CAPITAL RESERVE ANALYSTS

Arizona | Nevada | Texas | Utah | New Mexico

CAPITAL RESERVE STUDY

prepared for:

Sierra Verde Ranch POA

Date of report:

5/22/2017

FOREWARD

5/22/2017

Sierra Verde Ranch POA

Regarding Fiscal Year beginning: 1/1/2017

We are pleased to submit this Reserve Study. This report is a budgeting tool designed to help you navigate the uncertain future. It contains financial projections to help you understand your future reserve expenses. This report will help you answer the

Do we have enough money in Reserves to maintain our assets now and in the future?
How much money should we have in Reserves?
Is our level of budgeted reserve contributions adequate?

If you have questions about this Reserve Study, please contact us. We look forward to doing business with you in the future.

Thank you,

Capital Reserve Analysts,

Prepared by:

Casey Arnett

Casey Arnett

TABLE OF CONTENTS

1. REPORT GUIDE

Our analysis and recommendations are divided into five easy-to-understand sections

EXECUTIVE SUMMARY

Provides an overview of the Association's current physical condition and financial situation, outlining significant findings and conclusions. This section of the report should be used as a quick reference in helping the reader to understand the parameters and results of the study.

SHORT-TERM NEEDS AND SPECIAL ISSUES

Highlights and prioritizes near-term reserve needs into an easy-to-understand income/expense statement. This section should be used during the annual budget process to ensure a balanced budget and prepare for long-term success.

RESERVE FUNDING OBJECTIVES AND RECOMMENDATIONS

Examines projected reserve expenses and outlines our recommended funding plan compared with Baseline and Threshold alternatives. This section includes detailed tables outlining projected expenses, funding requirements and reserve balance calculations

PURPOSE AND METHODOLOGY

Details the framework, methods, and materials used in developing the reserve study and the associated funding plan. This section provides a comprehensive understanding of the methodology and the process taken to develop the report.

DATA TABLES, DISCLOSURES AND PHYSICAL ASSESSMENTS

Examines report finding and results with projections for individual reserve components expenses and recommended funding. This section includes detailed tables outlining projected expenses, funding requirements and reserve balance calculations. Provides in-depth, detailed condition assessments along with maintenance recommendations.

2. EXECUTIVE SUMMARY

Sierra Verde Ranch Property Owners Association is responsible to maintain and improve the roadways, along with gates, fences, and culverts involving such roadways and any common areas and water wells so designated to the Association.

2.1 PROJECT OVERVIEW			
Association Name:	**Sierra Verde Ranch POA**		
Location:	**Seligman, Arizona**		
Year Constructed: (Avg. For Budget Purposes)	**1996**		
Project Description:	**Property Owners Association**		
Type of Analysis:	**Level I**		
Funding Strategy	**Full Funding with a 100% Goal**		
Number of Voting Units:	**1,850**		
Date Prepared:	**5/22/2017**		
2.2 FINANCIAL ASSUMPTIONS			
Fiscal Yr. Start:	**1/1/2017**		
Fiscal Yr. End:	**12/31/2017**		
Inflation Rate: (30-YR Average)	**2.92%**		
Interest Rate: (30-YR Average)	**2.50%**		
2.3 RESERVE FUND STATUS			
Beginning Reserve Balance:	**$100,000**		
100% Funded:	**$425,672**		
Percent Funded:	**23%**		
Reserve Fund Strength:	**Weak**		
2.4 FUNDING RECOMMENDATIONS			
Recommended Annual Contributions:	**$75,600**		
Annual Increase:	**5%**	**5**	Number of Years
Annual Increase:	**3%**	**25**	Number of Years
Special Assessment:	**$280,000**		Year 1
Special Assessment:	**$0**		Year 2
Special Assessment:	**$0**		Year 3
Special Assessment:	**$0**		Year 4
Special Assessment:	**$0**		Year 5

3. SHORT-TERM NEEDS

3.1 RESERVE FUND STRENGTH

Reserve Strength is measured as a percentage. Typically, associations with a percent funded level of 70% and above have low risk for special assessments. Associations with a percent funded level of 30% and below have a high risk of special assessments and deferred maintenance. The chart below illustrates current Reserve Fund Strength.

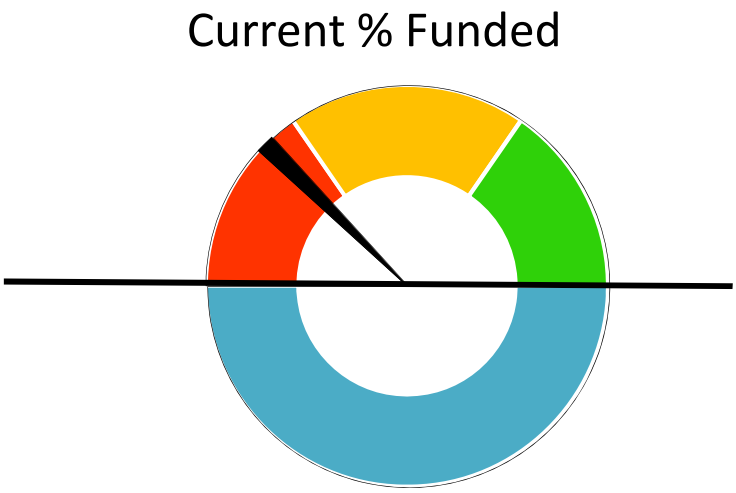
Current Reserve Fund Percentage is **23%** this is considered a Weak financial position

0% - 30%
WEAK

30% - 70%
FAIR

70% - 100%
STRONG

105% +
SURPLUS



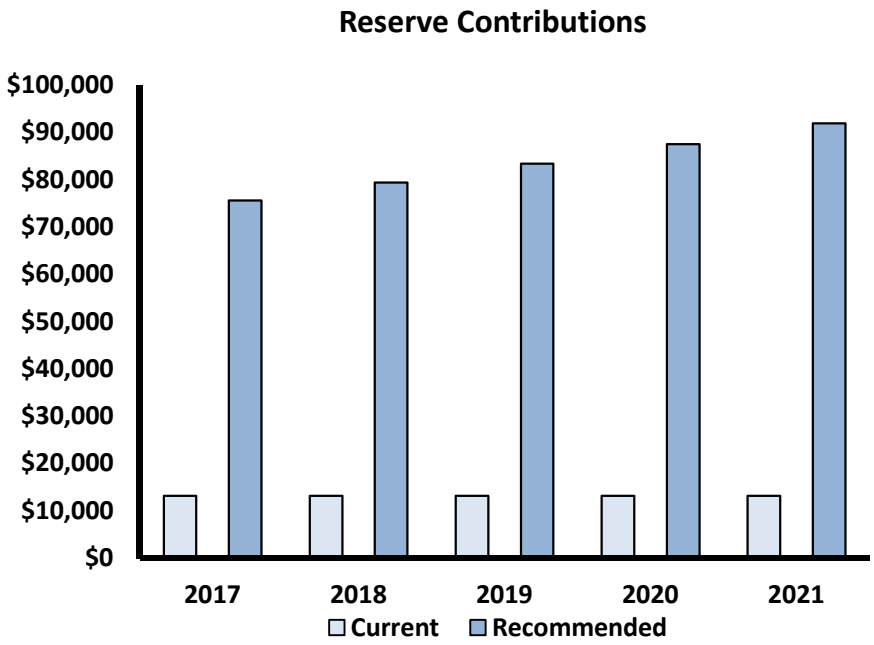
SPECIAL ASSESSMENT/DEFERRED MAINTENANCE RISK MATRIX

This table can help you understand risk levels associated with your percent funded status and community age.

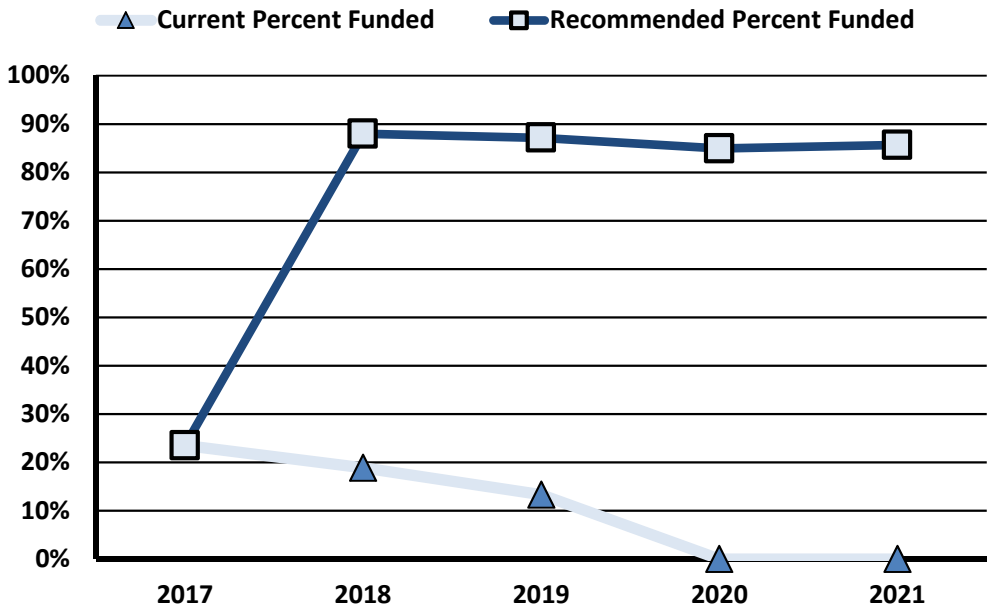
% FUNDED	YEARS SINCE CONSTRUCTION						
	5	10	15	20	25	30	35
0-10	53.00%	54.00%	55.00%	56.00%	57.00%	58.00%	59.00%
15-25	39.00%	40.00%	41.00%	42.00%	43.00%	44.00%	45.00%
30-40	17.00%	17.10%	17.20%	17.30%	17.40%	17.50%	17.60%
45-55	10.00%	10.10%	10.20%	10.30%	10.40%	10.50%	10.60%
60-70	3.00%	3.10%	3.20%	3.30%	3.40%	3.50%	3.60%
75-85	2.50%	3.50%	4.50%	5.50%	6.50%	7.50%	8.50%
90-100	1.00%	1.01%	1.02%	1.03%	1.04%	1.05%	1.06%
105-115	5.00%	5.00%	5.00%	5.00%	5.00%	5.01%	5.01%

3.2 FIVE YEAR FUNDING COMPARISON

The graph below shows a comparison between the current levels of annual reserve contributions as measured against our recommended level of reserve contributions with a Full Funding approach.



The graph below shows the reserve fund strength (fund percentage) over time with the current Funding Plan compared to our Recommended Funding Plan.



3.3 SPECIFIC RECOMMENDATIONS

Five Year Recommended Funding Plan

FISCAL YEAR	2017	2018	2019	2020	2018
Starting Reserve Balance	$100,000	$438,278	$488,765	$461,272	$545,722
Recommended Contribs.	$75,600	$79,380	$83,349	$87,516	$91,892
Special Assessment	$280,000	$0	$0	$0	$0
Interest Earnings	$2,678	$4,612	$4,727	$5,010	$5,709
Total Income	$458,278	$522,270	$576,841	$553,799	$643,323
Total Expenses	$20,000	$33,505	$115,569	$8,077	$41,600
Ending Reserve Balance:	$438,278	$488,765	$461,272	$545,722	$601,723

The table above shows our five year forecast based on a funding goal of 100%. The table below calculates the current budget Deficit/Surplus.

The figure below can be used to understand the impact of increasing/decreasing reserve contributions will have on a per unit basis.

		Per Unit
Current Reserve Contributions per month	$1,100	$0.59
Recommended Reserve Contributions per month	$6,300	$3.41
Current Deficit/Surplus	-$5,200	**-$2.81**
Recommended Special Assessment YR 1	$280,000	$151
Recommended Special Assessment YR 2	$0	$0

4. FUNDING OBJECTIVES AND OPTIONS

4.1 FUNDING ALTERNATIVES

Funding Alternatives fall under these three categories/methods according to the Community Associations Institute's National Reserve Study Standards.

Full Funding

- Maintains the Reserve Fund at a level equal to the physical deterioration that has occurred is called “Full Funding” (100% Funded). As each asset ages and becomes “used up”, the Reserve Fund grows proportionally. We have utilized the Full Funding approach for this Replacement Reserve Study.

Threshold Funding

- Is the title of all other objectives randomly selected between Baseline Funding and Full Funding.

Baseline Funding

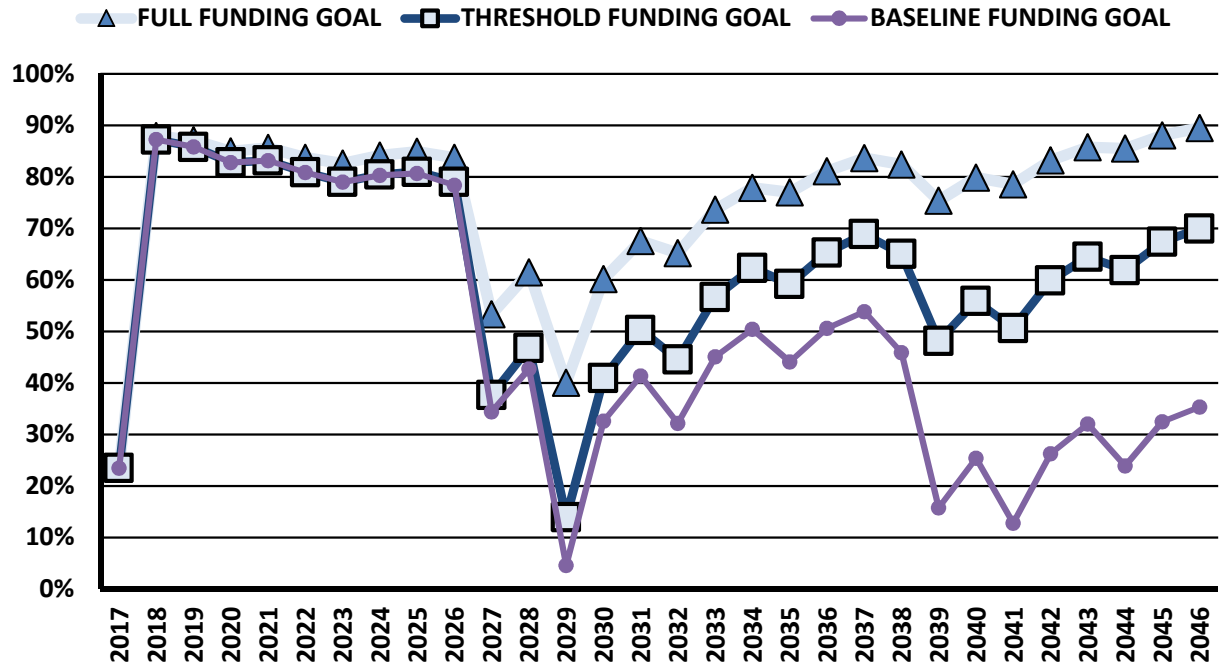
- Allows the Reserves to fall close to zero, but not below zero. In these instances, deterioration occurs without matching Reserve contributions. With a low Percent Funded, emergency funding and deferred maintenance are common.

The level of risk (probability of a budget deficit) is different with each plan. The need for Special Assessments or Emergency Capital are greatest with a "Baseline" approach and smallest with a "Full Funding" approach. In order to ensure funds are available when needed and contributions are evenly distributed, we recommend implementing a "Full Funding" objective.

	Reserve Contributions	Min Reserve Balance	Total Contributions	Average Percent Funded Level
Full Funding	**$75,600**	**$95,317**	**$4,417,601**	**76%**
Threshold Funding	**$72,000**	**$33,141**	**$4,220,572**	**62%**
Baseline Funding	**$72,000**	**$10,955**	**$3,771,941**	**47%**

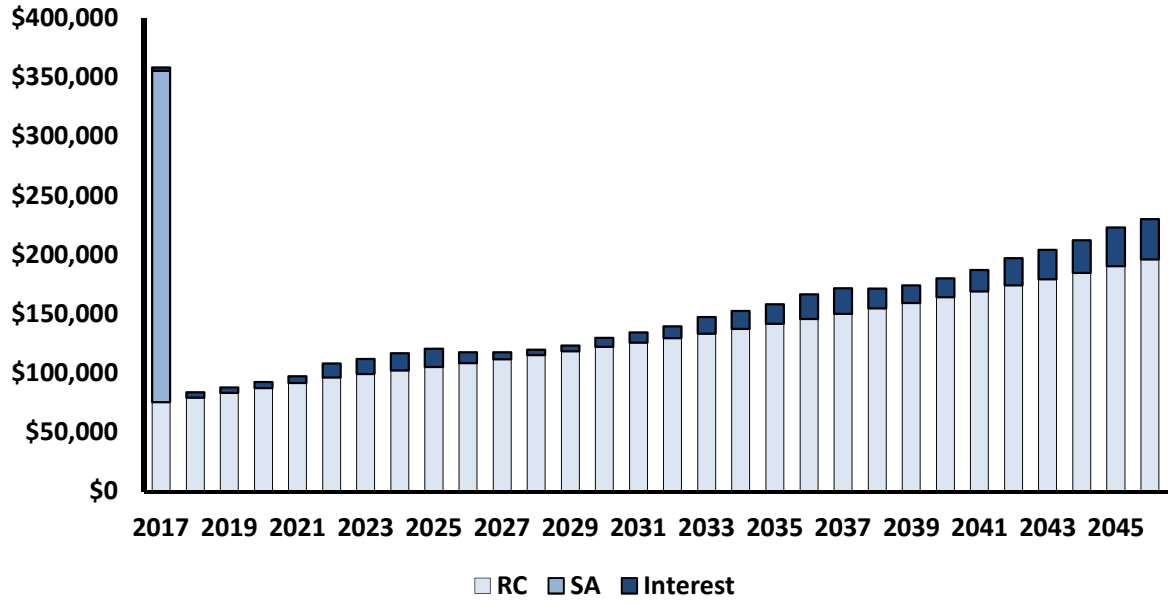
4.2 FUNDING SOURCES AND PROJECTIONS

This chart shows the percent funded level over time with each of the three funding objectives (Full, Threshold and Baseline).



Annual increases to Reserve Contributions should be made to keep up with inflation. These increases will vary by year but typically fall between 1-3%.

TOTAL RECOMMENDED CONTRIBUTIONS



5. PURPOSE AND METHODOLOGY

5.1 PURPOSE OF A RESERVE STUDY

A Reserve Study is a budgeting tool to help prepare and plan for future expenditures. It should be noted that the projections made in this study are just that, projections and do not predict with 100% surety the future. We do however, use well defined methodologies and extensive research is done in preparation of each Reserve Study. In this Report you will find the Reserve Component List. It contains our estimates for Useful Life, Remaining Useful Life, and the current repair or replacement cost for each major component the client is responsible to maintain or replace. Based on that list and your starting balance we calculated the Reserve Fund Strength, which is measured as "Percent Funded", and created a recommended 30-year Reserve Funding Strategy to offset future Reserve expenditures.

5.2 RESERVE COMPONENT CRITERIA (FOUR-PART TEST)

Credentialed Reserve Study professionals utilize CAI's national-standard four-part test to determine which expenses should be funded through Reserves.

- ☑ Part 1: Item must be a common area maintenance responsibility.
- ☑ Part 2: the component must have a limited life.
- ☑ Part 3: the limited life must be predictable.
- ☑ Part 4: the repair or replacement cost must be above a minimum threshold cost.

This means that Reserve Components should be major, predictable expenses. It is incorrect to include "lifetime" components, unpredictable expenses (such as insurance related losses), and expenses more appropriately handled from the Operational Budget.

5.3 USEFUL LIFE EXPECTANCIES

1) Visual Inspection (observed wear and age)
2) Cost Database of experience and similar projects
3) Client Component History
4) Vendor Expertise and Recommendations

5.4 COST ESTIMATION

1) Client Cost History
2) Comparison to Cost database
3) Vendor Recommendations
4) Industry cost estimating software

5.5 RESERVE STATUS AND FUNDING STRATEGY

Do you have enough money in Reserves to fund future capital replacements?

The following steps are performed in order to determine Reserve Status and Funding:

1) Calculate your **Fully Funded Balance**. (see Definitions Page for detailed explanation)
2) Compare to the Reserve Fund Balance (where you currently are), and express as a percentage.

Recommended Funding Strategy

We utilize four funding principles in establishing our recommended Reserve Contributions:

1. Ensuring that the client has sufficient funds to perform current reserve projects on time.
2. Put in place a stable contribution rate over the 30-years.
3. Evenly distributed contributions over the years.
4. Assist board members and officials in doing their fiduciary duty.

DATA TABLES APPENDIX

FULL FUNDING GOAL

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Starting Balance	$100,000	$438,278	$488,765	$461,272	$545,722	$601,723	$582,414	$694,437	$783,531	$755,356
FFB	$425,672	$498,260	$560,882	$543,067	$637,151	$718,722	$704,982	$825,058	$922,963	$902,292
% Funded	23%	88%	87%	85%	86%	84%	83%	84%	85%	84%
Rating	Weak	Strong	Strong	Strong	Strong	Strong	Strong	Strong	Strong	Strong
RC	$75,600	$79,380	$83,349	$87,516	$91,892	$96,487	$99,381	$102,363	$105,434	$108,597
SA	$280,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest	$2,678	$4,612	$4,727	$5,010	$5,709	$11,724	$12,642	$14,633	$15,237	$9,098
Expenses	$20,000	$33,505	$115,569	$8,077	$41,600	$127,520	$0	$27,903	$148,845	$709,536
Ending Balance	$438,278	$488,765	$461,272	$545,722	$601,723	$582,414	$694,437	$783,531	$755,356	$163,515

Year	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Starting Balance	$163,515	$230,544	$95,317	$218,624	$304,246	$272,275	$412,058	$523,031	$493,812	$639,487
FFB	$306,638	$375,011	$238,033	$363,297	$450,201	$417,647	$559,252	$671,479	$641,292	$788,425
% Funded	53%	61%	40%	60%	68%	65%	74%	78%	77%	81%
Rating	Fair	Fair	Fair	Fair	Fair	Fair	Strong	Strong	Strong	Strong
RC	$111,855	$115,210	$118,667	$122,227	$125,894	$129,670	$133,560	$137,567	$141,694	$145,945
SA	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest	$5,824	$4,816	$4,640	$7,727	$8,520	$10,113	$13,819	$15,027	$16,748	$20,777
Expenses	$50,649	$255,253	$0	$44,331	$166,385	$0	$36,407	$181,813	$12,768	$39,783
Ending Balance	$230,544	$95,317	$218,624	$304,246	$272,275	$412,058	$523,031	$493,812	$639,487	$766,426

Year	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
Starting Balance	$766,426	$694,515	$438,220	$569,113	$517,538	$704,793	$854,601	$821,642	$1,033,944	$1,188,141
FFB	$916,377	$842,363	$581,054	$712,457	$658,486	$846,656	$996,595	$960,822	$1,173,678	$1,327,302
% Funded	84%	82%	75%	80%	79%	83%	86%	86%	88%	90%
Rating	Strong	Strong	Strong	Strong	Strong	Strong	Strong	Strong	Strong	Strong
RC	$150,323	$154,833	$159,478	$164,262	$169,190	$174,266	$179,494	$184,879	$190,425	$196,138
SA	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest	$21,590	$16,740	$14,887	$16,059	$18,064	$23,045	$24,772	$27,422	$32,839	$34,168
Expenses	$243,825	$427,868	$43,472	$231,896	$0	$47,503	$237,225	$0	$69,067	$294,571
Ending Balance	$694,515	$438,220	$569,113	$517,538	$704,793	$854,601	$821,642	$1,033,944	$1,188,141	$1,123,876

THRESHOLD FUNDING GOAL

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Starting Balance	$100,000	$434,660	$481,312	$449,756	$529,902	$581,347	$556,990	$663,725	$747,281	$713,310
FFB	$425,672	$498,260	$560,882	$543,067	$637,151	$718,722	$704,982	$825,058	$922,963	$902,292
% Funded	23%	87%	86%	83%	83%	81%	79%	80%	81%	79%
Rating	Weak	Strong	Strong	Strong	Strong	Strong	Strong	Strong	Strong	Strong
RC	$72,000	$75,600	$79,380	$83,349	$87,516	$91,892	$94,649	$97,489	$100,413	$103,426
SA	$280,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest	$2,660	$4,557	$4,632	$4,874	$5,529	$11,271	$12,086	$13,970	$14,461	$8,205
Expenses	$20,000	$33,505	$115,569	$8,077	$41,600	$127,520	$0	$27,903	$148,845	$709,536
Ending Balance	$434,660	$481,312	$449,756	$529,902	$581,347	$556,990	$663,725	$747,281	$713,310	$115,405

Year	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Starting Balance	$115,405	$175,585	$33,141	$148,847	$226,468	$186,079	$317,009	$418,675	$379,676	$515,078
FFB	$306,638	$375,011	$238,033	$363,297	$450,201	$417,647	$559,252	$671,479	$641,292	$788,425
% Funded	38%	47%	14%	41%	50%	45%	57%	62%	59%	65%
Rating	Fair	Fair	Weak	Fair	Fair	Fair	Fair	Fair	Fair	Fair
RC	$106,528	$109,724	$113,016	$116,406	$119,899	$123,496	$127,200	$131,016	$134,947	$138,995
SA	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest	$4,300	$3,085	$2,689	$5,547	$6,097	$7,435	$10,872	$11,798	$13,223	$16,941
Expenses	$50,649	$255,253	$0	$44,331	$166,385	$0	$36,407	$181,813	$12,768	$39,783
Ending Balance	$175,585	$33,141	$148,847	$226,468	$186,079	$317,009	$418,675	$379,676	$515,078	$631,231

Year	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
Starting Balance	$631,231	$547,998	$279,824	$398,258	$333,618	$507,177	$642,634	$594,641	$791,196	$928,907
FFB	$916,377	$842,363	$581,054	$712,457	$658,486	$846,656	$996,595	$960,822	$1,173,678	$1,327,302
% Funded	69%	65%	48%	56%	51%	60%	64%	62%	67%	70%
Rating	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
RC	$143,165	$147,460	$151,884	$156,440	$161,134	$165,968	$170,947	$176,075	$181,357	$186,798
SA	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest	$17,427	$12,234	$10,021	$10,816	$12,426	$16,992	$18,285	$20,480	$25,420	$26,251
Expenses	$243,825	$427,868	$43,472	$231,896	$0	$47,503	$237,225	$0	$69,067	$294,571
Ending Balance	$547,998	$279,824	$398,258	$333,618	$507,177	$642,634	$594,641	$791,196	$928,907	$847,385

BASELINE FUNDING GOAL

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Starting Balance	$100,000	$434,660	$481,312	$449,756	$529,902	$581,347	$556,990	$662,797	$744,432	$707,479
FFB	$425,672	$498,260	$560,882	$543,067	$637,151	$718,722	$704,982	$825,058	$922,963	$902,292
% Funded	23%	87%	86%	83%	83%	81%	79%	80%	81%	78%
Rating	Weak	Strong	Strong	Strong	Strong	Strong	Strong	Strong	Strong	Strong
RC	$72,000	$75,600	$79,380	$83,349	$87,516	$91,892	$93,730	$95,605	$97,517	$99,467
SA	$280,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest	$2,660	$4,557	$4,632	$4,874	$5,529	$11,271	$12,077	$13,933	$14,375	$8,049
Expenses	$20,000	$33,505	$115,569	$8,077	$41,600	$127,520	$0	$27,903	$148,845	$709,536
Ending Balance	$434,660	$481,312	$449,756	$529,902	$581,347	$556,990	$662,797	$744,432	$707,479	$105,459

Year	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Starting Balance	$105,459	$160,193	$10,955	$118,422	$186,260	$134,434	$252,164	$338,746	$282,658	$398,833
FFB	$306,638	$375,011	$238,033	$363,297	$450,201	$417,647	$559,252	$671,479	$641,292	$788,425
% Funded	34%	43%	5%	33%	41%	32%	45%	50%	44%	51%
Rating	Fair	Fair	Weak	Fair	Fair	Fair	Fair	Fair	Fair	Fair
RC	$101,456	$103,486	$105,555	$107,666	$109,820	$112,016	$114,256	$116,542	$118,872	$121,250
SA	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest	$3,926	$2,529	$1,912	$4,503	$4,739	$5,713	$8,733	$9,183	$10,071	$13,187
Expenses	$50,649	$255,253	$0	$44,331	$166,385	$0	$36,407	$181,813	$12,768	$39,783
Ending Balance	$160,193	$10,955	$118,422	$186,260	$134,434	$252,164	$338,746	$282,658	$398,833	$493,487

Year	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
Starting Balance	$493,487	$386,340	$91,685	$180,913	$84,179	$222,582	$319,640	$229,813	$380,902	$469,304
FFB	$916,377	$842,363	$581,054	$712,457	$658,486	$846,656	$996,595	$960,822	$1,173,678	$1,327,302
% Funded	54%	46%	16%	25%	13%	26%	32%	24%	32%	35%
Rating	Fair	Fair	Weak	Weak	Weak	Weak	Fair	Weak	Fair	Fair
RC	$123,675	$126,148	$128,671	$131,245	$133,870	$136,547	$139,278	$142,064	$144,905	$147,803
SA	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest	$13,002	$7,064	$4,029	$3,918	$4,533	$8,013	$8,120	$9,025	$12,565	$11,878
Expenses	$243,825	$427,868	$43,472	$231,896	$0	$47,503	$237,225	$0	$69,067	$294,571
Ending Balance	$386,340	$91,685	$180,913	$84,179	$222,582	$319,640	$229,813	$380,902	$469,304	$334,414

TABLE 1. RESERVE COMPONENT LIST

ITEM #	CATEGORY	LOCATION	RESERVE ASSET DESCRIPTION	QTY	% FUNDED	UOM	EST. LIFE	RUL	CURRENT COST	UNIT COST	IN-SVC YR	REPL YR	FUTURE COST
1	Roads/Maintenance	Throughout	Roads - Spot Graveling	275	5%	Miles	3	2	$110,000	$8,000	2016	2019	$115,569
2	Roads/Maintenance	Throughout	Roads - Dust Control (Calcium Chloride)	275	10%	Miles	3	1	$12,375	$450	2015	2018	$12,684
3	Roads/Maintenance	Bridge/Cattleguards	Washboarding - Remediation	275	5%	Miles	3	1	$10,313	$750	2015	2018	$10,570
4	Roads/Maintenance	Culverts/Ditches	Culverts/Ditches - Repairs/Rebuild	3	100%	EA.	5	3	$7,500	$2,500	2015	2020	$8,077
5	Roads/Maintenance	Culverts/Ditches	Culverts - Replacements	10	100%	EA.	25	4	$15,000	$1,500	1996	2021	$16,557
6	Roads/Maintenance	Throughout	Roads - Reshaping (Major)	275	10%	Miles	30	9	$275,000	$10,000	1996	2026	$343,437
7	Roads/Maintenance	Throughout	Roads - Regraveling (Major)	275	10%	Miles	12	9	$220,000	$8,000	2014	2026	$274,750
8	Wells	Anvil Rock	Well Pump - Rebuild	1	100%	EA.	10	0	$5,000	$5,000	1998	2017	$6,400
9	Wells	Anvil Rock	Well Pump - Replace	1	100%	EA.	20	1	$10,000	$10,000	1998	2018	$10,250
10	Wells	Anvil Rock	Well Casing - Repair/Partial Replace (PVC)	930	100%	LF	30	11	$74,400	$80.00	1998	2028	$97,619
11	Wells	Anvil Rock	Control Module - Replace	1	100%	EA.	10	0	$2,500	$2,500	1998	2017	$3,200
12	Wells	Jolly Road	Well Pump - Rebuild	1	100%	EA.	10	10	$5,000	$5,000	1996	2027	$6,400
13	Wells	Jolly Road	Well Pump - Replace	1	100%	EA.	20	0	$10,000	$10,000	1996	2017	$16,386
14	Wells	Jolly Road	Well Casing - Repair/Partial Replace (Steel)	610	100%	LF	30	9	$48,800	$80.00	1996	2026	$60,945
15	Wells	Jolly Road	Control Module - Replace	1	100%	EA.	10	0	$2,500	$2,500	1996	2017	$3,200
15	**Total Components**								**$808,388**				

TABLE 2. CONTRIBUTION CALCULATION DETAIL

ITEM #	RESERVE ASSET DESCRIPTION	EL	RL	COST	FFB	FUND ALLOCATION	RC ALLOCATION	RC CALCS	FFB CUMULATE	DETERIORATION	SIGNIFICANCE
1	Roads - Spot Graveling	3	2	$110,000	$36,667	$36,667	$2,890	$36,667	$36,667	$36,667	45.58%
2	Roads - Dust Control (Calcium Chloride)	3	1	$12,375	$8,250	$8,250	$325	$4,125	$44,917	$4,125	5.13%
3	Washboarding - Remediation	3	1	$10,313	$6,875	$6,875	$271	$3,438	$51,792	$3,438	4.27%
4	Culverts/Ditches - Repairs/Rebuild	5	3	$7,500	$3,000	$3,000	$118	$1,500	$54,792	$1,500	1.86%
5	Culverts - Replacements	25	4	$15,000	$12,600	$12,600	$47	$600	$67,392	$600	0.75%
6	Roads - Reshaping (Major)	30	9	$275,000	$192,500	$32,608	$722	$9,167	$259,892	$9,167	11.40%
7	Roads - Regraveling (Major)	12	9	$220,000	$55,000	$0	$1,445	$18,333	$314,892	$18,333	22.79%
8	Well Pump - Rebuild	10	0	$5,000	$5,000	$0	$39	$500	$319,892	$500	0.62%
9	Well Pump - Replace	20	1	$10,000	$9,500	$0	$39	$500	$329,392	$500	0.62%
10	Well Casing - Repair/Partial Replace (PVC	30	11	$74,400	$47,120	$0	$195	$2,480	$376,512	$2,480	3.08%
11	Control Module - Replace	10	0	$2,500	$2,500	$0	$20	$250	$379,012	$250	0.31%
12	Well Pump - Rebuild	10	10	$5,000	$0	$0	$0	$0	$379,012	$500	0.62%
13	Well Pump - Replace	20	0	$10,000	$10,000	$0	$39	$500	$389,012	$500	0.62%
14	Well Casing - Repair/Partial Replace (Ste	30	9	$48,800	$34,160	$0	$128	$1,627	$423,172	$1,627	2.02%
15	Control Module - Replace	10	0	$2,500	$2,500	$0	$20	$250	$425,672	$250	0.31%
15	**Total Components**			**$808,388**	**$425,672**	**$100,000**	**$6,300**	**$79,936**		**$80,436**	**100.00%**

TABLE 3. ANNUAL EXPENSE PROJECTIONS YEARS 1-10

ITEM #	SUB-CATEGORY	RESERVE ASSET DESCRIPTION	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
1	Throughout	Roads - Spot Graveling	$0	$0	$115,569	$0	$0	$127,520	$0	$0	$139,345	$0
2	Throughout	Roads - Dust Control (Calcium Chloride)	$0	$12,684	$0	$0	$13,660	$0	$0	$15,220	$0	$0
3	Bridge/Cattleguards	Washboarding - Remediation	$0	$10,570	$0	$0	$11,383	$0	$0	$12,683	$0	$0
4	Culverts/Ditches	Culverts/Ditches - Repairs/Rebuild	$0	$0	$0	$8,077	$0	$0	$0	$0	$9,501	$0
5	Culverts/Ditches	Culverts - Replacements	$0	$0	$0	$0	$16,557	$0	$0	$0	$0	$0
6	Throughout	Roads - Reshaping (Major)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$358,813
7	Throughout	Roads - Regraveling (Major)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$287,050
8	Anvil Rock	Well Pump - Rebuild	$5,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Anvil Rock	Well Pump - Replace	$0	$10,250	$0	$0	$0	$0	$0	$0	$0	$0
10	Anvil Rock	Well Casing - Repair/Partial Replace (PVC)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Anvil Rock	Control Module - Replace	$2,500	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	Jolly Road	Well Pump - Rebuild	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Jolly Road	Well Pump - Replace	$10,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
14	Jolly Road	Well Casing - Repair/Partial Replace (Steel)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$63,673
15	Jolly Road	Control Module - Replace	$2,500	$0	$0	$0	$0	$0	$0	$0	$0	$0
		Total Expenses	**$20,000**	**$33,505**	**$115,569**	**$8,077**	**$41,600**	**$127,520**	**$0**	**$27,903**	**$148,845**	**$709,536**

TABLE 4. ANNUAL EXPENSE PROJECTIONS YEARS 11-20

ITEM #	SUB-CATEGORY	RESERVE ASSET DESCRIPTION	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
1	Throughout	Roads - Spot Graveling	$0	$152,266	$0	$0	$166,385	$0	$0	$181,813	$0	$0
2	Throughout	Roads - Dust Control (Calcium Chloride)	$16,631	$0	$0	$18,173	$0	$0	$19,858	$0	$0	$21,700
3	Bridge/Cattleguards	Washboarding - Remediation	$13,859	$0	$0	$15,144	$0	$0	$16,549	$0	$0	$18,083
4	Culverts/Ditches	Culverts/Ditches - Repairs/Rebuild	$0	$0	$0	$11,014	$0	$0	$0	$0	$12,768	$0
5	Culverts/Ditches	Culverts - Replacements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
6	Throughout	Roads - Reshaping (Major)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
7	Throughout	Roads - Regraveling (Major)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Anvil Rock	Well Pump - Rebuild	$6,720	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Anvil Rock	Well Pump - Replace	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	Anvil Rock	Well Casing - Repair/Partial Replace (PVC)	$0	$102,987	$0	$0	$0	$0	$0	$0	$0	$0
11	Anvil Rock	Control Module - Replace	$3,360	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	Jolly Road	Well Pump - Rebuild	$6,720	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Jolly Road	Well Pump - Replace	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
14	Jolly Road	Well Casing - Repair/Partial Replace (Steel)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Jolly Road	Control Module - Replace	$3,360	$0	$0	$0	$0	$0	$0	$0	$0	$0
		Total Expenses	**$50,649**	**$255,253**	**$0**	**$44,331**	**$166,385**	**$0**	**$36,407**	**$181,813**	**$12,768**	**$39,783**

TABLE 5. ANNUAL EXPENSE PROJECTIONS YEARS 21-30

ITEM #	SUB-CATEGORY	RESERVE ASSET DESCRIPTION	2037	2038	2039	2040	2041	2042	2043	2044	2045
1	Throughout	Roads - Spot Graveling	$198,672	$0	$0	$217,095	$0	$0	$237,225	$0	$0
2	Throughout	Roads - Dust Control (Calcium Chloride)	$0	$0	$23,712	$0	$0	$25,911	$0	$0	$28,313
3	Bridge/Cattleguards	Washboarding - Remediation	$0	$0	$19,760	$0	$0	$21,592	$0	$0	$23,594
4	Culverts/Ditches	Culverts/Ditches - Repairs/Rebuild	$0	$0	$0	$14,802	$0	$0	$0	$0	$17,159
5	Culverts/Ditches	Culverts - Replacements	$0	$0	$0	$0	$0	$0	$0	$0	$0
6	Throughout	Roads - Reshaping (Major)	$0	$0	$0	$0	$0	$0	$0	$0	$0
7	Throughout	Roads - Regraveling (Major)	$0	$409,265	$0	$0	$0	$0	$0	$0	$0
8	Anvil Rock	Well Pump - Rebuild	$9,031	$0	$0	$0	$0	$0	$0	$0	$0
9	Anvil Rock	Well Pump - Replace	$0	$18,603	$0	$0	$0	$0	$0	$0	$0
10	Anvil Rock	Well Casing - Repair/Partial Replace (PVC)	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Anvil Rock	Control Module - Replace	$4,515	$0	$0	$0	$0	$0	$0	$0	$0
12	Jolly Road	Well Pump - Rebuild	$9,031	$0	$0	$0	$0	$0	$0	$0	$0
13	Jolly Road	Well Pump - Replace	$18,061	$0	$0	$0	$0	$0	$0	$0	$0
14	Jolly Road	Well Casing - Repair/Partial Replace (Steel)	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Jolly Road	Control Module - Replace	$4,515	$0	$0	$0	$0	$0	$0	$0	$0
		Total Expenses	**$243,825**	**$427,868**	**$43,472**	**$231,896**	**$0**	**$47,503**	**$237,225**	**$0**	**$69,067**

Disclosures

CRA has no other involvement(s) with the client which could result in actual or perceived conflicts of interest.

Physical Analysis:

Capital Reserve Analysts did conduct a physical inspection.

Completeness:

CRA has found no material issues which, if not disclosed, would cause a distortion of the Association's situation.

Reliance on Client Data:

Information provided by the official representative of the client regarding financial, physical, quantity, or historical issues will be deemed reliable by CRA.

Scope:

This Reserve Study is a reflection of information provided to CRA and assembled for the client's use, not for the purpose of performing an audit, quality/forensic analysis, health and safety inspection, or background checks of historical records.

Reserve Balance:

The actual beginning reserve fund balance in this Reserve Study is based upon information provided and was not audited.

Reserve Projects:

Information provided about reserve projects will be considered reliable. Any on-site inspection should not be considered a project audit, quality inspection, or health and safety review.

Because we have no control over future events, we cannot claim that all the events we anticipate will occur as planned. We expect that inflationary trends will continue, and we expect that financial institutions will provide interest earnings on funds on-deposit. We believe that reasonable estimates for these figures are much more accurate than ignoring these economic realities. The things we can control are measurements, which we attempt to establish within 5% accuracy. Your starting Reserve Balance and current Reserve interest earnings are also numbers that can be identified with a high degree of certainty. These figures have been provided to us, and were not confirmed by our independent research. Our projections assume a stable economic environment and lack of natural disasters. Because both the physical status and financial status of the association change each year, this Reserve Study is by nature a “one-year” document. This information can and should be adjusted annually as part of the Reserve Study Update process so that more accurate estimates can be reflected.

Reality often differs from even the best assumptions due to changing economic factors, physical factors, or ownership expectations. Because many years of financial preparation help the preparation for large expenses, this Report shows expenses for the next 30 years. We fully expect a number of adjustments will be necessary through the interim years to both the cost and timing of distant expense projections.

It is our recommendation and that of the American Institute of Certified Public Accountants (AICPA) that your Reserve Study be updated annually. We have relied upon the client to provide the current (or projected) Reserve Balance, the estimated net-after-tax current rate of interest earnings, and to indicate if those earnings accrue to the Reserve Fund. In addition, we have considered the association’s and it's vendors representation of current and historical Reserve projects reliable.

Component quantities indicated in this Report were developed by Capital Reserves unless otherwise noted in our “Site Inspection Notes” comments. No destructive or intrusive testing was performed, nor should the site inspection be assumed to be anything other than for budget purposes.

Definitions

CASH FLOW METHOD: A method of developing a Reserve Funding Plan where contributions to the Reserve fund are designed to offset the variable annual expenditures from the Reserve fund. Different

COMPONENT: The individual line items in the Reserve Study developed or updated in the Physical Analysis. These elements form the building blocks for the Reserve Study. Components typically are: 1) Association responsibility, 2) with limited Useful Life expectancies, 3) predictable Remaining Useful Life expectancies, 4) above a minimum threshold cost, and 5) as required by local codes.

COMPONENT METHOD: A method of developing a Reserve Funding Plan where the total contribution is based on the sum of contributions for individual components. See "Cash Flow Method."

CONDITION ASSESSMENT: The task of evaluating the current condition of the component based on observed or reported characteristics.

CURRENT REPLACEMENT COST: See "Replacement Cost."

DEFICIT: An actual (or projected) Reserve Balance less than the Fully Funded Balance. The opposite would be a Surplus.

EFFECTIVE AGE: The difference between Useful Life and Remaining Useful Life. Not always equivalent to chronological age, since some components age irregularly. Used primarily in computations.

FINANCIAL ANALYSIS: The portion of a Reserve Study where current status of the Reserves (measured as cash or Percent Funded) and a recommended Reserve contribution rate (Reserve Funding Plan) are derived, and the projected Reserve income and expense over time is presented. The Financial Analysis is one of the two parts of a Reserve Study.

FULLY FUNDED: 100% Funded. When the actual (or projected) Reserve balance is equal to the Fully Funded Balance.

FULLY FUNDED BALANCE (FFB): Total Accrued Depreciation. An indicator against which Actual (or projected) Reserve balance can be compared. The Reserve balance that is in direct proportion to the fraction of life "used up" of the current Repair or Replacement cost. This number is calculated for each component, then summed together for an association total. Two formulae can be utilized, depending on the provider's sensitivity to interest and inflation effects. Note: Both yield identical results when interest and inflation are equivalent.

FFB = Current Cost X Effective Age / Useful Life

Or

FFB = (Current Cost X Effective Age / Useful Life) + [(Current Cost X Effective Age/Useful Life)/(1+Interest Rate)^Remaining Life] - [(Current Cost X Effective Age/Useful Life)/(1+Inflation Rate)^Remaining Life]

FUND STATUS: The status of the reserve fund as compared to an established benchmark such as percent funding.

FUNDING GOALS: Independent of methodology utilized, the following represent the basic categories of Funding Plan goals:

Baseline Funding: Establishing a Reserve funding goal of keeping the Reserve cash balance above zero.

Full Funding: Setting a Reserve funding goal of attaining and maintaining Reserves at or near 100% funded.

Statutory Funding: Establishing a Reserve funding goal of setting aside the specific minimum amount of Reserves required by local statues.

Threshold Funding: Establishing a Reserve funding goal of keeping the Reserve balance above a specified dollar or Percent Funded amount. Depending on the threshold, this may be more or less conservative than "Fully Funding."

FUNDING PLAN: An association's plan to provide income to a Reserve fund to offset anticipated expenditures from that fund.

Funding Principles:

- Sufficient Funds When Required
- Stable Contribution Rate over the Years
- Evenly Distributed Contributions over the Years
- Fiscally Responsible

INVENTORY: The task of selecting and quantifying Reserve Components. This task can be accomplished through on-site visual observations, review of association design and organizational documents, a review of established association precedents, and discussion with appropriate association representative(s) of the association or cooperative.

LIFE AND VALUATION ESTIMATES: The task of estimating Useful Life, Remaining Useful Life, and Repair or Replacement Costs for the Reserve components.

PERCENT FUNDED: The ratio, at a particular point of time (typically the beginning of the Fiscal Year), of the *actual (or projected)* Reserve Balance to the *Fully Funded Balance* , expressed as a percentage.

PHYSICAL ANALYSIS: The portion of the Reserve Study where the Component Inventory, Condition Assessment, and Life and Valuation Estimate tasks are performed. This represents one of the two parts of the Reserve Study.

REMAINING USEFUL LIFE (RUL): Also referred to as "Remaining Life" (RL). The estimated time, in years, that a reserve component can be expected to continue to serve its intended function. Projects anticipated to occur in the initial year have "zero" Remaining Useful Life.

REPLACEMENT COST: The cost of replacing, repairing, or restoring a Reserve Component to its original functional condition. The Current Replacement Cost would be the cost to replace, repair, or restore the component during that particular year.

RESERVE BALANCE: Actual or projected funds as of a particular point in time that the association has identified for use to defray the future repair or replacement of those major components which the association is obligated to maintain. Also known as Reserves, Reserve Accounts, Cash Reserves. Based upon information provided and not audited.

RESERVE PROVIDER: An individual that prepares Reserve Studies.

RESERVE STUDY: A budget planning tool which identifies the current status of the Reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures. The

Reserve Study consists of two parts: The Physical Analysis and the Financial Analysis. "Our budget and finance committee is soliciting proposals to update our Reserve Study for next year's budget."

1. ROADS/MAINTENANCE

Background: Sierra Verde Ranch POA maintains approximately 275 miles of gravel roads throughout the Community. We are assuming the majority of these roads were installed during 1996-1998 for budgeting purposes. Current maintenance includes annual grading, culvert repairs and crushed granite replenishing as-needed. Maintenance priority is determined by the SVR Road Committee and the SVRPOA Road Maintenance Process. The table below defines maintenance activities and each funding source.

Operating Budget	Reserve Budget
Annual Grading	Spot Graveling (Crushed Granite)
Minor Repairs (Under $1,000)	Dust Control
Routine Equipment Maintenance	Culvert Repairs and Replacements
Fuel Costs	Major Reshaping
	Major Regraveling

Roads – Spot Graveling – Over time, gravel roads require periodic additions of gravel to maintain the proper shape and structure of the road. Spot graveling is required due to gravel being displaced by traffic, grading operations, and erosion of materials. We recommend budgeting for spot graveling every 3 years at $8,000/Mile. The number of miles and thickness of gravel application will be determined by the Sierra Verde Ranch POA, but we recommend approximately 5% of the total miles on a 3 year cycle.

Roads – Dust Control (Calcium Chloride) – All gravel roads will generate dust. The amount of dust varies based on the traffic volume, type of gravel and precipitation levels. This line item provides funding for dust control at high traffic sections and the (2) Well locations (Anvil Rock & Jolly).

Corrugation (Washboarding) - Remediation – Corrugation or “Washboarding” is a common problem with gravel roads. This condition is caused by vehicle traffic, poor gravel, lack of moisture and road shape issues. In addition to routine maintenance and minor repairs to these areas, we recommend planning for specific remediation projects every 3 years. These projects will include adding quality gravel, reshaping the section to improve drainage.

Culverts/Ditches – Repairs/Rebuild – Culverts and Ditches provide drainage to the gravel roads. Regular maintenance/cleanouts will help reduce erosion issues. Minor cleanouts and repairs should be handled with the Operating funds; however, emergency repairs will inevitably be required. This line item provides funds to rebuild/repair culverts and ditches throughout the community on a 5 year cycle.

Culverts - Replacements – Regular maintenance/cleanouts will help reduce erosion issues. Minor cleanouts and repairs should be handled with the Operating funds; however, eventual replacement will be required. This line item provides funds to replace culverts throughout the community on a 25 year cycle.

Roads – Reshaping (Major) – Regardless of routine maintenance most all gravel roads will at some point require major rehabilitation in the form of reshaping and regraveling. Over time poor conditions such as rutting, loss of shape and gravel loss will develop and rehabilitation is required. This analysis provides funding to reshape approximately 30% of the 275 miles on a 30 year cycle.

Roads – Regraveling (Major) – Regardless of routine maintenance most all gravel roads will at some point require major rehabilitation in the form of reshaping and regraveling. Over time poor conditions such as rutting, loss of shape and gravel loss will develop and rehabilitation is required. This analysis provides funding to reshape approximately 30% of the 275 miles on a 12 year cycle.

2. WELLS

Well Pump – Rebuild (Anvil Rock) – This well was drilled during 1998 and consists of Plastic or PVC 4" casing approximately 930' in depth. Water is pumped with a 5 Horse Power pump and electric motor assembly. The motor is manufactured by Franklin Electric Model: 282113910. In order to maintain service, the motor and pump will require periodic maintenance including rebuilding the pump and motor. Based on age, we recommend allocating funds to rebuild this pump during 2017 and every 10 years thereafter.

Well Pump – Replace (Anvil Rock) – In addition to pump/motor rebuilds, we recommend planning to eventually replace the pump and motor assembly approximately 20 years from installation.

Well Casing – Repair/Partial Replace (Anvil Rock) – This well is constructed with PVC or Plastic 4 inch casing. PVC components have a long useful life expectancy under normal circumstances. However, it is still prudent to plan for partial repairs or replacements to the well casing on a 30 year cycle.

Control Module – Replace (Anvil Rock) – This well is controlled with a CentriPro electric control box Model: CB50412MC. We recommend funding for replacement of this unit on a 10 year cycle.

Well Pump – Rebuild (Jolly) – This well was drilled during 1996 and consists of Steel 6" casing approximately 600' in depth. Water is pumped with a 5 Horse Power pump and electric motor assembly. In order to maintain service, the motor and pump will require periodic maintenance including rebuilding the pump and motor. Based on age, we recommend allocating funds to rebuild this pump during 2017 and every 10 years thereafter.

Well Pump – Replace (Jolly) – In addition to pump/motor rebuilds, we recommend planning to eventually replace the pump and motor assembly approximately 20 years from installation.

Well Casing – Repair/Partial Replace (Jolly) – This well is constructed with Steel 6 inch casing. Steel components have a long useful life expectancy under normal circumstances. However, it is still prudent to plan for partial repairs or replacements to the well casing on a 30 year cycle.

Control Module – Replace (Jolly) – This well is controlled with an electric control box. We recommend funding for replacement of this unit on a 10 year cycle.

PHOTOGRAPHIC INVENTORY


SIERRA VERDE RANCH POA
PWS - 13 - 259
WELL# 55-554257
ANTIL ROCK RD. WELL


OPEN VALVE
TO DRAIN
STANDPIPE
AFTER USE


OPEN VALVE
TO DRAIN
STANDPIPE
AFTER USE