



5116 Heather Drive
Anacortes, WA 98221
360.588.9956

Funding Reserve Analysis *for* Sierra Country Club Water System Level 3a Study 2022

August 16, 2021



TABLE OF CONTENTS
Sierra Country Club Water System Level 3a Study 2022

Introduction and Executive Summary

Introduction	1-1
Executive Summary	1-2

PART II RESERVE STUDY

Current Assessment Projection Summary	2-1
Current Assessment Projection	2-2
Baseline Funding Model Summary	2-3
Baseline Funding Model Projection	2-4
Fully Funded Model Summary	2-5
Fully Funded Model Projection	2-6
Funding Model Comparison by Percent Funded	2-7
Annual Expenditure Detail	2-8
Detail Report by Category	2-11
Expenses by Item and by Calendar Year	2-16

PART III APPENDIX

Disclosure Form	3-1
Appendix - Disclosure, Definitions & Calculations	3-2



5116 Heather Drive
Anacortes, WA 9822
360.588.9956

August 16, 2021

Board of Directors
Sierra Country Club
P.O. Box 561
Coupeville WA 98239

Dear Board of Directors,

Introduction

First, we would like to thank you for utilizing our services. Our approach is to provide the members, the board and management with understandable information to make informed decisions needed to best manage your reserve fund and annual contributions. We strive to understand the association's needs and design a funding strategy for meeting those needs based on a realistic approach to finances available and real-world workings of most associations. We live and work in the local area and work hard to keep up to date with costs in your association's neighborhood.

Included within the following pages you will find:

Three funding models which detail how your association finances will look during the 30-year forecast window.

- Current Level of Contributions
- Baseline Funded
- Fully Funded (per the State of Washington RCW 64.34.380)

A list of the community components that the association is responsible for maintaining.

- Estimated current cost of replacement of each component.
- Timeline of estimated remaining life and estimated cost at replacement date per component.

Annual expenditure detail.

Expenses by item and by calendar year.

What is our Recommended Funding Goal? Maintaining the Reserve Fund at a level equal to the value of deterioration is called "Full Funding" (100% Funded). As each asset ages and becomes "used up", the Reserve Fund grows proportionally. This is simple, responsible, and our recommendation.

Evidence shows that associations in the:

- 0-30% range are considered in **Poor** condition and at a high risk of special assessments or deferred maintenance.
- 30-70% range are considered in **Fair** condition and should strive to gradually increase reserves.
- 70-130% range are considered in **Good** condition and enjoy a low risk of special assessments or deferred maintenance.

The attached funding study is limited in scope to those expense items listed in the attached Expense Detail Report. Expense items which have an expected life of more than 30 Years are not included in this reserve study unless payment for these long-lived items overlaps the 30 Years reserve study envelope.

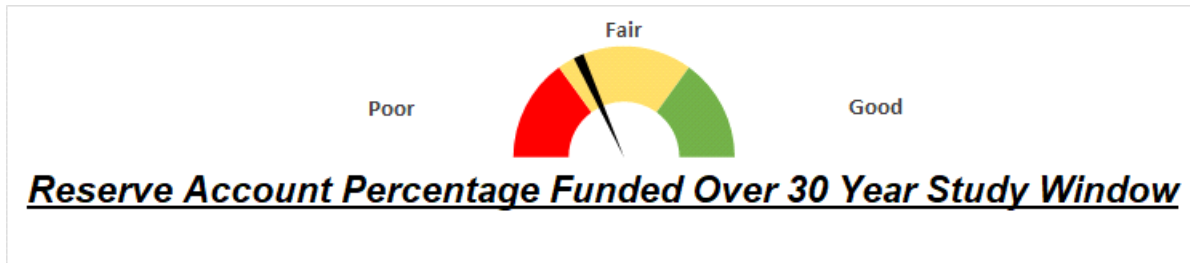
Sierra Country Club Water System Level 3a Study 2022

Executive Summary

Name	Sierra Country Club Water System Level 3a Study 2022
Location	Coupeville, WA
Contributing Members	225
Year Built	1997
Fiscal Year Ends	2022
Depth of Study	Level 3 Study (<i>Without Site Visit</i>)
Date of Study	August 16, 2021
Last On-Site Inspection Date	June 17, 2020
Inflation Rate for Projections	5%

Reserve Account Summary

Reported Current Annual Reserve Contribution	\$67,098 per year
Estimated Fiscal Year Starting Balance	\$604,843
Fiscal Year Beginning Balance If Fully Funded	\$820,375 (<i>ideal amount in reserves</i>)
Average Deficit/Surplus Per Member	(-\$958)



5 - Year Summary - Current vs. Baseline vs. Fully Funded

	Current Funding Model		Baseline Funded Model		Fully Funded Model Recommended	
2022	\$332,522	54%	\$371,280	60%	\$391,557	64%
2023	\$232,471	34%	\$257,456	38%	\$357,347	52%
2024	\$46,287	9%	\$51,485	10%	\$193,841	39%
2025	\$175,985	31%	\$105,634	19%	\$289,889	52%
2026	\$251,959	39%	\$162,580	25%	\$388,239	61%
	<i>Contribution amount supplied by Client</i>		<i>Reserve account above \$0 within study timeframe</i>		<i>Achieve 100% funded within the study timeframe</i>	

Project Description

The water system for the community includes wells, many tanks, pumps, water treatment equipment and various other components as well as the structures that house them.

This year's report is a Level 3 Reserve financial update only and does not include a site inspection or revision to the community's assets. For this report we have relied on current information provided by management, previous reserve studies and field notes from our last site visit.

The association reported a water system basin is failing and will replacement in 2022. The new well funding planned for 2022 has been revised to 2024. Please refer to the detailed report pages in the following sections of the report.

(Report Note - material and labor costs appear to be continuing to increase in all construction categories. Many associations have reported dramatic cost differences in recent contractor bids on the same projects. We highly recommend associations request contractor bids on upcoming projects early in the process. Until such time as cost increases moderate an inflation factor of 5% will be used in all funding models).

Reserve Fund Status and Funding Plan Recommendation - Based on our findings, the current level of funding of the reserve account is adequate to fund projected expenses for the long term. We recommend the association gradually adopt a reserve funding plan based on the Fully Funding Model in order to ensure that adequate funding is available throughout the 30-year study period.

Current Assessment Projection - The initial reserve assessment is the association's reported current fiscal year funding level and projected out 30 years to illustrate the adequacy of the current funding over time.

Current Total Reported Annual Reserve Contribution - \$67,098

Baseline Funded Model - The goal of this funding method is to keep the reserve cash balance above zero. This means that while each individual component may not be fully funded, the reserve balance overall does not drop below zero during the projected period. A facility using this funding method must understand that even a minor reduction in a component's remaining useful life **or unplanned expenses** can result in a deficit in the reserve cash balance **and may require additional funding.**

Recommended Total Annual Reserve Contribution - \$105,788

Fully Funded Model - This is a straight-line funding model. It distributes the cash reserves to individual reserve components and then calculates what the reserve assessment and interest contribution (minus taxes) should be, again by each reserve component. The current annual assessment is then determined by summing all the individual component assessments. This is the most conservative funding model. It leads to or maintains a fully funded reserve position. (Please note that the Fully Funded Model incorporates funding parameters that seek to reach 100% funded at year 30 reserve study limit. The recommended contribution amount may be unusually high or low for the first few years depending on the current reserve account balance and upcoming expenses).

Recommended Total Annual Reserve Contribution - \$126,030

In this Reserve Study the following components are excluded:

Power Lines – Generally utility companies.

Utility Main Lines – Generally utility companies or City.

Interior Plumbing - The remaining useful life of the plumbing exceeds the 30-year scope of the study.

Siding - The remaining useful life exceeds the 30-year scope of the study.

Depth of Study

We have completed a Level 3 Reserve Study for your association. A field inspection was not made to verify the current status of the various reserve study components, their physical condition, and to verify component quantities.

Understanding the Budget Year

Your study is based on the standard calendar year January 1 through December 31st. January is the “*budget year beginning*”. This account balance is the starting point for determining the distribution of available funds for the year. Reserve contributions plus any addition income or deposits and interest for the 12-month period are calculated then projected expenses for the year are deducted. The result is the *budget year ending* balance estimated for December 31st.

Initial Reserves

Initial reserves for this reserve study are estimated to be \$604,843 as of December 31, 2021. 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.

Keeping Your Reserve Study Current

We recommend that your reserve analysis study be updated on an annual basis due to fluctuating interest rates, inflationary changes, and the unpredictable nature of the lives of many of the assets under consideration. All of the information collected during our inspection of the facilities site and computations made subsequently in preparing this reserve analysis study are retained in our computer files.

Conflict of Interest

As the preparer of this reserve study, Pacific Crest Reserves certifies that we do not have any vested interests, financial interests, or other interests that would cause a conflict of interest in the preparation of this reserve study.

Date of Physical Inspection

The property was physically inspected by Pacific Crest Reserves on June 17, 2020.

Pacific Crest Reserves would like to thank the members and management for the opportunity to be of service in the preparation of the attached funding study. Again, please feel free to contact us if you have any questions.

Prepared by:

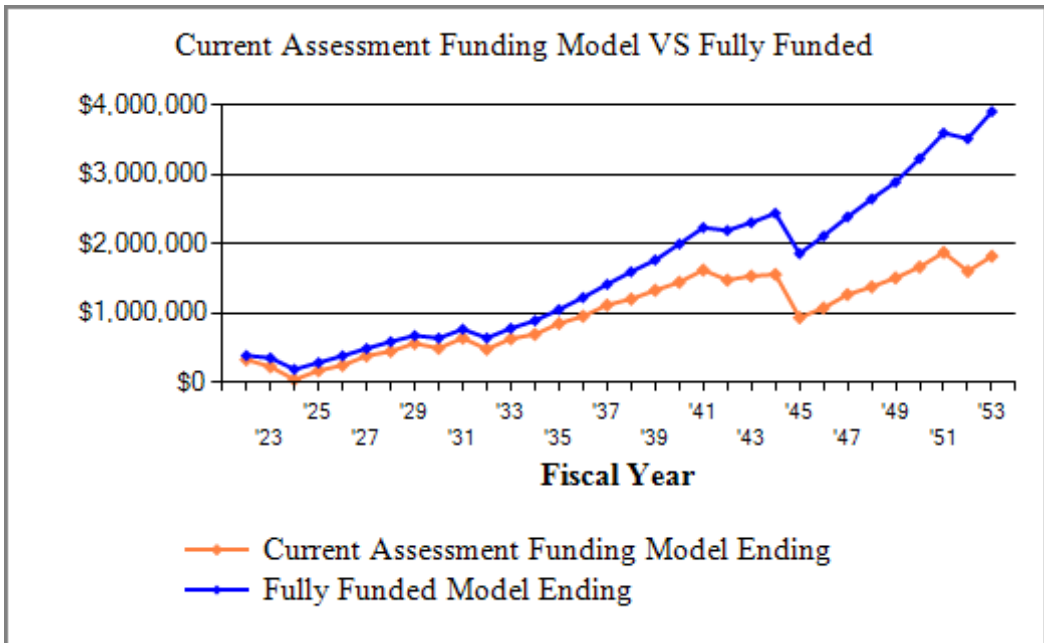
Charlie Barefield

Charlie Barefield
Reserve Analyst Principal

Sierra Country Club Water System Level 3a Study 2022
 Coupeville, WA
Current Assessment Projection Summary

Report Date	August 16, 2021
Budget Year Beginning	January 1, 2022
Budget Year Ending	December 31, 2022
Total Units	225

Report Parameters	
Inflation	5.00%
Interest Rate on Reserve Deposit	0.17%
Tax Rate Included in Interest Rate	
2022 Beginning Balance	\$604,843



The Current Assessment Funding Model is based on the current annual assessment, parameters, and reserve fund balance. Because it is calculated using the current annual assessment, it will give the accurate projection of how well the association is funded for the next 30 years of planned reserve expenditures.

Current Assessment Funding Model Summary of Calculations

Required Annual Contribution	\$67,098.00
<i>\$298.21 per unit annually</i>	
Average Net Annual Interest Earned	\$580.90
Total Annual Allocation to Reserves	\$67,678.90
<i>\$300.79 per unit annually</i>	

**Sierra Country Club Water System Level 3a Study 2022
Current Assessment Projection**

Beginning Balance: \$604,843

Year	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2022	67,098	581	340,000	332,522	616,396	54%
2023	124,894	406	225,351	232,471	685,945	34%
2024	71,191	81	257,456	46,287	492,967	9%
2025	129,390	307		175,985	562,820	31%
2026	75,534	440		251,959	638,427	39%
2027	134,048	676		386,682	720,187	54%
2028	80,141	792	14,071	453,544	793,753	57%
2029	138,874	990	26,594	566,814	860,465	66%
2030	85,030	869	155,133	497,581	805,895	62%
2031	143,873	1,123		642,576	914,751	70%
2032	90,217	845	249,710	483,929	778,902	62%
2033	149,053	1,108		634,090	902,487	70%
2034	95,720	1,218	33,942	697,086	1,000,845	70%
2035	154,419	1,490		852,995	1,144,202	75%
2036	101,559	1,670		956,225	1,299,394	74%
2037	159,978	1,953		1,118,156	1,467,244	76%
2038	107,754	2,105	22,920	1,205,095	1,624,564	74%
2039	165,737	2,323	43,319	1,329,836	1,773,733	75%
2040	114,327	2,527		1,446,690	1,981,516	73%
2041	171,704	2,832		1,621,227	2,205,643	74%
2042	121,301	2,581	267,452	1,477,657	2,166,405	68%
2043	177,885	2,682	122,861	1,535,363	2,283,590	67%
2044	128,700	2,721	109,039	1,557,745	2,428,041	64%
2045	184,289	1,638	806,275	937,397	1,854,856	51%
2046	136,551	1,879		1,075,827	2,107,200	51%
2047	190,923	2,217		1,268,967	2,380,141	53%
2048	144,880	2,409	37,335	1,378,921	2,635,906	52%
2049	197,796	2,636	70,562	1,508,791	2,878,370	52%
2050	153,718	2,909		1,665,418	3,216,284	52%
2051	204,917	3,273		1,873,608	3,580,794	52%
2052	163,095	2,802	435,652	1,603,853	3,516,280	46%
2053	212,294	3,178		1,819,325	3,916,669	46%

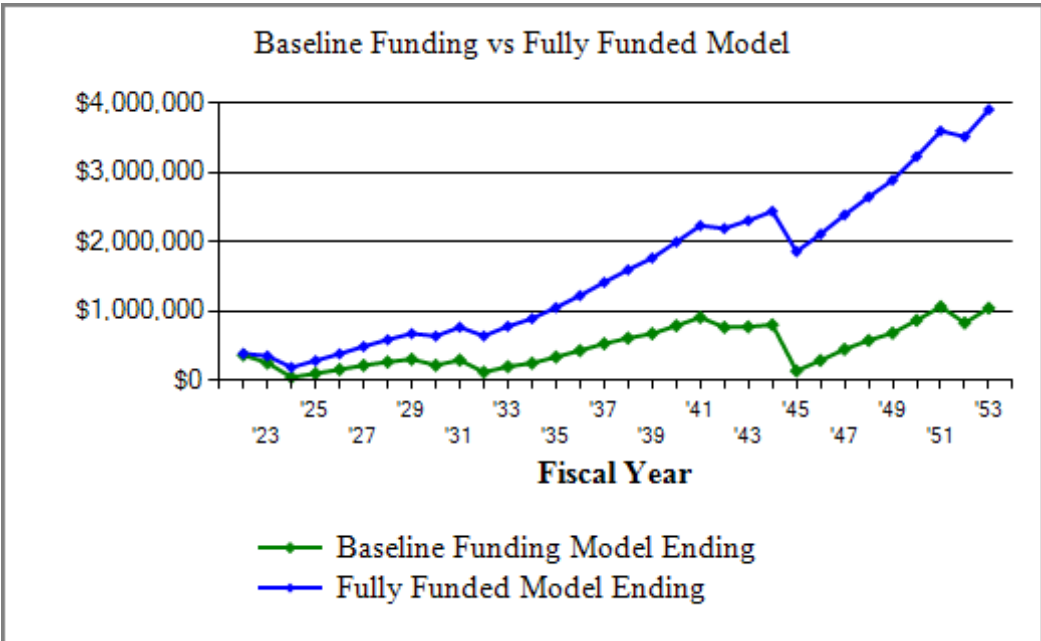
Sierra Country Club Water System Level 3a Study 2022

Coupeville, WA

Baseline Funding Model Summary

Report Date	August 16, 2021
Budget Year Beginning	January 1, 2022
Budget Year Ending	December 31, 2022
Total Units	225

Report Parameters	
Inflation	5.00%
Annual Assessment Increase	5.00%
Interest Rate on Reserve Deposit	0.17%
Tax Rate Included in Interest Rate	
2022 Beginning Balance	\$604,843



The **Baseline Funding Model** calculates the minimum reserve assessments, with the restriction that the reserve balance is not allowed to go below \$0 or other predetermined baseline, during the period of time examined. All funds for planned reserve expenditures will be available on the first day of each fiscal year. The **Baseline Funding Model** allows the client to choose the level of conservative funding they desire by choosing the baseline dollar amount.

Baseline Funding Model Summary of Calculations	
Required Annual Contribution	\$105,788.03
<i>\$470.17 per unit annually</i>	
Average Net Annual Interest Earned	\$648.60
Total Annual Allocation to Reserves	\$106,436.63
<i>\$473.05 per unit annually</i>	

**Sierra Country Club Water System Level 3a Study 2022
Baseline Funding Model Projection**

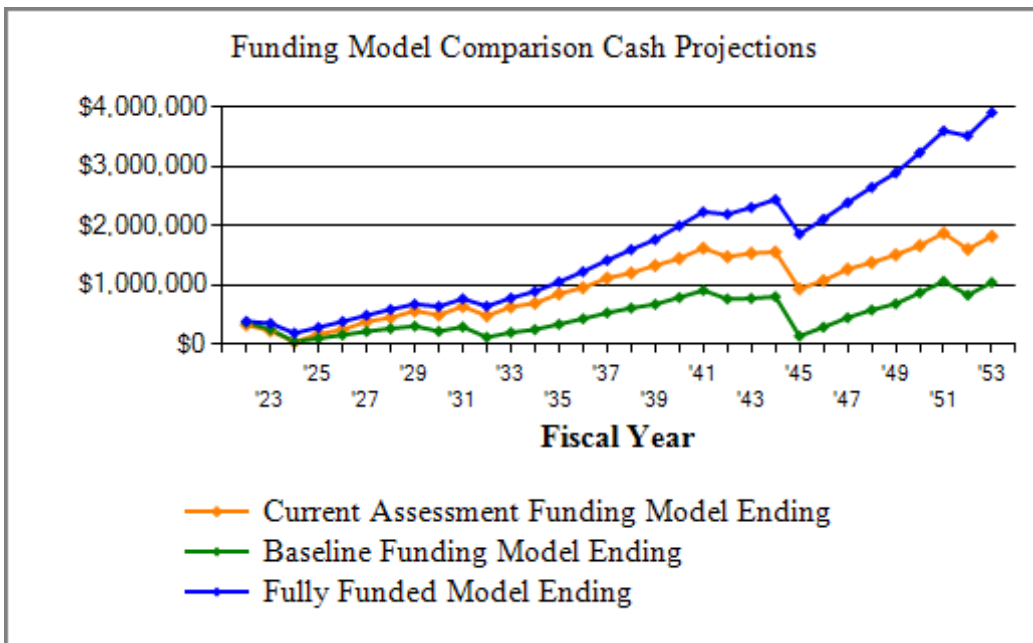
Beginning Balance: \$604,843

Year	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2022	105,788	649	340,000	371,280	616,396	60%
2023	111,077	450	225,351	257,456	685,945	38%
2024	51,395	90	257,456	51,485	492,967	10%
2025	53,964	185		105,634	562,820	19%
2026	56,663	284		162,580	638,427	25%
2027	59,496	389		222,465	720,187	31%
2028	62,471	474	14,071	271,338	793,753	34%
2029	65,594	543	26,594	310,881	860,465	36%
2030	68,874	393	155,133	225,015	805,895	28%
2031	72,318	520		297,853	914,751	33%
2032	75,933	217	249,710	124,294	778,902	16%
2033	79,730	357		204,381	902,487	23%
2034	83,717	445	33,942	254,601	1,000,845	25%
2035	87,902	599		343,103	1,144,202	30%
2036	92,297	762		436,162	1,299,394	34%
2037	96,912	933		534,007	1,467,244	36%
2038	101,758	1,072	22,920	613,918	1,624,564	38%
2039	106,846	1,186	43,319	678,630	1,773,733	38%
2040	112,188	1,384		792,202	1,981,516	40%
2041	117,798	1,592		911,592	2,205,643	41%
2042	123,687	1,344	267,452	769,171	2,166,405	36%
2043	129,872	1,358	122,861	777,540	2,283,590	34%
2044	136,365	1,409	109,039	806,275	2,428,041	33%
2045	143,184	251	806,275	143,434	1,854,856	8%
2046	150,343	514		294,291	2,107,200	14%
2047	157,860	791		452,943	2,380,141	19%
2048	165,753	1,017	37,335	582,379	2,635,906	22%
2049	174,041	1,200	70,562	687,057	2,878,370	24%
2050	182,743	1,522		871,322	3,216,284	27%
2051	191,880	1,861		1,065,063	3,580,794	30%
2052	201,474	1,454	435,652	832,339	3,516,280	24%
2053	211,548	1,827		1,045,713	3,916,669	27%

Sierra Country Club Water System Level 3a Study 2022
 Coupeville, WA
Fully Funded Model Summary

Report Date	August 16, 2021
Budget Year Beginning	January 1, 2022
Budget Year Ending	December 31, 2022
Total Units	225

Report Parameters	
Inflation	5.00%
Interest Rate on Reserve Deposit	0.17%
Tax Rate Included in Interest Rate	
2022 Beginning Balance	\$604,843



The **Fully Funded Model's** long-term objective is to provide a plan to a fully funded reserve position over the longest period of time practical. This is the most conservative funding model.

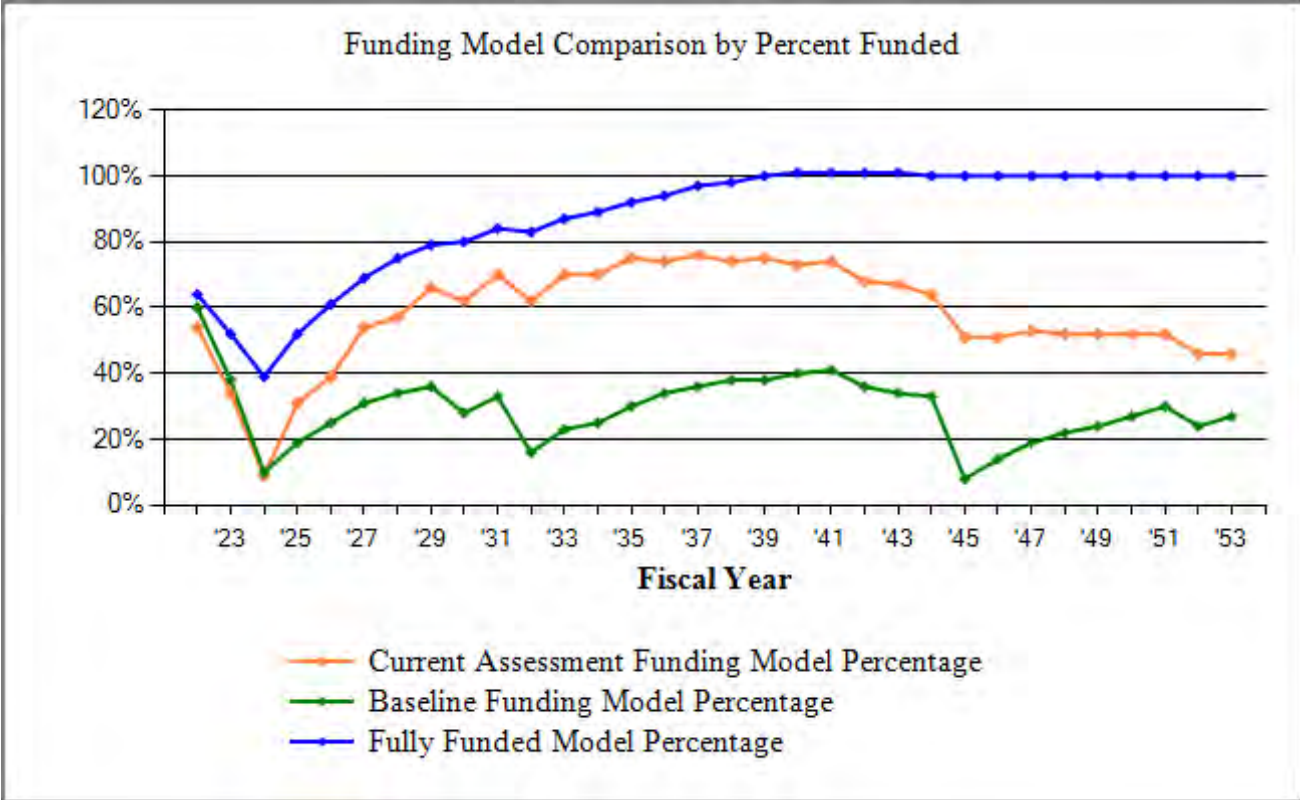
Fully Funded Model Summary of Calculations	
Required Annual Contribution	\$126,030.18
<i>\$560.13 per unit annually</i>	
Average Net Annual Interest Earned	\$684.03
Total Annual Allocation to Reserves	\$126,714.21
<i>\$563.17 per unit annually</i>	

**Sierra Country Club Water System Level 3a Study 2022
Fully Funded Model Projection**

Beginning Balance: \$604,843

Year	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2022	126,030	684	340,000	391,557	616,396	64%
2023	190,517	624	225,351	357,347	685,945	52%
2024	93,611	339	257,456	193,841	492,967	39%
2025	95,542	506		289,889	562,820	52%
2026	97,672	678		388,239	638,427	61%
2027	104,685	863		493,787	720,187	69%
2028	110,857	1,034	14,071	591,607	793,753	75%
2029	113,863	1,188	26,594	680,063	860,465	79%
2030	116,327	1,122	155,133	642,379	805,895	80%
2031	126,936	1,346		770,662	914,751	84%
2032	123,189	1,127	249,710	645,268	778,902	83%
2033	136,712	1,368		783,349	902,487	87%
2034	143,301	1,562	33,942	894,270	1,000,845	89%
2035	157,054	1,840		1,053,164	1,144,202	92%
2036	171,559	2,143		1,226,866	1,299,394	94%
2037	186,847	2,474		1,416,187	1,467,244	97%
2038	200,349	2,789	22,920	1,596,405	1,624,564	98%
2039	208,814	3,083	43,319	1,764,983	1,773,733	100%
2040	226,679	3,485		1,995,147	1,981,516	101%
2041	232,186	3,898		2,231,231	2,205,643	101%
2042	222,674	3,826	267,452	2,190,279	2,166,405	101%
2043	232,654	4,025	122,861	2,304,097	2,283,590	101%
2044	238,338	4,258	109,039	2,437,654	2,428,041	100%
2045	223,003	3,245	806,275	1,857,627	1,854,856	100%
2046	247,540	3,684		2,108,852	2,107,200	100%
2047	271,702	4,166		2,384,719	2,380,141	100%
2048	290,582	4,616	37,335	2,642,584	2,635,906	100%
2049	307,043	5,038	70,562	2,884,103	2,878,370	100%
2050	334,938	5,633		3,224,674	3,216,284	100%
2051	359,614	6,273		3,590,561	3,580,794	100%
2052	346,753	6,128	435,652	3,507,790	3,516,280	100%
2053	383,762	6,810		3,898,362	3,916,669	100%

**Sierra Country Club Water System Level 3a Study 2022
Funding Model Comparison by Percent Funded**



The chart above compares the projected Reserve Percentage Funded of the three funding models (Current Assessment Funding Model, Baseline Funding Model and Fully Funded Model) over 30 years.

**Sierra Country Club Water System Level 3a Study 2022
Annual Expenditure Detail**

Description	Expenditures
Replacement Year 2022	
Water Basin Replacement	340,000
Total for 2022	\$340,000
Replacement Year 2023	
New Well Project Funding	225,351
Total for 2023	\$225,351
Replacement Year 2024	
New Well Project Funding	236,619
Water System - Chemical Treatment & Hydrological Evaluation	20,837
Total for 2024	\$257,456
<i>No Replacement in 2025</i>	
<i>No Replacement in 2026</i>	
<i>No Replacement in 2027</i>	
Replacement Year 2028	
Water Systems - Data Loggers	14,071
Total for 2028	\$14,071
Replacement Year 2029	
Water System - Chemical Treatment & Hydrological Evaluation	26,594
Total for 2029	\$26,594
Replacement Year 2030	
Water Systems Buildings - Structure Repair & Replacement	155,133
Total for 2030	\$155,133
<i>No Replacement in 2031</i>	
Replacement Year 2032	
Water System - Pump & Softener Component Repair/Replacement	164,193
Water Systems - Fiberglass Vessels & Softener Tank Replacement	85,517
Total for 2032	\$249,710
<i>No Replacement in 2033</i>	

**Sierra Country Club Water System Level 3a Study 2022
Annual Expenditure Detail**

Description	Expenditures
Replacement Year 2034	
Water System - Chemical Treatment & Hydrological Evaluation	33,942
Total for 2034	<u>\$33,942</u>
 <i>No Replacement in 2035</i>	
<i>No Replacement in 2036</i>	
<i>No Replacement in 2037</i>	
 Replacement Year 2038	
Water Systems - Data Loggers	22,920
Total for 2038	<u>\$22,920</u>
 Replacement Year 2039	
Water System - Chemical Treatment & Hydrological Evaluation	43,319
Total for 2039	<u>\$43,319</u>
 <i>No Replacement in 2040</i>	
<i>No Replacement in 2041</i>	
 Replacement Year 2042	
Water System - Pump & Softener Component Repair/Replacement	267,452
Total for 2042	<u>\$267,452</u>
 Replacement Year 2043	
Water Systems - Pump & Aeration Component Repair/Replacement	122,861
Total for 2043	<u>\$122,861</u>
 Replacement Year 2044	
Water System - Chemical Treatment & Hydrological Evaluation	55,287
Water Systems Buildings - Roof Replacement	53,752
Total for 2044	<u>\$109,039</u>
 Replacement Year 2045	
Water Systems Buildings - Structure Repair & Replacement	322,510
Well Refurbishing	483,765
Total for 2045	<u>\$806,275</u>

**Sierra Country Club Water System Level 3a Study 2022
Annual Expenditure Detail**

Description	Expenditures
<i>No Replacement in 2046</i>	
<i>No Replacement in 2047</i>	
Replacement Year 2048	
Water Systems - Data Loggers	37,335
Total for 2048	<u>\$37,335</u>
Replacement Year 2049	
Water System - Chemical Treatment & Hydrological Evaluation	70,562
Total for 2049	<u>\$70,562</u>
<i>No Replacement in 2050</i>	
<i>No Replacement in 2051</i>	
Replacement Year 2052	
Water System - Pump & Softener Component Repair/Replacement	435,652
Total for 2052	<u>\$435,652</u>
<i>No Replacement in 2053</i>	

**Sierra Country Club Water System Level 3a Study 2022
Detail Report by Category**

New Well Project Funding - 2023

Asset ID	1001	1 Allowance @	\$214,620.00
		Asset Actual Cost	\$214,620.00
		Percent Replacement	100%
		Future Cost	\$225,351.00
	Well Systems		
Placed in Service	January 2020		
Useful Life	1		
Adjustment	2		
Replacement Year	2023		
Remaining Life	1		

It was reported a component of the water system, a water basin, is failing and requires replacement in 2022. Due to this unexpected cost new well funding planned for 2022 has been revised to 2024.

The association plans on adding new wells to the water system over the course of the next several years. The total estimated cost for the project is \$750,000 which includes planning, engineering, permits and construction. It was reported that approximately \$106,147 of the total cost will be spent in 2020.

Well Refurbishing - 2045

Asset ID	1002	1 Allowance @	\$157,500.00
		Asset Actual Cost	\$157,500.00
		Percent Replacement	100%
		Future Cost	\$483,764.99
	Well Systems		
Placed in Service	July 2020		
Useful Life	25		
Replacement Year	2045		
Remaining Life	23		

No update for 2022

The budget includes funds for future maintenance and refurbishing of the community well system components.

Water System - Chemical Treatment & Hydrological Evaluation - 2024

Asset ID	1003	1 Allowance @	\$18,900.00
		Asset Actual Cost	\$18,900.00
		Percent Replacement	100%
		Future Cost	\$20,837.25
	Well Systems		
Placed in Service	January 2013		
Useful Life	5		
Adjustment	6		
Replacement Year	2024		
Remaining Life	2		

No update for 2022

**Sierra Country Club Water System Level 3a Study 2022
Detail Report by Category**

Water System - Chemical Treatment & Hydrological Evaluation continued...

Chemical treatment, detailed system inspection and possible hydrological evaluation (if required) are planned in five year cycles for the well sites and components.

Water System - Pump & Softener Component Repair/Replacement - 2032

Asset ID	1004	1 Allowance @ \$100,800.00
		Asset Actual Cost \$100,800.00
		Percent Replacement 100%
		Future Cost \$164,192.58
	Well Systems	
Placed in Service	July 2012	
Useful Life	10	
Adjustment	10	
Replacement Year	2032	
Remaining Life	10	

No update for 2022

Funds are included for the various well pumps, green sands filters, softner systems and components.

Water Systems - Data Loggers - 2028

Asset ID	1005	1 Allowance @ \$10,500.00
		Asset Actual Cost \$10,500.00
		Percent Replacement 100%
		Future Cost \$14,071.00
	Well Systems	
Placed in Service	July 2018	
Useful Life	10	
Replacement Year	2028	
Remaining Life	6	

No update for 2022

Water Systems - Pump & Aeration Component Repair/Replacement - 2043

Asset ID	1006	1 Allowance @ \$44,100.00
		Asset Actual Cost \$44,100.00
		Percent Replacement 100%
		Future Cost \$122,860.95
	Well Systems	
Placed in Service	July 2013	
Useful Life	30	
Replacement Year	2043	
Remaining Life	21	

No update for 2022

**Sierra Country Club Water System Level 3a Study 2022
Detail Report by Category**

Water Systems - Pump & Aeration Component Repair/Replacement continued...

The water system requires treatment equipment that includes pumps, aeration modules and various components.

Water Systems - Fiberglass Vessels & Softener Tank Replacement - 2032

Asset ID	1007	1 Allowance @ \$52,500.00
		Asset Actual Cost \$52,500.00
		Percent Replacement 100%
	Well Systems	Future Cost \$85,516.97
Placed in Service	July 1997	
Useful Life	35	
Replacement Year	2032	
Remaining Life	10	

No update for 2022

Funding for replacement of the water vessels and softener tanks as required.

Water Systems - Main Storage Tank & Reservoir Replacement/Upgrade - 2058

Asset ID	1008	1 Allowance @ \$315,000.00
		Asset Actual Cost \$315,000.00
		Percent Replacement 100%
	Well Systems	Future Cost \$1,824,422.08
Placed in Service	July 2008	
Useful Life	50	
Replacement Year	2058	
Remaining Life	36	

No update for 2022

Budget estimate for main tank replacement and basin reservoir upgrade.

Water Systems - Well Casing Replacement - 2060

Asset ID	1009	1 Allowance @ \$43,050.00
		Asset Actual Cost \$43,050.00
		Percent Replacement 100%
	Well Systems	Future Cost \$274,894.79
Placed in Service	July 1980	
Useful Life	80	
Replacement Year	2060	
Remaining Life	38	

No update for 2022

**Sierra Country Club Water System Level 3a Study 2022
Detail Report by Category**

Water Systems - Well Casing Replacement continued...

Funding for future estimated well casing replacement.

Water Systems Buildings - Roof Replacement - 2044

		1 Allowance @	\$18,375.00
Asset ID	1010	Asset Actual Cost	\$18,375.00
		Percent Replacement	100%
		Future Cost	\$53,751.66
	Well Systems		
Placed in Service	October 2014		
Useful Life	30		
Replacement Year	2044		
Remaining Life	22		

No update for 2022

It was reported the basin building roof was replaced in 2014 at a cost of \$8,630. Funds are included for the eventual roof replacement costs for each structure.

Water Systems Buildings - Structure Repair & Replacement - 2030

		1 Allowance @	\$105,000.00
Asset ID	1011	Asset Actual Cost	\$105,000.00
		Percent Replacement	100%
		Future Cost	\$155,132.82
	Well Systems		
Placed in Service	July 1980		
Useful Life	15		
Adjustment	35		
Replacement Year	2030		
Remaining Life	8		

No update for 2022

The budget includes funds for repairs and replacement to the water treatment buildings along with exterior painting as needed.

**Sierra Country Club Water System Level 3a Study 2022
Detail Report by Category**

Water Basin Replacement - 2022

		1 Allowance @	\$340,000.00
Asset ID	1012	Asset Actual Cost	\$340,000.00
		Percent Replacement	100%
	Well Systems	Future Cost	\$340,000.00
Placed in Service	July 1997		
Useful Life	40		
Adjustment	-15		
Replacement Year	2022		
Remaining Life	0		

Additional funds required for replacement of failed water basin project scheduled for 2022.

**Sierra Country Club Water System Level 3a Study 2022
Expenses by Item and by Calender Year**

Description	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
New Well Project Funding		225,351	236,619							
Water Basin Replacement	340,000									
Water System - Chemical Treatment & Hyd..			20,837					26,594		
Water System - Pump & Softener Compon..										
Water Systems - Data Loggers							14,071			
Water Systems - Fiberglass Vessels & Soft..										
Water Systems - Main Storage Tank & Res..										
Water Systems - Pump & Aeration Compon..										
Water Systems - Well Casing Replacement										
Water Systems Buildings - Roof Replacem..										
Water Systems Buildings - Structure Repair..									155,133	
Well Refurbishing										
Year Total:	340,000	225,351	257,456				14,071	26,594	155,133	

**Sierra Country Club Water System Level 3a Study 2022
Expenses by Item and by Calender Year**

Description	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
New Well Project Funding										
Water Basin Replacement										
Water System - Chemical Treatment & Hyd..			33,942					43,319		
Water System - Pump & Softener Compon..	164,193									
Water Systems - Data Loggers							22,920			
Water Systems - Fiberglass Vessels & Soft..	85,517									
Water Systems - Main Storage Tank & Res..										
Water Systems - Pump & Aeration Compon..										
Water Systems - Well Casing Replacement										
Water Systems Buildings - Roof Replacem..										
Water Systems Buildings - Structure Repair..										
Well Refurbishing										
Year Total:	249,710		33,942				22,920	43,319		

**Sierra Country Club Water System Level 3a Study 2022
Expenses by Item and by Calender Year**

Description	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051
New Well Project Funding										
Water Basin Replacement										
Water System - Chemical Treatment & Hyd..			55,287					70,562		
Water System - Pump & Softener Compon..	267,452									
Water Systems - Data Loggers							37,335			
Water Systems - Fiberglass Vessels & Soft..										
Water Systems - Main Storage Tank & Res..										
Water Systems - Pump & Aeration Compon..		122,861								
Water Systems - Well Casing Replacement										
Water Systems Buildings - Roof Replacem..			53,752							
Water Systems Buildings - Structure Repair..				322,510						
Well Refurbishing				483,765						
Year Total:	267,452	122,861	109,039	806,275			37,335	70,562		

**Sierra Country Club Water System Level 3a Study 2022
Expenses by Item and by Calender Year**

Description	2052	2053
New Well Project Funding		
Water Basin Replacement		
Water System - Chemical Treatment & Hyd..		
Water System - Pump & Softener Compon..	435,652	
Water Systems - Data Loggers		
Water Systems - Fiberglass Vessels & Soft..		
Water Systems - Main Storage Tank & Res..		
Water Systems - Pump & Aeration Compon..		
Water Systems - Well Casing Replacement		
Water Systems Buildings - Roof Replacem..		
Water Systems Buildings - Structure Repair..		
Well Refurbishing		
Year Total:	435,652	



Reserve Study
Disclosure Form

In Compliance with RCW 64.34.308 and RCW 64.38.025 (2016)

Name of Association: Sierra Country Club Water System

Current Year Reported Budget Contribution to Reserves: \$67,098

Recommended 2022 Contribution to Reserves, per study: \$126,030

Funding Plan Used for Recommendations: Full Funding

Projected Year End Reserve Balance at Current Funding Level: \$332,522
(Percentages below indicate the projected year end percentage level of the Reserve Fund vs Fully Funded at the Current Contribution Amount)

Projected Year End Balance If the account was Fully Funded: \$616,396

5 Year Balances

Table with 5 columns (2022-2026) and 5 rows (Estimates Per Study, Projected Year End Reserve Balances at Current Contribution Level*, Projected Year End Reserve Balances at Recommended Funding Contribution Level, Projected Year End Fully Funded Reserves If Fully Funded, Percent Reserve is Fully Funded at Current Funding Level: *)

Based upon the most recent reserve study, will the association have funds to meet obligations for the next 30 years at the current contribution rate? Yes

To be Completed by Management

Proposed 2022 Budget's Contribution to Reserves: _____

Is Additional Funding (Regular or Special Assessment) Planned? Yes/No

When is it due? (Month/Year) _____

What is the Purpose? Description of Project(s): _____

Duration of Assessment: Start Date _____ End Date _____

Assessment Amount per Unit on Average: Per Month _____ Per Year _____

Author Name _____

Source Key: Budget/Reserve Study

Date of Completion _____

* Projection includes a 3% Increase Per Year

Sierra Country Club Water System Level 3a Study 2022

Appendix - Disclosure, Definitions & Calculations

Percent Funded

Many reserve studies use the concept of "Percent Funded" to measure the reserve account balance against a theoretically perfect value. Percent Funded is often used as a measure of the "Financial Health" of an association. The assumption is, the higher the percentage, the greater the "Financial Health". The question of substance is simply: How much is enough? To answer the question, some understanding of Percent Funded is required. Percent Funded is the ratio of current cash reserves divided by the Fully Funded value at any instant in time. Fully Funded is defined as the present value of the sum of all Reserve Items divided by the expected life of each item. In essence, Fully Funded is simply the total of the average net present value of the association improvements. Reserve Items with a remaining life greater than the study life are not included in the calculation. For example; building framing, foundations, water lines, and other long-lived items that fall outside the envelope of the reserve study are excluded from the calculation. Percent Funded is then, the current reserve balance divided by the Fully Funded value multiplied by 100 (to give a percentage). The concept of percent funded is useful when the reserve study is comprehensive, but misleading when the reserve study is superficial or constrained. As a result, we recommend that the statement "Percent Funded" be used with caution.

Washington State Homeowners and Condominium Act Compliance with RCW 64.38 and RCW 64.34 (2019)

This reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require you to pay on demand as a special assessment your share of common expenses for the cost of major maintenance, repair, or replacement of a reserve component. A reserve component list (as applicable), including roofing, painting, paving, decks, siding, plumbing, windows, and any other reserve component that would cost more than one percent of the annual budget for major maintenance, repair, or replacement. If one of these reserve components is not included in the reserve study, the study should provide commentary explaining the basis for its exclusion. The study must also include quantities and estimates for the useful life of each reserve component, remaining useful life of each reserve component, and current repair and replacement cost for each component.

Disclosures Required by RCW 64.90.550.

This Reserve Study meets all requirements of the Washington Uniform Common Interest Ownership Act.

- a) This Reserve Study was prepared with the assistance of a reserve study professional and that professional was independent;
- b) This Reserve Study includes all information required by RCW 64.90.550 Reserve Study – Contents; and
- c) This reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require the association to (1) defer major maintenance, repair, or replacement, (2) increase future reserve contributions, (3) borrow funds to pay for major maintenance, repair, or replacement, or (4) impose special assessments for the cost of major maintenance, repair, or replacement.

Reserve Study Assumptions

The below listed assumptions are implicit in this reserve study:

- Cost estimates and financial information are accurate and current.
- No unforeseen circumstances will cause a significant reduction of reserves.
- Sufficient comprehensive property insurance exists to protect from insurable risks.
- The association plans to continue to maintain the existing common areas and amenities.
- Reserve payments occur at the end of every calendar month.
- Expenses occur at the end of the expense year.

Inflation Estimate

Inflation for the last year has been reviewed and a best fit regression analysis of the last 12 months has been used to determine future expense estimates. Based on the current economic conditions, the inflation rate will need to be closely monitored as this is a critical factor in reserve planning for future fund needs.

Impact of Component Life

The projected life expectancy of the major components and the reserve funding needs of the association are closely tied.

Sierra Country Club Water System Level 3a Study 2022

Appendix - Disclosure, Definitions & Calculations

Performing the appropriate routine maintenance for each major component generally increases the components' useful life, effectively moving the component expense into the future which reduces the reserve funding payments of the association. Failure to perform such maintenance can shorten the remaining useful lives of the major components, bringing the replacement expense closer to the present which increases the reserve funding payments of the association.

Study Method

This reserve analysis study and the parameters under which it has been completed are based upon information provided to us in part by representatives of the association, its contractors, assorted vendors, specialist and independent contractors, the Community Association Institute, and various construction pricing and scheduling manuals including, but not limited to: Marshall & Swift Valuation Service, RS Means Facilities Maintenance & Repair Cost Data, RS Means Repair & Remodeling Cost Data, National Construction Estimator, National Repair & Remodel Estimator, Dodge Cost Manual and McGraw-Hill Professional. Additionally, costs are obtained from numerous vendor catalogues, actual quotations or historical costs, and our own experience in the field of property management and reserve study preparation.

It has been assumed, unless otherwise noted in this report, that all assets have been designed and constructed properly and that each estimated useful life will approximate that of the norm per industry standards and/or manufacturer's specifications. In some cases, estimates may have been used on assets, which have an indeterminable but potential liability to the association. The decision for the inclusion of these as well as all assets considered is left to the client.

We recommend that your reserve analysis study be updated on an annual basis due to fluctuating interest rates, inflationary changes, and the unpredictable nature of the lives of many of the assets under consideration. All of the information collected during our inspection of the association and computations made subsequently in preparing this reserve analysis study are retained in our computer files. Therefore, annual updates may be completed quickly and inexpensively each year.

Items Beyond the Scope of this Report

Building or land appraisals for any purpose.

State or local zoning ordinance violations.

Building code violations.

Soils conditions, soils contamination or geological stability of site.

Engineering analysis or structural stability of site.

Air quality, asbestos, electromagnetic radiation, formaldehyde, lead, mercury, radon, water quality or other environmental hazards.

Invasions by pests, termites and any or all other destroying organisms, insects, birds, bats or animals to buildings or site.

This study is not a pest inspection.

Adequacy or efficiency of any system or component on site.

Specifically excluded reserve items:

Septic systems and septic tanks.

Buried or concealed portions of swimming pools, pool liners, Jacuzzis and spas or similar items.

Items concealed by signs.

Missing or omitted information supplied by the Client for the purposes of reserve study preparation.

Hidden improvements such as sewer lines, water lines, irrigation lines or other buried or concealed items.

Definitions:

Purpose of Distribution

Distribution will have no real meaning for a cash flow model. But the nature of the Fully Funded Model requires it. Annuity payments are based on an accumulation of reserves for each component in the study. Because a study will rarely start with 'perfect' funding for each component, a starting point for each year must be established.

At the start of the study (The beginning fiscal date)

The beginning balance is used for distribution

Going through the components ordered by remaining life and starting with the least remaining life, the balance is assigned to the components by the value of fully funded for each component. Fully funded for components with no

Sierra Country Club Water System Level 3a Study 2022 Appendix - Disclosure, Definitions & Calculations

life left is the replacement value of the component.

If after the last component there is still a balance remaining, the list of components is iterated again and the moneys are assigned at the replacement cost of each component.

If after the second pass on there are remaining funds then just the components being replaced are iterated and distribution is set to twice the replacement value.

If there are still funds after the above, they are considered excess funds.

In each following year of the projection

Money is accumulated from contributions and interest on deposit. Expenditures for replacement/repair of components is subtracted. This becomes the ending balance of the year. This money is distributed in the same manner as described above.

Calculations:

Fully Funded Methods

Basic Fully Funded

There are two published methods of calculating Fully Funded. The first only considers the present value of a component. Present value in each period will change according to the inflation applied.

$$FullyFunded = (Age / Useful Life) * Present Value$$

Community Association Press Fully Funded

To account for inflation and interest earned on deposit the writers of '**RESERVE FUNDS: How & Why community Associations Invest Assets**' came up with:

$$Basic_FF = (Age / Useful Life) * Present Value$$

$$CAI_FF = Basic_FF \\ + Basic_FF / (1 + interest)^{Remaining Life} \\ - Basic_FF / (1 + inflation)^{Remaining Life}$$