

Spanish Valley Water & Sewer Improvement District

Financial Projection and Rate Recommendations

January 18, 2024

Introduction

Spanish Valley Water & Sewer Improvement District (SVWSID), located in the desert of Southeastern Utah, is an enterprise underneath the Grand Water & Sewer Service Agency (GWSSA), an agency that provides wastewater and irrigation in addition to drinking water. Currently, SVWSID is experiencing high levels of growth due in part to the popularity of the outdoor recreation opportunities found in Grand and San Juan Counties. Due to recent growth, increasing operating costs, and the need to repay existing loans, it was determined that a rate study should be conducted.

This financial projection and rate study should help the SVWSID fine-tuning their estimated expenses, developing rate structure recommendations that will fill revenue gaps, and projecting revenues accurately. The overall objective is that the SVWSID remains financially sustainable with revenues projected to cover balances, and to inform the SVWSID and supporting stakeholders of realistic financial scenarios for the current system and required upgrades.

Methodology

This study is guided by the following three principles: Sustainability, Fairness, and Justifiability. Rates should cover the costs of the system, allowing it to provide services now, and in the foreseeable future. The staff & board should stay aware of the changes to existing laws, community growth and demand which will require more water or further system development, and therefore keep their capital replacement plan up to date. Rates should be fair to all rate payers. No single rate payer or group of rate payers should be singled out for different rates without logic & justification. SVWSID should not charge more for services than the cost to provide the service and save appropriately for future expenses, nor should customers be charged more for the water service than the reasonable cost to provide that service now and into the future. Unreasonably low rates for current customers will require unreasonably high rates for future customers, which should be avoided.

The following assumptions were made for these financial projections based on information provided by SVWSID staff.

- Conservation factor of 1% in Year 1 of increased rates, 2.5% in Year 2, 1.5% in year 3, 1% in year 4, and decreasing to 0% by year 5, assuming customers will conserve more water when faced with suddenly increased water rates but then return to historic water use over time.
- A conservative growth factor of 2% over the next 5 years based on expected development.
- An inflation factor of 4%.
- 1% uncollectable revenue based on past unpaid bills among the customer base

This study, made available at no charge to SVWSID, has been supported under a grant by the USDA.

Disclaimer: The recommendations contained in this study are based on financial information provided to RCAC by the system. Although every effort was made to assure the reliability of this information, no warranty is expressed or implied as to the correctness, accuracy or completeness of the information contained herein. Any opinions, findings, and conclusions or recommendations expressed in this material are solely the responsibility of the authors and do not necessarily represent the official views of the EPA, USDA Rural Utilities Service. For accounting advice, a CPA should be consulted. For legal advice, the Town should seek the advice of their attorney.

Budget

To develop a realistic budget, 3 years of past budgets were summarized, and future projections developed using historical budget information and estimated adjustments for inflation and expected operations changes coming in future years. The budget for 2021-2028 is shown below.

EXPENSES AND SOURCES OF FUNDS	2021	2022	2023	% Belonging to Water	2024	2025	2026	2027	2028
OPERATIONS & MAINTENANCE EXPENSES									
Salaries	513,215	504,100	625,000	65%	564,750	592,988	622,637	653,769	786,457
Employee Benefits	245,865	252,850	310,000	65%	209,560	220,038	231,040	242,592	254,721
Software, Subscriptions & Memberships	48,140	50,200	55,000	60%	34,320	36,036	37,838	39,730	41,716
Education/Donations		22,800	14,000	60%	8,736	9,173	9,631	10,113	10,619
Public Notices	723	561	800	50%	416	437	459	482	506
Travel & Training	4,947	6,000	10,000	60%	6,240	6,552	6,880	7,224	7,585
Billing Expense	32,848	37,100	35,000	49%	17,836	18,728	19,664	20,647	21,680
Rents/Leases	16,085	21,487	25,000	60%	20,400	21,420	22,491	23,616	24,796
Will Serve Expense	7,347	7,154	5,000	50%	2,600	2,730	2,867	3,010	3,160
Professional Services	41,326	61,500	127,680	60%	79,672	83,656	87,839	92,231	96,842
Insurance & Bonds	39,275	52,450	52,000	60%	32,448	34,070	35,774	37,563	39,441
Election Costs - SVWSID	0	0	0	50%	0	0	0	0	0
Shop & Safety Expense	13,212	19,000	19,000	60%	11,856	12,449	13,071	13,725	14,411
Pump Cost Culinary	102,800	102,000	100,000	100%	104,000	109,200	114,660	120,393	126,413
O&M Office	23,555	19,400	22,000	60%	13,728	14,414	15,135	15,892	16,686
O&M Water	106,727	140,000	125,000	100%	130,000	136,500	143,325	150,491	158,016
O&M Wells -Culinary	1,352	1,194	3,000	100%	3,120	3,276	3,440	3,612	3,792
O&M Vehicle	37,798	29,000	39,000	60%	24,336	25,553	26,830	28,172	29,581
O&M Buildings & Grounds	12,044	9,200	4,500	60%	2,808	2,948	3,096	3,251	3,413
Water Rights Expense	757	150	300	100%	312	328	344	361	379
IT Professional Services	0	0	14,400	60%	8,986	9,435	9,907	10,402	10,922
Total Operation and Maintenance Expenses:	866,999	932,020	1,085,648		1,276,124	1,339,930	1,406,927	1,477,273	1,651,137
GENERAL & ADMINISTRATIVE EXPENSES									
Operating Reserve Funding					3,735	3,735	3,735	3,735	3,735
Emergency Reserve Funding					10,000	10,000	10,000	0	0
Debt Reserve Funding					6,624	6,624	6,624	6,624	6,624
Replacement of Existing Capital Assets					231,362	231,362	209,595	191,522	191,522
Replacement of Funded Project Assets					0	0	0	0	0
Reserves for Additional Capital Assets					30,000	0	0	0	0
Debt Service					196,032	199,405	205,611	214,390	214,390
Contingency Fund - Water 1161	90,000	0	0	100%	0	0	0	0	0
Capital Improvements building Fund	0	0	0	65%	0	0	0	0	0
Fleet Replacement Fund (in CIP, removed here)				60%	0	0	0	0	0
Water Line Connections	41,613.71	39,163.00	30,000.00	100%	31,200	32,448	33,746	35,096	36,500
Impact Fee Reserve - Water (SVW&SID)	239,681.44	452,874.00	325,500.00	100%	338,520	352,061	366,143	380,789	396,021
Capital Improvements (\$247,000 *40% in budget)	46,069	55,800	0	40%	0	0	0	0	0
Interconnection with City - (Moved to CIP, removed here)	0	0	0	100%	0	0	0	0	0
Revenue Trans To SVWSID	150,000	150,000	150,000	100%	156,000	162,240	168,730	175,479	182,498
* - Impact Fees For Loan Participation	700,073	283,342	580,261	0%	0	0	0	0	0
*. Short lived asset reserve/bond res.	106,050	106,050	106,050	0%	0	0	0	0	0
Miscellaneous Expenses	17,510	1,712	1,500	33%	515	535	557	579	602
				100%	0	0	0	0	0
Total General and Administrative Expenses:	545,501	664,922	505,995		1,003,988	998,411	1,004,741	1,008,214	1,031,891

Orange cells represent likely projected changes deviating from past years, which are summarized below:

- Salary and benefits currently offered to water operators by SVWSID have failed to attract qualified candidates. Starting in 2024 budgeted salaries are increased by 10% to aid in recruitment and retention. There is an additional staff salary in 2024 and in 2028.
- Addition of IT Professional Services not previously utilized but necessary going forward for the security of the system.
- Increased operating costs necessitate increasing the amount in the operating reserve to meet the requirement of 1.5 billing cycles. Target operating reserve to be funded in 5 years.
- Increase the emergency fund to reflect the current cost of the most critical piece of equipment. Target emergency reserve to be funded in 3 years.
- The completed RD Phase II project requires the system to have one annual loan payment in reserves but allows a ten-year make-up period. SVWSID has been saving toward this reserve requirement and should continue contributing \$6,624 for the remaining 7 years of the makeup period.
- A comprehensive Capital Replacement Plan was completed with help from SVWSID staff to assist in determining the appropriate funds to replace existing capital assets.
- Reserves for additional capital assets for a fill station that SVWSID plans to construct in 2024.

Scenario 1: Existing

Base Rates by Customer Class						
Meter Size	Residential	San Juan Residential	2 on 1	3 on 1	Residential + ADU	Commercial /MDU
0.625	\$21.75	\$22.75	\$43.50	\$62.25	\$32.00	\$26.75
0.750	\$21.75	\$22.75	\$43.50	\$62.25	\$32.00	
1.000	\$21.75	\$22.75	\$43.50	\$62.25	\$32.00	\$67.00
1.500	\$21.75	\$22.75	\$43.50	\$62.25	\$32.00	\$133.75
2.000	\$21.75	\$22.75	\$43.50	\$62.25	\$32.00	\$214.00
3.000	\$21.75	\$22.75	\$43.50	\$62.25	\$32.00	\$428.00
4.000	\$21.75	\$22.75	\$43.50	\$62.25	\$32.00	\$669.00

Tier Structure by Customer Class								
Tier	Per 1,000 gallons	Residential/ San Juan/ Comm.625"	2 on 1	3 on 1	Residential + ADU	Comm/ MDU 1"	Comm/ MDU 1.5"	Comm/ MDU 2", 3", 4"
1	\$0.60	6,000	12,000	18,000	10,000	10,000	20,000	30,000
2	\$1.40	10,000	20,000	30,000	14,000	20,000	40,000	60,000
3	\$1.80	20,000	40,000	60,000	24,000			
4	\$2.20	30,000	60,000	90,000	34,000			
5	\$2.75	50,000	100,000	150,000	54,000			
6	\$5.00	>50,000	>100,000	>150,000	>54,000	>20,000	>40,000	>60,000

According to meter data from 2022, the average monthly 5/8" residential bill was \$37.12.

Under this structure, the 5-year financial projection is as follows:

Results of the new rates	2024	2025	2026	2027	2028	5 Years
TOTAL EXPENSES	\$2,283,754	\$2,341,983	\$2,415,232	\$2,489,050	\$2,686,591	\$12,216,611
TOTAL REVENUE	\$2,014,742	\$2,054,282	\$2,119,083	\$2,183,794	\$2,245,449	\$10,617,351
NET LOSS OR GAIN: (Short/Over to Reserves)	-\$269,012	-\$287,701	-\$296,149	-\$305,256	-\$441,142	-\$1,599,260
NET CASH FLOW (Contribution to Reserves)	\$16,352	-\$32,338	-\$62,631	-\$100,119	-\$236,005	-\$414,741
Affordability assuming MHI of \$52431 for residential meters.	0.61%	0.61%	0.61%	0.62%	0.62%	
Are you putting enough money in reserves?	No	No	No	No	No	
Positive Annual Cash Flow?	Yes	No	No	No	No	

Scenario 2

This scenario was developed based on SVWSID recommendation to promote increased water conservation.

- 8% base rate increase for all customer classes in 2024 only.
- Tiers 1-3 have a 25% increase above current rate in 2024 with no additional increase.
- Tiers 4-6 have a staggered increase over 2024-2026 of 35%, 45%, and 60% percent over the current rate.
- No usage tier structure changes.
- Increase the hydrant usage rate from \$10.00/1,000 gallons to \$12.50/1,000 gallons

Base Rates by Customer Class						
Meter Size	Residential	San Juan Residential	2 on 1	3 on 1	Residential + ADU	Commercial /MDU
0.625	\$23.50	\$24.60	\$47.00	\$67.25	\$34.60	\$28.90
0.750	\$23.50	\$24.60	\$47.00	\$67.25	\$34.60	
1.000	\$23.50	\$24.60	\$47.00	\$67.25	\$34.60	\$72.40
1.500	\$23.50	\$24.60	\$47.00	\$67.25	\$34.60	\$144.45
2.000	\$23.50	\$24.60	\$47.00	\$67.25	\$34.60	\$231.15
3.000	\$23.50	\$24.60	\$47.00	\$67.25	\$34.60	\$462.25
4.000	\$23.50	\$24.60	\$47.00	\$67.25	\$34.60	\$722.25

Tier	Per 1,000 gallons	Residential/ San Juan/ Comm. 625"	2 on 1	3 on 1	Residential + ADU	Comm/ MDU 1"	Comm/ MDU 1.5"	Comm/ MDU 2", 3", 4"
1	\$0.75	6,000	12,000	18,000	10,000	10,000	20,000	30,000
2	\$1.75	10,000	20,000	30,000	14,000	20,000	40,000	60,000
3	\$2.25	20,000	40,000	60,000	24,000			
4	\$3.00 (2024) \$3.20 (2025) \$3.50 (2026)	30,000	60,000	90,000	34,000			
5	\$3.70 (2024) \$4.00 (2025) \$4.40 (2026)	50,000	100,000	150,000	54,000			
6	\$6.75 (2024) \$7.25 (2025) \$8.00 (2026)	>50,000	>100,000	>150,000	>54,000	>20,000	>40,000	>60,000

The average monthly residential bill expected is shown in the following table, after adjusting for the base + tier increases and assumed growth and conservation factors.

Average Monthly 5/8" Residential Bill, 2024-2028

Current	2024	2025	2026	2027	2028
\$37.12	\$43.84	\$44.00	\$44.96	\$45.77	\$46.76

Under this structure, the 5-year financial projection is as follows:

Results of the new rates	2024	2025	2026	2027	2028	5 Years
TOTAL EXPENSES	\$2,283,754	\$2,341,983	\$2,415,232	\$2,489,050	\$2,686,591	\$12,216,611
TOTAL REVENUE	\$2,265,337	\$2,346,587	\$2,484,552	\$2,560,971	\$2,636,846	\$12,294,294
NET LOSS OR GAIN: (Short/Over to Reserves)	-\$18,417	\$4,604	\$69,320	\$71,921	-\$49,745	\$77,683
NET CASH FLOW (Contribution to Reserves)	\$266,946	\$259,968	\$302,838	\$277,058	\$155,392	\$1,262,202
Affordability assuming MHI of \$52431 for residential meters.	0.68%	0.68%	0.69%	0.69%	0.70%	
Are you putting enough money in reserves?	No	Yes	Yes	Yes	No	
Positive Annual Cash Flow?	Yes	Yes	Yes	Yes	Yes	

Scenario 3

This scenario was developed with a higher theoretical base rate, the base rate would cover ~49% of fixed costs. Revenue collected through the base rate pays for the water system not the water. A theoretical base rate of 100% would cover fixed costs allowing the system to operate even if there was no usage.

- The base rate is ~49% of the theoretical base rate.
- Maintain current customer class relationship.
- No usage tier changes or cost increases.
- Increase the hydrant usage rate from \$10.00/1,000 gallons to \$12.50/1,000 gallons

Base Rates by Customer Class						
Meter Size	Residential	San Juan Residential	2 on 1	3 on 1	Residential + ADU	Commercial /MDU
0.625	\$33.00	\$34.00	\$66.05	\$99.05	\$48.55	\$38.00
0.750	\$33.00	\$34.00	\$66.05	\$99.05	\$48.55	
1.000	\$33.00	\$34.00	\$66.05	\$99.05	\$48.55	\$82.55
1.500	\$33.00	\$34.00	\$66.05	\$99.05	\$48.55	\$165.10
2.000	\$33.00	\$34.00	\$66.05	\$99.05	\$48.55	\$265.15
3.000	\$33.00	\$34.00	\$66.05	\$99.05	\$48.55	\$528.25
4.000	\$33.00	\$34.00	\$66.05	\$99.05	\$48.55	\$825.40

Tier Structure by Customer Class	

Tier	Per 1,000 gallons	Residential/ San Juan/ Comm. 625"	2 on 1	3 on 1	Residential + ADU	Comm/ MDU 1"	Comm/ MDU 1.5"	Comm/ MDU 2", 3", 4"
1	\$0.60	6,000	12,000	18,000	10,000	10,000	20,000	30,000
2	\$1.40	10,000	20,000	30,000	14,000	20,000	40,000	60,000
3	\$1.80	20,000	40,000	60,000	24,000			
4	\$2.20	30,000	60,000	90,000	34,000			
5	\$2.75	50,000	100,000	150,000	54,000			
6	\$5.00	>50,000	>100,000	>150,000	>54,000	>20,000	>40,000	>60,000

The average monthly residential bill expected is shown in the following table, after adjusting only the base rate and assumed growth and conservation factors.

Average Monthly 5/8" Residential Bill, 2024-2028

Current	2024	2025	2026	2027	2028
\$37.12	\$48.61	\$48.73	\$49.45	\$50.06	\$50.80

Under this structure, the 5-year financial projection is as follows:

Results of the new rates	2024	2025	2026	2027	2028	5 Years
TOTAL EXPENSES	\$2,283,754	\$2,341,983	\$2,415,232	\$2,489,050	\$2,686,591	\$12,216,611
TOTAL REVENUE	\$2,341,587	\$2,381,137	\$2,446,000	\$2,510,763	\$2,572,480	\$12,251,967
NET LOSS OR GAIN: (Short/Over to Reserves)	\$57,833	\$39,154	\$30,768	\$21,713	-\$114,111	\$35,356
NET CASH FLOW (Contribution to Reserves)	\$343,196	\$294,517	\$264,286	\$226,849	\$91,026	\$1,219,875
Affordability assuming MHI of \$52431 for residential meters.	0.86%	0.86%	0.87%	0.87%	0.88%	
Are you putting enough money in reserves?	Yes	Yes	Yes	Yes	No	
Positive Annual Cash Flow?	Yes	Yes	Yes	Yes	Yes	

Conclusion

At the time of this report, GWSSA has been very proactive in remaining financially sustainable and planning for future asset replacement. The system has expressed that water conservation is a high priority. Scenario 2 has higher usage increases on the higher tiers to encourage conservation, the increases are staggered to allow customers to adjust and conserve. Customers who conserve will be able to maintain a lower monthly bill. Scenario 3 has a higher theoretical base rate to ensure fixed costs are covered if water usage declines. Both scenarios result in a surplus, the system should determine if there are any reasons that water usage could steeply decline.