

Meeting Minutes
BOARD FOR FINANCING WATER PROJECTS
July 27, 2021
2:00 pm.

Tahoe Hearing Room
 901 South Stewart Street, 2nd floor
 Carson City, NV 89701
 Lifesize:
<https://call.lifesizecloud.com/4155018>

Members present:

Bruce Scott, Chair
 Andrew Belanger, Vice Chair
 Christine Vuletich
 Carl Ruschmeyer
 Mike Workman
 Andrea Seifert, ex-officio member

Legal counsel present:

Katie Armstrong, Senior Deputy Attorney
 General

NDEP staff present:

Jason Cooper
 Sharada Maligireddy
 Kyle Casci
 Sheryl Fontaine
 Elise Akers
 Marcy McDermott
 Jennifer Carr
 Matt McDaniel

Public present:

Kathy Flanagan, Las Vegas Valley Water
 District
 Tina Pope, Silver Knolls Mutual Water
 Company
 Lee Grasseschi, Silver Knolls Mutual Water
 Company
 Brian Gach, Forsgren Associates
 Alan Driscoll, Forsgren Associates
 Tom Scott, Bureau of Land Management
 Bob Foerster

1) Board for Financing Water Projects Regular Meeting

1) Call to order

Chair Bruce Scott opened the meeting and invited introductions from board members and those present in person and on the phone.

2) Introduction/establish quorum

Chair Scott established a quorum as all board members were present.

3) Public comment

There were no public comments.

4) Approval of minutes from the April 28, 2021 regular meeting

Board Member Mike Workman motioned to approve the minutes. The motion was seconded by Vice Chair Andrew Belanger. The motion carried unanimously.

5) Election of Board Chair and Vice Chair

Board Member Workman motioned that Bruce Scott remain as chair and Andrew Belanger as vice-chair. Board Member Christine Vuletich seconded the motion, and it passed unanimously.

6) Funding update for the Drinking Water State Revolving Fund (DWSRF)

Jason Cooper, with the Nevada Division of Environmental Protection (NDEP), gave an update on the Drinking Water State Revolving Fund (DWSRF). As of June 30, 2021, there was \$68,740,512.00 in the bank, and \$35,137,277 funds committed not yet disbursed. Mr. Cooper indicated staff was presenting to the board a commitment in the amount of \$520,360. Over the next three years, the lowest cash balance would be \$20,246,495.00.

Mr. Cooper displayed projections for the next three years. DWSRF currently has \$520,360 available in principal forgiveness funding, which the project presented to the board today would use the remaining balance. Mr. Cooper anticipates that with the approval of the 2021 grant, an additional \$2,717,620 in principal forgiveness funds would be available.

Mr. Cooper stated there has been discussion between staff and the Treasurer's Office regarding the administration of the American Rescue Plan Act, and which systems would be eligible for funding under the American Rescue Plan Act.

Board Member Workman inquired if material price increases have caused projects to come back for additional funding. Mr. Cooper answered at the previous Board Meetings a total of five projects came back for additional funding. However, prices have started to come back down slightly and no project since April 2021 has discussed a need for increased funding.

Chair Scott asked about the projection in year 2 showing a \$30 million transfer to the Clean Water program. Mr. Cooper answered the Clean Water Program has funded \$150 million in projects in the

last year and half. There is additional need coming forward including a large project which is the driver for the fund transfer. The Clean Water and Drinking Water programs have the ability to transfer funds between the programs as needed to support one another.

7) Funding update for the Capital Improvements Grant Program

Mr. Cooper stated as of June 30, 2021, there was \$2,755,979.65 in the bank, with \$15,248.07 reserved for administration, and \$2,755,030.00 for projects not yet disbursed. He said the Legislature passed AB492 which authorized a bond issuance authority in the amount of \$8,000,000. After, the bond issuance this fall and \$138,842.10 in estimated bond interest earnings there should be a balance of \$8,122,209.68 available to grant projects.

8) Approval of the Nevada Drinking Water Priority List-Effective July 2021-

See staff report, Exhibit 8

Sharada Maligireddy, with NDEP, stated that projects are ranked into four classes:

- Class I, significant or acute health risks
- Class II, violation of primary and/or secondary drinking water standards
- Class III, infrastructure rehabilitation and replacement projects
- Class IV, refinancing of existing debt

DWSRF can fund community public water systems (both private and political subdivisions) and non-transient, non-community water systems (non-profits, such as schools, office buildings). If applications are received for multiple projects or systems and two systems are evenly ranked, then the system with the largest population will be ranked higher. Points are multiplied by the ratio of the state median household income to the applicant system's median household income, derived from the U.S. Census Bureau.

Mr. Cooper gave a presentation on reviewing projects on the DWSRF Priority List, project readiness to proceed, and bypassing projects on the priority list. Mr. Cooper noted that applicants must be on the priority list in order to receive funds. Once applicants are on the list, they are left on the list until their projects are complete, in case additional funding is needed. Mr. Cooper noted that 21 projects were added to the list and one project was removed, because the project had been completed.

The priority list currently has 115 projects:

- **25 – Fundable projects that are moving forward** (cost of \$155,302,463.00)
- **67 – Projects that are not ready to proceed** (cost of \$229,804,974.00)
- **23 – Projects that are already funded** (cost of \$153,513,670.00)

Board Member Vuletich inquired about the two communities that fell of the disadvantaged list. Mr. Cooper responded that Gerlach completed an income survey and it locked them in for 5 years. Then, when the income survey rate falls off, the last Census Data is used as median household income sector. However, there are ways to still assist a disadvantaged system with funding so the system can proceed with a needed project.

Chair Scott commented that the administrative assistance that Las Vegas Valley Water District provides to smaller disadvantaged systems in Clark County is greatly appreciated.

Vice Chair Belanger asked why some of the systems had the zip code listed next to the name. Mr. Cooper answered it is used as a reference of where the project is located.

Board Member Ruschmeyer commented that septic to sewer conversion projects are greatly needed within the State, and that seeing two projects regarding that on the priority list is a good start.

Board Member Vuletich agreed with the comment on septic to sewer conversion projects being on the list to use as an example as a need.

Vice Chair Belanger motioned to approve the Nevada Drinking Water Priority List-Effective July 2021 as presented. The motion was seconded by Board Member Workman. The motion carried unanimously.

9) Resolution for Administrative funding- See staff report, Exhibit 9

Mr. Cooper presented a resolution for the Board to approve money for the administration fund to fund the program and board administration costs of the Capital Improvements Grant Program for a period of 5 years.

Chair Scott asked if the proposed amount of \$5,000 was enough or if it should be increased as a contingency. Mr. Cooper said the Board could recommend any amount they deem fit.

Chair Scott inquired if travel and per diem would fall into administrative fund costs, as it could be used as justification for the authorization increase. Mr. Cooper answered that the engineer's time and travel for project plan review and such is covered under a different funding source.

Vice Chair Belanger suggested that increasing the proposed resolution amount of \$5,000 to \$10,000 would be more prudent than keeping it close to the minimum allowed amount.

Board Member Workman agreed raising the amount is the prudent thing to do at this time.

Board Member Ruschmeyer motioned to approve Resolution G09-0721 Funding Administration in the Capital Improvements Grant Program in an amount not to exceed \$10,000. The motion was seconded by Board Member Vuletich. The motion carried unanimously.

Project list for consideration

10) Silver Knolls Mutual Water Company- See staff report, Exhibit 10

Chair Scott recused himself from discussion and voting on the project prior to it being presented.

Ms. Sharada Maligireddy and Ms. Elise Akers recommended the Board approve a \$520,360 loan commitment to Silver Knolls Mutual Water Company. The money would provide funding to install a central treatment system to remove arsenic and to bring the water system into compliance with the drinking water standard. The estimated project cost was \$544,623, \$520,360 of which would come from the DWSRF and the remaining \$24,263 from the water system.

Board Member Ruschmeyer questioned if consolidation was an option and if it was considered. Also, if the cost to expand the building was built into the cost estimate. Tina Pope, with Silver Knolls stated the consolidation has been discussed, but is not an option at this time. Brian Gach, with Forsgren Associate answered the proposed pod building will be used at this time compared to expanding existing building.

Board Member Workman motioned to approve Resolution D10-2021 Silver Knolls Mutual Water Company Project Loan Commitment. The motion was seconded by Board Member Ruschmeyer. The motion carried unanimously, with Chair Scott abstaining from the vote.

11) Board comments

Board Member Workman appreciated staff's work on the presentation and reports.

12) Public comment

There were no public comments.

13) Next board meeting

Mr. Cooper and the board members discussed scheduling the next board meeting during the first two weeks of December 2021.

14) Adjourn the Board for Financing Water Projects meeting

The board meeting adjourned at 3:12 pm.

2) ATTACHMENTS



**Nevada Capital Improvements Grant Program
Board for Financing Water Projects**

July 2021

Administrative Funding

Amount	Recommendation
\$5,000 Bond Proceeds	The Nevada Division of Environmental Protection (NDEP) recommends that the Board for Financing Water Projects (Board) approve a resolution for the purpose of providing bond proceeds for administering the program.

Background

The Capital Improvements Grant Program maintains a very small cash reserve for administration. Program funding is increasing, but since the Great Recession, the program has not had significant legislatively approved bond proceeds to award substantive grants, but must continue to pay certain administrative expenses, such as those for insurance and file management space, as part of the state’s allocated expenses. The program does not directly fund any staff positions and must rely upon other positions to perform program administration and project reviews. Each applicant is required to pay a \$1,000 application fee authorized by Nevada Administrative Code (NAC) 349.549. This fee is not sufficient to support all the expenses in administering a grant through the program.

NDEP makes every attempt to partner the grantee with another funding source to leverage state and federal resources as much as possible. When a grantee’s project is partnered with the federally funded Drinking Water State Revolving Fund (DWSRF), administration of a combined loan and grant can be supported through the DWSRF. When a project that is eligible from the Capital Improvements Grant Program is not eligible to be partnered with the DWSRF, another funding source must be obtained to offset administrative costs.

The legislatively approved budget for fiscal year (FY) 22 and FY 23 included the NDEP’s ability to transfer plan review fees from the Bureau of Safe Drinking Water to support the Capital Improvements Grant Program’s engineering review of drinking water projects. This funding source is specifically to support the Professional Engineer’s review of the project design and monitoring of construction and compliance with program requirements. The Capital Improvements Grant program has authority to transfer \$2,510 in FY22 and \$2,692 in FY23.

The 2021 Legislature approved the Board of Finance to issue \$8,000,000.00 in bonds in the FY22 and FY23 biennium, to support this program. NDEP has been soliciting potential projects, but some are expected to be incompatible with DWSRF co-funding. In addition, expenses related to financial reviews for projects, processing draw requests, and administrative oversight of the grantees is currently not fully

supported with the application fees collected. NDEP is seeking Board approval for the use of a de minimis amount of bond proceeds, not to exceed \$5,000, for administration of these activities.

Current Balance		15,248.07
Revenues (5-year projection)		
Administration Fee	6,000.00	
Plan Review Fees	5,202.00	
Bond Proceeds (with Board approval)	5,000.00	
Total Revenues	16,202.00	
Expenses (5-year projection)		
Salaries	17,409.00	
Operations	2,155.00	
Total Expenses	19,564.00	
Ending Balance		11,886.07

	Estimated	Estimated	Estimated	Estimated	Estimated
Revenues (5-year projection)	FY 22	FY 23	FY 24	FY 25	FY 26
Administration Fee	\$6,000.00	\$0.00	\$0.00	\$0.00	\$0.00
Plan Review Fees	2,510.00	2,692.00	0.00	0.00	0.00
Bond Proceeds	5,000.00	0.00	0.00	0.00	0.00
Total Revenues	13,510.00	2,692.00	0.00	0.00	0.00
Expenses (5-year projection)					
Salaries*	4,844.00	5,026.00	5,026.00	2,513.00	
Operations**	431.00	431.00	431.00	431.00	431.00
Total Expenses	5,275.00	5,457.00	5,457.00	2,944.00	431.00

*Salaries include indirect cost allocations associated with salaries and fringe benefits.

** Operations include allocated rent and insurance to the program

Capital Improvement Grants Program Authority and Purpose

Nevada Revised Statutes (NRS) 349.980 to 349.987 describe the Capital Improvements Grant Program and the powers and duties of the Board for Financing Water Projects. NDEP administers the Capital Improvements Grant Program on behalf of the board as per NRS 349.982 and NAC 349.430 to 349.574, inclusive. If the board determines to provide a grant from the Capital Improvements Grant Program, one of the requirements of the Nevada Administrative Code (NAC) is that the board will adopt a resolution that includes a statement of approval of the board that sets forth its findings of fact (NAC 349.535, subsection 1).

RECOMMENDED MOTION FOR THE CAPITAL IMPROVEMENT GRANT

I move to approve the resolution titled "G09-0721 *Funding Administration in the Capital Improvements Grant Program*," which is intended to commit bond proceeds for administration of the program in an amount not to exceed \$5,000.

RESOLUTION G09-0721

Funding Administration of the Capital Improvements Grant Program

Program Administration Commitment

- WHEREAS:** The Board for Financing Water Projects (Board) of the State of Nevada (State) is authorized by Chapter 349.980 to 349.987, *Nevada Revised Statutes* (NRS), to administer a program to provide grants of money to purveyors of water to pay for costs of capital improvements to publicly owned community water systems and publicly owned non-transient water systems;
- WHEREAS:** NRS 349.984 creates a fund (fund) for grants for water conservation and capital improvements to certain systems to which bond proceeds, bond interest and any other applicable revenue is deposited; and
- WHEREAS:** The State Board of Finance is authorized by NRS 349.986 to issue general obligation bonds in the face amount of not more than \$125,000,000.00 to support the purposes of the program, with the net proceeds from the sale of the bonds deposited in to the fund; and
- WHEREAS:** The 2021 Nevada Legislature authorized the State Board of Finance to issue up to \$8,000,000.00 in the state fiscal year 2022-2023 biennium through Assembly Bill 492.
- WHEREAS:** NRS 349.982 allows money in the fund to be used to defray, in whole or in part, the costs of administering the fund and the expenses of the board in administering the program.

IT IS RESOLVED by the Board for Financing Water Projects of the State of Nevada:

Section 1: This resolution shall be known as the “G09-0721 Funding Administration of the Capital Improvements Grant Program”

Section 2: In connection with its findings of fact set forth in Section 3 of this Resolution and subject to the provisions of Section 4 of this Resolution, the Board has determined, and does hereby declare, that it approves and shall use bond proceeds for administration in an amount not to exceed \$5,000.

Section 3: Based on its review of the information submitted to the Board concerning the Project, the Board hereby makes the following findings of fact in support of its determination to use bond proceeds for administration:

- (a) It is the Board’s policy to maintain sufficient monies in the administration fund to support program and Board administration costs for five years; and
- (b) The projected expenses for program administration are expected to total \$19,564 over the next five years; and
- (c) Revenue from other sources are not sufficient to fully administer projects awarded with current legislatively approved bond proceeds; and
- (f) Internal Revenue Code (IRC) 141(b) limits the use of private activities on government issued bonds to no more than 5% or \$5 million to retain tax-exempt status.

Section 4: The commitment of bond proceeds for administration is conditioned upon approval from the Governor’s Finance Office in a budget amendment.

Section 5: The Board hereby authorizes and directs the Nevada Division of Environmental Protection to take all necessary and appropriate actions to effectuate the provisions of this Resolution in accordance with NRS 349.982.

Section 6: This resolution shall be effective on its passage and approval.

PASSED, ADOPTED, AND SIGNED July 27, 2021

Signed: _____

Chair
Board for Financing Water Projects

Attest: _____

Advisor
Board for Financing Water Projects

**Loan Commitment from the Drinking Water
State Revolving Fund**

Board for Financing Water Projects

July 2021

Silver Knolls Mutual Water Company

Amount and Term	Recommendation
<u>\$520,360</u> Principal Forgiveness from DWSRF	The Nevada Division of Environmental Protection (NDEP) recommends that the Board for Financing Water Projects (Board) approves a loan commitment to Silver Knolls Mutual Water Company (SKMWC) to install a central treatment system. The system would remove arsenic and bring SKMWC into compliance with the drinking water standard.

Management and Structure

Loan Recipient and Structure Silver Knolls Mutual Water Company (NV0004021) is a privately owned community public water system (PWS).

System Project for Funding

Priority List #12 Class II-Chronic Health Risk (Drinking Water Priority List—Effective July 2021)

Need SKMWC’s existing proprietary zirconium hydroxide adsorption/filtration system for arsenic treatment has become too expensive to operate, due to the high cost of chemicals and proprietary consumable filters. SKMWC was not able to run their system for more than a few weeks without replacing filter cartridges, making the system unaffordable.

The addendum by Forsgren Associates (December 2020) to the most recent preliminary engineering report (PER) provides an updated cost comparison. This shows SKMWC’s actual realized cost to replace cartridges (Appendix A). The existing system used a technology that had not been proven to work in Nevada, and an onsite pilot test was never performed to determine replacement periods for consumables or to demonstrate that the technology was suitable for SKMWC water chemistry.

Arsenic presence during low-demand conditions was below the regulatory limit of 10 ppb, but without a working treatment system, SKMWC has been out of compliance overall, with arsenic levels as high as 15 ppb. SKMWC has since been providing bottled water to its customers as required. Along with the relatively higher costs to supply bottled water, SKMWC operators spent additional time interacting with their

customers and bottled water distributors. This has placed stress on SKMWC staff. SKMWC struggled for years to resolve the issues and has faced regulatory enforcement proceedings for non-compliance. Funding and completing this project is expected to bring an end to SKMWC's regulatory challenges.

Emotional health, well-being, and trust of the residents of Silver Knolls – SKMWC staff say regulations can address the physical health and wellbeing of the community but regaining trust in the drinking water supply requires more effort. Installing a new treatment system will be a permanent solution that will begin to rebuild trust.

Bottled water dispensing issues – SKMWC wants to stop using bottled water, as it will reduce ongoing costs, as well as the time and effort required to distribute the water.

Financial – This project will save SKMWC money on fines, attorneys, and engineering costs.

Real estate values – Washoe County is currently experiencing a real estate boom. Potential buyers have access to public records showing that SKMWC is out of compliance for arsenic. This impacts the appraised values for this small community, hurting residents' ability to obtain home equity lines of credit or to refinance their homes.

Chosen Project This project includes designing and installing a new adsorptive media arsenic treatment system that will replace an existing (and non-operational) arsenic treatment system in the SKMWC pump house.

The proposed traditional arsenic treatment system uses iron-based adsorptive media – specifically Bayoxide E-33 – which has been used successfully in small water systems throughout Nevada for over a decade. Additionally, an onsite, 8-week pilot test was performed using Bayoxide E-33, and no breakthrough, degradation, or fouling was observed during testing. Water quality results from the pilot test showed that arsenic was reduced to non-detectable levels.

The proposed project will be carried out by first conducting additional analysis and design based on blending the water to reduce the volume to be treated. If the blending strategy is a reliable option for the project lifetime (20 years), then the new treatment system could simply replace the existing one without additional building modifications. Otherwise, the project may include modifications to the building or installations outside and adjacent to the existing structure that houses the current treatment system.

Project Alternatives SKMWC, like many small water systems, has struggled to meet the arsenic rule. SKMWC had previously received funding for the existing arsenic treatment system to return to compliance.

Alternative 1: Continuing the Isolux system currently on-site. This option has proved to be untenable after the system experienced annual media replacement costs that were in excess of \$60,000 versus the initial estimates of \$6,323.85 (item 3, Appendix A).

Other Alternatives: In addition to Alternative 1, the rest of the alternatives

considered, along with a present worth cost analysis, is provided in Appendix B.

Maps Maps are attached to this report.

Timeline

Design: August-October 2021. 30-60 days is expected for Washoe County approval.

Construction Bid: November or December 2021 (depending on county review time and comments).

Construction Start: Between January and March 2022 (depending on county review time and comments).

Initiation of Operations: April/May 2022

Sources of Project Funding	DWSRF	Capital Improvement Grant	Local	*Total
	Planning			\$10,000
Design, inspection, and Construction Management	\$42,500			\$42,500
Land Acquisition				N/A
Equipment & Materials	\$320,562		\$4,263	\$324,825
Construction / Improvements	\$157,298			\$157,298
Administration			\$10,000	\$10,000
Financing				N/A
**Construction Contingency				N/A
Totals	\$520,360	N/A	\$24,263	\$544,623

*Based on revisions to cost estimates dated 7.6.2021; some market volatility of material costs is anticipated that may further impact these estimates

**15% contractor overhead and 20% project contingency included

System Previous Commitments, Studies, and Activities

February 2014

SKMWC was awarded a principal forgiveness loan (totaling \$336,500) to install an ISOLUX™ adsorptive media arsenic treatment system. The existing booster station building was expanded to accommodate the chemical feed system. The electrical system was also updated. ISOLUX™ utilizes a patented cartridge design, where the media is contained in individual cartridges that are replaced when the media is exhausted. There is no backwashing, no handling of bulk media, no contact with spent media, and no hazardous waste disposal.

The arsenic concentration in the untreated groundwater was low enough that the SKMWC would not need to treat 100% of their raw water. With the new pump installed in the Lower Well, and based on water quality sampling data, SKMWC would only need a 75-gpm treatment unit to meet the water quality standards for arsenic.

January 2015

SKMWC was awarded additional principal forgiveness funds from the February 2014 commitment (totaling \$500,000) to install an ISOLUX™ adsorptive media arsenic treatment system. Additional cost increases from the 2013 PER prepared by RCI, Inc. were attributed to:

- A change in design for the chemical storage facility due to NAC 445A.6685(2)
- The bidding climate with the improved economy
- Limited bidding competition
- Site location
- Federal prevailing wage requirements
- Fairly complicated improvements installed on a relatively confined site and building space

January 2015 to Present

- September 28, 2015
 - OFA completed a project completion walkthrough with RCI and SKMWC
- March 2016
 - Communication from RCI and SKMWC indicated the treatment system was operating correctly and meeting the arsenic MCL requirements.
- March 2016 to December 2019
 - SKMWC struggled to operate the system in its current design. Excessive costs of media replacement reportedly made the installed system nearly impossible to maintain and operate. Due to these costs, the treatment system was turned off and bottled water delivery resumed. OFA continued to work with SKMWC on the capital assets paid with principal forgiveness funding. Since the funding for SKMWC was 100% “grant” funds, EPA advised OFA that the assets should be managed the same way the State would manage other assets. OFA worked with State Purchasing to determine a course of action for the assets. Ultimately, State Purchasing determined that the capital assets would cost more to remove and auction than what could be recovered. Instead, the assets would be donated without recovery to the SRF fund.
 - During this period, NDEP had concerns with SKMWC’s technical, managerial, and financial capacity.
- January 2020 to present:
 - SKMWC began working with OFA to once again to establish capacity in their system. SKMWC sought funding to comply with the arsenic standard. SKMWC has been responsive to requests to develop an asset management plan, a capital replacement

reserve fund, sufficient rates, as well as additional technical assistance for a cross-connection control plan, an operating and maintenance plan, and a water conservation plan.

Environmental Review

NDEP has reviewed a 2013 environmental report. After a preliminary review, only minimal updates to this report are anticipated to complete an environmental review and make final determinations.

The project footprint and areas of potential effect (APEs) will be limited to the existing facility premises. The construction project logistics will not have any permanent indirect APEs; as such, Section 106 compliance is feasible.

Community Engagement

SKMWC has board meetings on the second Tuesday of each month that are open to shareholders (members of the HOA). SKMWC says SRF funding has been discussed extensively at these meetings for at least the last five years.

SKMWC management has also engaged the services of an engineering firm that is following-up on prior project outcomes and planning the currently proposed project.

System Information

System Location Washoe County, approximately 15 miles north of Reno (off Red Rock Road).

System Population 120

System Service Connections 63

System Infrastructure Please see Appendix C for pictures of SKMWC infrastructure.

- SKMWC owns two wells – the Lower Well (Well 02) with a 330 gallons per minute (gpm) capacity rating; and the Upper Well (Well 03) with a 170 gpm capacity rating. Currently, only Well 02 is in operation; Upper Well (Well 03) remains offline – necessitating the SKMWC to explore options for source redundancy. SKMWC plans to address this issue as a co-priority with the proposed project, or soon after the arsenic mitigation project would be completed.
- SKMWC has a 211,500-gallon capacity storage tank with associated pumping equipment.
- The distribution system serves the residential lots (total 64) and is unaffected by the proposed project.
- SKMWC’s existing arsenic treatment plant is still offline, as existing filtration equipment is too expensive to replace.

Compliance A sanitary survey was conducted by NDEP’s Bureau of Safe Drinking Water (BSDW) in October 2020. BSDW found that:

Deficiency #1 – Arsenic treatment plant is needed for arsenic compliance. The proposed project will address this deficiency.

Deficiency #2 – Well 3 (Upper Well) is not functioning, which prevents SKMWC from meeting community water system redundant capacity requirements. Efforts to establish a second water source are in progress.

Deficiency #3 – Upper Tank needs recoating soon. Storage tank upgrades are not pursued as part of this proposed project.

Deficiency #4 – Cleanup was needed around the storage tank. This has been resolved.

User Water Rates

- Residential base rate per user, per month: \$110.00 (0-35,000 gallons of water)

Commodity Rate:

Tier 1:	35,001-50,000	\$0.50 per/1000 gallons
Tier 2:	50,001-75,000	\$1.00 per/1000 gallons
Tier 3:	75,001-100,000	\$7.00 per/1000 gallons
Tier4:	100,001+	\$10.00 per/1000 gallons

- Average water rate/use for system: \$110.00 (7,787 gallons)

The water rates established in February 2018 sufficiently cover operation, maintenance, and debt service of the system. A water rate review is planned in 2021.

Current water rates were effective February 2018. Silver Knolls is planning a water rate review in 2021.

Loan Information

Water Conservation Plan

SKMWC does not have a water conservation plan approved by the Nevada Division of Water Resources. SKMWC controls water usage through its rate structure. Payments for water consumption over 35,000 gallons per month use an inverted block scale based on actual usage. Assistance to prepare a water conservation plan – at no charge to the PWS – could be made available through NDEP’s DWSRF set-aside funding support, if requested.

Water conservation plans must be updated every five years and comply with Nevada statutes.

Technical Capacity

In January 2021, SKMWC submitted a technical, managerial, and financial capacity (TMF) survey. No significant technical capacity deficiencies were noted on the survey.

A review of SKMWC’s most recent project will capacity required for SKMWC to undertake a SRF project. The proposed treatment technology is widely used in Nevada, and no critical factors are noted at this time that would

impact the system's ability to operate. SKMWC's PER for arsenic treatment has received a conditional approval from the Washoe Health District on April 27, 2021.

SKMWC has demonstrated technical capacity for NDEP to recommend funding support for the proposed arsenic treatment project.

Managerial Capacity SKMWC has a governing board that has been active in managing its system. They have contracted with a professional engineer to oversee the project. No significant managerial capacity deficiencies are noted on their survey. SKMWC has demonstrated managerial capacity for NDEP to recommend funding support.

Financial Capacity Based upon the financial information provided, SKMWC can meet its short-term and long-term financial needs.

Financial Information as of Dec. 31, 2019

Unrestricted cash: \$70,714
Days cash on hand: 406
Outstanding debt: \$25,553
Operating income before depreciation: \$58,396
Current ratio: 9.27
Debt coverage: 0.21

Fiscal Sustainability Plan SKMWC has an asset management plan in place.

Capital Replacement Reserve Account SKMWC has established a reserve account for capital replacement. The balance in the account, as of Dec. 31, 2019, was \$106,662.83.

DWSRF Principal Forgiveness Eligibility Criteria SKMWC is addressing a chronic health condition in the project; therefore, it's eligible to receive up to \$1,000,000 in principal forgiveness funding, if funds are available. The system is not considered disadvantaged.

Maps and Exhibits

General Area Map



SKMWC storage tank/storage facility (left) and the lower well (Well 02).

Appendix A

Table 1* – Estimated vs. Actual Annual O&M Costs, Isolux System

Item	O&M Cost Description	Estimated Total O&M Cost	Actual Total O&M Cost	Assumptions
1	Current O & M Budget	\$38,500.00	\$38,500.00 ¹	Total Salary, Service & Supplies Expenses from 2009-2012 (does not include debt service costs)
2	Estimated Power Required by Absorbative [sic] Media System	\$398.40	\$398.40 ¹	Est using hp power rating provided by manufacturer for hours of operation to treat 40% of flow. Assumes 3 HP pump.
3	Annual Media Replacement cost	\$6,323.85	\$66,999.21	Estimated based on pilot test information from manufacturer and assuming 40% of well flow treated annually. Replacement cost per media cylinder is \$235 FOB in New Jersey, there are 9 cylinders in a 75 gpm unit.
4	Chemical Costs	\$3,600.00	\$3,600.00	Assumes 55-gallon drum of CaCl ₂ to increase hardness to reduce fouling. Actual amount needed is unknown unless a pilot test is run on the system. Other chemicals may be necessary depending on the manufacturer.
5	Media Disposal Cost	\$500.00	\$6,000 ²	Disposal at Lockwood, or Shipping to Recovery Site.
Total Annual O&M Cost		\$10,822.25	\$76,997.61	
Present Worth of O&M (20 years @ 2.24%)		\$186,256.33	\$1,235,055.95	

*Adapted from "Table 5.3 – Absorbative [sic] Media System Alternative", Appendix B, RCI PER, 2013.

¹Actual cost greater than estimated cost, but not calculated.

²Actual cost assumed to be 10 times estimated cost.

Item 1 – Current O&M Budget: This item represents the general O&M cost for the Water Company as a whole and, therefore, was assumed to be the same for all alternatives. However, as discussed in Item 3, below, the labor requirements for managing the filter media with the Isolux system would actually be on the order of 10 times that required for the other alternatives. With Silver Knolls using part-time labor for their O&M, this would be a very real cost, and not one that could be absorbed into a regular work schedule. The additional (actual) labor cost was not calculated for the purposes of this Tech Memo.

Item 2 – Estimated Power Required by Absorbative [sic] Media System: The frequent fouling of the Isolux system means that the system was frequently operating at higher than normal pressures, and therefore using more power than was originally estimated. The additional (actual) power cost was not calculated for the purposes of this Tech Memo.

Item 3 – Annual Media Replacement Cost: As the table shows, RCI estimated the annual media replacement costs to be \$6323.85 in the 2013 PER; however, during the four-month period between July and October of 2016 alone, Silver Knolls incurred expenses for media replacement of \$22,333.07. Annualized, the actual media replacement costs would be \$66,999.21, more than ten times the cost estimated in the 2013 PER. This order of magnitude increase in the media replacement cost had a ripple effect in terms of labor (Item 1), power (Item 2), and media

disposal (Item 5). Copies of invoices showing the actual media replacement costs are included in Appendix A.

Item 4 – Chemical Costs: It is not clear if chemical costs were impacted by the problems with the Isolux system.

Item 5 – Media Disposal Cost: Since the actual media replacement costs were found to be more than 10 times the estimated replacement costs, the actual media disposal costs were also assumed to be more than 10 times the estimated disposal costs.

Appendix B

Alternative Cost Analysis – Present Worth Cost comparison:

Table 2 - Present Worth Cost Analysis*

Alternative	Construction Costs (\$)	Non-Construction Costs (\$)	Present Worth of O&M (\$) (20 years @ 2.2%)	Total Cost (\$)
No Action	\$ -	\$ -	\$ -	\$ -
Direct Feed to Silver Knolls Park	\$178,680.26	\$87,610.52	\$(39,186.24)	\$227,104.54
Adsorption Media Alternative (Isolux) - ESTIMATED	\$259,120.17	\$118,025.75	\$186,256.33	\$563,402.25
Adsorption Media Alternative (Isolux) - ACTUAL	\$259,120.17	\$118,025.75	\$1,235,055.95	\$1,612,201.87
Reverse Osmosis Alternative	\$450,643.78	\$135,729.61	\$193,959.92	\$780,333.31
Micro-Filtration Alternative	\$450,643.78	\$135,729.61	\$205,387.17	\$791,760.56
Pipeline Intertie Alternative	\$1,346,298.28	\$233,624.46	\$76,233.22	\$1,656,155.96
Adsorption Media Bayoxide E-33	\$301,642.00	\$141,771.00	\$309,147.84	\$752,560.84

*Adapted from “Table 6-1: Present Worth Cost Analysis”, Linkan Engineering PER, 2018.

Table 3 Updated Costs of Recommended Alternative for 2021

Alternative	Construction Costs (\$)	Non-Construction Costs (\$)	Present Worth of O&M (\$) (20 years @ 2.2%)	Total Cost (\$)
Adsorption Media Bayoxide E-33	\$321,991.57	\$151,335.25	\$309,147.84	\$782,474.66

Since the evaluation by Linkan was performed in 2018, the Nevada Office of Financial Assistance has requested that the capital cost be updated to costs reflected in 2021. Table 3 shows the updated construction and non-construction costs of the recommended alternative. These costs have been increased by 2.2% per year to reflect inflation from 2018 to 2021.

Appendix C

Pictures of the existing infrastructure features



DWSRF Authority and Purpose

The 1996 amendments to the Safe Drinking Water Act (SDWA) authorized the DWSRF. The DWSRF is a national program to assist public water systems in financing the cost of drinking water infrastructure projects needed to achieve or maintain compliance with the SDWA and to further the public health objectives of the SDWA. The SDWA authorizes the U.S. Environmental Protection Agency (EPA) to award capitalization grants to states that have established DWSRF programs. The Nevada Legislature passed legislation that authorizes NDEP to administer the DWSRF under the Nevada Revised Statutes (NRS) 445A.200 to 445A.295, inclusive. In addition to the authorizing statute, Nevada has adopted Nevada Administrative Code (NAC) 445A.6751 to 445A.67644, inclusive, which describes the program requirements. Federal regulations for implementing the DWSRF are found in 40 CFR, part 35. Other program directives include the Operating Agreement between NDEP and EPA, the annual Intended Use Plan, EPA guidance and policies, and conditions of each grant award.

One of the requirements of the NRS pertaining to the DWSRF is that NDEP 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(3)).

DWSRF Loan Conditions

The principal forgiveness loan will contain the following conditions:

- Review user rates at least every three (3) years for the life of the loan.
- Maintain a fiscal sustainability plan that is reviewed by the governing board at least every five (5) years.
- Maintain a capital replacement reserve account that is funded at least annually and re-evaluated every five (5) years.

RECOMMENDED MOTION FOR THE DWSRF LOAN

I move to approve the resolution titled “D10-2021 Silver Knolls Mutual Water Company Project Loan Commitment,” which is intended to finance certain projects in an amount not to exceed \$520,360. Since the project is eligible for additional subsidy as specified in Nevada’s Intended Use Plan, 100 percent of the principal will be forgiven.

RESOLUTION D10-2021

Silver Knolls Mutual Water Company Project Loan Commitment

- WHEREAS:** The Board for Financing Water Projects (Board) of the State of Nevada is authorized by Nevada Revised Statutes (NRS) chapter 445A.265 to approve the Nevada Division of Environmental Protection (NDEP) prioritized lists of water projects and to commit loans from the revolving fund account to help community water systems and non-transient water systems pay for capital improvements and debt refinancing, both of which are required and made necessary under NRS 445A.800 to 445A.955, inclusive, by the Safe Drinking Water Act (42 U.S.C. §§ 300f *et seq.*), and by corresponding regulations; and
- WHEREAS:** NDEP has the responsibility of administering the Drinking Water State Revolving Fund program; and
- WHEREAS:** On July 27, 2021, the Board, under NRS 445A.265(3), approved the Priority List Effective July 2021, which ranks water projects that are eligible for loans from the Drinking Water State Revolving Fund account; and
- WHEREAS:** Silver Knolls Mutual Water Company (Recipient) owns and operates a private community water system in Nevada; and
- WHEREAS:** The Recipient submitted a pre-application to NDEP to install an arsenic treatment system (Project); and
- WHEREAS:** The Project is included as project #12 on the Priority List Effective July 2021 of water projects; and
- WHEREAS:** The Recipient's Project is ready to proceed; and
- WHEREAS:** In connection with seeking a loan, the Recipient has submitted a written application to NDEP consistent with NAC 445A.67613; and
- WHEREAS:** NDEP has reviewed the application — including supporting materials — and has determined that the Recipient has the technical, managerial, and financial capability to manage a loan for the Project; and
- WHEREAS:** NDEP has taken all necessary and proper actions as required by regulations on loan applications adopted by the State Environmental Commission (NAC 445A.6751 to 445A.67644, inclusive); and
- WHEREAS:** The Board must give prior approval before NDEP may expend any money from the revolving fund account for the purposes set forth in NRS 445A.275;

IT IS RESOLVED by the Board for Financing Water Projects of the State of Nevada:

Section 1: This resolution shall be known as the “D10-2021 Silver Knolls Mutual Water Company Project Loan Commitment”

Section 2: The terms and conditions of the loan for the Project shall be negotiated between the Recipient and NDEP. These terms will include 100% principal forgiveness.

Section 3: Based on NDEP’s review of the application and recommendation to the Board concerning the Project, and subject to the provisions of Section 2 and 4 of this resolution, the Board approves a commitment of funds in the amount not to exceed \$520,360 from the revolving fund account consistent with NRS 445A.265(3).

Section 4: The Board further recommends that NDEP take all other necessary and appropriate actions to advance the provisions of this resolution consistent with NRS 445A.200 to 445A.295, inclusive, and with corresponding regulations.

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

PASSED, ADOPTED, AND SIGNED July 27, 2021

Signed: _____

Chair
Board for Financing Water Projects

Attest: _____

Advisor
Board for Financing Water Projects