MEETING OF THE
STATE BOARD FOR FINANCING WATER PROJECTS

Summary Minutes

Tuesday, July 14, 2015
1:30 PM
901 S. Stewart St., 2nd Floor, Tahoe Hearing Room
Carson City, NV 89701
Telephone Conference Call

Members Present:	**Staff Attending:**
Andrew Belanger, Vice-Chairman	Belinda Suwe, DAG
Steve Walker	Daralyn Dobson
Lori Williams	Michelle Stamates
Mike Workman	Adele Basham
Jennifer Carr, Ex-officio Member	Jason Cooper
	Kathy Rebert

A. INTRODUCTION AND ROLL CALL (Non Action)

The meeting was chaired by Mr. Andrew Belanger, Vice Chairman, in Chairman Scott's absence. Mr. Belanger opened the meeting and invited Board members and others present and on the telephone to introduce themselves.

B. APPROVAL OF MINUTES – April 28, 2015 MEETING (For Possible Action)

Motion: Mr. Walker moved to accept the minutes as written and the motion was seconded by Ms. Williams. The minutes were approved.

C. DRINKING WATER STATE REVOLVING FUND PROGRAM

Prior to the presentation of the loan commitment proposals, Ms. Daralyn Dobson provided the Board with a current status of the DWSRF fund. Ms. Dobson reported a push by EPA to overcommit and use a cash model for the DWSRF fund. She provided the funding committed and funding available.

1. Discussion and Possible Approval of Loan Commitments

Ms. Stamates then presented the following 4 proposals for loan commitments. For Ms. Stamates' detailed report on each proposal, see the attachments to the minutes.

a. Truckee Meadows Water Authority - (For Possible Action)

Mr. Walker recused himself from this agenda item due to his business relationship with Truckee Meadows Water Authority (TMWA).

This proposed project will create a high pressure transmission pipeline between the Fish Springs and North Valleys water systems (in Reno). The high pressure transmission pipeline will allow two-way flow between the North Virginia/Stead Booster Pump Station and the Fish Springs system, allowing each to provide support to the other in drought or emergency conditions.

Mr. Mark Foree, TMWA General Manager, and Mr. Jeff Tissier, TMWA CFO/Treasurer, were in attendance to answer a few questions for the Board relating to source of water supply, the public process, and the TMWA Board action.

Motion: Ms. Williams moved to approve a Resolution designated the "07-2015 Truckee Meadows Water Authority North Valleys Water System Integration Project Loan Commitment" to approve a loan commitment in an amount not to exceed $15,000,000. The motion was seconded by Mr. Workman and passed by majority, with Mr. Walker abstaining.

b. Baker Sewer and Water GID – (For Possible Action)

The proposed project for Baker, NV will replace the existing bolted steel water tank with a welded steel tank. The present tank has been in service for approximately 20 years and has a reported leak rate of thousands of gallons of treated water per year.

Mr. Don Geary, Operator, Baker GID, was on the telephone representing Baker. Mr. Geary and Ms. Stamates responded to questions from the Board including: the cost estimate for project planning, what Baker plans to do with the old tank, and the per capita use.

Motion: Mr. Workman moved to adopt a resolution designated the "07-2015 the Baker General Improvement District Project Loan Commitment" to approve a loan commitment in the amount of $476,375 for financing certain projects and that the loan be principal forgiveness. The motion was seconded by Mr. Walker and was approved unanimously.

c. Roark Estates Homeowner's Association – (For Possible Action)

The Roark Estates HOA intends to install point-of-use reverse osmosis units for arsenic mitigation and to replace a storage tank.

Ms. Stamates said the hope is that in the future there will be a central water system to which Roark Estates could connect however at this time it, and other alternatives, are cost prohibitive.

Ms. Debbie Sampson and Mr. Bill Sampson were on the telephone representing the Roark Estates HOA.

Board members expressed issue with funding point-of-use reverse osmosis units in individual homes and $150,000 (project cost) providing for only 27 units. Mr. Walker stated he struggles with putting a (roughly) $2,500 unit in each house and it isn't costing the homeowner anything. He said it doesn't seem like a public water system function. He feels it is a new policy issue to fund point-of-use units.

Ms. Carr, Chief of the Bureau for Safe Drinking Water (BSDW), informed the Board that one of the small system technologies defined by the EPA for arsenic is point-of-use treatment. She said there has been a lot of success with these units in non-transient, non-community locations and this is also a desirable method for community water systems that have difficulty financing a central water treatment system. It is considered a low-cost compliance alternative that is approved by the EPA. The units are required to be owned and maintained by the water system (the homeowner may not remove it).

Ms. Williams commented that she is struggling with the fact the SRF has already given Roark Estates $210,000 in principal forgiveness and now there is a proposal to give them another $150,000 for 27 units. Mr. Walker commented again that he also struggles with the amount of cost to service ratio.

There were some clarification questions about the new tank. Mr. Belanger asked why an out-of-state engineering firm was being used for the tank and not a local firm. Ms. Sampson replied that they had a difficult time finding a local engineering firm to work on this small of a system. Ms. Stamates pointed out that with federal funds preferential treatment cannot be given.

Mr. Workman said that he has been involved with small systems in Lyon County. He said he would be prepared to make a motion because of the fact Roark Estates has adjusted their rates with a really stiff increase and, with their set asides, the groundwork has been laid for the future. He said he doesn't know what the alternatives would be.

Mr. Walker asked about purchasing potable water to which Ms. Carr replied purchasing bottled water for communities is not legally an option for compliance.

Motion: Mr. Workman moved to adopt a resolution designated "07-2015 the Roark Estates Project Loan Commitment" to approve a loan commitment in the amount of $151,700 for financing certain projects and that the loan be principal forgiveness. The motion was seconded by Ms. Williams. The motion passed with 3 "aye" and 1 "no".

d. Silver Springs Mutual Water Company – (For Possible Action)

The proposed project was to identify a preferred location and design for a new, replacement, production well with a detailed hydrogeologic study. This was to include sampling/testing of wellhead discharge from existing wells, down well survey and sampling of selected wells, sonic exploratory drilling and testing of alluvial deposits, and completion of the PER with an environmental report (ER).

Attending the meeting for Silver Springs Mutual Water Company (SSMWC) were Mr. Matt Martensen, SSMWC Manager, Mr. Roy McDonald, Project Manager, and Mr. Kirk Swanson, Farr West Engineering.

Mr. Walker and Ms. Williams expressed their preference for testing and development of a new well at the Deodar Well site rather than doing hydrogeologic studies at other sites.

There was discussion of who would determine whether the conditions are right to drill a well at the existing site or whether findings indicate a need for hydrogeologic surveys at other sites. Staff indicated the hydrogeologist would make a recommendation based on the findings and DWSRF would work closely with BSDW in the decision making process.

Mr. Walker said he thinks there should be 2 projects: one to develop the water source at the Deodar Well site and the second to do hydrogeologic resource investigation.

Mr. Martensen said his original idea was to replace the Deodar Well and to do a study to get the information that would be necessary to design and construct a good well. Mr. Swanson provided information on what has already been determined about the site and the need to drill a test well to determine the proper depth and construction of a new well.

Mr. McDonald suggested restricting drilling to the Deodar site and if good water quantity is found, the rest of the $500,000 would go toward installing a new Deodar Well. If good water is not found, SSMWC would have to come back to the Board for possible additional exploratory drilling. He provided information about USGS sampling well locations and identified the sites for which the tests indicated good water quality.

Motion: Mr. Walker moved to adopt a resolution designated "07-2015 the Silver Springs Mutual Water Company Project Loan Commitment" to approve a not-to-exceed $500,000 commitment to be focused on the Deodar Well site and also include some sampling/testing of existing resources and that the loan be principal forgiveness. Any further expenditures for hydrogeological studies will be suspended and will need to be approved by the Board based on the outcome of a replacement for the Deodar Well. The motion was seconded by Ms. Williams and was approved unanimously.

D. BOARD COMMENTS – (Non Action)

Mr. Workman commented that he liked the afternoon meetings and the other Board members agreed. Tentatively, the next meeting was scheduled for August 26, 2015.

Responding to an AB-198 (Capital Improvements Grant Program) question from Mr. Walker, Ms. Dobson said the Legislature had approved a bill to allow issuance of bonds in the amount of $1,000,000. Staff is working with the Treasurer's Office on this so the money should be available in November 2015.

E. PUBLIC COMMENTS – (Non Action)

None.

F. ADJOURNMENT

There being no other business, the Board meeting adjourned at 3:25 PM.

ATTACHMENTS

ATTACHMENT 1: **Truckee Meadows Water Authority**

ATTACHMENT 2: **Baker Sewer and Water GID**

ATTACHMENT 3: **Roark Estates Homeowner's Association**

ATTACHMENT 4: **Silver Springs Mutual Water Company**

ATTACHMENT 1

Truckee Meadows Water Authority

Board for Financing Water Projects
Loan Commitment from the Drinking Water State Revolving Fund
Truckee Meadows Water Authority
July 2015

Project: **North Valleys Integration Project**
Project Estimate: **$ 18,000,000**
DWSRF Loan Amount: **$ 15,000,000**

GENERAL
The Division of Environmental Protection (Division) administers the Drinking Water State Revolving Fund (DWSRF) under the Nevada Revised Statutes (NRS) 445A.200 to 445A.295, inclusive. Regulations adopted by the State Environmental Commission pursuant to NRS 445A.270 describe how the Division administers the DWSRF. One of the requirements of the NRS pertaining to the DWSRF is that the Division shall not "commit any money in the account for the revolving fund for expenditure…without obtaining the prior approval of the board for financing water projects" (NRS 445A.265, subsection 3).

BACKGROUND
Truckee Meadows Water Authority (TMWA) is a not-for-profit, community-owned water utility, overseen by elected officials and citizen appointees from Reno, Sparks, and Washoe County. In compliance with the Comprehensive Regional Water Management Plan, a project is planned to integrate the Fish Springs water system into the existing North Valleys water systems and improve the connections and mutual support between the separate water systems in the North Valleys and the Truckee Meadows.

CURRENT SYSTEM
TMWA's production capacity is 226 million gallons/day (MGD). The system's source waters include the Truckee River and groundwater wells throughout the Truckee Meadow's. Finished water storage capacity is 171,000,000 gallons. With more than 1,900 miles of water mains and 280 pressure zones, the system provides water to more than 350,000 people.

The North Valleys water systems include: Lemmon Valley, Stead, North Virginia, Horizon Hills, and Fish Springs (Figures 1 & 2).

Customers, Population and Growth
The number of service connections/persons served by TMWA water system is shown in the table below.

Service	**Current**	**Future (Est)**
Residential	107,000	112,200
Commercial, industrial, & other	14,080	14,260
Population Served	385,000	437,000
Wholesale Population Served	42,000	45,000

PROPOSED PROJECT
The proposed project will create a high pressure transmission pipeline between the Fish Springs and North Virginia systems (Figures 3 & 4). The high pressure transmission pipeline will allow two-way flow between the North Virginia/Stead Booster Pump Station and the Fish Springs system, allowing each to provide support to the other in drought or emergency conditions.

The proposed project consists of three primary parts: construction of a high pressure 24-inch diameter main in a utility right-of-way adjacent to Lemmon Valley Drive from Waterash Street to North Virginia Street, completion of 18-inch diameter main in a utility right-of-way on North Virginia Street between Lemmon Valley Drive and Golden Valley Road, and construction of a SCADA based control system near the intersection of Lemmon Valley Road and North Virginia Street.

Alternatives to Proposed Project

- No action. Should TMWA choose not to pursue this project, the Fish Springs Ranch and North Valleys water systems would continue to operate as they do today.

- A 2007 facility plan created for the Washoe County Department of Water Resources, proposed the interconnection of the Fish Springs system with the Lemmon Valley and Horizon Hills systems, as well as projected build-out demands in the region. That report recommended the construction of a medium pressure water main at approximately 100 psi lower pressure than the current proposal. This medium pressure alternative was preferable to a high pressure alternative due to overall estimated costs, less pumping necessary to lift groundwater supplies into this main, no pumping necessary for the supply from TMWA, and the elimination of pump station over the high-pressure alternative.

  With the merge of TMWA and DWR, a value added analysis reviewed the merits vs the costs of a medium pressure line and a high pressure line and concluded that the benefits to TMWA should also be considered in choosing a preferred alternative. Only the high pressure main is capable of flowing, without pumping, a significant amount of water to the North Virginia system from Fish Springs. For this reason, the high pressure main alternative is the preferred alternative to provide support to all utilities in drought or emergency conditions.

Environmental Review

Environmental review of water projects is conducted by the NDEP pursuant to Nevada Administrative Code (NAC) 445A.6758 to 445A.67612. NDEP assessed the potential environmental effects of the proposed project and determined that the project is eligible for a finding of no significant impact because it is unlikely to have a negative effect on the quality of the environment and an environmental impact statement is not required. The project will have a beneficial effect by ensuring the customers receive water that is safe to drink. Compliance with applicable federal cross-cutting authorities will occur before a loan contract is signed. Best management practices will be utilized during construction.

Permits/Easements

- Private easement
- Design approval from the Washoe County Health Department
- Nevada Stormwater Discharge Permit
- Revocable NDOT Encroachment Permit for Underground Installation

Total Cost Estimate

Budget Item	DWSRF Funding	Local Funding	Totals by Use
Planning	$	$ 50,000	$ 50,000
Engineering Design	$	$ 250,000	$ 250,000
Land Acquisition	$	$ 150,000	$ 150,000
Equipment/Materials	$ 350,000	$	$ 350,000
Construction/Improvements*	$ 14,650,000	$	$ 14,650,000
Administrative	$	$ 350,000	$ 350,000
Financing Costs	$	$ 800,000	$ 800,000
Contingency	$	$ 1,400,000	$ 1,400,000
Totals by Source	$ 15,000,000	$ 3,000,000	$ 18,000,000

*Construction Cost Estimate is attached

Project Schedule

	Estimated Completion
Planning, Design & Specification	Complete
Bidding & Award of Contract	July – Aug 2015
Start of Construction	Sept 2015
Completion of Water Project	June 2016

Financial Evaluation

TMWA is a financially viable operation with the ability to meet costs of continuing operations and maintenance. TMWA has authority to issue revenue bonds for water projects, and a revenue bond will be issued to guarantee this loan.

Rates established by the Authority are $96.47 per user, per month for 15,000 gallons used, which are above 2% of the MHI for their area ($77.95) and are reasonable for their operating needs.

The DWSRF program will also rely on the extensive credit history obtained by bond counsel during the process of issuing the required general obligation bonds which will provide collateral and security.

Public Notice and Public Participation Process

Plans for this project and the associated DWSRF loan application were most recently reviewed for action at the April 15, 2015 Board of Directors meeting.

Technical, Managerial and Financial Capacity

The water quality is in compliance with requirements of the Safe Drinking Water Act and all monitoring requirements have been met. TMWA employs certified operators who have the technical knowledge and ability to operate the system. TMWA has the ability to conduct its administrative affairs in a manner that ensures compliance with all applicable standards and retains a certified public accountant and utilizes generally accepted accounting principles.

RECOMMENDATION

The Division recommends that the Board for Financing Water Projects approve a loan commitment from the loan fund of the DWSRF in the amount of $15,000,000 to the Truckee Meadows Water Authority. The Division and the Truckee Meadows Water Authority will negotiate the terms and conditions of a loan agreement. A resolution designated the "07-2015 the Truckee Meadows Water Authority North Valleys Water System Integration Project Loan Commitment" is attached for your consideration.

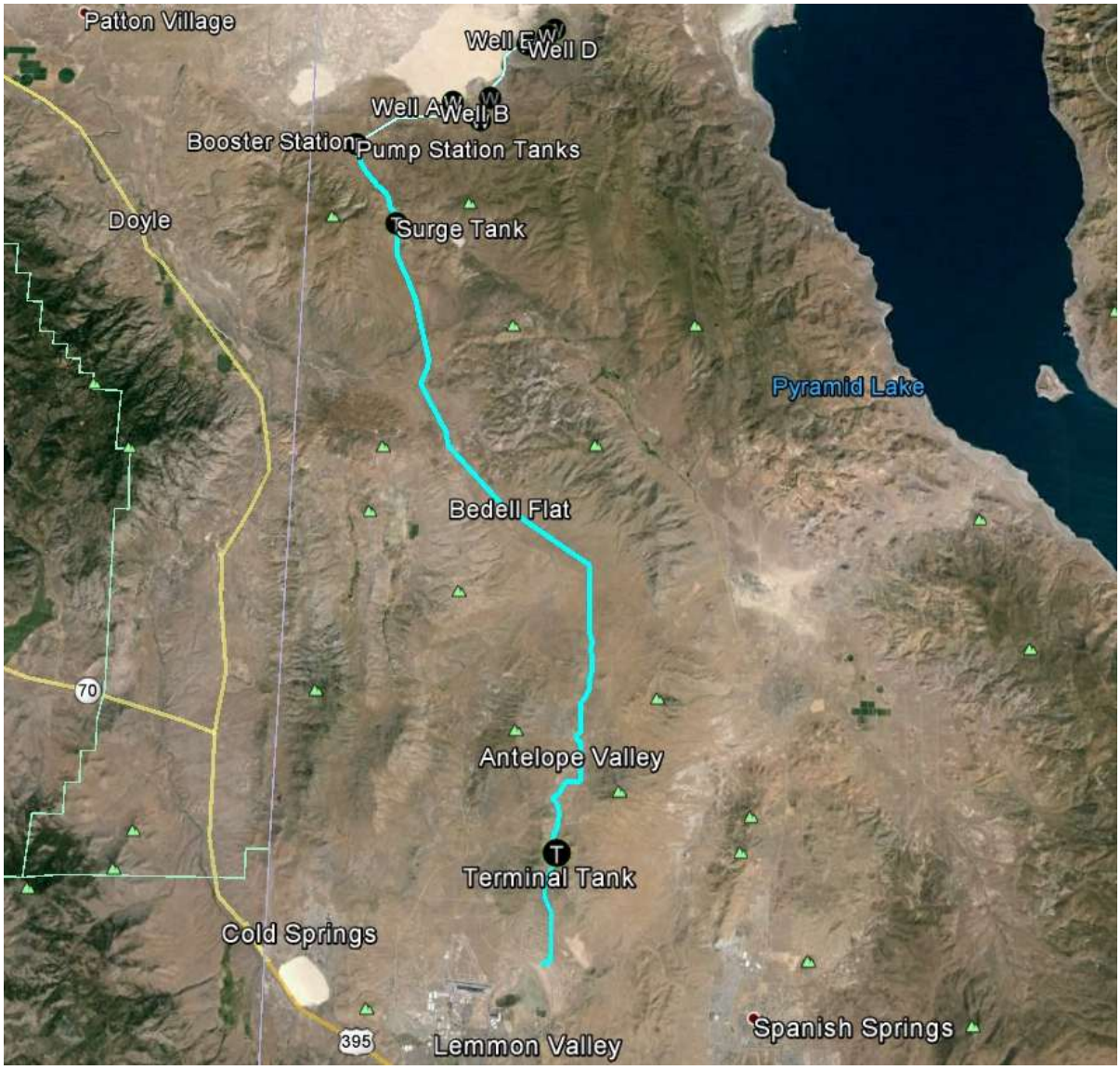
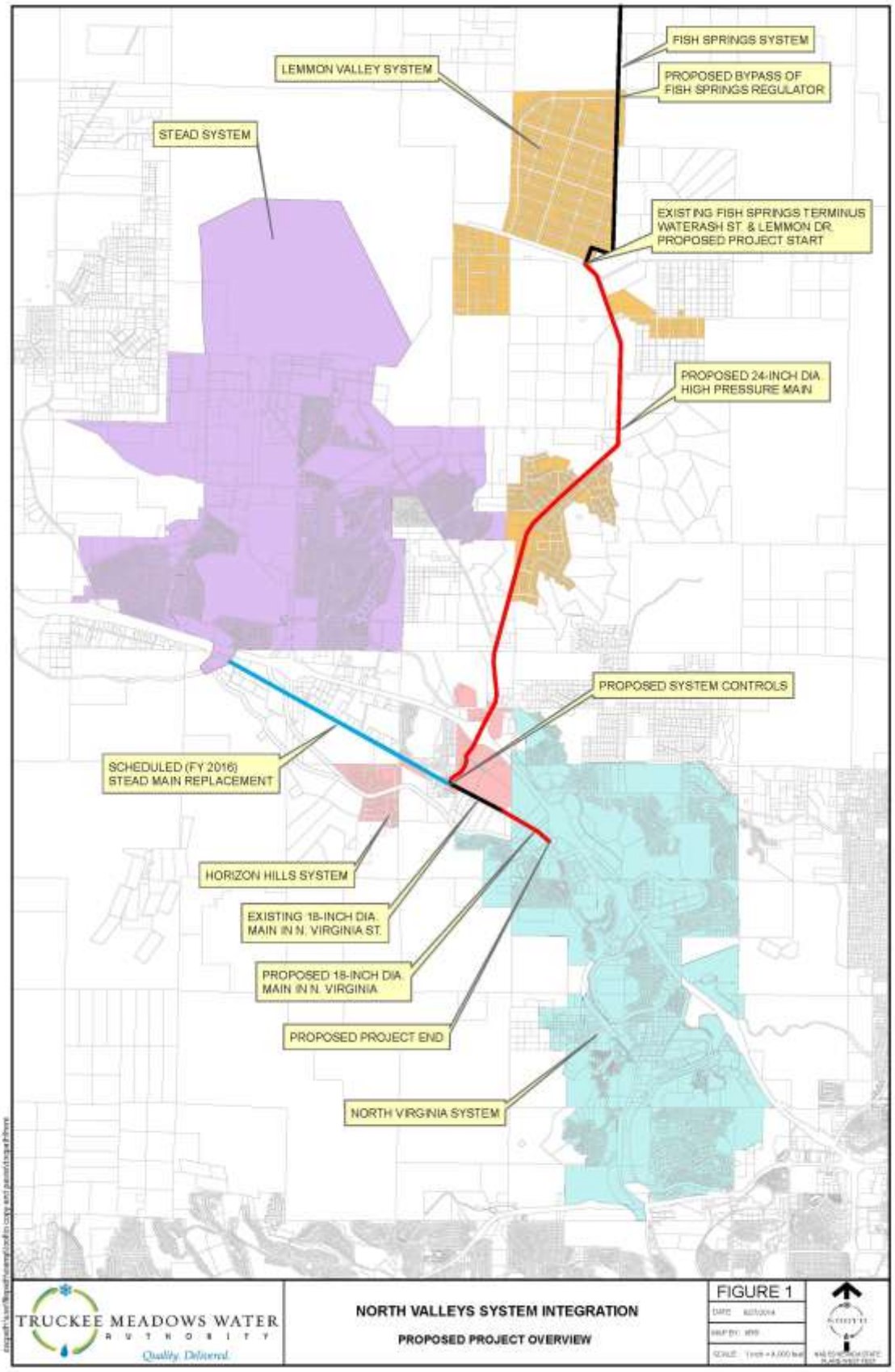


Figure 1. Fish Springs Well Field and Transmission System

Figure 2. North Valleys Water Systems



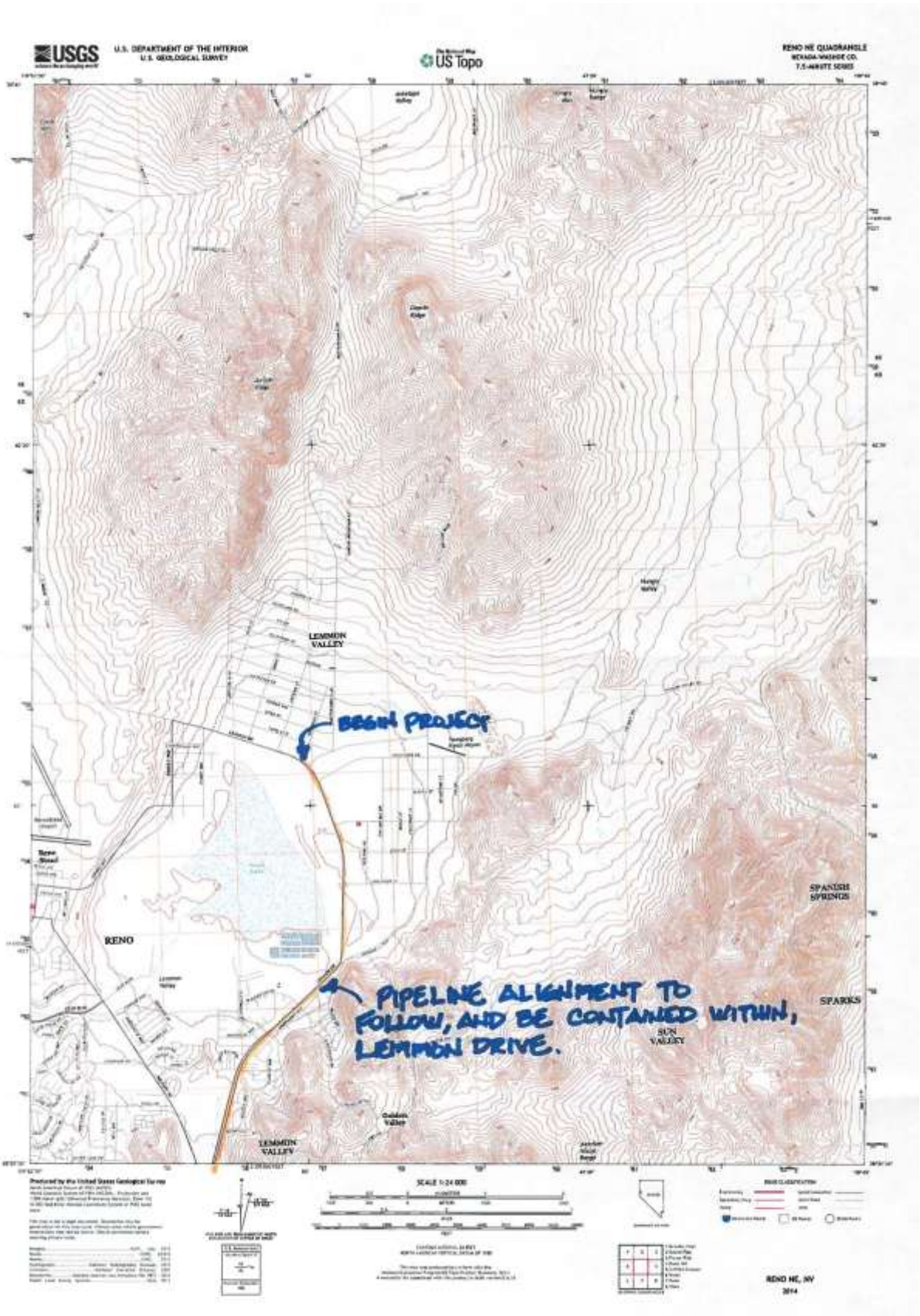


Figure 3. Transmission line project

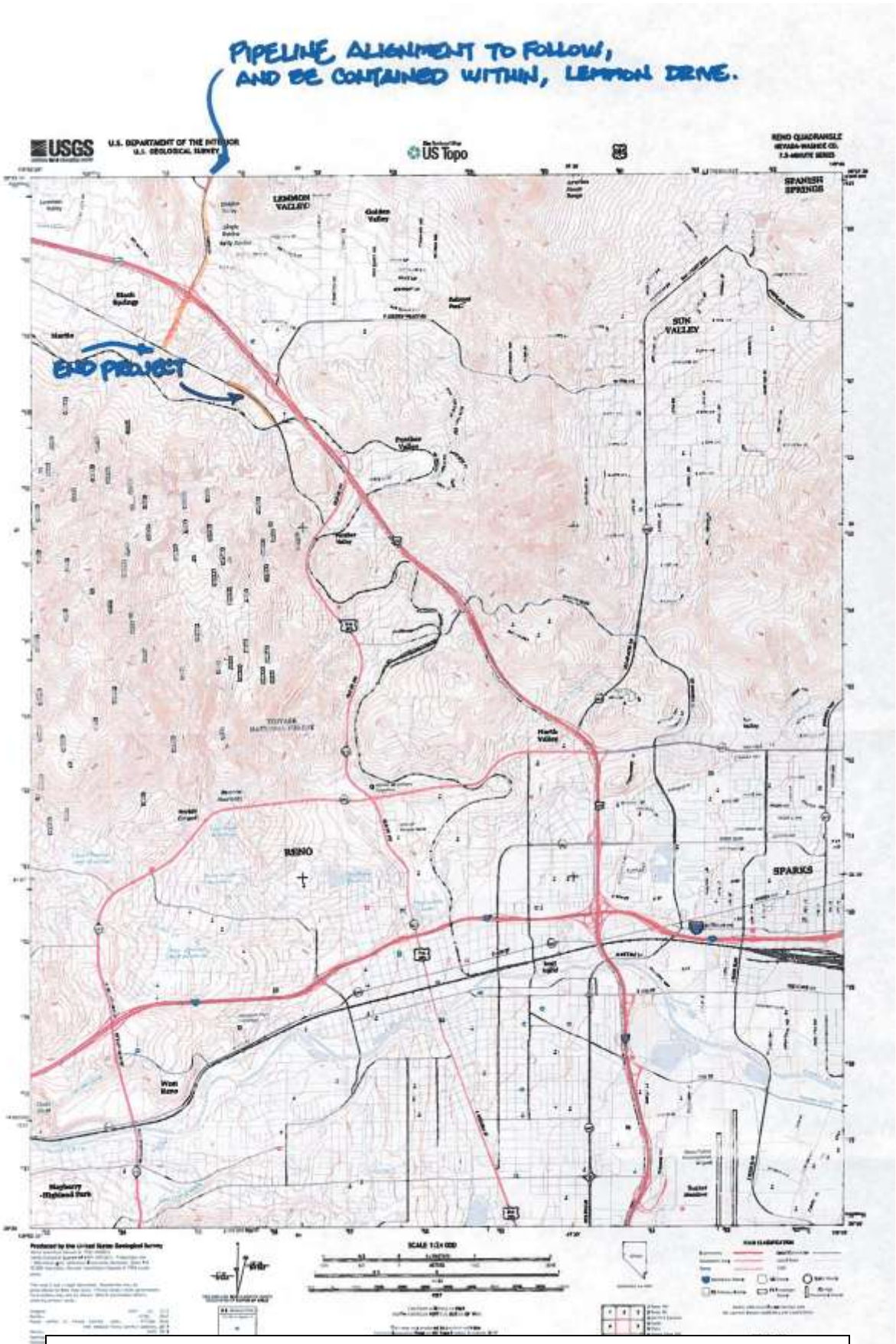


Figure 4. Transmission line project (continued)

Engineer's Estimate - North Valleys Integration

Bids Opened: 2015

			Engr's Estimate		Bidder No. 1		Bidder No. 2	
Bonding Provided								
Bidder Acknowledges Receipt of Addendums								
Affadivit of Preferential Bidders Status / Bidder's Preference Certificate								
Description	Scheduled Value	Unit	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
Mobilization	1	LS	250,000.00	250,000.00		0.00		0.00
24-in non-restrained ductile iron pipe	17500	LF	200.00	3,500,000.00		0.00		0.00
24-in restrained ductile iron pipe	11500	LF	325.00	3,737,500.00		0.00		0.00
24-in in-line gate valve	15	EA	31,500.00	472,500.00				
Asphalt Surface Repair - Lemmon Drive	380000	SQ FT	7.50	2,850,000.00		0.00		0.00
North Virginia PRS	1	LS	400,000.00	400,000.00		0.00		0.00
Matterhorn PRS plumbing and PRV retrofit	2	LS	200,000.00	400,000.00		0.00		0.00
Casing Placement - Crossing US395 at Lemmon Drive	500	LF	1,250.00	625,000.00		0.00		0.00
Concrete Panel Replacement at Military Rf	5000	SQ FT	50.00	250,000.00		0.00		0.00
Concrete Panel Replacement at Sky Vista	7500	SQ FT	75.00	562,500.00		0.00		0.00
18-in ductile iron pipe - Golden Valley Dr. to Amazon	2600	LF	250.00	650,000.00		0.00		0.00
Asphalt Surface Repair - North Virgina St	65000	SQ FT	7.50	487,500.00		0.00		0.00
Demobilization	1	LS	130,000.00	130,000.00		0.00		0.00
				0.00		0.00		0.00
				0.00		0.00		0.00
				0.00		0.00		0.00
				0.00		0.00		0.00
				0.00		0.00		0.00
Estimate Subtotal				**$14,315,000.00**		**$0.00**		**$0.00**
TOTAL PROJECT ESTIMATE				**14,315,000.00**				
				0.00				
				0.00				
				0.00				
				0.00				
				0.00				
				0.00				

RESOLUTION

A RESOLUTION DESIGNATED THE "07-2015 THE TRUCKEE MEADOWS WATER AUTHORITY NORTH VALLEYS WATER SYSTEM INTEGRATION PROJECT LOAN COMMITMENT" TO APPROVE A LOAN COMMITMENT FOR THE PURPOSE OF FINANCING CERTAIN PROJECTS.

WHEREAS, the Board for Financing Water Projects (the "Board") of the State of Nevada (the "State") is authorized by Nevada Revised Statutes ("NRS") Chapter 445A.265 to approve for the Division of Environmental Protection ("Division") prioritized lists of water projects and to approve the commitment of funds from the account for the revolving fund for loans to community water systems and non-transient water systems for costs of capital improvements required and made necessary pursuant to NRS 445A.800 to 445A.955, inclusive, by the Safe Drinking Water Act (42 U.S.C. §§ 300f *et seq.*) and by the regulations adopted pursuant thereto; and

WHEREAS, the Division has the responsibility of administering the Drinking Water State Revolving Fund program; and

WHEREAS, on April 28, 2015, the Board, pursuant to NRS 445A.265, approved the Year 2016 Priority List of water projects eligible for loans from the account for the revolving fund under the Drinking Water State Revolving Fund; and

WHEREAS, the Truckee Meadows Water Authority owns and operates a public water system located in Reno/Sparks/Washoe County, Nevada; and

WHEREAS, the Division ranked the Project as #62 on the Year 2016 Priority List of water projects, which was approved by the Board on April 28, 2015; and

WHEREAS, the Truckee Meadows Water Authority's Project is one of those projects which indicated a readiness to proceed and to which a loan can and should be offered; and

WHEREAS, the Division has determined that the Truckee Meadows Water Authority has the technical, managerial and financial capability to manage and repay a loan for funding a portion of the Project; and

WHEREAS, the Division has taken all necessary and proper actions with respect to the Application as required pursuant to the regulations adopted by the State Environmental Commission (NAC 445A.6751 to 445A.67644, inclusive) pertaining to loan applications; and

WHEREAS, the Board must give prior approval before the Division may commit any money in the account for the revolving fund for expenditure for the purposes set forth in NRS 445A.275;

NOW, THEREFORE, BE IT RESOLVED, BY THE BOARD FOR FINANCING WATER PROJECTS OF THE STATE OF NEVADA:

Section 1. This Resolution shall be known as the "07-2015 the Truckee Meadows Water Authority North Valleys Water System Integration Project Loan Commitment."

Section 2. The terms and conditions for providing a loan to the Applicant shall be negotiated by the Truckee Meadows Water Authority and the Division.

Section 3. Based on the review of the Application by the Division and based on the recommendation submitted by the Division to the Board concerning the Project, and subject to the provisions of Section 2 of this Resolution, the Board hereby approves a commitment of funds in the amount not to exceed $15,000,000 from the account for the revolving fund in accordance with NRS 445A.265.

Section 4. The Board further recommends that the Division take all other necessary and appropriate actions to effectuate the provisions of this Resolution in accordance with NRS 445A.200 to 445A.295, inclusive, and the Regulations adopted pursuant thereto.

Section 5. This resolution shall be effective on its passage and approval.

PASSED, ADOPTED AND SIGNED JULY 14, 2015

_____
Chairman
Board for Financing Water Projects

Attest:

_____
Advisor
Board for Financing Water Projects

ATTACHMENT 2

Baker Sewer and Water GID

Board for Financing Water Projects
Loan Commitment from the Drinking Water State Revolving Fund
Baker General Improvement District
July 2015

Project: **New Storage Tank**
Project Estimate: **$ 476,375**
DWSRF Loan Amount: **$ 476,375**

GENERAL
The Division of Environmental Protection (Division) administers the Drinking Water State Revolving Fund (DWSRF) under the Nevada Revised Statutes (NRS) 445A.200 to 445A.295, inclusive. Regulations adopted by the State Environmental Commission pursuant to NRS 445A.270 describe how the Division administers the DWSRF. One of the requirements of the NRS pertaining to the DWSRF is that the Division shall not "commit any money in the account for the revolving fund for expenditure…without obtaining the prior approval of the board for financing water projects" (NRS 445A.265, subsection 3).

BACKGROUND
Baker is an unincorporated community in White Pine County. It is located approximately 62 miles east of Ely and 5 miles east of the main entrance of Great Basin National Park.

CURRENT SYSTEM
The Baker water system has one 6-inch well with chlorination, a 265,000-gallon bolted steel storage tank, and a distribution system comprised of 6-inch PVC water main and four (4) pressure zones. The system is fully metered.

Customers, Population and Growth

Service	Current	Future (Est)
Residential	82	87
Commercial, industrial, & other	4	6
Population Served	<100	110

PROPOSED PROJECT
The proposed project will replace the existing bolted steel water tank with a 265,000-gallon welded steel tank. The present tank has been in service for approximately 20 years and leaks thousands of gallons of treated water per year.

Alternatives to Proposed Project
No action. If the GID chooses not to repair/replace the existing tank, the water loss will continue and likely increase. This is not a sustainable solution for the water system.

Repair the bolted tank. This project alternative would repair the leaking, bolted tank. The repairs would be made by a qualified diving service that specializes in this type of repair. Epoxy would be injected into the leaking seams from the inside of the tank. The epoxy patches would then be covered with a tape-like material to further seal the leaking seams. All patching materials are NSF approved for this type of repair. Work could be completed in a few days without interruption of water service to the

customers. The estimated life of the repair is 6-10 years. This alternative is estimated to cost less than $10,000; however, new leaks are likely to occur.

Environmental Review

Environmental review of water projects is conducted by the NDEP pursuant to Nevada Administrative Code (NAC) 445A.6758 to 445A.67612. The existing tank sits on public lands that have been granted an easement by the U.S. Department of the Interior, Bureau of Land Management (BLM). The BLM will conduct an environmental review as a part of the review of the amended SF-299 easement application for the tank site to accommodate the new welded steel.

The NACs allow NDEP to utilize an environmental review conducted by another agency as long as the review complies with NDEP's environmental requirements. If NDEP determines that the BLM review satisfies the requirements of the DWSRF, NDEP will accept the BLM environmental review and determination in lieu of conducting a separate environmental review for DWSRF. NDEP will publish a public notice that it concurs with BLM's findings.

Permits/Easements

- BLM SF-299 Easement/Right-of-Way
- Design approval from the Bureau of Safe Drinking Water (BSDW)

Cost Estimate

NEW 265,000-GALLON WELDED STEEL WATER STORAGE TANK
BAKER, WHITE PINE COUNTY, NEVADA
PRELIMINARY COST ESTIMATE

27-May-15

Item	Description	Units	Quantity	Unit Cost	Total Cost
1	Mobilization/Demobilization	LS	1	$25,000	$25,000
2	Site Piping/Connections to Existing	LS	1	$15,000	$15,000
3	Site Grading	LS	1	$10,000	$10,000
4	265,000-Gallon Water Storage Tank	GAL	265,000	$0.75	$198,750
5	Tank Interior Coating	LS	1	$65,000	$65,000
6	Tank Exterior Coating	LS	1	$35,000	$35,000
7	Tank Disinfection	LS	1	$2,500	$2,500
8	Telemetry Modifications	LS	1	$7,500	$7,500
Construction Cost Sub-Total					$358,750
Construction Contingency (15%)					$53,813
Construction Total					***$412,563***
Project Planning					***$10,000***
Engineering Design and Construction Admin (15%)					***$53,813***
TOTAL ESTIMATED PROJECT COST					**$476,375**

Budget Item	DWSRF Funding	Local Funding	Totals by Use
Planning, Engineering Design, Inspection, & Construction Management	$ 63,813	$	$ 63,813
Construction/Improvements*	$ 358,750	$	$ 358,750
Contingency	$ 53,812	$	$ 53,812
Totals by Source	$ 476,375	$	$ 476,375

Project Schedule

	Estimated Completion
Planning, Design & Specification	Sept 2015
Bidding & Award of Contract	Oct 2015
Start of Construction	April 2016
Completion of Water Project	July 2016

Financial Evaluation

In order to receive a DWSRF grant award from the EPA, the State of Nevada must agree to use at least 20% - 30% of its grant to provide additional subsidy to eligible recipients in the form of forgiveness of principal or negative interest loans or a combination of these. Nevada specified in the Intended Use Plan that additional subsidy will be offered to communities that meet the definition of disadvantaged community. The NAC defines a disadvantaged community as an area served by a public water system in which the median household income (MHI) is less than 80 percent of the MHI of the state. Based on the 2009-2013 Community Survey conducted by the US Census Bureau, 80 percent of Nevada's MHI is $42,240. The GID's MHI is $31,250; therefore, the GID meets the requirements for additional subsidy, making a principal forgiveness loan appropriate.

Rates established by the GID average $20.50 per user, per month for 15,000 gallons used. This is below the, ordinarily required, 1.5% of the MHI for the area ($39.06) but the Census Bureau survey has a large variance. The community is made up of mostly people on fixed incomes, and the GID is meeting operating needs and providing for capital replacement reserves with the current rate. Therefore, raising rates to meet financial capacity does not appear to be necessary at this time.

Public Notice and Public Participation Process

Plans for this project and the associated DWSRF loan application were recently reviewed for action at the May 14, 2015 GID Board meeting.

Technical, Managerial and Financial Capacity

The water quality is in compliance with requirements of the Safe Drinking Water Act and all monitoring requirements have been met. The GID employs a certified operator who has the technical knowledge and ability to operate the system. The most recent sanitary survey conducted by the BSDW in June 2012 had no violations or deficiencies. The GID has the ability to conduct its administrative affairs in a

manner that ensures compliance with all applicable standards and retains a certified public accountant and utilizes generally accepted accounting principles.

RECOMMENDATION

The Division recommends that the Board for Financing Water Projects approve a loan commitment from the loan fund of the DWSRF in the amount of $476,375 to the Baker General Improvement District for construction of a new storage tank. Since the project is eligible for additional subsidy as specified in Nevada's Intended Use Plan, 100% of the principal will be forgiven. The Division and Baker General Improvement District will negotiate the terms and conditions of a loan agreement.

RESOLUTION

A RESOLUTION DESIGNATED THE "07-2015 THE BAKER GENERAL IMPROVEMENT DISTRICT PROJECT LOAN COMMITMENT" TO APPROVE A LOAN COMMITMENT FOR THE PURPOSE OF FINANCING CERTAIN PROJECTS.

WHEREAS, the Board for Financing Water Projects (the "Board") of the State of Nevada (the "State") is authorized by Nevada Revised Statutes ("NRS") Chapter 445A.265 to approve for the Division of Environmental Protection ("Division") prioritized lists of water projects and to approve the commitment of funds from the account for the revolving fund for loans to community water systems and non-transient water systems for costs of capital improvements required and made necessary pursuant to NRS 445A.800 to 445A.955, inclusive, by the Safe Drinking Water Act (42 U.S.C. §§ 300f *et seq.*) and by the regulations adopted pursuant thereto; and

WHEREAS, the Division has the responsibility of administering the Drinking Water State Revolving Fund program; and

WHEREAS, on April 28, 2015, the Board, pursuant to NRS 445A.265, approved the Year 2016 Priority List of water projects eligible for loans from the account for the revolving fund under the Drinking Water State Revolving Fund; and

WHEREAS, the Baker General Improvement District owns and operates a public water system located in Baker, Nevada; and

WHEREAS, the Division ranked the Project as #46 on the Year 2016 Priority List of water projects, which was approved by the Board on April 28, 2015; and

WHEREAS, the Baker General Improvement District's Project is one of those projects which indicated a readiness to proceed and to which a loan can and should be offered; and

WHEREAS, the Division has determined that the Baker General Improvement District has the technical, managerial and financial capability to manage a loan for funding a portion of the Project; and

WHEREAS, the Division has taken all necessary and proper actions with respect to the Application as required pursuant to the regulations adopted by the State Environmental Commission (NAC 445A.6751 to 445A.67644, inclusive) pertaining to loan applications; and

WHEREAS, the Board must give prior approval before the Division may commit any money in the account for the revolving fund for expenditure for the purposes set forth in NRS 445A.275;

NOW, THEREFORE, BE IT RESOLVED, BY THE BOARD FOR FINANCING WATER PROJECTS OF THE STATE OF NEVADA:

Section 1. This Resolution shall be known as the "07-2015 the Baker General Improvement District Project Loan Commitment."

Section 2. The terms and conditions for providing a loan to the Applicant shall be negotiated by the Baker General Improvement District and the Division. These terms will include 100% Principal Forgiveness.

Section 3. Based on the review of the Application by the Division and based on the recommendation submitted by the Division to the Board concerning the Project, and subject to the provisions of Section 2 of this Resolution, the Board hereby approves a commitment of funds in the amount not to exceed $476,375 from the account for the revolving fund in accordance with NRS 445A.265.

Section 4. The Board further recommends that the Division take all other necessary and appropriate actions to effectuate the provisions of this Resolution in accordance with NRS 445A.200 to 445A.295, inclusive, and the Regulations adopted pursuant thereto.

Section 5. This resolution shall be effective on its passage and approval.

PASSED, ADOPTED AND SIGNED JULY 14, 2015

_____
Chairman
Board for Financing Water Projects

Attest:

_____
Advisor
Board for Financing Water Projects

ATTACHMENT 3

Roark Estates Homeowner's Association

Board for Financing Water Projects
Loan Commitment from the Drinking Water State Revolving Fund
Roark Estates Homeowners Association
July 2015

Project: **Arsenic Mitigation & New Storage Tank**
Project Estimate: **$ 173,700**
DWSRF Loan Amount: **$ 146,700**

GENERAL
The Division of Environmental Protection (NDEP) administers the Drinking Water State Revolving Fund (DWSRF) under the Nevada Revised Statutes (NRS) 445A.200 to 445A.295, inclusive. Regulations adopted by the State Environmental Commission pursuant to NRS 445A.270 describe how the Division administers the DWSRF. One of the requirements of the NRS pertaining to the DWSRF is that the Division shall not "commit any money in the account for the revolving fund for expenditure…without obtaining the prior approval of the board for financing water projects" (NRS 445A.265, subsection 3).

BACKGROUND
Roark Estates is a small residential development located in Sloan, approximately 20 miles south of downtown Las Vegas. The water quality in the recently-drilled, replacement well exceeds the maximum concentration limit for arsenic of 0.01 mg/L established by the EPA Arsenic Rule. Arsenic concentrations from samples dating back to May 2012 have ranged from 0.021 mg/L to 0.028 mg/L.

CURRENT SYSTEM
The water system consists of one well – drilled in 2011, two 20,000-gallon, steel, storage tanks located on the same lot as the well, and two booster pumps and four pressure tanks located inside the pump house next to the storage tanks. Water is pumped from the well into the storage tanks and then to the booster pumps which pump to the pressure tanks to pressurize the distribution system. The distribution system consists of 3-inch PVC pipe. The system is fully metered. System assets are approximately 30 years old.

Roark Estates is approximately half way through a residential water meter replacement program with completion expected in 2016. Meter replacement is included in the current budget. One of the storage tanks is currently out of service due to serious deterioration and leaks. The second steel water storage tank is approximately thirty years old and is anticipated to need replacement within twenty years.

Customers, Population and Growth

Service	Current	Future (Est)
Residential	27	27*
Commercial, industrial, & other	0	0
Population Served	62	62

*The development is built out.

PROPOSED PROJECT

The Roark Estates Homeowners Association (HOA) intends to install point-of-use reverse osmosis units (POU-RO) for arsenic treatment in each of the 27 residences in the HOA. The POU-RO units will treat the water intended for consumption and cooking only. The drinking water from Roark's only well also exhibits high total dissolved solids. The POU-RO units will mitigate this problem as well.

The HOA also intends to replace the failed 20,000-gallon storage tank.

Alternatives to Proposed Project

A preliminary engineering report was generated to review alternatives for arsenic mitigation. The alternatives included: consolidation with the Las Vegas Valley Water District system and central treatment using adsorptive media, pressure filters, microfiltration, or membrane filtration. All of the alternatives were deemed prohibitively expensive for the small HOA.

Replacement of the storage tank does not have any feasible alternatives. In the future, a regional water system supply may become available, but until that time, on-site storage is necessary.

Environmental Review

Environmental review of water projects is conducted by NDEP pursuant to NAC 445A.6758 to 445A.67612. NDEP has determined that the project is eligible for a categorical exclusion because it is unlikely to have a negative effect on the quality of the environment. Compliance with federal, state, and local cross-cutters will occur prior to signing of a loan contract. The proposed improvements will be constructed on property within the HOA service area that has been previously disturbed. Best management practices will be utilized during construction.

Permits/Easements

- Design approval from the Bureau of Safe Drinking Water (BSDW) and Southern Nevada Health

Cost Estimate

POU Treatment:

Budget Item	DWSRF Funding	Local Funding	Totals by Use
Funding & Administrative	$ 2,800	$	$ 2,800
Planning, Engineering Design, Inspection, & Construction Management	$ 17,300	$	$ 17,300
Construction/Improvements	$ 38,000	$	$ 38,000
Contingency	$ 5,700	$	$ 5,700
Totals by Source	$ 63,800	$	$ 63,800

Storage Tank Replacement:

Budget Item	DWSRF Funding	Local Funding	Totals by Use
Inspection, & Construction Management	$ 20,500	$	$ 20,500
Construction/Improvements	$ 54,300	$ 27,000	$ 81,300
Contingency	$ 8,100	$	$ 8,100
Totals by Source	$ 82,900	$ 27,000	$ 109,900

Project Schedule

POU-RO

The HOA has obtained quotes from licensed plumbing contractors for the installation of the POU-RO systems. Final unit selection and design will be completed after the DWSRF loan contract is signed. Completion of construction is expected before the end of the calendar year.

New Storage Tank

	Estimated Completion
Planning, Design & Specification	Complete
Bidding & Award of Contract	Oct - Nov 2015
Start of Construction	Dec 2015
Completion of Water Project	Feb 2016

Financial Evaluation

In order to receive a DWSRF grant award from the EPA, the State of Nevada must agree to use at least 20% - 30% of its grant to provide additional subsidy to eligible recipients in the form of forgiveness of principal or negative interest loans or a combination of these. Nevada specified in the Intended Use Plan that additional subsidy will be offered to communities that meet the definition of disadvantaged community. The NAC defines a disadvantaged community as an area served by a public water system in which the median household income (MHI) is less than 80 percent of the MHI of the state. Based on the 2009-2013 Community Survey conducted by the US Census Bureau, 80 percent of Nevada's MHI is $42,240 and the HOA's MHI, based on a 2010 survey conducted by Nevada Rural Water, is $26,478. Therefore, Roark meets the requirements for additional subsidy, making a principal forgiveness loan appropriate.

The water system is fully metered and charges a reasonable rate for service based on the MHI of the service area. Rates established by Roark are $92.00 per user, per month. The HOA has established an automatic 15% increase to user rates each year starting January 1, 2016, which is a result of system infrastructure needs.

Public Notice and Public Participation Process
All residents in the HOA were required to provide a signed participation agreement demonstrating that they had full disclosure of the project and the installation, testing, and maintenance that would be required with the POU-RO.

The HOA requested and received a $1,000 contribution from most of the residents for replacement of the storage tank. Early estimates led the HOA to believe these funds would be sufficient to replace the 20,000-gallon storage tank. These funds are kept in a restricted account specifically for the tank replacement project and will provide a match to the DWSRF funding.

Technical, Managerial and Financial Capacity
Nevada Rural Water Association has provided extensive technical assistance and training to the HOA and its board. The water quality is in compliance with requirements of the Safe Drinking Water Act with the exception of arsenic and TDS, and all monitoring requirements have been met. This project will bring the system into compliance with the National Primary Drinking Water Regulations. The most recent sanitary survey conducted by the Southern Nevada Health District in May 2015 noted the issues with the failed storage tank but had no significant deficiencies.

The HOA employs a contracted, certified operator who has the technical knowledge and ability to operate the system. They also contract with a management company for bill collecting and financial records management. The HOA complies with public notification laws and strives to educate community members and include them in Board meetings to promote transparency.

The HOA has enacted policies and procedures to ensure 100% community participation in the installation of the arsenic POU-RO treatment units. The HOA must establish a future water quality sampling and maintenance program, in accordance with NDEP, Bureau of Safe Drinking Water POU Guidelines.

RECOMMENDATION
The Division recommends that the Board for Financing Water Projects approve a loan commitment from the loan fund of the DWSRF in the amount of $146,700 to the Roark Estates Homeowners Association for the installation of POU-RO devices and replacement of the storage tank. Since the project is eligible for additional subsidy as specified in Nevada's Intended Use Plan, 100% of the principal will be forgiven. The Division and Roark Estates Homeowners Association will negotiate the terms and conditions of a loan agreement.

SUNRISE ENGINEERING, INC.

11 North 300 West, Washington, Utah 84780
Tel: (435) 652-8450 Fax: (435) 652-8416

Engineer's Opinion of Probable Cost

Roark Estates HOA POU Arsenic Removal System Installation 17-Jun-15
Roark Estates Homeowners Association JKP/KCS

NO.	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	AMOUNT
CONSTRUCTION					
1	Mobilization, Bonds, & Permitting	7%	LS	$ 2,500.00	$ 2,500.00
2	Materials & Installation	1	LS	$ 32,500.00	$ 32,500.00
3	Disinfection & Testing	1	LS	$ 3,000.00	$ 3,000.00
4					$ -
5					$ -
6					$ -
7					$ -
8					$ -
9					$ -
			CONSTRUCTION SUBTOTAL		$ 38,000.00
			CONTINGENCY	15%	$ 5,700.00
			CONSTRUCTION TOTAL		$ 43,700.00
NON-CONSTRUCTION					
1	Funding & Administrative Services		HR	$ 2,800.00	$ 2,800.00
2	Construction Drawings		HR	$ 4,500.00	$ 4,500.00
3	NDEP Permitting		HR	$ 2,300.00	$ 2,300.00
4	Bidding & Negotiating		HR	$ 5,000.00	$ 5,000.00
5	Construction Administration		EST	$ 5,500.00	$ 5,500.00
			SUBTOTAL		$ 20,100.00
			TOTAL PROJECT COST		**$ 63,800.00**

In providing opinions of probable construction cost, the Client understands that the Engineer has no control over costs or the price of labor, equipment or materials, or over the Contractor's method of pricing, and that the opinion of probable construction cost provided herein is made on the basis of the Engineer's qualifications and experience. The Engineer makes no warranty, expressed or implied, as to the accuracy of such opinions compared to bid or actual costs.

SUNRISE ENGINEERING, INC.

11 North 300 West, Washington, Utah 84780
Tel: (435) 652-8450 Fax: (435) 652-8416

Engineer's Opinion of Probable Cost

Roark Estates HOA Tank Replacement Project 17-Jun-15
Roark Estates Homeowners Association JKP

NO.	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	AMOUNT
CONSTRUCTION					
1	Mobilization, Bonds, & Permitting	7%	LS	$ 5,300.00	$ 5,300.00
2	Traffic Control	1	LS	$ 1,000.00	$ 1,000.00
3	Dust Control & Watering	1	LS	$ 500.00	$ 500.00
4	Materials Sampling & Compaction Testing	1	LS	$ 1,500.00	$ 1,500.00
5	Demolition	1	LS	$ 6,000.00	$ 6,000.00
6	Tank Foundation	1	LS	$ 4,000.00	$ 4,000.00
7	Tank Materials Kit	1	LS	$ 33,000.00	$ 33,000.00
8	Tank Installation	1	LS	$ 16,000.00	$ 16,000.00
9	Tank Freight Cost	1	LS	$ 5,000.00	$ 5,000.00
10	Vault & Sample Tap	1	LS	$ 1,500.00	$ 1,500.00
11	Connections, Fittings, & Tie-ins	1	LS	$ 3,500.00	$ 3,500.00
12	Disinfection & Testing	1	LS	$ 4,000.00	$ 4,000.00
13					$ -
14					$ -
15					$ -
			CONSTRUCTION SUBTOTAL		$ 81,300.00
			CONTINGENCY	10%	$ 8,100.00
			CONSTRUCTION TOTAL		$ 89,400.00
NON-CONSTRUCTION					
1	Funding & Administrative Services		HR	$ -	$ -
2	Construction Drawings & NDEP Permitting		LS	$ -	$ -
3	Bid or Proposal Packet		HR	$ 4,000.00	$ 4,000.00
4	Advertise Bid or Proposal		EST	$ 1,500.00	$ 1,500.00
5	Bidding & Negotiating Services		HR	$ 7,000.00	$ 7,000.00
6	Engineering Construction Services & CRDs		HR	$ 8,000.00	$ 8,000.00
			SUBTOTAL		$ 20,500.00
			TOTAL PROJECT COST		**$ 109,900.00**

In providing opinions of probable construction cost, the Client understands that the Engineer has no control over costs or the price of labor, equipment or materials, or over the Contractor's method of pricing, and that the opinion of probable construction cost provided herein is made on the basis of the Engineer's qualifications and experience. The Engineer makes no warranty, expressed or implied, as to the accuracy of such opinions compared to bid or actual costs.

RESOLUTION

A RESOLUTION DESIGNATED THE "07-2015 THE ROARK ESTATES PROJECT LOAN COMMITMENT" TO APPROVE A LOAN COMMITMENT FOR THE PURPOSE OF FINANCING CERTAIN PROJECTS.

WHEREAS, the Board for Financing Water Projects (the "Board") of the State of Nevada (the "State") is authorized by Nevada Revised Statutes ("NRS") Chapter 445A.265 to approve for the Division of Environmental Protection ("Division") prioritized lists of water projects and to approve the commitment of funds from the account for the revolving fund for loans to community water systems and non-transient water systems for costs of capital improvements required and made necessary pursuant to NRS 445A.800 to 445A.955, inclusive, by the Safe Drinking Water Act (42 U.S.C. §§ 300f *et seq.*) and by the regulations adopted pursuant thereto; and

WHEREAS, the Division has the responsibility of administering the Drinking Water State Revolving Fund program; and

WHEREAS, on April 28, 2015, the Board, pursuant to NRS 445A.265, approved the Year 2016 Priority List of water projects eligible for loans from the account for the revolving fund under the Drinking Water State Revolving Fund; and

WHEREAS, the Roark Estate Homeowners Association owns and operates a public water system located in Sloan, Nevada; and

WHEREAS, the Division ranked the Project as #2 on the Year 2016 Priority List of water projects, which was approved by the Board on April 28, 2015; and

WHEREAS, the Roark Estate Homeowners Association Project is one of those projects which indicated a readiness to proceed and to which a loan can and should be offered; and

WHEREAS, the Division has determined that the Roark Estate Homeowners Association has the technical, managerial and financial capability to manage a loan for funding a portion of the Project; and

WHEREAS, the Division has taken all necessary and proper actions with respect to the Application as required pursuant to the regulations adopted by the State Environmental Commission (NAC 445A.6751 to 445A.67644, inclusive) pertaining to loan applications; and

WHEREAS, the Board must give prior approval before the Division may commit any money in the account for the revolving fund for expenditure for the purposes set forth in NRS 445A.275;

NOW, THEREFORE, BE IT RESOLVED, BY THE BOARD FOR FINANCING WATER PROJECTS OF THE STATE OF NEVADA:

Section 1. This Resolution shall be known as the "07-2015 the Roark Estate Homeowners Association Project Loan Commitment."

Section 2. The terms and conditions for providing a loan to the Applicant shall be negotiated by the Roark Estate Homeowners Association and the Division. These terms will include 100% Principal Forgiveness.

Section 3. Based on the review of the Application by the Division and based on the recommendation submitted by the Division to the Board concerning the Project, and subject to the provisions of Section 2 of this Resolution, the Board hereby approves a commitment of funds in the amount not to exceed $146,700 from the account for the revolving fund in accordance with NRS 445A.265.

Section 4. The Board further recommends that the Division take all other necessary and appropriate actions to effectuate the provisions of this Resolution in accordance with NRS 445A.200 to 445A.295, inclusive, and the Regulations adopted pursuant thereto.

Section 5. This resolution shall be effective on its passage and approval.

PASSED, ADOPTED AND SIGNED JULY 14, 2015

_____
Chairman
Board for Financing Water Projects

Attest:

_____
Advisor
Board for Financing Water Projects

Roark Estates Homeowners Association **Project: Arsenic Mitigation & New Storage Tank**

As presented to the Board with updates to the project amounts.

Roark Estates is a small residential development located in Sloan, approximately 20 miles south of downtown Las Vegas. The water quality in the recently-drilled, replacement well exceeds the maximum concentration limit for arsenic of 0.01 mg/L established by the EPA Arsenic Rule. Arsenic concentrations from samples dating back to May 2012 have ranged from 0.021 mg/L to 0.028 mg/L.

The water system consists of one well – drilled in 2011, two 20,000-gallon, steel, storage tanks located on the same lot as the well, and two booster pumps and four pressure tanks located inside the pump house next to the storage tanks. Water is pumped from the well into the storage tanks and then to the booster pumps which pump to the pressure tanks to pressurize the distribution system. The distribution system consists of 3-inch PVC pipe. The system is fully metered. System assets are approximately 30 years old. The development is built out.

Roark Estates is approximately half way through a residential water meter replacement program with completion expected in 2016. Meter replacement is included in the current budget. One of the storage tanks is currently out of service due to serious deterioration and leaks. The second steel water storage tank is approximately thirty years old and is anticipated to need replacement within twenty years.

PROPOSED PROJECT

The Roark Estates Homeowners Association (HOA) intends to install point-of-use reverse osmosis units (POU-RO) for arsenic treatment in each of the 27 residences in the HOA. The POU-RO units will treat the water intended for consumption and cooking only. The drinking water from Roark's only well also exhibits high total dissolved solids. The POU-RO units will mitigate this problem as well. A condition for using POU for mitigating arsenic is 100% participation in the community. Consent forms were sign by all residents and included with the Drinking Water SRF loan application. These consent forms include the installation of the units as well as the required, on-going testing and maintenance. In addition to the POU-RO project, the HOA also intends to replace the failed 20,000-gallon storage tank. Southern NV Health has calculated the total daily usage at 6,200 gallons. Based on this volume, 1 20,000-gallon tank provides at least 3 days of storage.

Alternatives to Proposed Project

A preliminary engineering report was generated to review alternatives for arsenic mitigation. The alternatives included: consolidation with the Las Vegas Valley Water District system and central treatment using adsorptive media, pressure filters, microfiltration, or membrane filtration. All of the alternatives were deemed prohibitively expensive for the small HOA.

Replacement of the storage tank does not have any feasible alternatives. In the future, a regional water system supply may become available, but until that time, on-site storage is necessary.

Environmental Review

NDEP has determined that the project is eligible for a categorical exclusion because it is unlikely to have a negative effect on the quality of the environment. Compliance with federal, state, and local cross-cutters will occur prior to signing of a loan contract. The proposed improvements will be constructed on property within the HOA service area that has been previously disturbed. Best management practices will be utilized during construction.

Permits/Easements

- Design approval from the Bureau of Safe Drinking Water (BSDW) and Southern Nevada Health

Project Estimate is now: $ 178,700 Drinking Water SRF Loan Amount: $ 151,700

Staff questioned the tank quote to be sure that the applicant and engineer were aware of the American Iron & Steel requirements for the Drinking Water SRF loans. The tank manufacturer who supplied the original quote had recently sold the business and the new owner provided an updated quote for the tank. While it does not appear that there were any increases due to the American Iron & Steel requirements, the new quote was $5,000 more than the original. This increase is reflected in the total project estimate and SRF loan amount presented today.

Project Schedule

The HOA has obtained quotes from licensed plumbing contractors for the installation of the POU-RO systems. Final unit selection and design will be completed after the Drinking Water SRF loan contract is signed. Completion of installation and testing of all units is expected by the end of the calendar year.

The new storage tank should be completed by February 2016.

Financial Evaluation

Based on the 2009-2013 Community Survey conducted by the US Census Bureau, 80 percent of Nevada's MHI is $42,240 and the HOA's MHI, based on a 2010 survey conducted by Nevada Rural Water, is $26,478. Therefore, Roark meets the requirements for additional subsidy, making a principal forgiveness loan appropriate.

The water system is fully metered and charges a reasonable rate for service based on the MHI of the service area. Rates established by Roark are $92.00 per user, per month. The HOA has established an automatic 15% increase to user rates each year starting January 1, 2016, which is a result of system infrastructure needs.

Public Notice and Public Participation Process

In order to implement a POU arsenic treatment alternative, the water system must have 100% participation. All residents in the HOA were required to provide a signed participation agreement demonstrating that they had full disclosure of the project and the installation, testing, and maintenance that would be required with the POU-RO.

The HOA requested and received a $1,000 contribution from the residents for replacement of the failed storage tank. Early estimates led the HOA to believe these funds would be sufficient to replace the 20,000-gallon storage tank. These funds are kept in a restricted account specifically for the tank replacement project and will provide a match to the Drinking Water SRF funding.

Technical, Managerial and Financial Capacity

Nevada Rural Water Association has provided extensive technical assistance and training to the HOA and its board. The water quality is in compliance with requirements of the Safe Drinking Water Act with the exception of arsenic and TDS, and all monitoring requirements have been met. This project will bring the system into compliance with the National Primary Drinking Water Regulations. The most recent sanitary survey conducted by the Southern Nevada Health District in May 2015 noted the issues with the failed storage tank but had no significant deficiencies.

The HOA employs a contracted, certified operator who has the technical knowledge and ability to operate the system. They also contract with a management company for bill collecting and financial records management. The HOA complies with public notification laws and strives to educate community members and include them in Board meetings to promote transparency.

The HOA has enacted policies and procedures to ensure 100% community participation in the installation of the arsenic POU-RO treatment units. The HOA must establish a future water quality sampling and maintenance program, in accordance with NDEP, Bureau of Safe Drinking Water POU Guidelines.

RECOMMENDATION

The Division recommends that the Board for Financing Water Projects approve a loan commitment from the loan fund of the Drinking Water SRF in the amount of $151,700 to the Roark Estates Homeowners Association for the installation of POU-RO devices and replacement of the storage tank. Since the project is eligible for additional subsidy as specified in Nevada's Intended Use Plan, 100% of the principal will be forgiven. The Division and Roark Estates Homeowners Association will negotiate the terms and conditions of a loan agreement. A resolution designated the "07-2015 the Roark Estates Project Loan Commitment" is attached for your consideration. I'd be happy to answer any questions. We also have Debbie Sampson on the phone with us today to answer any other questions you may have.

ATTACHMENT 4

Silver Springs Mutual Water Company

Board for Financing Water Projects
Loan Commitment from the Drinking Water State Revolving Fund
Silver Springs Mutual Water Company
July 2015

Project: **Hydrogeologic investigation for new source**
DWSRF Loan Amount: **$ 500,000**

GENERAL

The Division of Environmental Protection (Division) administers the Drinking Water State Revolving Fund (DWSRF) under the Nevada Revised Statutes (NRS) 445A.200 to 445A.295, inclusive. Regulations adopted by the State Environmental Commission pursuant to NRS 445A.270 describe how the Division administers the DWSRF. One of the requirements of the NRS pertaining to the DWSRF is that the Division shall not "commit any money in the account for the revolving fund for expenditure…without obtaining the prior approval of the board for financing water projects" (NRS 445A.265, subsection 3).

BACKGROUND

Silver Springs is located at the intersection of U.S. 50 and U.S. 95A. The Silver Springs Mutual Water Company (SSMWC) is a non-profit cooperative association formed in February 1952.

The water system has three active production wells and 3,000,000 gallons of storage that serve two pressure zones. Two of the three wells have arsenic levels that exceed the primary drinking water standards. In September 2010, installation of a centralized, coagulation/filtration, arsenic treatment facility was completed, bringing the system into compliance with the arsenic standard.

A main concern for the SSMWC at this time is the aging and deteriorating production wells. As a result of video inspections of two of the SSMWC's main production wells (Idaho and Deodar), it was determined that the wells (casing/screen) had reached the end of their useful lives and could not be rehabilitated.

Table 6 – Domestic Well Summary

Well Name	Status	Year Drilled	Depth To Water (feet)	Well Depth (feet)	Sanitary Seal (Feet)	Casing Diameter (inches)	Max Pumping Rate (gpm)
Fort Churchill St. Well	Not used	1951	40	290	None	8	125
Lake St. Well	In-use	1979	20	350	51	14	1,100
Idaho St. Well	In-use	1973	36	400	50	12	800
Deodar St. Well	In-use	1954	64	260	Unknown	14	600
Spruce Well	Not used	1971	92	294	50	14	200

The Deodar Well is the oldest production well in the SSMWC system but is the only well in the system which currently meets all water quality standards and can be pumped directly to distribution without arsenic treatment. The Deodar Well submersible pump and above ground equipment has recently been replaced. Improvements also included replacement of the failing well house structure, installation of a connection vault, replacement of chemical equipment, and improvements to electrical and SCADA equipment.

The SSMWC recently updated their system/asset mapping using GIS. They also started a Preliminary Engineering Report (PER) to assist in prioritizing asset repair, replacement, and addition. SSMWC is currently working on a Water Resource Plan that includes: collection and compilation of available hydrogeologic data, identifying data gaps, evaluating water resource budgets for the Carson River and Lahontan Reservoir, coordinating planning efforts with the County and others to avoid redundancy and assure the quality of the data collected, and assisting with water rights management.

Customers, Population and Growth

Service	**Current**	**Future (Est*)**
Residential	1,194	1,870
Commercial, industrial, & other	104	
Population Served	2,961	4,838

*In 2028 based on 2.5% annual growth rate

PROPOSED PROJECT

The project will identify a preferred location and design for a new, replacement production well. With a detailed hydrogeologic study of the active well field and regional water resources, future well replacements/additions will also be facilitated. A new production well with a capacity of 750 to 1,000 gpm would provide sufficient system capacity to meet existing demand.

This project will include the following tasks:

- Sampling/Testing of Wellhead Discharge from Existing Wells.
  Selection of wells will be prioritized based on depth, production capacity, and favorable water quality. Data gaps will be identified and additional data will be collected from existing wells to fill the data gaps. The relationship between well location, screen depth, and water quality will be established for arsenic and other water quality parameters. Also, approximate aquifer parameters will be determined from pumping and water level data.

- Down Well Survey and Discrete Sampling of Selected Wells.
  Downhole water quality sampling and a flow survey from the SSMWC Idaho Well was very informative and identified an interval with low arsenic concentrations. This task will expand on this initial well survey and conduct additional surveys at other well locations that provide opportunities for downhole well surveys. The SSMWC has already prepared Deodar Well for a downhole survey with the existing production pump and a large diameter sounding tube. Several criteria will be evaluated in finalizing the wells that will be utilized for downhole surveys including but not limited to: production capacity and efficiency, water quality, ability to conduct the downhole survey with the existing pump, and distance to existing infrastructure. Potential sites for downhole surveys include the Deodar Well, Lake Street Well, Airport Well, Powell Well and other high capacity wells in the basin.

- Sonic Exploratory Drilling and Testing of Alluvial Deposits.
  Exploratory drilling with water quality sampling will be critical for identifying a prospective production well location(s) and providing a basis for the design of the new production well. Three boreholes are proposed to be drilled during this phase of the investigation. Exploratory drilling will need to be conducted to bedrock which is estimated at approximately 400 to 500 feet. Drilling the entire thickness of the unconsolidated deposits is important to maximize

production potential and identify zones with acceptable water quality. This is because of the highly variable nature of water production capacity and water quality in aquifers at the interface of alluvial fan deposits, fluvial deposits from river systems, and lacustrine/playa deposits. Young volcanic vents and corresponding lava flows occur interbedded with the alluvial deposits within the basin. The interface between the lava flows and alluvial deposits has the potential to provide increased transmissivity with possible water quality that meets all drinking water standards.

- Completion of the PER with an environmental report (ER).
  The PER and ER – both conforming to the USDA RUS Bulletins – are currently anticipated to be the deliverable of this project and loan. All findings of the hydrogeologic study and exploratory drilling will be included in the PER.

While all of the outlined hydrogeologic tasks may be necessary for a full understanding of the production potential in and around the SSMWC service area, staff and the SSMWC are proposing to approach this investigation in a step-wise manner with an immediate goal of replacing the Deodar Well. Given the favorable water quality currently at this site, the investigation and testing would focus here first. If testing demonstrated that this site could support a new production well and sufficient funds remain, the SSMWC could potentially request that the funds from this DWSRF loan be reallocated to drilling a new well. All of the existing appurtenances would be moved from the existing well to the new well, saving most of the cost beyond drilling and well construction. Under these conditions, further phases of hydrogeologic investigation might be proposed as a future project.

If sufficient funds are not available in this loan to complete a replacement well, the SSMWC will continue with the hydrogeologic investigation as outlined and plan to approach the drilling, construction, and inter-tie of a new well as a new construction project and a second loan application.

Environmental Review

Environmental review of water projects is conducted by the NDEP pursuant to Nevada Administrative Code (NAC) 445A.6758 to 445A.67612. Prior to any exploratory drilling, an environmental review will be completed for all sites selected.

The Deodar Well site went through an environmental review by the USDA in 2012 as a part of the recent upgrades. The USDA determined that the proposed projects (including the Deodar Well upgrades) would not individually or cumulatively have a significant effect on the human environment and was eligible for a finding of no significant impact. The NACs allow NDEP to utilize an environmental review conducted by another agency as long as the review complies with NDEP's environmental requirements.

Possible Permits

- DE Minimis Discharge Permit
- Division of Water Resources exploratory well waiver

Cost Estimate

A cost estimate was developed for the hydrogeologic investigations – see table below. In the event these investigations could result in a replacement well at the onset of the project, staff is proposing to make this a not-to-exceed loan of $500,000, the maximum amount of principal forgiveness loan available for a project as described in the DWSRF Intended Use Plan.

Budget Item	DWSRF Funding	Local Funding	Totals by Use
Prepare SRF Application	$ 5,000		$ 5,000
Sampling/Testing of Wellhead Discharge of Existing Wells	$ 14,500		$ 14,500
Down Well Survey & Discrete Sampling of Selected Wells	$ 84,250		$ 84,250
Sonic Exploratory Drilling of Unconsolidated Deposits	$ 357,500		$ 357,500
Update PER & ER	$ 15,000		$ 15,000
Totals by Source	$ 476,250		$ 476,250

Project Schedule

	Estimated Completion
Sampling/Testing of Wellhead Discharge	Oct 2015
Down Well Survey & Discrete Sampling	Dec 2015
Sonic Exploratory Drilling	Mar 2016
Completion of Hydrogeologic Investigation	June 2016

Financial Evaluation

In order to receive a DWSRF grant award from the EPA, the State of Nevada must agree to use at least 20% - 30% of its grant to provide additional subsidy to eligible recipients in the form of forgiveness of principal or negative interest loans or a combination of these. Nevada specified in the Intended Use Plan that additional subsidy will be offered to communities that meet the definition of disadvantaged community. The NAC defines a disadvantaged community as an area served by a public water system in which the median household income (MHI) is less than 80 percent of the MHI of the state. Based on the 2009-2013 Community Survey conducted by the US Census Bureau, 80 percent of Nevada's MHI is $42,240 and SSMWC's MHI is $31,367. Therefore, SSMWC meets the requirements for additional subsidy, making a principal forgiveness loan appropriate for the Town.

The water system is fully metered and charges a reasonable rate for service based on the MHI of the service area. Current base rates at $45 per month for 15,000 gallons used (and an additional commodity charge of $2 per 1,000 gallons above the first 15,000 gallons) exceed the reasonable water rate guideline (MHI x 1.5%/12 = $31,367 x 1.5%/12 = $39.21) generally expected for systems receiving additional subsidy from the DWSRF program.

Public Notice and Public Participation Process

On May 21, 2015, the Board of Directors of the Silver Springs Mutual Water Company had a publicly noticed meeting and voted to proceed with a loan application from the DWSRF for this hydrogeologic investigation.

Technical, Managerial and Financial Capacity

The water quality is in compliance with requirements of the Safe Drinking Water Act and all monitoring requirements have been met. The SSMWC employs certified operators who have the technical knowledge and ability to operate the system. The most recent sanitary survey conducted by the Bureau of Safe Drinking Water in December 2014 had no violations or deficiencies. The SSMWC has the ability to conduct its administrative affairs in a manner that ensures compliance with all applicable standards and retains a certified public accountant and utilizes generally accepted accounting principles.

RECOMMENDATION

The Division recommends that the Board for Financing Water Projects approve a loan commitment from the loan fund of the DWSRF in an amount not to exceed $500,000 to the Silver Springs Mutual Water Company for a hydrogeologic investigation to support the siting of a new production well. If suitable conditions exists for a new well at the Deodar site and sufficient funds remain to drill and construct a new well, further hydrogeologic investigations may be suspended and a well will be drilled. Since the project is eligible for additional subsidy as specified in Nevada's Intended Use Plan, 100% of the principal will be forgiven. The Division and Silver Springs Mutual Water Company will negotiate the terms and conditions of a loan agreement.

RESOLUTION

A RESOLUTION DESIGNATED THE "07-2015 THE SILVER SPRINGS MUTUAL WATER COMPANY PROJECT LOAN COMMITMENT" TO APPROVE A LOAN COMMITMENT FOR THE PURPOSE OF FINANCING CERTAIN PROJECTS.

WHEREAS, the Board for Financing Water Projects (the "Board") of the State of Nevada (the "State") is authorized by Nevada Revised Statutes ("NRS") Chapter 445A.265 to approve for the Division of Environmental Protection ("Division") prioritized lists of water projects and to approve the commitment of funds from the account for the revolving fund for loans to community water systems and non-transient water systems for costs of capital improvements required and made necessary pursuant to NRS 445A.800 to 445A.955, inclusive, by the Safe Drinking Water Act (42 U.S.C. §§ 300f *et seq.*) and by the regulations adopted pursuant thereto; and

WHEREAS, the Division has the responsibility of administering the Drinking Water State Revolving Fund program; and

WHEREAS, on April 28, 2015, the Board, pursuant to NRS 445A.265, approved the Year 2016 Priority List of water projects eligible for loans from the account for the revolving fund under the Drinking Water State Revolving Fund; and

WHEREAS, the Silver Springs Mutual Water Company owns and operates a public water system located in Silver Springs, Nevada; and

WHEREAS, the Division ranked the Project as #30 on the Year 2016 Priority List of water projects, which was approved by the Board on April 28, 2015; and

WHEREAS, the Silver Springs Mutual Water Company's Project is one of those projects which indicated a readiness to proceed and to which a loan can and should be offered; and

WHEREAS, the Division has determined that the Silver Springs Mutual Water Company has the technical, managerial and financial capability to manage a loan for funding a portion of the Project; and

WHEREAS, the Division has taken all necessary and proper actions with respect to the Application as required pursuant to the regulations adopted by the State Environmental Commission (NAC 445A.6751 to 445A.67644, inclusive) pertaining to loan applications; and

WHEREAS, the Board must give prior approval before the Division may commit any money in the account for the revolving fund for expenditure for the purposes set forth in NRS 445A.275;

NOW, THEREFORE, BE IT RESOLVED, BY THE BOARD FOR FINANCING WATER PROJECTS OF THE STATE OF NEVADA:

Section 1. This Resolution shall be known as the "07-2015 the Silver Springs Mutual Water Company Project Loan Commitment."

Section 2. The terms and conditions for providing a loan to the Applicant shall be negotiated by the Silver Springs Mutual Water Company and the Division. These terms will include 100% Principal Forgiveness.

Section 3. Based on the review of the Application by the Division and based on the recommendation submitted by the Division to the Board concerning the Project, and subject to the provisions of Section 2 of this Resolution, the Board hereby approves a commitment of funds in the amount not to exceed $500,000 from the account for the revolving fund in accordance with NRS 445A.265.

Section 4. The Board further recommends that the Division take all other necessary and appropriate actions to effectuate the provisions of this Resolution in accordance with NRS 445A.200 to 445A.295, inclusive, and the Regulations adopted pursuant thereto.

Section 5. This resolution shall be effective on its passage and approval.

PASSED, ADOPTED AND SIGNED JULY 14, 2015

_____
Chairman
Board for Financing Water Projects

Attest:

_____
Advisor
Board for Financing Water Projects