a) Consent to Assignment. The Consenting Party (i) acknowledges that the Collateral Agent and the Lenders have entered into the Financing Agreement and the Loans will be made in reliance upon the execution and delivery by the Consenting Party of the Assigned Agreements and this Consent, (ii) consents in all respects to the pledge and assignment to the Collateral Agent of all of the Company's right, title and interest in, to and under the Assigned Agreements and (iii) acknowledges the right, but not the obligation, of the Collateral Agent or the Collateral Agent's designee, in the exercise of the Collateral Agent's rights and remedies under the Financing Agreement and related financing documents, to make all demands, give all notices, take all actions and exercise all rights of the Company in accordance with the Assigned Agreements, and agrees that in such event the Consenting Party shall continue to perform its obligations under the Assigned Agreements; provided that in the event, with respect to the Assigned Agreements, there exists a conflict between any notice given or action taken by the Collateral Agent, and any notice given or action taken by the Company, such conflict shall be resolved in favor of the notice given or action taken by the Collateral Agent.

(b) Substitute Owner. The Consenting Party agrees that, if the Collateral Agent notifies the Consenting Party that an event of default under the Financing Agreement has occurred and is continuing and that the Collateral Agent has exercised its rights (i) to have itself or its designee substituted for the Company under the Assigned Agreements, (ii) to acquire or have its designee or assignee acquire the Company or (iii) to sell, assign, transfer or otherwise dispose of the Assigned Agreements to a third party, then the Collateral Agent, the Collateral Agent's designee or such third party (each, a "Substitute Owner") shall be substituted for the Company under the Assigned Agreements and, in such event, the Consenting Party shall continue to perform its obligations under the Assigned Agreements in favor of the Substitute Owner, subject to the terms and conditions thereof and hereof; provided, however, that the Substitute Owner shall be required to cure any then existing payment or performance defaults by the Company under the Assigned Agreements (other than any then existing performance defaults which by their nature are not reasonably capable of being cured by the Substitute Owner).

(c) Right to Cure. (i) Notwithstanding anything to the contrary contained in the Assigned Agreements, the Consenting Party shall not exercise any right it may have under the Assigned Agreements, at law or in equity, to cancel, suspend or terminate the Assigned Agreements or any of its obligations under the Assigned Agreements as the result of any default or other action or omission of the Company in the performance of any of its obligations under the Assigned Agreements, or upon the occurrence or non-occurrence of any event or condition under the Assigned Agreements that would immediately or with the passage of any applicable grace period or the giving of notice, or both, enable the Consenting Party to terminate or suspend its obligations or exercise any other right or remedy under the Assigned Agreements or under applicable law (hereinafter an "Assigned Agreement Default"), until it first gives written notice of such Assigned Agreement Default to the Collateral Agent and affords the Collateral Agent, the Collateral Agent's designee and the Lender a period of at least sixty (60) days (or, if such default is a payment default, thirty (30) days) in the aggregate to cure such default, commencing from the later to occur of (A) the Collateral Agent's receipt of such notice and (B) the expiration of any notice periods or cure periods provided for in the applicable Assigned Agreement; provided, however, that (x) if an event of default under the Financing Agreement has occurred

and is continuing, the Collateral Agent has exercised its rights to foreclose on the Project as a result thereof and possession of the Project is necessary to cure any such non-monetary default, then, so long as the Collateral Agent is diligently pursuing such foreclosure proceedings, the time periods specified in this Section 1(c) for curing an Assigned Agreement Default shall be extended for the time taken to complete foreclosure proceedings, and (y) if any such party is prohibited from curing any such Assigned Agreement Default by any process, stay or injunction issued by any governmental authority or pursuant to any bankruptcy or insolvency proceeding involving the Company, then the time periods specified in this Section 1(c) for curing an Assigned Agreement Default shall be extended for the period of such prohibition; provided that the total cure period for defaults (other than payment defaults) shall under no circumstances extend for a period greater than one hundred eighty (180) days in the aggregate.

(ii) No such cancellation, suspension or termination of the Assigned Agreements by the Consenting Party shall be binding upon the Collateral Agent without the notice and extended cure period specified in this Section 1(c). Any dispute that may arise under the Assigned Agreements notwithstanding, the Consenting Party shall continue performance under such Assigned Agreement and resolve any dispute without discontinuing such performance until the lapse of the notice and extended cure period specified in this Section 1(c).

(d) No Termination, Assignment or Material Amendments. The Consenting Party shall not enter into any consensual cancellation or termination of the Assigned Agreements (except with respect to termination in the event of a default by the Company, subject to the limitations and extended cure periods provided for in Section 1(c)), or assign, novate or otherwise transfer any of its right, title or interest thereunder or consent to any such assignment or transfer by the Company without, in each such case, the written consent of the Collateral Agent; provided that such consent of the Collateral Agent shall not be needed if prior written consent of the Lenders with respect to such cancellation, termination, assignment or transfer has been obtained in accordance with the Financing Agreement. The Consenting Party shall not enter into or agree to any amendment, supplement, assignment or other modification to, or benefit from any waiver under, the Assigned Agreements without the prior written consent of the Collateral Agent; provided, that such consent of the Collateral Agent shall not be needed if (i) the purpose of such amendment, supplement, modification or waiver is to correct a manifest error therein or for which there could not reasonably be expected to have a material adverse effect on the Borrowers, the Company or any of their affiliates that are party to the Financing Agreement or the other documents entered into in connection therewith, the Project or any other project in respect of which a loan provided under the Financing Agreement is outstanding and the Consenting Party receives a certification from the Company to that effect or (ii) prior written consent of the Lenders with respect to such amendment, assignment, supplement, modification or waiver has been obtained in accordance with the Financing Agreement.

(e) Replacement Agreement. In the event that any Assigned Agreement is rejected or otherwise terminated as a result of any bankruptcy or insolvency proceeding affecting the Company, the Consenting Party shall, at the option of the Collateral Agent, enter into a new agreement with the Collateral Agent or any Substitute Owner (or its transferee or other nominee that owns or leases the Project) for a term equal to the remainder of the term of such Assigned Agreement and otherwise having terms substantially the same as the terms of such Assigned Agreement. As a condition to the execution of such new agreement, the Collateral Agent or any

Substitute Owner (or its transferee or other nominee that owns or leases the Project) shall (i) pay the Consenting Party any amounts which are due the Consenting Party from the Company (including any amounts necessary to cure any existing payment defaults by the Company under the applicable Assigned Agreement), and (ii) pay the Consenting Party any and all amounts which would have been due under the applicable Assigned Agreement had it not been terminated, from the date of termination to the date of such new agreement.

(f) No Liability. The Consenting Party acknowledges and agrees that none of the Collateral Agent, the Collateral Agent's designee or the Lenders shall have any liability or obligation under the Assigned Agreements as a result of this Consent, the Financing Agreement or otherwise, nor shall the Collateral Agent, the Collateral Agent's designee or the Lenders be obligated or required to (i) perform any of the Company's obligations under the Assigned Agreements, except, in the case of the Collateral Agent or the Collateral Agent's designee, during any period in which the Collateral Agent or the Collateral Agent's designee is a Substitute Owner pursuant to Section 1(b), in which case (A) the obligations of such Substitute Owner shall be no more than those of the Company under the Assigned Agreements, (B) such Substitute Owner shall have no personal liability to the Consenting Party for the performance of such obligations and (C) the sole recourse of the Consenting Party for the performance of such obligations shall be to such Substitute Owner's interest in the Project, or (ii) take any action to collect or enforce any claim for payment assigned under the Financing Agreement or any related financing document.

(g) Delivery of Notices. The Consenting Party shall deliver to Collateral Agent, concurrently with the delivery thereof to the Company, a copy of each material notice, request or demand given by the Consenting Party pursuant to the Assigned Agreements, including any notice of breach or default.

(h) Seller's Lenders. Each of the parties hereto acknowledges that the Lenders are "Seller's Lenders" as described in the PPA and, without derogation of any provision of this Consent, the Lenders shall be (or the Collateral Agent, as the Lenders' agent, shall be) entitled to the rights of the "Seller's Lenders" described in the PPA, subject to the terms thereof.

2. PAYMENTS UNDER THE ASSIGNED AGREEMENTS

(a) Payments. The Consenting Party shall pay all amounts payable by it under the Assigned Agreements, if any, in the manner required by, and subject to the terms and conditions of, the applicable Assigned Agreements, directly into the account specified on Exhibit A attached hereto, or to such other person or account as may be specified from time to time by the Collateral Agent to the Consenting Party in writing.

(b) No Offset, Etc. Subject to Section 4.7 of the PPA, all payments required to be made by the Consenting Party under the Assigned Agreements shall be made without any offset, recoupment, abatement, withholding, reduction or defense whatsoever.

3. REPRESENTATIONS AND WARRANTIES OF THE CONSENTING PARTY

In order to induce the Collateral Agent to execute and deliver this Consent and the Lenders to make the Loans, the Consenting Party makes the following representations and

warranties as of the date hereof, which shall survive the execution and delivery of this Consent and the Assigned Agreements and the consummation of the transactions contemplated hereby and thereby:

(a) Organization; Power and Authority. The Consenting Party is a joint action agency duly organized, validly existing and in good standing under the laws of the State of Nevada, and has all requisite power and authority to enter into and to perform its obligations under this Consent and the Assigned Agreements, and to carry out the terms hereof and thereof and the transactions contemplated hereby and thereby.

(b) Authorization. The execution, delivery and performance by the Consenting Party of this Consent and the Assigned Agreements have been duly authorized by all necessary organizational action on the part of the Consenting Party and do not require any material approval or consent of any holder (or any trustee for any holder) of any indebtedness or other obligation of (i) the Consenting Party or (ii) any other person or entity, except approvals or consents which have previously been obtained.

(c) Execution and Delivery; Binding Agreements. Each of this Consent and the Assigned Agreements are in full force and effect, has been duly executed and delivered on behalf of the Consenting Party and constitutes the legal, valid and binding obligation of the Consenting Party, enforceable against the Consenting Party in accordance with its terms except as the enforceability hereof or thereof may be limited by (i) bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting the enforcement of creditors' rights generally and (ii) general equitable principles (whether considered in a proceeding in equity or at law).

(d) Litigation. There is no litigation, action, suit, proceeding or investigation pending or, to the best of the Consenting Party's knowledge, threatened against the Consenting Party before or by any court, administrative agency, arbitrator or governmental authority, body or agency which, if adversely determined, individually or in the aggregate, (i) could reasonably be expected to have a material adverse effect on the performance by the Consenting Party of its obligations under this Consent or the Assigned Agreements, or (ii) questions the validity, binding effect or enforceability of this Consent or the Assigned Agreements, any action taken or to be taken pursuant hereto or thereto or any of the transactions contemplated hereby or thereby.

(e) Compliance with Other Instruments, Etc. The Consenting Party is not in violation of its organizational documents with respect to the execution, delivery and performance by the Consenting Party of this Consent and the Assigned Agreements and the consummation of the transactions contemplated hereby and thereby will not result in any violation of, breach of or default under any term of its organizational documents, or of any contract or agreement to which it is a party or by which it or its property is bound, or of any license, permit, franchise, judgment, writ, injunction, decree, order, charter, law, ordinance, rule or regulation applicable to it, except, in each case, for any such violation which could not reasonably be expected to have a material adverse effect on the performance by the Consenting Party of its obligations under this Consent or the Assigned Agreements.

(f) No Default or Amendment. Neither the Consenting Party nor, to the Consenting Party's knowledge, any other party to the Assigned Agreements is in default of any of its

material obligations thereunder (or has claimed force majeure, emergency, or any other excuse for performance thereunder which is still ongoing as of the date hereof). The Consenting Party has no existing counterclaims, offsets, defenses, or claims for change orders against the Company under the Assigned Agreements. To the Consenting Party's knowledge, no event or condition exists that would either immediately or with the passage of any applicable grace period or giving of notice, or both, reasonably be expected to enable either the Consenting Party or the Company to terminate or suspend its obligations (or the performance of such obligations) under the Assigned Agreements.

(g) No Previous Assignments. The Consenting Party has no notice of, and has not consented to, any previous assignment of all or any part of its right, title or interest in, to or under the Assigned Agreements.

(h) Representations and Warranties. All representations, warranties and other statements made by the Consenting Party in the Assigned Agreements were true and correct in all material respects as of the date when made and, except for those that by their terms speak as of a specific date, are true and correct in all material respects as of such specific date.

4. MISCELLANEOUS

(a) Applicable Law; Venue. THIS CONSENT, AND ANY INSTRUMENT OR AGREEMENT REQUIRED HEREUNDER (TO THE EXTENT NOT EXPRESSLY PROVIDED FOR THEREIN), SHALL BE GOVERNED BY, AND CONSTRUED UNDER, THE LAWS OF THE STATE OF NEVADA, APPLICABLE TO CONTRACTS MADE AND TO BE PERFORMED IN SUCH STATE AND WITHOUT REFERENCE TO CONFLICTS OF LAWS. Each of the Consenting Party, the Company and the Collateral Agent agrees that the exclusive jurisdiction for any legal action or proceeding by or against any of the Consenting Party, the Company or the Collateral Agent or with respect to or arising out of this Consent shall be the federal and state courts in Clark County, Nevada. By execution and delivery of this Agreement, each party hereto accepts for themselves and in respect of their property, generally and unconditionally, the jurisdiction of the aforesaid courts. Nothing herein shall affect the right to serve process in any other manner permitted by law or the right of Collateral Agent or its designees to bring legal action or proceedings in any other competent jurisdiction. Each of the Consenting Party, the Company and the Collateral Agent hereby waives any right to stay or dismiss any action or proceeding under or in connection with this Consent brought before the foregoing courts on the basis of forum non-conveniens.

(b) Notices. All notices and other communications hereunder (i) shall be in writing, (ii) shall be effective upon actual receipt thereof by the party or parties to whom such notice is addressed except that communication or notice so transmitted by telecopy shall be deemed to have been validly and effectively given on the day (if a business day and, if not, on the next following business day) on which it is transmitted if transmitted before 4 p.m., recipient's time, and if transmitted after that time, on the next following business day, in each case as evidenced by transmittal confirmation received by the transmitter, provided, however, that if any notice is tendered to an addressee and the delivery thereof is refused by such addressee, such notice shall be effective upon such tender, (iii) shall be sent by first class mail, by personal delivery, by a nationally-recognized courier service, by facsimile or by email (attached as a portable document

file (.pdf) only), and (iv) shall be directed as follows (and the Company hereby changes its address to that reflected below for purposes of Exhibit J and Section 13.6 of the PPA and designates the below address as its address with respect to operations related notices and billing information as contemplated by Exhibit J to the PPA):

If to the Consenting Party:	Southern Nevada Water Authority P.O. Box 99956, MS 115 Las Vegas, Nevada 89193-9956 Attention: Director, Energy Management With a copy to: Southern Nevada Water Authority c/o Las Vegas Valley Water District 1001 South Valley View Blvd., MS 480 Las Vegas, Nevada 89153 Attention: General Counsel
If to the Company:	River Mountains Solar LLC c/o Sun Edison LLC 7550 Wisconsin Ave., 9th Floor Bethesda, MD 20814 Attention: VP, Project Finance Telephone: (443) 909-7200 Facsimile: (443) 909-7150
If to the Collateral Agent:	Deutsche Bank Trust Company Americas 60 Wall Street – 16th Floor MSNYC60-1630 New York, NY 10005 Attention: Project Finance, SunE Solar Project Facsimile: (732) 578-4636

The above parties may, by notice given hereunder, designate any further or different addresses to which subsequent notices or other communications shall be sent.

(c) Amendment, Waiver. Neither this Consent nor any of the terms hereof may be terminated, amended, supplemented, waived or modified except by an instrument in writing signed by the Consenting Party, the Collateral Agent, and, unless an event of default under the Financing Agreement has occurred and is continuing, the Company.

(d) No Waiver; Remedies Cumulative. The waiver of any right, breach or default under this Consent by any party must be made specifically and in writing. No failure or delay on the part of the Collateral Agent in exercising any right, power or privilege hereunder and no course of dealing between the Consenting Party and the Collateral Agent shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or privilege hereunder

preclude any other exercise, or the further exercise, of any other right, power or privilege hereunder. No notice to or demand upon any party shall entitle such party to any further, subsequent or other notice or demand in similar or any other circumstances. The rights and remedies herein expressly provided are cumulative and not exclusive of any rights or remedies that the Collateral Agent would otherwise have.

(e) Counterparts. This Consent may be executed in any number of counterparts and by the different parties hereto on separate counterparts, each of which when so executed and delivered shall be an original, but all of which shall together constitute one and the same instrument.

(f) Headings Descriptive. The headings of the several sections and subsections of this Consent are inserted for convenience only and shall not in any way affect the meaning or construction of any provision of this Consent.

(g) Severability. In case any provision in or obligation under this Consent shall be invalid, illegal or unenforceable in any jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, shall not in any way be affected or impaired thereby.

(h) Successors and Assigns. This Consent shall be binding upon the parties hereto and their permitted successors and assigns and shall inure to the benefit of the parties, their designees and their respective permitted successors and assigns; provided, however, that no party or its respective successor or assign shall assign any of its interest in this Consent except in connection with an assignment of its interests in the Assigned Agreements and then only to the same person(s) or entity(ies) to which its interest in the Assigned Agreements is so assigned.

(i) Survival. All agreements, statements, representations and warranties made by the Consenting Party herein shall be considered to have been relied upon by the Collateral Agent and the Lenders and shall survive the execution and delivery of this Consent.

(j) Further Assurances. The parties hereto hereby agree to execute and deliver all such instruments and take all such action as may be necessary to effectuate fully the purposes of this Consent.

(k) Termination. Each party's obligations hereunder are absolute and unconditional, and no party has the right to terminate this Consent or to be released, relieved or discharged from any obligation or liability hereunder until (i) the Loans and all other obligations under the Financing Agreement solely with respect to the Project (other than indemnities and other contingent obligations not then due and payable with respect to which a claim has not been made) have been satisfied in full and (ii) notice shall be provided by the Collateral Agent that such obligations have been satisfied and all liens with respect to the Project have been released (which notice the Collateral Agent hereby agrees to provide to each of the parties hereto as promptly as possible after the conditions set forth in this Section 4(k)(i) have been satisfied).

(l) Actions of Collateral Agent. The Collateral Agent has been appointed as collateral agent pursuant to the Financing Agreement and shall be entitled to the benefit of every provision of the Financing Agreement relating to the conduct or affecting the liability of, or affording protection to, the collateral agent thereunder.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Consent to be executed by their respective officers as of the date first above written.

Southern Nevada Water Authority,
as Consenting Party

By: _____
Name: John J. Entsminger
Title: General Manager

Approved as to Form:

By: _____
Name: Gregory J. Walch, Esq.
Title: General Counsel

 [Signature Page to Southern Nevada Water Authority PPA Consent (River Mountains)]

River Mountains Solar, LLC
a Delaware limited liability company
By: SUNE Southwest Holdings, LLC, its Member

By: _____
Name: Luis Velez
Title: Assistant Secretary

 [Signature Page to Southern Nevada Water Authority PPA Consent (River Mountains)]

Deutsche Bank Trust Company Americas,
not in its individual capacity but solely as Collateral Agent

By: _____
Name:
Title:

By: _____
Name:
Title:

EXHIBIT A
TO CONSENT

PAYMENT INSTRUCTIONS

Accounts Bank	Wilmington Trust Company
ABA Number	031100092
Account Number	098309-004
Reference	Steve Barone, SunE Solar Construction, LLC

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

July 16, 2015

Subject: Agreement	**Director's Backup**
Petitioner: David L. Johnson, Deputy General Manager, Engineering/Operations	
Recommendations: That the Board of Directors approve and authorize the General Manager to sign a Water Service Agreement between the City of North Las Vegas and the Authority regarding water service to Garnet Valley and the Apex area.	

Fiscal Impact:
The Authority will be paid by the City of North Las Vegas for wholesale water service in Garnet Valley at the rate of 53 percent of the then-current Wholesale Water Delivery charge.

Background:
On September 18, 2008, the Board of Directors approved the Agreement Regarding Water Service to Garnet Valley among the City of North Las Vegas (CNLV), the Las Vegas Valley Water District (LVVWD), and the Authority, which was fully executed on June 1, 2009 (2009 Agreement). The 2009 Agreement provides that CNLV is the sole retail water service provider to Garnet Valley, where the Apex Industrial Park is located. The 2009 Agreement also provides that 2,200 acre-feet per year (AFY) of Garnet and Hidden valley groundwater rights would be transferred from the LVVWD to the Authority in order to facilitate the Authority's provision of wholesale water service to the CNLV. This water rights transfer was finalized in August 2014. The Apex area has been annexed into the CNLV and has recently experienced significant development interest.

If approved, the attached Water Service Agreement provides the terms upon which the Authority would supply wholesale water service in Garnet Valley. The CNLV would pay 53 percent of the then-current Wholesale Delivery Charge to the Authority for provision of this water service, and would not be charged for any Authority fees that are applicable to water sources not available for service to Garnet Valley. The Authority's unencumbered groundwater rights in Garnet and Hidden valleys would be available for the CNLV to use. Currently, 900 AFY of groundwater is available for the CNLV to allocate pursuant to its service rules for Garnet Valley. The CNLV and the Authority will cooperate to ensure efficient use of water in Garnet Valley by employing best management practices to minimize consumptive uses of water and generation of unused effluent. In the event a pipeline is developed for future delivery of Colorado River water to Garnet Valley, additional agreements would be necessary.

This agreement is being entered into pursuant to NRS 277.045 and Section 6(c) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved the agreement.

Respectfully submitted:

John J. Entsminger, General Manager
JJE:PDS:DLJ:ZLM:DRW:tad
Attachment

AGENDA ITEM # 11

WATER SERVICE AGREEMENT

This Water Service Agreement ("**Agreement**") is made and entered into this ___ day of _____, 2015 ("**Execution Date**"), by and between the Southern Nevada Water Authority, a political subdivision of the State of Nevada ("**SNWA**"), and the City of North Las Vegas, a municipal corporation and political subdivision of the State of Nevada ("**CNLV**"). For convenience, SNWA and CNLV are referred to herein individually as "**Party**" and collectively as the "**Parties**."

WITNESSETH

A. WHEREAS, SNWA, CNLV and the Las Vegas Valley Water District entered into an Agreement Regarding Water Service to Garnet Valley on June 1, 2009 (the "**2009 Agreement**"). The 2009 Agreement specified that SNWA will provide wholesale water service to CNLV in the Apex area, which is located in Garnet Valley (Hydrographic Area No. 216). The 2009 Agreement also provided that CNLV will be the sole retail water provider in Garnet Valley; and

B. WHEREAS, SNWA holds certain groundwater rights in Garnet Valley and Hidden Valley (Hydrographic Area No. 217) (the "**SNWA Permits**"). The SNWA Permits have a total combined duty of 2,200 acre-feet per year ("**afy**"). The unencumbered portion of these water rights available for CNLV's use as the retail water provider in Garnet Valley is 900 afy (the "**Available Water Usage**"); and

C. WHEREAS, SNWA Permit No. 83490 allows CNLV to divert 300 afy from the Kapex well that is owned by CNLV. Subtracting this 300 afy from the Available Water Usage results in 600 afy from the SNWA Permits being available for other uses by CNLV; and

D. WHEREAS, pursuant to the October 12, 2009 lease agreement with NV Energy, SNWA may temporarily redistribute water NV Energy does not use to others. To the extent this water

becomes available, SNWA may, in its sole discretion, include any redistributed water in the Available Water Usage; and

E. WHEREAS, CNLV also holds its own groundwater rights in Garnet Valley in the amount of 10.02 afy and may acquire additional Garnet Valley water rights in the future; and

F. WHEREAS, SNWA and CNLV desire to enter into this Agreement in order to outline the rights and obligations of each Party in the provision of wholesale and retail water service in Garnet Valley.

NOW, THEREFORE, in consideration of the mutual covenants and promises contained herein, the Parties do agree as follows:

1. CNLV to Provide Retail Water Service. As required by the 2009 Agreement, CNLV will be solely responsible for providing retail water service in Garnet Valley. Pursuant to its Service Rules, CNLV will provide water service commitments and ensure efficient use of the Available Water Usage by any retail water users. CNLV will adopt Service Rules that allow CNLV to curtail water uses and revoke water service to retail water customers based upon inactivity of the retail user and/or water supply limitations. CNLV will maintain an accounting of total water commitments and will debit or credit the accounting as final water commitments are issued and terminated or revoked.

2. CNLV Garnet Valley Service Rules. The CNLV service rules for Garnet Valley (the "**Service Rules**") will govern the provision of retail water service to any CNLV customers in Garnet Valley. Before adoption and modification of these Service Rules, CNLV will consult with SNWA.

3. SNWA to Provide Wholesale Water Service. As required by the 2009 Agreement, SNWA will provide wholesale water service to CNLV in Garnet Valley. The amount of water SNWA

will make available to CNLV pursuant to this Agreement is limited to the Available Water Usage (900 afy). In order to begin delivering water to retail customers in Garnet Valley, CNLV will need to provide to SNWA the Nevada State Plane coordinates of the proposed point of diversion and place of use, the amount of water requested, and the date CNLV would like to begin water service. The well located at the proposed point of diversion shall be owned by CNLV. SNWA will file temporary and/or permanent change applications with the Nevada State Engineer in a timely manner to allow CNLV to divert water from SNWA's Permits using CNLV's well(s) (the "**Change Applications**"). SNWA will pay the Nevada State Engineer application and permit fees associated with the Change Applications, but in the event data collection, hearings or litigation is required, the Parties will negotiate payment for these events in consultation with the retail water user as applicable. CNLV acknowledges that it may not use water from the SNWA Permits unless and until the Nevada State Engineer approves temporary and/or permanent Change Applications and issues permits authorizing such use. CNLV agrees to comply with all Nevada State Engineer permit terms.

4. Authority of the Nevada State Engineer. The Parties acknowledge that the Nevada State Engineer has, pursuant to both statutory and case law, broad authority to administer groundwater resources in the State of Nevada, and furthermore, that nothing contained in this Agreement obligates SNWA to provide water service to CNLV if SNWA's ability to provide such service is prohibited or diminished by a final and unstayed or unappealable ruling or decision from the Nevada State Engineer, from a court of competent jurisdiction, or any federal, state, or local governmental agency of competent jurisdiction that makes illegal or permanently restrains, enjoins or otherwise limits SNWA's ability to provide water service to CNLV. CNLV hereby releases and waives any claims or causes of action in law or equity against SNWA in the event

water service is delayed, interrupted or terminated due to the occurrence of any event described herein.

5. Limited Water Supply. In recognition of the limited amount of water available in Garnet Valley, CNLV and SNWA acknowledge the need to make efficient use of all water supplies, including effluent. CNLV and SNWA will cooperate to ensure efficient use of water in Garnet Valley, by employing best management practices to minimize consumptive uses of water and the generation of unused effluent. CNLV acknowledges that the 2009 Agreement requires the CNLV Service Rules to incorporate consumptive use water restrictions and provides examples of such restrictions which will enhance water use efficiency in Garnet Valley.

6. Pipeline for Colorado River Water. While currently there is no pipeline in place for SNWA to deliver Colorado River water to Garnet Valley, if a pipeline is developed in the future, the Parties anticipate other future agreement(s) would be necessary to provide Colorado River water to Garnet Valley. CNLV acknowledges that different conservation and consumptive use restrictions may apply to Colorado River water delivered to Garnet Valley.

7. No Interest or Estate. CNLV agrees that it does not have any interest or estate in the SNWA Permits, and shall not claim at any time any interest or estate of any kind whatsoever in the SNWA Permits by virtue of the rights granted under this Agreement. CNLV acknowledges that the right to use water pursuant to this Agreement is in the nature of a usufructuary right. CNLV agrees that the water provided to CNLV by SNWA is owned by SNWA and that any wastewater or treated effluent generated by use of the SNWA Permits is also owned by SNWA and may not be transferred to any other party by CNLV without approval by SNWA.

8. Wells and Water Conveyance Facilities. At its sole expense, CNLV, or a retail water user by agreement with CNLV, shall drill, develop, and equip such well or wells and associated water

conveyance infrastructure in Garnet and Hidden Valleys that are necessary for retail water service in Garnet Valley. A production totalizing meter shall be installed as part of equipping the well(s) and a port shall be installed for measuring depth to water. CNLV, or a retail water user by agreement with CNLV, shall ensure that the well(s) comply with any Nevada State Engineer permit terms for the point of diversion. CNLV shall own, operate, and maintain the well(s). CNLV shall report to SNWA monthly the quantity of water used both during construction and operation of these wells within 30 days of the end of every month. CNLV agrees to allow SNWA to access the well(s) for meter reading, water quality, and water level sampling. SNWA makes no representation or warranty regarding the quantity or quality of water developable from CNLV's well(s). CNLV also agrees to allow SNWA to access any monitoring well(s) CNLV owns in Garnet and Hidden Valleys for the purpose of water quality and water level sampling. CNLV will furnish SNWA with all data necessary to maintain the SNWA Permits in good standing with the Nevada State Engineer including but not limited to data necessary to file Proofs of Completion of Work, Proofs of Beneficial Use, and Requests for Extensions of Time.

9. Payment for Wholesale Water Service. CNLV shall pay SNWA for the amount of water used pursuant to this Agreement at a rate of 53% of the then-current SNWA Wholesale Delivery Charge for the applicable use period. For example, the current SNWA Wholesale Delivery Charge is $303 per acre-foot and approximately 53% of that charge is used to fund operating expenses that would be applicable to Garnet Valley. For the current SNWA Wholesale Delivery Charge, CNLV's payment for Garnet Valley water service would be 53% of $303, or $160.59 per acre-foot. CNLV's water use shall be measured by the annual volume of water pumped by CNLV under the SNWA Permits. SNWA shall invoice CNLV for water usage from January 1 to

December 31 of the preceding year by no later than March 1 of each subsequent year. CNLV will pay SNWA within thirty days (30) of receipt of the invoice. The SNWA Wholesale Delivery Charge is the per acre-foot charge that SNWA charges its purveyor member agencies for the treatment and delivery of treated, potable water and is determined and adopted by the SNWA Board of Directors. CNLV's payments to SNWA for wholesale water service in Apex are meant to reimburse SNWA for the costs SNWA incurs in keeping the SNWA Permits in good standing with the Nevada State Engineer, including monitoring and reporting expenses. CNLV will not be charged for any SNWA fees that are applicable to water sources not available for service to Garnet Valley.

10. Permitting and Other Approvals. Other than the Change Applications, CNLV, or a retail water user under agreement with CNLV, will be responsible to pay for and obtain from any governmental agency with jurisdiction over all or part of the Garnet Valley water delivery facilities all permits and approvals that are required to install, upgrade, operate, maintain, and/or replace the facilities.

11. Agreement Term. The Parties agree that this Agreement shall commence on the Execution Date and continue for the duration of time that SNWA provides wholesale service to CNLV.

12. Indemnification. To the extent allowed under Nevada law, CNLV shall indemnify and hold SNWA harmless for any and all claims or any third party claims relating to or arising from the construction, operation, maintenance or use of its water delivery facilities in Garnet Valley.

13. Notices. If notice is required to be sent to the Parties, the addresses are as follows:

If to CNLV:

Utilities Department
ATTN: Director
City of North Las Vegas
2250 Las Vegas Blvd. N.
North Las Vegas, NV 89030

With a copy to:

City Attorney
City of North Las Vegas
2250 Las Vegas Blvd. N.
North Las Vegas, NV 89030

If to SNWA:

General Manager
Southern Nevada Water Authority
1001 S. Valley View Blvd.
Las Vegas, Nevada 89153

With a copy to:

General Counsel
Southern Nevada Water Authority
1001 S. Valley View Blvd.
Las Vegas, Nevada 89153

Any and all notices and demands by any Party required or desired to be given to the other Party hereunder shall be in writing and shall be validly given or made only if deposited in the United States mail, certified or registered, postage prepaid, return receipt requested, or if made by Federal Express or other similar delivery service keeping records of deliveries and attempted deliveries. Service by United States Mail or by Federal Express or other similar delivery service shall be deemed complete three (3) business days following deposit with the United States mail or other delivery service, or upon actual receipt, whichever is sooner.

14. Assignment and Delegation. Neither Party may delegate, transfer or assign its rights or responsibilities pursuant to this Agreement without the prior written consent of the other Party. If a Party delegates, transfers or assigns its rights or responsibilities without the prior written

consent of the other Party, the delegation, transfer or assignment shall be void and not merely voidable.

15. Governing Law and Venue. This Agreement shall be governed in accordance with the laws of the State of Nevada, without reference to its choice of law provisions. Any legal action related to this Agreement will only be filed in the Clark County District Court, or if applicable, the United States District Court for the District of Nevada, Southern Division.

16. Amendment. This Agreement may be changed, modified, or amended only by mutual written agreement of the Parties.

17. No Third Party Beneficiaries. This Agreement is not intended by the Parties to create any right in or benefit to parties other than CNLV and SNWA. This Agreement does not create any third party beneficiary rights or causes of action.

18. Waiver. The failure of either Party to enforce at any time, or for any period of time, the provisions hereof shall not be construed as a waiver of such provisions or of the rights of such Party to enforce each and every such provision.

19. Counterparts. This Agreement will become effective as between the Parties upon all Parties signing this Agreement. This Agreement may be executed in any number of counterparts and when so executed, each such counterpart shall be deemed to be an original hereof as against any Party who has signed it, and all counterparts together shall constitute one and the same instrument.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the date first written above.

CITY OF NORTH LAS VEGAS

By: _____
John J. Lee, Mayor

Approved as to form:

_____
Sandra Douglass Morgan, City Attorney

ATTEST:

_____
Barbara A. Andolina
City Clerk

SOUTHERN NEVADA WATER AUTHORITY

By: _____
John J. Entsminger, General Manager

Approved as to form:

Dana Walsh
_____
Dana R. Walsh, Director of Legal Services

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

July 16, 2015

Subject: PUC Intervention	**Director's Backup**
Petitioner: Gregory J. Walch, General Counsel	
Recommendations: That the Board of Directors authorize the General Counsel to intervene in Public Utility Commission Docket 15-07004, Nevada Power Company's Triennial Integrated Resource Plan.	

Fiscal Impact:
None by approval of the above recommendation. Legal and professional service fees associated with this intervention are paid under separate agreements.

Background:
On July 1, 2015, Nevada Power Company d/b/a NV Energy (NPC) filed its Triennial Integrated Resource Plan for the years 2016 through 2035. Central to this filing is the Public Utility Commission's (PUC) approval of the sale of the Authority's one-quarter ownership of the Silverhawk Generating Station to NPC. That sale was approved by this Board on May 21, 2015. The approval by the PUC of this purchase by NPC is required for the sale to be consummated. The Authority needs to intervene to protect its interest in the sale.

The public notice for this docket has not yet been issued but is expected to have an intervention deadline by late July. Consequently, General Counsel is requesting this Board to authorize intervention on behalf of the Authority.

This PUC intervention is entered into pursuant to NAC 703.580 and NAC 703.595, and is authorized pursuant to Section 6 of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved this intervention.

Respectfully submitted:

John J. Entsminger, General Manager
JJE:GJW:CKH:llm

AGENDA ITEM # 12

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

July 16, 2015

Subject: Amendment	**Director's Backup**
Petitioner: Gregory J. Walch, General Counsel	

Recommendations:
That the Board of Directors authorize the General Manager to negotiate and execute: 1) an amendment(s) to the Agreement for a Pilot Program for Funding the Creation of Colorado River System Water through Voluntary Water Conservation and Reductions in Use for an amount not to exceed $1,500,000; and 2) miscellaneous agreements to effectuate the Colorado River System Conservation Pilot Program and to secure additional federal grants.

Fiscal Impact:
The Authority's $2,000,000 commitment to fund projects under the Colorado River System Conservation Pilot Program (Pilot Program) was approved by the Board of Directors on April 17, 2014. This agenda item would increase the Authority's contribution to a maximum of $3,500,000. The additional $1,500,000 is available in the Authority's Capital Budget.

Background:
On April 17, 2014, the Board of Directors authorized the General Manager to negotiate and execute an agreement for the creation of a Colorado River System Conservation Program (Pilot Program Agreement). The Pilot Program Agreement seeks to determine if voluntary demand management actions such as agricultural land fallowing, curtailment of industrial uses, and municipal conservation would be feasible to create Colorado River system water to mitigate the impacts of ongoing drought. The Pilot Program Agreement was entered into on July 30, 2014, among the Central Arizona Water Conservation District, Metropolitan Water District of Southern California, Denver Water, and the Authority (the "Local Funding Entities") and the U.S. Bureau of Reclamation (Reclamation). Each of the Local Funding Entities agreed to contribute $2,000,000 and Reclamation agreed to contribute $3,000,000 for the Pilot Program Agreement.

Under the existing Pilot Program Agreement, no more than $8,250,000 will be spent in the Lower Colorado River Basin. In both the Upper and Lower Colorado River basins, project implementation is well underway and eligible projects exceed the current amount of funding available for the Lower Basin under the Pilot Program Agreement.

If this item is approved, the General Manager would be authorized to negotiate multiple amendments to the Pilot Program Agreement, as appropriate, to incorporate the following items into the Pilot Program Agreement:

- Increase Reclamation's contribution to the Pilot Program
- Increase the Authority's contribution to the Pilot Program to a maximum of $3,500,000
- Accept contributions from other entities that are not currently parties to the Pilot Program Agreement

AGENDA ITEM # 13

- Modify the term of the Pilot Program Agreement to allow additional time to implement projects
- Change the amount of funding allocated to the Upper and Lower Basins

Additionally, approval of this item will authorize the General Manager to negotiate and execute miscellaneous agreements to effectuate the Colorado River System Conservation Pilot Program and to secure additional federal grants. As new opportunities arise to secure federal grants to support the Pilot Program, the General Manager would negotiate and execute required agreements to secure additional funding.

The Pilot Program continues to be a valuable tool in demonstrating that voluntary, compensated reductions in use may be a feasible method to mitigate the impacts of salinity and ongoing drought on the Colorado River by increasing water levels in Lakes Mead and Powell and/or enhancing flows in upstream areas. Increased water levels in Lakes Mead and Powell decrease the likelihood of shortages and improve water quality for Southern Nevada.

Also, the Pilot Program supports Recommendations 2 and 3 of the Integrated Resource Planning Advisory Committee's Phase II Report. These recommendations urge the Authority to continue to partner with other Colorado River Basin States to undertake system conservation projects designed to protect critical elevations in Lake Powell and Lake Mead, and to classify expenditures associated with such projects as one-time capital expenses.

This action is being entered into pursuant to NRS 277.180 and Sections 6(j) and 6(o) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved this agenda item.

Respectfully submitted:

John J. Entsminger, General Manager
JJE:PDS:GJW:CNP:cmc

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

July 16, 2015

Subject: Conservation Update and Temporary Water Smart Landscape Rebate Adjustment Authorization	**Director's Backup**
Petitioner: David L. Johnson, Deputy General Manager, Engineering/Operations	
Recommendations: That the Board of Directors receive an update on conservation efforts and authorize the General Manager, or his designee, to temporarily increase incentive rates to an amount not to exceed $2.00 per square foot for the Authority's Water Smart Landscapes Program to strengthen program participation.	

Fiscal Impact:
None by approval of the above recommendation. The program will continue to operate within the appropriated budget for Fiscal Year 2015-16.

Background:
The Authority remains committed to water conservation and the efficient use of water resources in Southern Nevada. Its conservation program utilizes an aggressive mix of pricing signals, education, regulation and incentives to encourage and enforce water smart principles in the community.

Prolonged drought has underscored the importance of an effective conservation program. When drought conditions became evident in 2002, the Authority took immediate action to effect water use reductions. What began as a Drought Plan has paved the way for a culture of conservation in the community, facilitated by a nationally-recognized conservation program. The Water Smart Landscapes (WSL) Program is the Authority's most successful conservation program, offering rebates to convert high-consumption turf to water-efficient landscapes. Since 1999, more than 174 million square feet of turf has been converted, producing savings of more than 270,000 acre feet of water.

Despite the program's success, a significant amount of ornamental lawn remains that could be eligible for the WSL Program. Based on program feedback, the barriers to program participation largely remain the time and cost to convert landscapes. Since 2009, the WSL Program has offered up to $1.50 for each square foot converted. In 2007, the Board of Directors authorized a promotional increase to $2.00 per square foot of conversion, which doubled participation in the WSL Program from the previous year. To again stimulate greater participation, temporary promotional increases are recommended.

By approval of this recommendation, the General Manager, or his designee, shall be authorized to periodically and temporarily increase WSL Rebates as a promotional measure, provided that the WSL Program operates within its existing budget. The Board is also being asked to receive an update on the Authority's conservation program.

This action is authorized pursuant to Sections 6(j) 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:

John J. Entsminger, General Manager
JJE:PDS:DLJ:ZLM:DB:KH

AGENDA ITEM # 14

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

July 16, 2015

Subject: Agreement	**Director's Backup**
Petitioner: Julie A. Wilcox, Deputy General Manager, Administration	

Recommendations:
That the Board of Directors approve a professional services agreement between R&R Partners, Inc., and the Authority to provide integrated marketing, communications and public outreach services for the Authority's water efficiency public education campaign and comprehensive water conservation initiatives, in an amount not to exceed $3,350,000, with the option to renew the agreement for five additional one-year periods and authorize an increase not to exceed 10 percent for each renewal term.

Fiscal Impact:
Funds requested for current year expenditures are available in the Authority's Operating Budget. Funds for future year expenditures will be budgeted accordingly.

Background:
The severe and unprecedented drought conditions impacting the Colorado River Basin continue to drive Lake Mead's water levels precariously close to elevations that could trigger a shortage declaration from the Secretary of the Interior. Southern Nevada, however, is positioned to absorb the identified shortage quantities without disrupting water deliveries due in large part to community-wide water conservation efforts that have reduced net per capita water consumption by more than 40 percent since the drought began. Although Southern Nevada's successful water conservation campaign has yielded remarkable savings, continued efforts are required to reach the Authority's water conservation goals.

Considering the increasing pace of the drought and decline in Lake Mead's water level, conveying consistent water conservation messaging is imperative, and the Authority's water efficiency public education campaign has proven successful in reaching target audiences and reducing community-wide water use. However, market research indicates changes in demographics and target audiences that require updated and refined communication strategies, including the use of new digital and social media to disseminate information. Additionally, copyrights and use permissions for the Authority's award-winning television advertisements are contractually expiring after close to a decade and will no longer be utilized. In response, the Authority is currently engaged in a rebranding effort with R&R Partners, Inc. (R&R Partners) that will enhance the effectiveness of the organization's water conservation campaigns and guide the strategic communication efforts going forward. This rebranding process is now going through the creative development phase and new advertising and marketing concepts are in advanced stages of development. Completing these efforts and launching the campaign in time for the Fall Compliance period beginning September 1 is imperative.

AGENDA ITEM # 15

promotion of related conservation programs, including Water Smart Landscapes, Water Smart Innovations, compliance with mandatory watering restrictions, and the Authority's other water-efficiency initiatives.

Under this agreement, R&R Partners will provide strategic marketing plans and creative concept development; media planning; design of print, television, and radio advertisements; placement of advertisements; enhancements to social media and digital-based communications; market research; and related projects to promote water efficiency. The agreement consolidates the Authority's marketing, communication and outreach efforts, including all web, social, electronic and print media, as well as the strategic communication programs for Southern Nevada's Spanish-speaking community—the region's fastest growing population segment. Historically, marketing and communications to the Spanish-speaking community occurred through a separate professional services agreement. While those efforts have been relatively successful in reaching identified audiences, consolidating these communications efforts under a single program as indicated in this agreement provides greater opportunity to impact the Spanish-speaking community via social and traditional media outlets while providing a truly integrated approach to the Authority's water conservation marketing, communications and outreach programs.

Consolidation of these various programs aligns with the organization's Strategic Plan, adopted in 2013, which serves as a blueprint to help increase communication, emphasize accountability and reduce costs within the organization. The Strategic Plan reflects the Authority's commitment to improving efficiencies and providing world-class service, and this consolidated program for integrated marketing, communication and public outreach services reflects that commitment.

R&R Partners is an independently-owned Nevada corporation specializing in advertising, marketing, public relations and public affairs. Combined with staff efforts, R&R Partners' services have contributed to our community embracing a conservation ethic and reaching water efficiency achievements that are internationally recognized.

This agreement is being entered into pursuant to NRS 332.115.1 (b), and Section 6 (J) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved the agreement.

Respectfully submitted:

John J. Entsminger, General Manager
JJE:PDS:JAW:SH:BLM:BAM
Attachments

DISCLOSURE OF OWNERSHIP/PRINCIPALS

Business Entity Type							
☐ Sole Proprietorship	☐ Partnership	☐ Limited Liability Company	x☐ Privately Held Corporation	☐ Publically Traded Corporation	☐ Trust	☐ Non-Profit Organization	☐ Other

Business Designation Group					
☐ MBE	☐ WBE	☐ SBE	☐ PBE	☐ ESB	☐
Minority Business Enterprise	Women-Owned Business Enterprise	Small Business Enterprise	Physically Challenged Business Enterprise	Emerging Small Business	

Corporate/Business Entity Name:	R&R Partners, Inc.	
(Include d.b.a., if applicable)		
Street Address:	900 South Pavilion Center Drive	Website:rrpartners.com
City, State and Zip Code:	Las Vegas, NV 89144	POC Name and Email:morgan.baumgartner@rrpartners.com
Telephone No:	702-228-0222	Fax No:702-228-7171
Local Street Address:		Website:
City, State and Zip Code:		Local Fax No:
Local Telephone No:		Local POC Name Email:
Number of Clark County, Nevada Residents Employed: 167		

All entities, with the exception of publicly-traded and non-profit organizations, must list the names of individuals, either directly or indirectly, holding more than five percent (5%) ownership or financial interest in the business entity appearing before the SNWA Board of Directors.

Publicly-traded entities and non-profit organizations shall list all Corporate Officers and Directors in lieu of disclosing the names of individuals with ownership or financial interest. The disclosure requirement, as applied to land-use applications, extends to the applicant and the landowner(s).

Entities include all business associations organized under or governed by Title 7 of the Nevada Revised Statutes, including but not limited to private corporations, close corporations, foreign corporations, limited liability companies, partnerships, limited partnerships, and professional corporations.

Full Name	Title	% Owned (Not required for Publicly Traded Corporations/Non-profit organizations)
See Attached		

This section is not required for publicly-traded corporations.

1. Are any individual members, partners, owners or principals, involved in the business entity, an SNWA full-time employee(s), or appointed/elected official(s)?

   ☐ Yes x☐ No (If yes, please note that SNWA employee(s), or appointed/elected official(s) may not perform any work on professional service contracts, or other contracts, which are not subject to competitive bid.)

2. Do any individual members, partners, owners or principals have a spouse, registered domestic partner, child, parent, in-law or brother/sister, half-brother/half-sister, grandchild, grandparent, related to an SNWA full-time employee(s), or appointed/elected official(s)?

   ☐ Yes x☐ No (If yes, please complete the Disclosure of Relationship form on Page 2. If no, please print N/A on Page 2.)

I certify under penalty of perjury, that all of the information provided herein is current, complete, and accurate. I also certify that the entity is not on the federal government's Excluded Parties List, as defined by 2 CFR § 180.945. I further understand that the SNWA will not take action on land-use approvals, contract approvals, land sales, leases or exchanges without the completed disclosure form.

Signature

Morgan Baumgartner
Print Name

Revised 10/30/14

DISCLOSURE OF OWNERSHIP/PRINCIPALS

Executive Vice President, General Counsel — June 18, 2015

Title — Date

DISCLOSURE OF RELATIONSHIP

List any disclosures below:
(Mark N/A, if not applicable.)

N/A

NAME OF BUSINESS OWNER/PRINCIPAL	NAME OF SNWA EMPLOYEE OR OFFICIAL AND JOB TITLE	RELATIONSHIP TO SNWA EMPLOYEE OR OFFICIAL	SNWA EMPLOYEE'S/OFFICIAL'S DEPARTMENT

"Consanguinity" is a relationship by blood. "Affinity" is a relationship by marriage.

"To the second degree of consanguinity" applies to the candidate's first and second degree of blood relatives as follows:

- Spouse – Registered Domestic Partners – Children – Parents – In-laws (first degree)
- Brothers/Sisters – Half-Brothers/Half-Sisters – Grandchildren – Grandparents – In-laws (second degree)

For SNWA Use Only:

If no Disclosure or Relationship is noted above or if the section is marked N/A, please check this box:

☒ No Disclosure

If any Disclosure of Relationship is noted above, please complete the following:

☐ Yes ☐ No Is the SNWA employee(s) noted above involved in the contracting/selection process for this particular agenda item?

☐ Yes ☐ No Is the SNWA employee(s) noted above involved in any way with the business in performance of the contract?

Notes/Comments:

Signature

Scott Huntley

Print Name
Authorized Department Representative

Billy Vassiliadis	CEO	40.3%
Mary Ann Mele	President	16.8%
K. James King	Director	15.8%
Robert Henrie	Director	6.3%
Peter Ernaut	President, GPA	9.1%
Randy Snow	CSO	5.7%
Erik Sandhu	CFO	6.0%

AGREEMENT TO PROVIDE PROFESSIONAL SERVICES

This Agreement is made and entered into this _____ day of_____, 2015, by and between R&R Partners, Inc., hereinafter called "CONSULTANT," and the SOUTHERN NEVADA WATER AUTHORITY, a political subdivision of the State of Nevada, hereinafter called the "AUTHORITY." The CONSULTANT and the AUTHORITY are sometimes hereinafter referred to individually as "Party" and collectively as the "Parties." The term "AUTHORITY" also refers to staff of the AUTHORITY acting within their designated authority and duties.

WITNESSETH:

WHEREAS, the AUTHORITY desires to obtain professional services as more specifically described herein, and

WHEREAS, the CONSULTANT is properly qualified and desires to provide the professional services required by the AUTHORITY, and

WHEREAS, the AUTHORITY, in reliance on the CONSULTANT's representations and proposals, agrees to retain the CONSULTANT, and the CONSULTANT agrees to furnish professional services to the AUTHORITY, on the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the promises and mutual covenants contained herein, the Parties hereto agree as follows:

1. <u>SCOPE OF SERVICES</u>:

(a) The CONSULTANT shall provide any requested services, hereinafter referred to as "Services" or "Work," as described and within the time indicated in **Exhibit A**, which is attached herewith and made a part of this Agreement.

(b) All Services performed shall be subject to the cost ceiling contained in Paragraph 4 hereof and subject to the AUTHORITY's directions respecting priorities. The

CONSULTANT will furnish professional Services in the amount necessary to complete promptly and effectively the Work assigned under this Agreement. All of the Services shall be performed by the CONSULTANT or an approved subcontractor or subconsultant.

(c) In performing Services under this Agreement, the CONSULTANT shall observe and abide by the terms and conditions of all applicable laws, regulations, ordinances, or rules of the United States, of the State of Nevada, of any political subdivision thereof, and of any other duly constituted public authority or agency. The CONSULTANT shall be responsible for obtaining any license, permit or other approval as required by law or otherwise, arising out of the Services to be performed hereunder.

(d) The CONSULTANT has, or will secure at its own expense, the qualified personnel required to perform the Services assigned under this Agreement. Such personnel shall not be employed by the United States, the State of Nevada, Clark County, the AUTHORITY, or any other political subdivision of the State of Nevada.

2. PERIOD OF PERFORMANCE:

This Agreement shall become effective as of the date it is fully executed by both Parties and, unless terminated in accordance with the terms of this Agreement, shall remain in effect until all Services authorized to be performed by the AUTHORITY are completed by the CONSULTANT or terminated in accordance with this Agreement.

The Initial term of this contract shall be from executed date through June 30, 2016. The AUTHORITY reserves the option to renew this contract for five (5) additional one-year periods from the expiration date of the initial term with an optional increase not to exceed (10) ten percent for each renewal term. The AUTHORITY reserves the option to temporarily

extend this contract for periods up to 90 calendar days from its expiration date for any reason.

3. COMPENSATION:

(a) In consideration for completion of all duties and responsibilities under this Agreement, the AUTHORITY agrees to pay the CONSULTANT, in accordance with **Exhibit A, Rates and Fees**, for Work completed to the AUTHORITY's satisfaction.

(b) The CONSULTANT shall provide itemized monthly invoices for Services performed during the previous month. Invoices are to be submitted to the AUTHORITY in accordance with the Notice provisions of the Agreement and must reference the name and date of the Agreement. A copy of any invoice received from subcontractors or subconsultants used by the CONSULTANT shall be included.

(c) The AUTHORITY shall pay invoiced amounts from the CONSULTANT based on the fees set forth in **Exhibit A** within thirty 30 calendar days after the date the invoice is received and approved by the AUTHORITY.

4. LIMITATION ON COSTS:

The total cost of Services provided under this Agreement shall not exceed three million three hundred fifty thousand dollars ($3,350,000) per contract year, with an optional increase not-to-exceed 10 percent for each renewal term.

5. TRUTH-IN-NEGOTIATION CERTIFICATION:

Signing of this Agreement by CONSULTANT shall constitute a truth-in-negotiation certification by CONSULTANT that wage rates and other factual unit costs supporting the compensation of this Agreement are accurate, complete, and current at the time of execution

of this Agreement. The original Agreement price and any additions thereto shall be adjusted to exclude any significant sums by which the AUTHORITY determines the Agreement price was increased due to inaccurate, incomplete, or noncurrent wage rates and other factual unit costs. All such Agreement adjustments shall be made within one (1) year following the end of the term of this Agreement.

6. INDEPENDENT CONTRACTOR:

The relationship of the CONSULTANT to the AUTHORITY hereunder shall be that of an independent contractor and not an agent or employee. The CONSULTANT shall have complete control over its employees and the method of performing its Work under this Agreement. No permitted or required approval by the AUTHORITY of personnel, costs, documents or Services of the CONSULTANT shall be construed as making the AUTHORITY responsible for the manner in which the CONSULTANT performs its Services or for any acts, errors or omissions of the CONSULTANT. Such approvals are intended only to give the AUTHORITY the right to satisfy itself with the quality of Work performed by the CONSULTANT.

7. INTELLECTUAL PROPERTY ACKNOWLEDGMENT

In consideration of the covenants, representations and warranties set forth herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, CONSULTANT hereby covenants, represents and warrants the following:

(a) All content developed on behalf of the AUTHORITY, in whole or in part, solely or jointly by CONSULTANT and all of CONSULTANT's employees, associates or subcontractors assisting in creating developments and/or other work product, whether or not copyrightable or otherwise protected, including, without limitation, advertisements and

marketing material ("Work Product") arising from services performed pursuant to, or arising out of the AUTHORITY's engagement of CONSULTANT, or previously conceived in anticipation of work to be performed in regard to the AUTHORITY's engagement of CONSULTANT, shall be deemed "work made for hire" as defined in the copyright laws of the United States of America (17 U.S.C. §101 et seq.) and the AUTHORITY shall own all right, title, and interest, including, without limitation, all copyrights and other intellectual property right, title, and interest ("Right") in and to the Work Product.

(b) To the extent that CONSULTANT is deemed to have or retain any Right or otherwise possess any Right in and to any Work Product, CONSULTANT hereby assigns, transfers, and conveys, all such Right to the AUTHORITY.

(c) CONSULTANT shall execute all documents and undertake all actions necessary to effect the clarification of ownership of all Work Product in and to the AUTHORITY and to allow the AUTHORITY to apply for registrations of the Work Product, as well as maintain any registrations gained, including, without limitation, the Intellectual Property Assignment set forth in paragraph 8.

(d) CONSULTANT hereby waives and releases any claim of infringement of any Right of CONSULTANT (whether based in any intellectual property Right, other proprietary interest whatsoever, or fiduciary theory) in, to or respecting any Work Product (including, without limitation, any claim based on any CONSULTANT's rights in any Work Product which may be construed as "works of visual art" as defined in the Visual Arts Rights Act of 1990, 17 U.S.C. 106A) and shall never challenge nor dispute the AUTHORITY's Right in and to the Work Product.

8. INTELLECTUAL PROPERTY ASSIGNMENT

In consideration of the covenants, representations and warranties set forth herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, CONSULTANT hereby sells, conveys, transfers and assigns to the AUTHORITY all of the CONSULTANT's right, title, license and interest (including, without limitation, all intellectual property right, title, license and interest) in and to any and all ideas and content (including, without limitation, all material, information, creative works, documents, matter, text, data, graphics, computer-generated displays and interfaces, images, photographs and works of whatsoever nature, including, without limitation, all compilations of the foregoing and all results and/or derivations of the expression of the foregoing) designed, developed, or created by the CONSULTANT or otherwise arising out of the CONSULTANT's Services or Work and related content by and for the benefit of the AUTHORITY (including, without limitation, patents applications, issued patents, prototypes for the purpose of same, and other associated derivatives) including, without limitation, all marks, all goodwill associated with such patents, marks, trade secrets, and copyrights in and to, relating to, associated with and/or arising from the Work, the right to applications, issuance, continuations, and divisionals of such patents and the right to applications, registrations, renewals, reissues, and extensions of such marks and copyrights, and the right to sue and recover for any past and/or continuing infringements or contract breaches, said rights, titles, licenses and interests to be held and enjoyed by the AUTHORITY, for the AUTHORITY's own use and benefit and for the use and benefit of the AUTHORITY's successors, assigns or other legal representatives, as fully and entirely as the same would

have been held and enjoyed by the CONSULTANT if this sale, conveyance, transfer and assignment had not been made.

9. JOINT VENTURE:

Nothing herein shall be construed to imply a joint venture or principal and agent relationship between the AUTHORITY and the CONSULTANT, and neither Party shall have any right, power or authority to create any obligation, expressed or implied, on behalf of the other. CONSULTANT shall, however, be permitted to act as AUTHORITY'S agent for the purpose of purchasing media as required by this Agreement and as approved in advance by AUTHORITY.

10. INTERPRETATION:

The Parties agree that neither Party shall be deemed the drafter of this Agreement and, in the event this Agreement is ever construed by a court of law or equity, such court shall not construe this Agreement or any provision hereof against either Party as drafter of this Agreement.

11. CONFLICT OF INTEREST:

During the course of performance of this Agreement, the CONSULTANT will not contract with any client whose interest is adverse to or would require the CONSULTANT to take a position contrary to that of the Las Vegas Valley Water District and/or the AUTHORITY.

12. PROHIBITION AGAINST COMMISSION FOR OBTAINING AGREEMENT:

The CONSULTANT warrants that no person or company has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees; nor has

the CONSULTANT paid or agreed to pay any person, company, corporation, individual or firm other than a partner or bona fide employee, any fee, commission, contribution, donation, percentage, gift, or any other consideration, contingent upon or resulting from award of this Agreement. For any breach or violation of this warranty, the AUTHORITY shall have the right to terminate this Agreement without liability, or at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission, percentage, gift or consideration and any other damages.

13. PROHIBITION AGAINST INTEREST BY GOVERNMENT EMPLOYEES:

(a) No officer, employee or member of the governing body of the AUTHORITY shall (1) participate in any decision relating to this Agreement which affects his or her personal interest or the interest of any corporation, partnership, or association in which he or she is, directly or indirectly, interested or (2) have any interest, direct or indirect, in this Agreement or the proceeds thereof.

(b) The CONSULTANT represents that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of Services required to be performed under this Agreement. The CONSULTANT further covenants that in the performance of said Services, no person having any such interest shall be employed.

(c) No member of, delegate to or officer or employee of the legislative, executive or judicial branches of the government of the United States, of the State of Nevada or any of its political subdivisions shall be entitled to any share or part hereof or to any benefit to arise therefrom.

14. COMPLETENESS AND ACCURACY OF CONSULTANT'S WORK:

(a) The CONSULTANT shall be responsible for the completeness and accuracy of its research, supporting data, and any final reports or other deliverables prepared or compiled under its obligation under this Agreement and shall correct, at its expense, all errors or omissions therein which may be disclosed.

(b) The cost necessary to correct those errors attributable to the CONSULTANT and any damage incurred by the AUTHORITY as a result of additional costs caused by such errors shall be chargeable to the CONSULTANT. The fact that the AUTHORITY has accepted or approved the CONSULTANT's Work shall in no way relieve the CONSULTANT of any of its responsibilities.

15. INDEMNIFICATION:

CONSULTANT shall indemnify, hold harmless, and defend without cost to the AUTHORITY, its Board of Directors and its officers, agents, and employees, against any and all losses, claims, costs, damages, actions, proceedings, and liability arising out of, resulting from, or in any way incidental to CONSULTANT's provision of Services or Work under this Agreement. This indemnification includes, but is not limited to, claims for or by reason of any death or deaths of, or any physical injury or injuries to, any person or persons or damage to real or personal property of any kind whatsoever, whether the person(s) or property of CONSULTANT, its agents, or subconsultants, or of third parties; harassment or discrimination or any theory of joint or dual employment by the CONSULTANT's employees, agents, subcontractors or subconsultants, arising out of the Services or Work under this Agreement; negligence, whether active, passive or contributory, of the

AUTHORITY, and its officers, employees or agents; or infringement on any U.S. patent (issued as of the Effective Date) or any copyright or trademark.

16. INSURANCE:

(a) General:

1. The CONSULTANT shall not commence any Work under this Agreement until the CONSULTANT obtains, at its own expense, all insurance as required in this section; however, failure to obtain all insurance shall not relieve the CONSULTANT of the obligation to achieve the schedule milestone dates as defined herein. The types of insurance to be obtained by the CONSULTANT are Workers' Compensation, Employers' Liability, Automobile Liability, Commercial General Liability, and Professional Liability as outlined in the following portions of this section.

2. The Workers' Compensation, Employers' Liability, and Automobile Liability insurance will be maintained in force for the full period of the Agreement.

3. The Professional Liability insurance will be maintained in force for two years following the completion of the project.

4. These insurance provisions are in addition and cumulative to any other right of indemnification or contribution that the AUTHORITY may have in law, in equity, or otherwise and shall survive the completion of the project.

5. Nothing contained in these insurance requirements is to be construed as limiting the extent of the CONSULTANT's total responsibility for payment of claims arising in whole or in part from the actions of a third party when such actions might be taken as a result of the CONSULTANT's operations under this Agreement.

6. At the time of executing this Agreement and before commencement of the Work, the CONSULTANT shall have delivered to the AUTHORITY certificates of insurance and endorsements that attest to the fact that the CONSULTANT has obtained the insurance as specified in this Agreement.

(b) Other Insurance:

1. All insurance provided by the CONSULTANT shall be considered primary with respect to the AUTHORITY's insurance, and any similar insurance maintained by the AUTHORITY shall be considered excess and non-contributory.

2. The CONSULTANT's Workers' Compensation insurance shall be written with a property and casualty insurance company admitted to do business in the State of Nevada and rated A- or better and Class V or higher of financial size category in the current issue of Best's Key Rating Guide.

3. The CONSULTANT's Automobile Liability, Commercial General Liability and Professional Liability insurance shall be written with property and casualty insurance companies admitted to do business in the State of Nevada and rated A- or better and Class VIII or higher of financial size category in the current issue of Best's Key Rating Guide.

4. In the event any of the CONSULTANT's insurance companies are not admitted to write business in the state of Nevada, then the CONSULTANT will furnish evidence of insurance with insurance companies that are rated A- or better and Class IX or higher of financial size category in the current issue of Best's Key Rating Guide for each coverage written with a non-admitted carrier.

5. The Certificate of Insurance and related endorsements must be satisfactory to the AUTHORITY as to form and content and must comply with all insurance requirements as set forth herein, or the certificate and endorsements may be rejected and thereby, at the option of the AUTHORITY, render this Agreement cancelable.

6. All endorsements are to be dated, reflect the name of the insurance company, the type of insurance, and the policy number; be executed by a duly authorized representative of the insurance company; and be attached to the certificate.

7. The full legal operating names of the CONSULTANT and insurance carrier shall be properly shown where applicable.

8. The cancellation section of the certificate is to be amended to provide 30-day written notice of cancellation and initialed by the Agent.

9. By endorsement (I.S.O. Forms CG 20 10 07 04 and CA 20 48 02 99, or equivalent), the AUTHORITY shall be included as an additional insured under the Commercial General Liability and Automobile Liability insurance policies as to bodily injury, sickness, disease, or death, personal injury, damage to or destruction of the property or persons which may arise out of or in connection with activities under the Agreement. The CONSULTANT's insurance shall be primary with respect to the additional insureds; any insurance coverage maintained by the AUTHORITY shall be in excess of the CONSULTANT's insurance and non-contributing.

10. By endorsement (I.S.O. Form CG 24 04 10 93 or its equivalent), the CONSULTANT's Commercial General Liability, Automobile Liability and Workers' Compensation Insurance carriers shall waive their transfer rights of recovery (Waiver

of Subrogation) against the AUTHORITY, its members and affiliated companies, successors or assignees, including their directors, officers, and employees individually and collectively.

11. The additional insured and waiver of subrogation endorsements shall read as follows:

> *The Southern Nevada Water Authority, its members, and affiliated companies, successors, or assigns, including their directors, officers, and employees individually and collectively, when acting within the scope of their employment.*

12. If the CONSULTANT fails to procure and/or maintain insurance set forth herein, in addition to other rights or remedies, the AUTHORITY shall have the right, if the AUTHORITY so chooses, to procure and/or maintain the said insurance for and in the name of the CONSULTANT with the AUTHORITY as an Additional Insured, and the CONSULTANT shall pay the cost thereof and shall furnish all necessary information to make effective and/or maintain such insurance. In the event the CONSULTANT fails to pay the cost, the AUTHORITY hereby has the right to offset any premiums from the compensation set forth in this Agreement and directly pay for such coverage.

13. With respect to any and all insurance required under this Agreement, the deductible shall not exceed $50,000, unless otherwise agreed to by the AUTHORITY or the AUTHORITY'S Risk Management Division.

(c) <u>Workers' Compensation and Employers' Liability Insurance:</u>

1. The CONSULTANT shall procure and maintain such insurance and see that its subcontractors/subconsultants purchase and maintain such insurance as is

required under the Nevada Industrial Insurance Act, Nevada Revised Statutes Chapters 616 and 617, for all of its employees working on the project to protect the AUTHORITY from any industrial insurance claims.

2. In the event any class of employees engaged in any Work on the project relative to this Agreement is not protected under the Nevada Industrial Insurance Act, then the CONSULTANT shall provide to the AUTHORITY adequate insurance coverage in a form and by an insurance carrier satisfactory to the AUTHORITY for the protection of such employees.

3. In the event the CONSULTANT is permissibly self-insured for Workers' Compensation insurance in the State of Nevada, the CONSULTANT shall deliver to the AUTHORITY a copy of the Certificate of Consent to Self-Insure issued by the State of Nevada.

4. The CONSULTANT shall procure and maintain Employers' Liability Insurance with limits as set forth in paragraph 16 (h).

(d) Commercial General Liability Insurance:

The CONSULTANT shall procure and maintain Commercial General Liability insurance coverage. The coverage under this policy shall include, but not be limited to, commercial general liability, protective liability, blanket contractual liability, and broad-form property damage. The Commercial General Liability Insurance policy shall be written for limits as outlined under paragraph 16 (h). The amount of coverage shall apply to bodily injury, sickness, disease or death, personal injury, damage to or destruction of the property of persons that may arise out of or in connection with the activities under this Agreement.

(e) Automobile Liability Insurance:

The CONSULTANT shall procure and maintain, at its own expense, automobile liability insurance limits as outlined in paragraph 16 (h), written on a combined-single-limit basis for bodily injury and property damage including all owned, leased, hired, or non-owned motorized vehicles and apparatus and shall indicate these coverages on the certificate.

(f) Professional Liability Insurance:

The CONSULTANT shall procure and maintain Professional Liability Insurance as outlined in paragraph 16 (h). If this coverage is written on a claims-made basis, the retroactive date shall be prior to or coincident with the date of this Agreement and the certificate shall so state.

(g) It is the CONSULTANT's sole responsibility to ascertain that the aforementioned insurance requirements are fulfilled. In the event they are not, the CONSULTANT shall not be relieved of their duty to perform, indemnify, defend, and hold harmless the AUTHORITY and all others concerned herein, nor shall the AUTHORITY and all concerned herein be liable to the CONSULTANT or any others in the event the CONSULTANT's insurance, as accepted by the AUTHORITY, fails to meet the full requirements herein.

(h) Insurance Limits

Value of Contract	Coverage	Limits of Liability
$1,000,000 to $4,999,999	Professional Liability	$1,000,000/per claim $2,000,000 aggregate
	General Liability	$1,000,000/per occurrence $2,000,000/aggregate
	Automobile Liability	$1,000,000/per occurrence
	Workers' Compensation	Statutory

Employers' Liability	$500,000

17. TERMINATION:

The AUTHORITY's General Manager, his/her designee and/or the CONSULTANT may terminate this Agreement on thirty (30) days prior written notice. In the case of termination by the AUTHORITY, the AUTHORITY shall pay the CONSULTANT for all Work performed to the effective date of termination and the reasonable costs of transferring all documentation of all Work to the AUTHORITY.

18. REVIEWS:

(a) The CONSULTANT shall submit draft reports and other materials for review by the AUTHORITY prior to the submission of a final report on materials. Due dates will be negotiated, but in every instance, earlier submittal is encouraged.

(b) The AUTHORITY will review the submittals and any pertinent attachments and mark all required changes. All reviews will be completed within ten (10) working days after receipt of the submission package, and the package will be returned to the CONSULTANT. Corrections and changes to the submission will be made by the CONSULTANT and resubmitted to the AUTHORITY for approval within ten (10) working days after receipt. The final approval will be submitted to the CONSULTANT within five (5) working days after receipt of the corrected document and any attachments. Alternate review schedules may be negotiated by mutual agreement of the Parties.

19. RELEASE OF INFORMATION:

The CONSULTANT shall make public information releases only as provided for and in accordance with this Agreement. Any and all other public releases of information gathered, obtained, or produced during the performance of this Agreement must be

specifically approved in writing by the AUTHORITY prior to release. Such information shall include, but is not limited to, all products, intellectual property, Work Product, ideas, data, reports, background materials, and any and all other materials belonging to the AUTHORITY. Such public releases of information shall include, but are not limited to, publication in any book, newspaper, magazine, professional or academic journal, the Internet, radio, television, and presentations to professional, academic, and/or other groups or conferences.

20. USE OF MATERIALS:

(a) The AUTHORITY shall make available to the CONSULTANT such materials from its files as may be required by the CONSULTANT in connection with its performance of Services under this Agreement. Such materials shall remain the property of the AUTHORITY while in the CONSULTANT's possession.

(b) Upon termination of this Agreement, the CONSULTANT shall turn over to the AUTHORITY any property of the AUTHORITY in its possession and any calculations, notes, reports, or other materials prepared by the CONSULTANT in the course of performing this Agreement. Any proprietary software or other tools of the CONSULTANT used to execute the Work shall remain the property of the CONSULTANT.

21. RECORDS:

The CONSULTANT shall retain financial and other records related to this Agreement for six (6) years after the completion or termination of this agreement, and shall make available to the AUTHORITY for inspection, all books, records, documents, and other evidence directly pertinent to performance under this Agreement upon reasonable notice.

22. ASSIGNMENT:

The CONSULTANT shall not assign or transfer its interest in this Agreement without the prior written consent of the AUTHORITY. If CONSULTANT assigns or transfers without prior written approval, the assignment or transfer shall be void, and not merely voidable.

23. MODIFICATION OF AGREEMENT:

This Agreement may not be changed or modified except by written instrument executed by both Parties or their designees.

24. SEVERABILITY:

Any provisions or portions of this Agreement prohibited as unlawful or unenforceable under any application of 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.

25. NON-DISCRIMINATORY EMPLOYEE PRACTICES:

(a) The CONSULTANT shall not employ discriminatory practices in the provision of Services, employment of personnel, or in any other respect on the basis of race, color, religion, sex, sexual orientation, gender identity or expression, age, disability, or national origin.

(b) No person in the United States shall, on the grounds of race, color, religion, sex, sexual orientation, gender identity or expression, age, disability, or national origin, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity made possible by or resulting from this Agreement.

(c) The CONSULTANT will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity or expression, age, disability, or national origin. The CONSULTANT shall ensure that applicants are employed, and the employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity or expression, age, disability, or national origin. This non-discrimination provision shall include, but not be limited to employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The CONSULTANT agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provision of this non-discrimination clause.

(d) The CONSULTANT will, in all solicitations or advertisements for employees placed by or on behalf of the CONSULTANT, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity or expression, age, disability, or national origin.

(e) The CONSULTANT will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice advising the said labor union or workers representatives of the CONSULTANT's commitment under this provision and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

26. <u>EQUAL EMPLOYMENT OPPORTUNITY:</u>

(a) The CONSULTANT and any subcontractor or subconsultant working under the authority of the CONSULTANT, who is responsible for the selection, referral, hiring, or

assignment of workers for the Services provided pursuant to this Agreement, is required to comply with all applicable provisions of Title VII of the Civil Rights Act of 1964. This requirement includes compliance with Equal Employment Opportunity Commission regulations that prohibit discrimination based upon race, color, religion, sex, or national origin. Furthermore, the CONSULTANT shall in all relevant manners comply with the Age Discrimination in Employment Act, the Civil Rights Act of 1991, the Equal Pay Act, and Title I of the Americans with Disabilities Act.

(b) The CONSULTANT shall make all necessary documentation as required to comply with the Acts referred to above and shall make such documentation immediately available to the AUTHORITY upon the AUTHORITY's request. The CONSULTANT is solely liable for failure to comply with this provision.

27. APPLICABLE LAW:

Nevada law shall govern the interpretation of this Agreement, without reference to its choice of law provisions.

28. VENUE:

The Parties agree that venue for any dispute arising from the terms of this Agreement shall be Clark County, Nevada.

29. ATTORNEY'S FEES:

Except as otherwise set forth in this Agreement, the Parties shall bear their own attorneys' fees and costs incurred in resolving the claims, as well as on the preparation of this Agreement. In the event that any Party commences an action to enforce or interpret this Agreement, or for any other remedy based on or arising from this Agreement, the prevailing party therein shall be entitled to recover its reasonable and necessary attorneys' fees and costs

incurred. For the purposes of this provision, the "prevailing party" shall be that party which has been successful with regard to the main issue, even if that Party did not prevail on all issues.

30. NO THIRD PARTY RIGHTS:

This Agreement is not intended by the Parties to create any right in or benefit to parties other than the AUTHORITY and the CONSULTANT. This Agreement does not create any third party beneficiary rights or causes of action.

31. WAIVER:

The failure of either Party to enforce at any time, or for any period of time, the provisions hereof shall not be construed as a waiver of such provisions or of the rights of such Party to enforce each and every such provision.

32. CAPTIONS:

The captions contained in this Agreement are for reference only and in no way to be construed as part of this Agreement.

33. COUNTERPARTS:

This Agreement may be executed in any number of counterparts and by the different Parties on separate counterparts, each of which, when so executed, shall be deemed an original, and all counterparts together shall constitute one and the same instrument.

34. INTEGRATION:

This Agreement contains the entire understanding between the Parties relating to the transactions contemplated by this Agreement, notwithstanding any previous negotiations or agreements, oral or written, between the Parties with respect to all or any part of the subject matter hereof. All prior or contemporaneous agreements, understandings, representations

and statements, oral or written, regarding the subject matter of this Agreement are merged in this Agreement and shall be of no further force or effect.

35. NOTICES:

Any and all notices, demands or requests required or appropriate under this Agreement (including invoices) shall be given in writing and signed by a person with authorization to bind the CONSULTANT or AUTHORITY, either by personal delivery, via facsimile, via a scanned document sent via email, or by registered or certified mail, return receipt requested, addressed to the following addresses and fax numbers:

To CONSULTANT: R&R Partners, Inc.
Attention: Erik Sandhu, Chief Financial Officer
Erik.Sandhu@rrpartners.com
Fax: (702) 939-4320

To AUTHORITY: Southern Nevada Water Authority
Attention: Andrew M. Belanger, Director of Public Services
Andy.Belanger@snwa.com
Fax: (702) 822-8530

When notice is given by mail, it shall be deemed served three (3) business days following deposit, postage prepaid in the United States mail. When notice is given by facsimile or email transmission, it shall be deemed served upon receipt of confirmation of transmission if transmitted during normal business hours or, if not transmitted during normal business hours, on the next business day following the facsimile or email transmission.

The Parties may designate a new contact person under this provision for notices or invoices or change the address, email address or fax number identified above by notifying the other Party in writing.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed the day and year first above written.

R&R Partners Inc.

By_____

Erik Sandhu, Date
Chief Financial Officer

SOUTHERN NEVADA WATER AUTHORITY

By_____

John J. Entsminger Date
General Manager

Approved as to form:

Tabitha D. Fiddyment, Deputy Counsel

EXHIBIT A

SCOPE OF SERVICES

R&R Partners' primary goal is to assist the Southern Nevada Water Authority (SNWA) with integrated marketing, communication and public outreach services and to provide brand planning and project management activities. R&R Partners will work with SNWA staff to develop new advertising and marketing campaigns, as well as implement existing ones to build upon and expand the SNWA's strategies aimed at educating the region's residents and businesses on the importance of ongoing water conservation efforts to contribute to the long-term water security in the valley.

Existing advertising and marketing campaigns include:

- Ethics: overarching community outreach that communicates the importance of continued water conservation
- Compliance: program to educate the community about mandatory watering schedule and time of day restrictions
- Water Smart Innovations: program to promote the urban water-efficiency conference hosted by SNWA for water professionals from around the world and support the conference implementation
- Water-Efficient Technologies: program to promote and increase participation in the incentive program offered to businesses that install water-efficient devices and technologies
- Water Smart Landscaping: program to promote the incentive program offered to residential and commercial customers that convert grass to water efficient landscapes

The following key creative initiatives will be updated and/or developed:

- Compliance
- Ethics
- Water Smart Landscaping and other incentive programs
- Water-use restrictions
- Additional or new water conservation programs or use-restrictions as implemented by the organization

Services provided by the Consultant include, but are not limited to the following:

Media Strategy, Planning and Buying

- Develop overarching total market media objectives and strategies
- Develop and implement biannual media plans to support major initiatives that include traditional media, digital, paid social media, launch activation ideas and media sponsorships
- Negotiate added value and trade promotions
- Reporting and optimization

- Monitor and track budgets
- Research media trends, market conditions and competitive spending and demographics/psychographics data
- Provide top-line media recommendations and point of views (POVs)

Creative Strategy and Development

- Provide total-market, strategic, creative services to include development of conceptual creative directions and fully-integrated campaigns

Measurement and Insights

- Analysis of trends and opportunities
- Cross-channel analytics
- Integrated reporting
- Return on investment analysis

Digital and Social Media Strategy and Consultation

- Review SNWA-related websites and provide technical optimizations and contribute to design, navigation and content recommendations
- Provide email recommendations and optimizations
- Ongoing strategic support to maintain successful digital strategies

Spanish-Language Strategy and Marketing

- Expand existing strategies and tactics to include Spanish-language consumer messages
- Educate the Spanish-speaking community on the importance of water conservation and available and/or new water-efficiency incentive programs
- Develop a Spanish Compliance campaign, as well as additional water-efficiency campaigns as necessary

RATES AND FEES

Based upon the anticipated number of hours devoted to the SNWA's water efficiency public education campaign, the SNW A will compensate R&R Partners through monthly agency service fee for administrative, professional and creative services. Outlays related to advertisement placement or production will be compensated on an individual basis, and are included in the $3,350,000 limitation on costs.

Agency Service Fee: $20,000 per month
Media/Production Commission: 15 percent
Creative Services: $135 per hour
Broadcast Production Services: 15 percent and $850 per producer hour

Cost Cap: Amount not-to-exceed $3,350,000 with an optional increase not-to-exceed 10 percent for each renewal term.

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

July 16, 2015

Subject: Update on Water Resources	**Director's Backup**
Petitioner: Gregory J. Walch, General Counsel	

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 construction activities near Lake Mead.

Fiscal Impact:
None by approval of the above recommendation.

Background:
The Colorado River Basin has been experiencing severe drought conditions 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 since their initial filling.

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 to ensure Southern Nevada has access to best quality water in Lake Mead. The project design and environmental approvals were completed by 2007. Construction began on the project in March 2008. On December 10, 2014, the Board approved a low lake level pumping station for design and construction. When constructed, the pumping station will work alongside Intake No. 3 to protect access to the majority of Southern Nevada's drinking water supply despite severe drought conditions.

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 construction activities near Lake Mead.

The office of the General Counsel has reviewed and approved this agenda item.

Respectfully submitted:

John J. Entsminger, General Manager
JJE:PDS:GJW:td

AGENDA ITEM # 16