



ACCURATE RESERVE PROFESSIONALS, LLC

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Level I – FULL Reserve Study Report

For Fiscal Year Beginning January 1, 2023



Wolf Creek

Winthrop, WA

November 22, 2022





Reserve Study Summary for Wolf Creek

70 Units

For Fiscal Year Beginning January 1, 2023

Overview	
Starting Reserve Balance	\$105,286
Fully Funded Balance	\$1,464,802
Percent Funded	7%
Reserve Fund Strength (Weak, Fair or Strong)	Weak
Total Surplus or (Deficit) of Reserve Funding	\$(1,359,516)
Surplus or (Deficit) on a Per Unit Average Basis***	\$(19,422)
Current Reserve Contribution Based on Last Approved Budget	
Current Reserve Contribution Rate, Annually	\$0
Current Special Assessment, Annually	n/a
Is the Current Contribution Rate Within Range Provided by Study Below?	No
Reserve Study Funding Plan Options Beginning January 1, 2023	
100% Full Funding Contribution Rate, Annually	\$48,750
70% Threshold Funding Contribution Rate, Annually	\$38,750
Baseline Funding Contribution Rate, Annually	\$37,550
Recommended 2023 Special Assessment	\$1,086,750

Study Description & Assumptions

This is a Level I Full reserve study. As part of this report, a site visit was performed on October 27, 2022. This report assumes a 3% annual inflation rate and 1% interest rate. Taxes on interest income and other outside factors are not included.

Property Description

Wolf Creek consists of 70 single family homes located in Winthrop, WA. It was constructed in approximately 1978.

Recommended Funding Plan

We recommend that the association budget for annual reserve contributions of \$38,750 to \$48,750 per year in 2023 as well as levy a special assessment in the amount of \$1,086,750 (see below).

Recommended Special Assessment(s)

A special assessment in the amount of \$1,086,750 is recommended for 2023 for the purpose of water main replacement. The recommended special assessment is preliminary and may need to be adjusted based on actual scope of work and vendor estimates.

Other Notes

None.

***Current surplus or deficit is calculated on an average per unit. If the association calculates its assessments based on a fraction or percentage that varies by unit, it should calculate the current deficit or surplus based on that schedule. To do so, subtract the association's starting reserve balance above from the fully funded balance, and multiply the resulting number by the fraction or percentage allocable to each unit.

Wolf Creek Component List

Asset ID	Description	Useful Life	Adjustment	Remaining Life	Current Cost
Grounds					
1020	Street & Common Area Signs - Replace	Unfunded			
1048	Gravel Roads - Regrade & Replenish	3		2	\$16,000
1135	Landscape - Refurbish Allotment	Unfunded			
Professional					
6005	Reserve Study - Annual Update	Unfunded			
Water System					
7000	Well Casings - Replace	75		30	\$150,000
7005	Well Controls/Telemetry - Replace	20		0	\$25,000
7010	Submersible Well Pump - Replace (2008)	12		0	\$2,500
7015	Submersible Well Pump - Replace (2015)	12		4	\$2,500
7020	Water Mains - Replace	75	-31	0	\$1,086,750
7025	Water Meters - Replace (Service)	20		0	\$17,500
7030	Water Meters - Replace (Source/Distribution)	20		18	\$2,150
7035	Booster Pump - Replace (Virginia Ridge)	15		0	\$6,500
7040	Booster Pump - Replace (Green Meadows)	15		14	\$6,500
7045	Pressure Tanks - Replace	Unfunded			
7050	Chlorination System - Replace	Unfunded			
7055	Water Storage Tank - Replace	50		6	\$250,000
7060	Water Storage Tank - Clean & Inspect	3		1	\$2,600
7065	Generator - Replace	10		2	\$5,500
7070	Generator - Replace (Portable)	10		9	\$1,300
7080	Pump House Exterior - Refurbish (Cottonwood)	50		6	\$3,000
7085	Pump House Exterior - Refurbish (Green Meadows)	Unfunded			
7100	Fire Hydrants - Replace	Unfunded			
7110	Electrical System - Replace	Unfunded			

An Introduction to Your Reserve Study

The Purpose of Your Reserve Study

The purpose of your reserve study is to develop a budgetary model to assist the association with preparing for the maintenance, repair and replacement of the assets which are under the association's responsibility. The report provides both estimated timeframes in which these projects are expected to occur as well as a cost allowance for the project. A reserve study consists of two parts; the physical analysis and the financial analysis. The physical analysis includes the component inventory and associated information including useful life, remaining useful life and cost allowances. The financial analysis includes the association's current reserve fund status (the percent funded) and funding recommendations.

Reserve Study Standards

This report is prepared in accordance with the National Reserve Study Standards (NRSS) by Community Associations Institute (CAI). First published in 1998, the NRSS provides guidelines related to the preparation of reserve studies including what information is included and how calculations are prepared. The full NRSS can be viewed at [National Reserve Study Standards](#) and an explanation of the NRSS is available at [NRSS Explanation](#).

Types of Reserve Studies

There are four types of reserve studies under National Reserve Study Standards:

- **Level I Full** – This is the initial report prepared by the association. This report includes a site visit, in which a non-intrusive basic visual review is conducted and association assets are counted, measured and/or quantified. A useful life, remaining useful life and cost allowances are assigned to the association's assets and a funding plan is developed accordingly. A Full study is typically only prepared once as the quantities and other data can be used in all other reports going forward.
- **Level II With-Site-Visit** – This report includes a site visit in which a non-intrusive basic visual review is conducted. No assets are quantified as this process was previously completed during the Full study process. The remaining useful life and cost allowances are updated for the association's assets and the funding plan is updated accordingly. After the initial full study, most associations perform a with-site-visit report every third year; this cycle is required for Washington State associations with significant assets.
- **Level III No-Site-Visit** – This report does not include a site visit. The remaining useful life and cost allowances are updated for the association's assets and the funding plan is updated. The No-Site-Visit update is primarily based on the current reserve account balance, projects completed since the last report, current industry costs, and any proposals the association may have received for upcoming projects.
- **Level IV Preliminary, Community Not Yet Constructed** – This report is prepared for communities that are in the development phase and have not yet been constructed. The component list is typically developed using building and site plans along with details provided by the developer. A useful life, remaining useful life and cost allowances are assigned to the association's assets and a funding plan is developed accordingly.

What Components are Included

National Reserve Study Standards provide for a four-part test to determine which items are funded within a reserve study. First, the component needs to be an item that the association is responsible to maintain, repair and replace. The second and third parts of the test go hand in hand; the item must have a predictable useful life (i.e. we need to be able to determine how long, on average, the item will last), and it must have a predictable remaining useful life (i.e. we need to be able to determine how much longer until that item requires replacement). Lastly, the cost to maintain, repair and replace the component must be above a minimum cost which is typically defined as 1% or more of the annual operating budget, however some associations may opt to define a different funding threshold. Using 1% of the annual operating budget, an association with a \$100,000 annual budget would have a \$1,000 reserve funding threshold.

One consideration that is not included within the NRSS four-part test are significant expenses which occur annually. Some associations opt to include annual expenses that exceed the 1% funding threshold in their study, however it is our opinion that these expenses are best handled through the operating budget. From an administrative and practical standpoint it is most advantageous to budget and pay for those expenses through the operating account, particularly in states such as Washington State which feature statutory limitations regarding reserve fund disbursements.

The intent of funding for reserve components is to maintain, repair or replace those exact components in the future. Capital improvements are not included within a reserve study and reserve funds should not be used accordingly. A capital improvement is the addition of an item that does not previously exist, such as an association installing a swimming pool when one was not previously present. Repurposing of an existing item into something new is also considered a capital improvement; an example would be converting a janitorial closet in the clubhouse into an additional restroom. Replacing an existing item with an upgraded but like-kind product is not considered a capital improvement and reserve funds may be used in this instance; an example would be replacement of a wood deck with a composite (Trex®) material.

How Are Costs Determined

The cost allowances within a reserve study are determined in a number of ways. First, the association's prior cost history or recent vendor proposals are generally the best predictor of future costs as they are specific to your community. When a cost history is unavailable, a number of methods to determine costs may be used by the reserve study provider including, but not limited to research with vendors (including the association's vendors) and/or industry average costs. When industry average costs are used, they are adjusted based on the geographical location and current economical market of each client.

Fully Funded Balance Calculation

One of the most common questions related to a reserve study is how the fully funded balance is calculated. Contrary to popular belief, the fully funded balance is *not* the cost to replace all the association's assets today. Rather, it is the total accumulated deterioration of the association's assets. Let's take the example of a roof. If the roof lasts 30 years and costs \$30,000 to replace, the association would save \$1,000 per year so that it would have the \$30,000 it needs to replace the roof by the 30th year. If the roof is two years old, the association would need \$2,000 on hand to be 100% funded, meaning that it had the exact amount of cash on hand that the roof had deteriorated to date. If the association only saved \$1,000 by the second year, it would then be 50% funded instead. The reserve study calculates the deterioration of each of the association's assets through the date of the study, taking into consideration their age and replacement cost allowances, and the cumulative total of those numbers is the association's fully funded balance.

Reserve Fund Strength, Also Known As Percent Funded

The association's percent funded is calculated by comparing the association's current reserve balance against the fully funded balance, which we defined above. Generally speaking, an association that is less than 30% funded is considered to have a weak reserve account balance and thus a high risk of requiring a special assessment. Associations which are between 30% and 69% funded are considered to have a moderate funding position and therefore a medium risk of a special assessment. Association's which are 70% or more funded have a strong funding position and a low risk of requiring a special assessment. One of the many goals of your reserve study is to help the association achieve, and keep, a strong funding position with a low risk of a special assessment.

How to Pay for Reserve Projects

The question of reserve expenses is not if they will occur, but when they will occur. The best and most cost-effective way to ensure that funds are available for these expenses is to save for future projects through regular contributions to the reserve fund. This not only ensures that funds are available as projects arise, thus reducing the chances of deferred maintenance, but it is also the most equitable to ownership groups over time. If a person owns a unit for one year, they

contribute toward one year of reserves. The same goes for a person who owns their unit for five years, or for 30 years. If the association does not fund the reserve account through regular contributions and instead assesses a special assessment or takes out a loan for the project, the current ownership group is unfairly burdened with paying the full project cost even though previous owners enjoyed the use of those assets.

Properly reserving for anticipated maintenance, repair and replacement projects also results in lower overall costs to the association. Inadequate reserve funds often result in deferred maintenance, which can cause higher project costs and risk potential damage to association assets. For example, deferring an exterior paint project may result in increased future costs due to the additional prep work required to address peeling paint, repairs to exposed wood which has started to decay, etc. There are also administrative expenses associated with levying a special assessment and interest expenses associated with taking out a loan, both of which are avoided when adequate reserve funds are available.

Report Sections

This report was designed to provide clear, distinct chapters for the different funding plan options so the association can easily compare and select a funding plan to follow. Your report includes separate sections detailing the Full Funding plan, 70% Funding plan, Baseline Funding plan, as well as data illustrating the reserve funding projections based on the association's current contribution rate. The different funding options are also summarized in the Report Summary at the beginning of this study. In rare instances, associations with unique funding scenarios may not have a 70% Funding option available; in those cases the 70% Funding chapter has been omitted.



Annual Expenditure Charts

The data within this section represents the association's projected expenses over the 30 year scope of this report. These expenses are projected to occur independent of which funding plan the association chooses to follow (Full, 70% or Baseline), and the charts are particularly helpful to the association in planning near term projects (i.e. within the next 1-5 years).

This section also includes a deterioration summary, which shows the total deterioration of the association's assets on an annual basis. It is important that the association consider this data when selecting an annual reserve contribution, as contributing significantly less than the annual deterioration rate means that the association's assets are deteriorating at a faster rate than the association is reserving.

Wolf Creek
Winthrop, WA
Year By Year Spread Sheet

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
ID Description										
Grounds										
1020 Street & Common Area Signs - Replace	Unfunded									
1048 Gravel Roads - Regrade & Replenish			16,974			18,548			20,268	
1135 Landscape - Refurbish Allotment	Unfunded									
Grounds Total:			16,974			18,548			20,268	
Professional										
6005 Reserve Study - Annual Update	Unfunded									
Water System										
7000 Well Casings - Replace										
7005 Well Controls/Telemetry - Replace	25,000									
7010 Submersible Well Pump - Replace (2008)	2,500									
7015 Submersible Well Pump - Replace (2015)					2,814					
7020 Water Mains - Replace	1,086,750									
7025 Water Meters - Replace (Service)	17,500									
7030 Water Meters - Replace (Source/Distribution)										
7035 Booster Pump - Replace (Virginia Ridge)	6,500									
7040 Booster Pump - Replace (Green Meadows)										
7045 Pressure Tanks - Replace	Unfunded									
7050 Chlorination System - Replace	Unfunded									
7055 Water Storage Tank - Replace							298,513			
7060 Water Storage Tank - Clean & Inspect		2,678			2,926			3,198		
7065 Generator - Replace			5,835							
7070 Generator - Replace (Portable)										1,696
7080 Pump House Exterior - Refurbish (Cottonwood)							3,582			
7085 Pump House Exterior - Refurbish (Green Mea..	Unfunded									
7100 Fire Hydrants - Replace	Unfunded									
7110 Electrical System - Replace	Unfunded									
Water System Total:	1,138,250	2,678	5,835		5,740		302,095	3,198		1,696
Year Total:	1,138,250	2,678	22,809		5,740	18,548	302,095	3,198	20,268	1,696

Wolf Creek
Winthrop, WA
Year By Year Spread Sheet

		2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
ID	Description										
Grounds											
1020	Street & Common Area Signs - Replace	<i>Unfunded</i>									
1048	Gravel Roads - Regrade & Replenish		22,148			24,201			26,446		
1135	Landscape - Refurbish Allotment	<i>Unfunded</i>									
Grounds Total:			22,148			24,201			26,446		
Professional											
6005	Reserve Study - Annual Update	<i>Unfunded</i>									
Water System											
7000	Well Casings - Replace										
7005	Well Controls/Telemetry - Replace										
7010	Submersible Well Pump - Replace (2008)			3,564							
7015	Submersible Well Pump - Replace (2015)							4,012			
7020	Water Mains - Replace										
7025	Water Meters - Replace (Service)										
7030	Water Meters - Replace (Source/Distribution)									3,660	
7035	Booster Pump - Replace (Virginia Ridge)						10,127				
7040	Booster Pump - Replace (Green Meadows)					9,832					
7045	Pressure Tanks - Replace	<i>Unfunded</i>									
7050	Chlorination System - Replace	<i>Unfunded</i>									
7055	Water Storage Tank - Replace										
7060	Water Storage Tank - Clean & Inspect	3,494			3,818			4,172			4,559
7065	Generator - Replace			7,842							
7070	Generator - Replace (Portable)										2,280
7080	Pump House Exterior - Refurbish (Cottonwood)										
7085	Pump House Exterior - Refurbish (Green Mea..	<i>Unfunded</i>									
7100	Fire Hydrants - Replace	<i>Unfunded</i>									
7110	Electrical System - Replace	<i>Unfunded</i>									
Water System Total:		3,494		11,406	3,818	9,832	10,127	8,184		3,660	6,839
Year Total:		3,494	22,148	11,406	3,818	34,033	10,127	8,184	26,446	3,660	6,839

Wolf Creek
Winthrop, WA
Year By Year Spread Sheet

ID	Description	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052
Grounds											
1020	Street & Common Area Signs - Replace	Unfunded									
1048	Gravel Roads - Regrade & Replenish	28,898			31,577			34,505			37,705
1135	Landscape - Refurbish Allotment	Unfunded									
Grounds Total:		28,898			31,577			34,505			37,705
Professional											
6005	Reserve Study - Annual Update	Unfunded									
Water System											
7000	Well Casings - Replace										
7005	Well Controls/Telemetry - Replace	45,153									
7010	Submersible Well Pump - Replace (2008)					5,082					
7015	Submersible Well Pump - Replace (2015)									5,720	
7020	Water Mains - Replace										
7025	Water Meters - Replace (Service)	31,607									
7030	Water Meters - Replace (Source/Distribution)										
7035	Booster Pump - Replace (Virginia Ridge)										
7040	Booster Pump - Replace (Green Meadows)										15,318
7045	Pressure Tanks - Replace	Unfunded									
7050	Chlorination System - Replace	Unfunded									
7055	Water Storage Tank - Replace										
7060	Water Storage Tank - Clean & Inspect			4,982			5,444			5,949	
7065	Generator - Replace			10,539							
7070	Generator - Replace (Portable)										3,064
7080	Pump House Exterior - Refurbish (Cottonwood)										
7085	Pump House Exterior - Refurbish (Green Mea..	Unfunded									
7100	Fire Hydrants - Replace	Unfunded									
7110	Electrical System - Replace	Unfunded									
Water System Total:		76,760		15,520		5,082	5,444			11,668	18,381
Year Total:		105,658		15,520	31,577	5,082	5,444	34,505		11,668	56,086

Wolf Creek
Winthrop, WA
Annual Expenditure Detail

Description	Expenditures
Replacement Year 2023	
Submersible Well Pump - Replace (2008)	2,500
Booster Pump - Replace (Virginia Ridge)	6,500
Water Meters - Replace (Service)	17,500
Well Controls/Telemetry - Replace	25,000
Water Mains - Replace	1,086,750
Total for 2023	\$1,138,250
Replacement Year 2024	
Water Storage Tank - Clean & Inspect	2,678
Total for 2024	\$2,678
Replacement Year 2025	
Gravel Roads - Regrade & Replenish	16,974
Generator - Replace	5,835
Total for 2025	\$22,809
<i>No Replacement in 2026</i>	
Replacement Year 2027	
Water Storage Tank - Clean & Inspect	2,926
Submersible Well Pump - Replace (2015)	2,814
Total for 2027	\$5,740
Replacement Year 2028	
Gravel Roads - Regrade & Replenish	18,548
Total for 2028	\$18,548
Replacement Year 2029	
Pump House Exterior - Refurbish (Cottonwood)	3,582
Water Storage Tank - Replace	298,513
Total for 2029	\$302,095
Replacement Year 2030	
Water Storage Tank - Clean & Inspect	3,198
Total for 2030	\$3,198

Wolf Creek
Winthrop, WA
Annual Expenditure Detail

Description	Expenditures
Replacement Year 2031	
Gravel Roads - Regrade & Replenish	20,268
Total for 2031	\$20,268
Replacement Year 2032	
Generator - Replace (Portable)	1,696
Total for 2032	\$1,696
Replacement Year 2033	
Water Storage Tank - Clean & Inspect	3,494
Total for 2033	\$3,494
Replacement Year 2034	
Gravel Roads - Regrade & Replenish	22,148
Total for 2034	\$22,148
Replacement Year 2035	
Generator - Replace	7,842
Submersible Well Pump - Replace (2008)	3,564
Total for 2035	\$11,406
Replacement Year 2036	
Water Storage Tank - Clean & Inspect	3,818
Total for 2036	\$3,818
Replacement Year 2037	
Gravel Roads - Regrade & Replenish	24,201
Booster Pump - Replace (Green Meadows)	9,832
Total for 2037	\$34,033
Replacement Year 2038	
Booster Pump - Replace (Virginia Ridge)	10,127
Total for 2038	\$10,127

Wolf Creek
Winthrop, WA
Annual Expenditure Detail

Description	Expenditures
Replacement Year 2039	
Water Storage Tank - Clean & Inspect	4,172
Submersible Well Pump - Replace (2015)	4,012
Total for 2039	\$8,184
Replacement Year 2040	
Gravel Roads - Regrade & Replenish	26,446
Total for 2040	\$26,446
Replacement Year 2041	
Water Meters - Replace (Source/Distribution)	3,660
Total for 2041	\$3,660
Replacement Year 2042	
Water Storage Tank - Clean & Inspect	4,559
Generator - Replace (Portable)	2,280
Total for 2042	\$6,839
Replacement Year 2043	
Gravel Roads - Regrade & Replenish	28,898
Water Meters - Replace (Service)	31,607
Well Controls/Telemetry - Replace	45,153
Total for 2043	\$105,658
<i>No Replacement in 2044</i>	
Replacement Year 2045	
Water Storage Tank - Clean & Inspect	4,982
Generator - Replace	10,539
Total for 2045	\$15,520
Replacement Year 2046	
Gravel Roads - Regrade & Replenish	31,577
Total for 2046	\$31,577

Wolf Creek
Winthrop, WA
Annual Expenditure Detail

Description	Expenditures
Replacement Year 2047	
Submersible Well Pump - Replace (2008)	5,082
Total for 2047	\$5,082
Replacement Year 2048	
Water Storage Tank - Clean & Inspect	5,444
Total for 2048	\$5,444
Replacement Year 2049	
Gravel Roads - Regrade & Replenish	34,505
Total for 2049	\$34,505
<i>No Replacement in 2050</i>	
Replacement Year 2051	
Water Storage Tank - Clean & Inspect	5,949
Submersible Well Pump - Replace (2015)	5,720
Total for 2051	\$11,668
Replacement Year 2052	
Gravel Roads - Regrade & Replenish	37,705
Generator - Replace (Portable)	3,064
Booster Pump - Replace (Green Meadows)	15,318
Total for 2052	\$56,086

**Wolf Creek
Deterioration Summary**

Asset ID	Description	Useful Life	Current Cost	Annual Deterioration
1020	Street & Common Area Signs - Replace	Unfunded		
1048	Gravel Roads - Regrade & Replenish	3	\$16,000	\$5,333
1135	Landscape - Refurbish Allotment	Unfunded		
6005	Reserve Study - Annual Update	Unfunded		
7000	Well Casings - Replace	75	\$150,000	\$2,000
7005	Well Controls/Telemetry - Replace	20	\$25,000	\$1,250
7010	Submersible Well Pump - Replace (2008)	12	\$2,500	\$208
7015	Submersible Well Pump - Replace (2015)	12	\$2,500	\$208
7020	Water Mains - Replace	75	\$1,086,750	\$14,490
7025	Water Meters - Replace (Service)	20	\$17,500	\$875
7030	Water Meters - Replace (Source/Distribution)	20	\$2,150	\$108
7035	Booster Pump - Replace (Virginia Ridge)	15	\$6,500	\$433
7040	Booster Pump - Replace (Green Meadows)	15	\$6,500	\$433
7045	Pressure Tanks - Replace	Unfunded		
7050	Chlorination System - Replace	Unfunded		
7055	Water Storage Tank - Replace	50	\$250,000	\$5,000
7060	Water Storage Tank - Clean & Inspect	3	\$2,600	\$867
7065	Generator - Replace	10	\$5,500	\$550
7070	Generator - Replace (Portable)	10	\$1,300	\$130
7080	Pump House Exterior - Refurbish (Cottonwood)	50	\$3,000	\$60
7085	Pump House Exterior - Refurbish (Green Meadows)	Unfunded		
7100	Fire Hydrants - Replace	Unfunded		
7110	Electrical System - Replace	Unfunded		
Total Annual Deterioration of Association Assets				\$31,946



Full Funding Model

The data within this section represents the 100% full funding model. In this model the association works to fund the reserve account to a level in which the reserve account balance equals the fully funded balance, thus achieving 100% funding. This is accomplished over the 30 year scope of the report. Following this funding model is recommended, as it puts the association at the lowest risk of requiring a special assessment should a project occur earlier than projected or cost more than anticipated.

Wolf Creek
Winthrop, WA
Full Funding Model Summary

Report Parameters	
Report Date	January 1, 2023
Account Number	0280
Budget Year Beginning	January 1, 2023
Budget Year Ending	December 31, 2023
Total Units	70
Inflation	3.00%
Interest Rate on Reserve Deposit	1.00%
2023 Beginning Balance	\$105,286

Full Funding Model

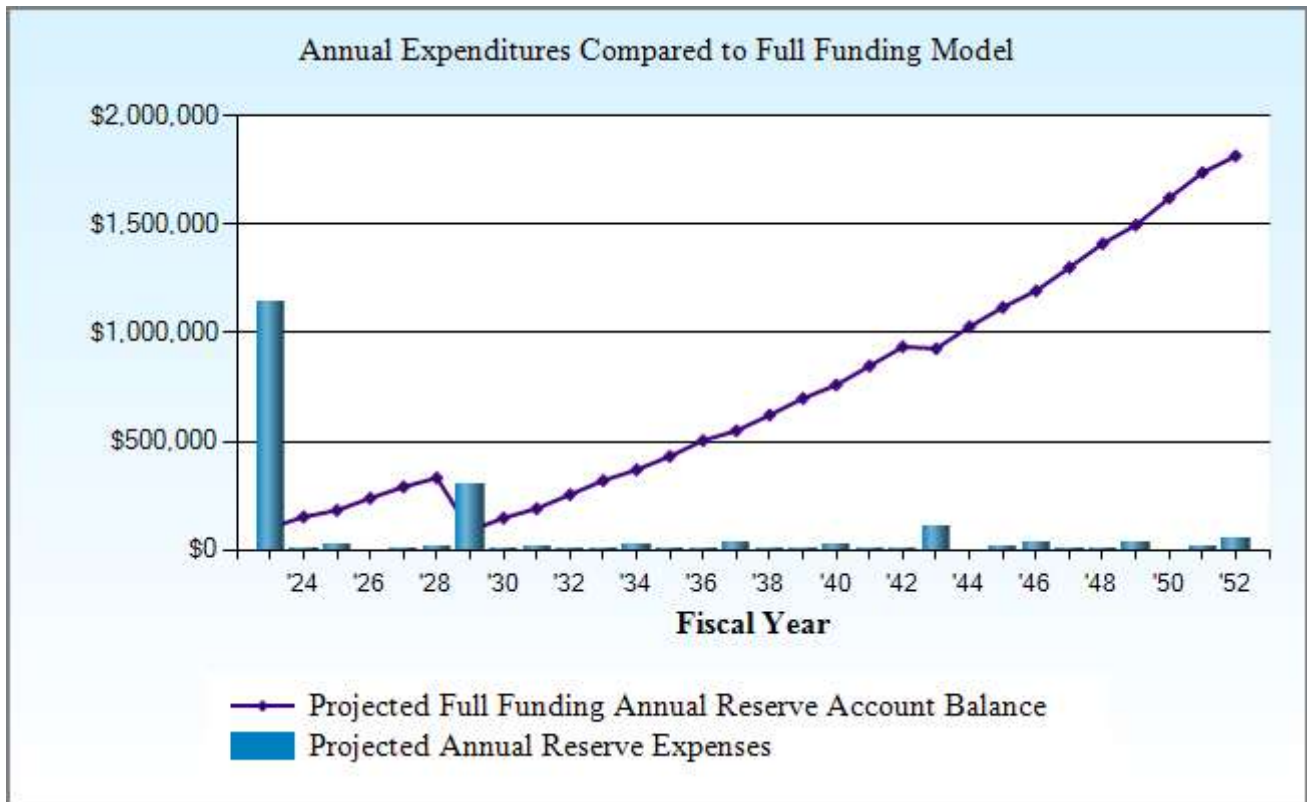
This funding model recommends a special assessment in the amount of \$1,086,750 in 2023 for the purpose of water main replacement. The recommended special assessment is preliminary and may need to be adjusted based on actual scope of work and vendor estimates.

Full Funding Model Summary of Calculations	
Required Annual Contribution	\$48,750.00
<i>\$696.43 per unit annually</i>	
Average Net Annual Interest Earned	<u>\$1,025.36</u>
Total Annual Allocation to Reserves	\$49,775.36
<i>\$711.08 per unit annually</i>	

Wolf Creek
Full Funding Model Projection

Beginning Balance: \$105,286

Year	Current Cost	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2023		1,086,750	2023 Special Assessment				
2023	1,577,800	48,750	1,025	1,138,250	103,561	369,252	28%
2024	1,625,134	50,212	1,511	2,678	152,607	411,463	37%
2025	1,673,888	51,719	1,815	22,809	183,332	435,221	42%
2026	1,724,105	53,270	2,366		238,968	484,233	49%
2027	1,775,828	54,869	2,881	5,740	290,977	529,882	55%
2028	1,829,103	56,515	3,289	18,548	332,233	564,819	59%
2029	1,883,976	58,210	883	302,095	89,231	309,894	29%
2030	1,940,495	59,956	1,460	3,198	147,450	356,366	41%
2031	1,998,710	61,755	1,889	20,268	190,826	387,862	49%
2032	2,058,671	63,608	2,527	1,696	255,265	440,684	58%
2033	2,120,431	65,516	3,173	3,494	320,459	494,526	65%
2034	2,184,044	67,481	3,658	22,148	369,451	532,096	69%
2035	2,249,566	69,506	4,276	11,406	431,826	583,224	74%
2036	2,317,052	71,591	4,996	3,818	504,595	645,109	78%
2037	2,386,564	73,739	5,443	34,033	549,744	679,179	81%
2038	2,458,161	75,951	6,156	10,127	621,723	740,387	84%
2039	2,531,906	78,229	6,918	8,184	698,687	806,971	87%
2040	2,607,863	80,576	7,528	26,446	760,346	858,327	89%
2041	2,686,099	82,994	8,397	3,660	848,076	936,324	91%
2042	2,766,682	85,483	9,267	6,839	935,988	1,015,068	92%
2043	2,849,682	88,048	9,184	105,658	927,562	996,121	93%
2044	2,935,173	90,689	10,183		1,028,434	1,087,216	95%
2045	3,023,228	93,410	11,063	15,520	1,117,387	1,166,895	96%
2046	3,113,925	96,212	11,820	31,577	1,193,842	1,234,316	97%
2047	3,207,343	99,099	12,879	5,082	1,300,737	1,332,998	98%
2048	3,303,563	102,072	13,974	5,444	1,411,339	1,436,275	98%
2049	3,402,670	105,134	14,820	34,505	1,496,787	1,514,784	99%
2050	3,504,750	108,288	16,051		1,621,125	1,633,317	99%
2051	3,609,892	111,536	17,210	11,668	1,738,203	1,745,581	100%
2052	3,718,189	114,883	17,970	56,086	1,814,969	1,817,720	100%



This chart compares the projected yearly reserve balance within the full funding plan against the cumulative expenses anticipated within that year.



70% Threshold Funding Model

The data within this section represents the 70% threshold funding model. In this model the association aims to become 70% funded over the 30 year scope of the report. While the 100% full funding model in the prior section features the lowest risk of a special assessment, this 70% model provides an alternate option for associations that do not wish to fund reserves to 100% but wish to actively mitigate the risk of a special assessment by funding reserves to a level in which the risk of a special assessment is still relatively low.

Wolf Creek
Winthrop, WA
70% Funding Model Summary

Report Parameters	
Report Date	January 1, 2023
Account Number	0280
Budget Year Beginning	January 1, 2023
Budget Year Ending	December 31, 2023
Total Units	70
Inflation	3.00%
Interest Rate on Reserve Deposit	1.00%
2023 Beginning Balance	\$105,286

70% Funding Model

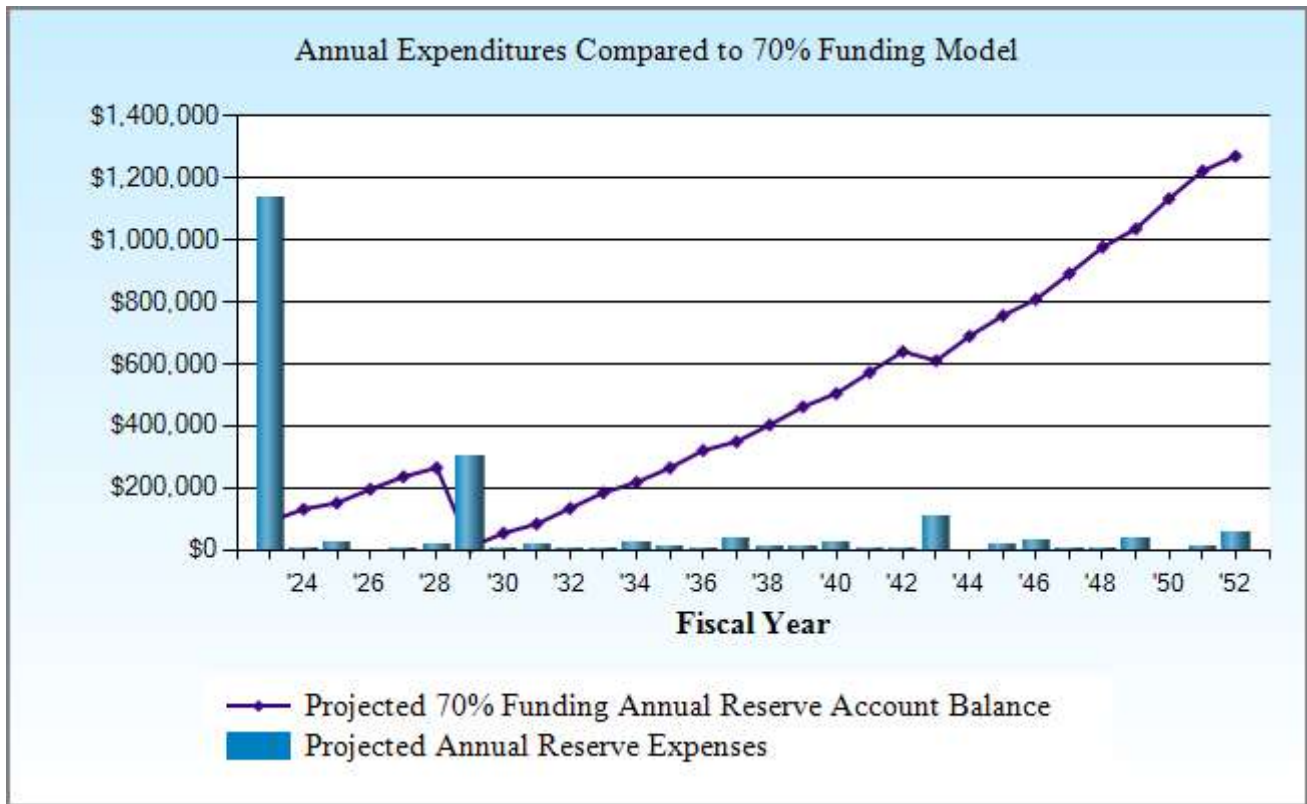
This funding model recommends a special assessment in the amount of \$1,086,750 in 2023 for the purpose of water main replacement. The recommended special assessment is preliminary and may need to be adjusted based on actual scope of work and vendor estimates.

70% Funding Model Summary of Calculations	
Required Annual Contribution	\$38,750.00
<i>\$553.57 per unit annually</i>	
Average Net Annual Interest Earned	<u>\$925.36</u>
Total Annual Allocation to Reserves	\$39,675.36
<i>\$566.79 per unit annually</i>	

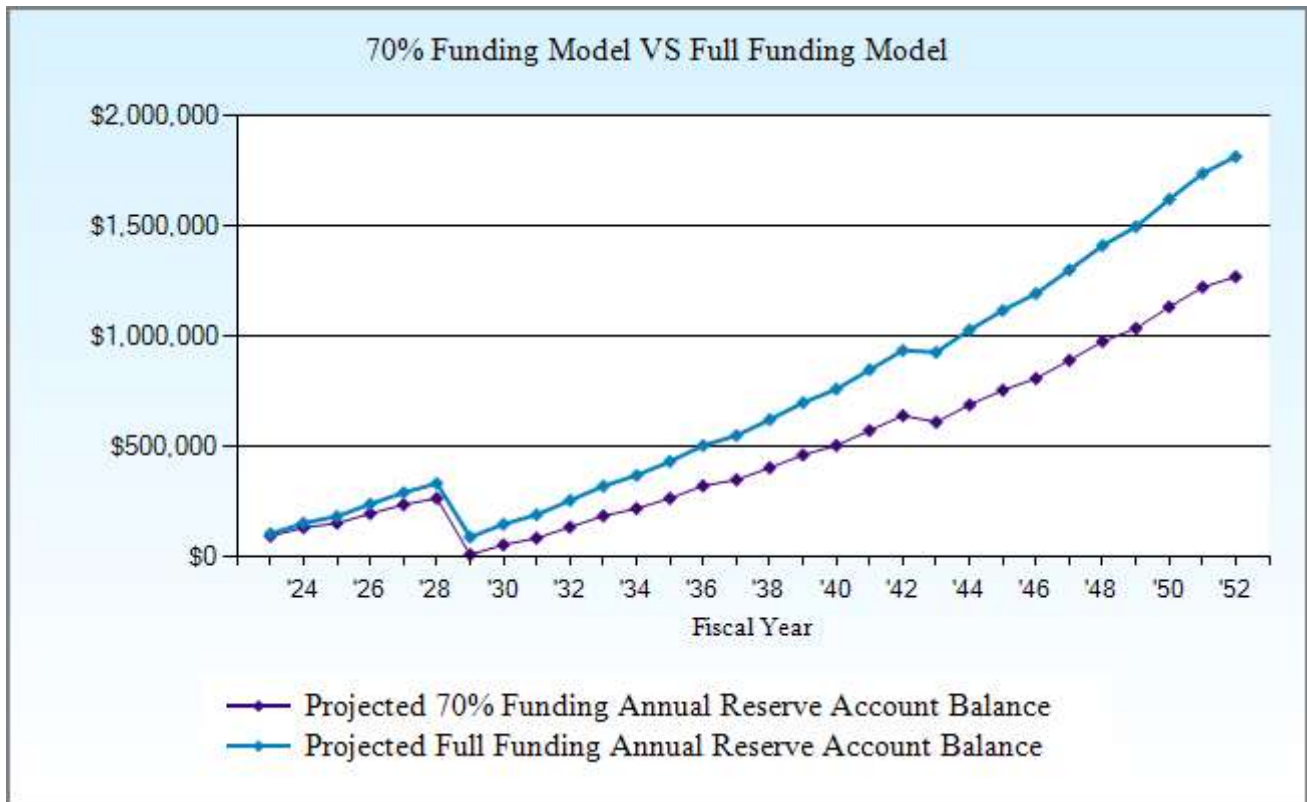
Wolf Creek
70% Funding Model Projection

Beginning Balance: \$105,286

Year	Current Cost	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2023		1,086,750	2023 Special Assessment				
2023	1,577,800	38,750	925	1,138,250	93,461	369,252	25%
2024	1,625,134	39,912	1,307	2,678	132,003	411,463	32%
2025	1,673,888	41,110	1,503	22,809	151,806	435,221	35%
2026	1,724,105	42,343	1,941		196,091	484,233	40%
2027	1,775,828	43,613	2,340	5,740	236,304	529,882	45%
2028	1,829,103	44,922	2,627	18,548	265,304	564,819	47%
2029	1,883,976	46,270	95	302,095	9,573	309,894	3%
2030	1,940,495	47,658	540	3,198	54,574	356,366	15%
2031	1,998,710	49,087	834	20,268	84,227	387,862	22%
2032	2,058,671	50,560	1,331	1,696	134,421	440,684	31%
2033	2,120,431	52,077	1,830	3,494	184,834	494,526	37%
2034	2,184,044	53,639	2,163	22,148	218,488	532,096	41%
2035	2,249,566	55,248	2,623	11,406	264,954	583,224	45%
2036	2,317,052	56,906	3,180	3,818	321,222	645,109	50%
2037	2,386,564	58,613	3,458	34,033	349,259	679,179	51%
2038	2,458,161	60,371	3,995	10,127	403,499	740,387	54%
2039	2,531,906	62,182	4,575	8,184	462,072	806,971	57%
2040	2,607,863	64,048	4,997	26,446	504,671	858,327	59%
2041	2,686,099	65,969	5,670	3,660	572,650	936,324	61%
2042	2,766,682	67,948	6,338	6,839	640,097	1,015,068	63%
2043	2,849,682	69,987	6,044	105,658	610,471	996,121	61%
2044	2,935,173	72,086	6,826		689,383	1,087,216	63%
2045	3,023,228	74,249	7,481	15,520	755,593	1,166,895	65%
2046	3,113,925	76,476	8,005	31,577	808,497	1,234,316	66%
2047	3,207,343	78,771	8,822	5,082	891,007	1,332,998	67%
2048	3,303,563	81,134	9,667	5,444	976,364	1,436,275	68%
2049	3,402,670	83,568	10,254	34,505	1,035,681	1,514,784	68%
2050	3,504,750	86,075	11,218		1,132,974	1,633,317	69%
2051	3,609,892	88,657	12,100	11,668	1,222,062	1,745,581	70%
2052	3,718,189	91,317	12,573	56,086	1,269,866	1,817,720	70%



This chart compares the projected yearly reserve balance within the 70% Funding model against the cumulative expenses anticipated within that year.



This chart compares the projected annual reserve account balances between the 70% Funding model and the Full Funding model.



Baseline Funding Model

The data within this section represents the baseline funding model. In this model, the association funds reserves at a level in which the reserve balance is not projected to drop below zero over the 30 year scope of this report. Baseline funding has the highest risk of a special assessment. Under this model, if a project comes in just slightly over budget, or occurs earlier than anticipated, the association has a high risk of requiring a special assessment.

Wolf Creek
Winthrop, WA
Baseline Funding Model Summary

Report Parameters	
Report Date	January 1, 2023
Account Number	0280
Budget Year Beginning	January 1, 2023
Budget Year Ending	December 31, 2023
Total Units	70
Inflation	3.00%
Interest Rate on Reserve Deposit	1.00%
2023 Beginning Balance	\$105,286

Baseline Funding Model

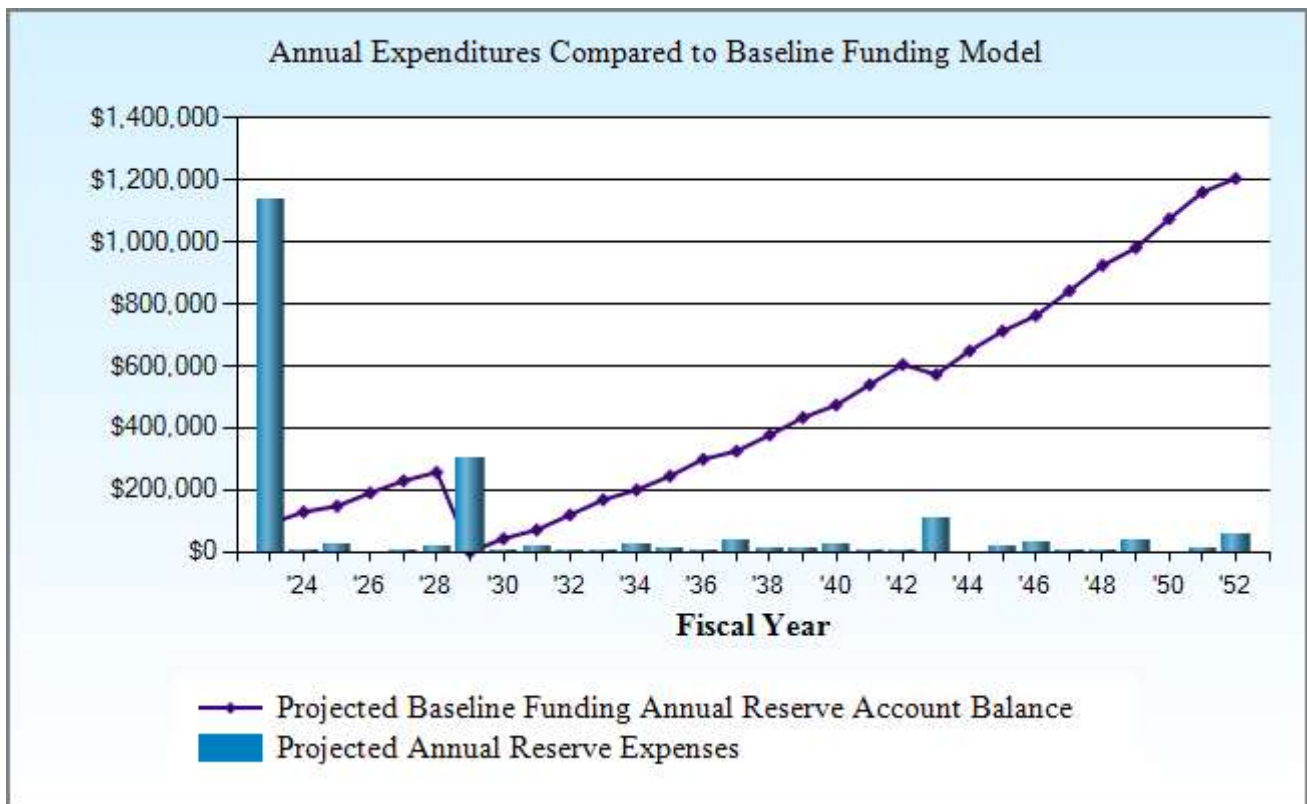
This funding model recommends a special assessment in the amount of \$1,086,750 in 2023 for the purpose of water main replacement. The recommended special assessment is preliminary and may need to be adjusted based on actual scope of work and vendor estimates.

Baseline Funding Model Summary of Calculations	
Required Annual Contribution	\$37,550.00
<i>\$536.43 per unit annually</i>	
Average Net Annual Interest Earned	<u>\$913.36</u>
Total Annual Allocation to Reserves	\$38,463.36
<i>\$549.48 per unit annually</i>	

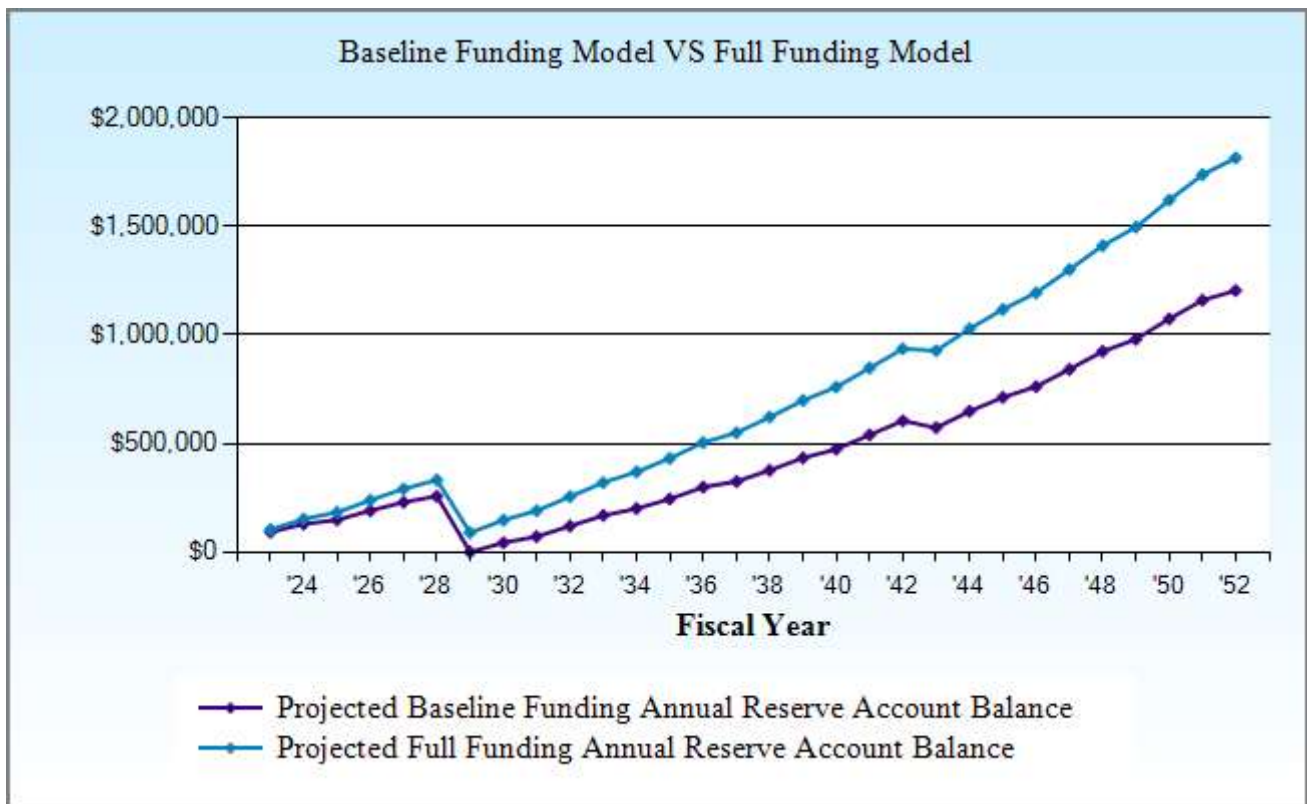
**Wolf Creek
Baseline Funding Model Projection**

Beginning Balance: \$105,286

Year	Current Cost	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2023		1,086,750	2023 Special Assessment				
2023	1,577,800	37,550	913	1,138,250	92,249	369,252	25%
2024	1,625,134	38,676	1,282	2,678	129,530	411,463	31%
2025	1,673,888	39,837	1,466	22,809	148,023	435,221	34%
2026	1,724,105	41,032	1,891		190,946	484,233	39%
2027	1,775,828	42,263	2,275	5,740	229,743	529,882	43%
2028	1,829,103	43,531	2,547	18,548	257,273	564,819	46%
2029	1,883,976	44,837		302,095	14	309,894	0%
2030	1,940,495	46,182	430	3,198	43,429	356,366	12%
2031	1,998,710	47,567	707	20,268	71,435	387,862	18%
2032	2,058,671	48,994	1,187	1,696	119,920	440,684	27%
2033	2,120,431	50,464	1,669	3,494	168,559	494,526	34%
2034	2,184,044	51,978	1,984	22,148	200,373	532,096	38%
2035	2,249,566	53,537	2,425	11,406	244,929	583,224	42%
2036	2,317,052	55,143	2,963	3,818	299,217	645,109	46%
2037	2,386,564	56,798	3,220	34,033	325,201	679,179	48%
2038	2,458,161	58,502	3,736	10,127	377,312	740,387	51%
2039	2,531,906	60,257	4,294	8,184	433,679	806,971	54%
2040	2,607,863	62,064	4,693	26,446	473,990	858,327	55%
2041	2,686,099	63,926	5,343	3,660	539,599	936,324	58%
2042	2,766,682	65,844	5,986	6,839	604,591	1,015,068	60%
2043	2,849,682	67,819	5,668	105,658	572,420	996,121	57%
2044	2,935,173	69,854	6,423		648,697	1,087,216	60%
2045	3,023,228	71,950	7,051	15,520	712,177	1,166,895	61%
2046	3,113,925	74,108	7,547	31,577	762,255	1,234,316	62%
2047	3,207,343	76,331	8,335	5,082	841,840	1,332,998	63%
2048	3,303,563	78,621	9,150	5,444	924,167	1,436,275	64%
2049	3,402,670	80,980	9,706	34,505	980,348	1,514,784	65%
2050	3,504,750	83,409	10,638		1,074,395	1,633,317	66%
2051	3,609,892	85,912	11,486	11,668	1,160,125	1,745,581	66%
2052	3,718,189	88,489	11,925	56,086	1,204,453	1,817,720	66%



This chart compares the projected yearly reserve balance within the Baseline Funding model against the cumulative expenses anticipated within that year.



This chart compares the projected annual reserve account balances between the Baseline Funding model and the Full Funding model.



Current Funding Model

The data within this section represents the association's current funding model, based on the most recent annual budget. This data is helpful in determining whether current contribution rates are sufficient to meet the association's funding goals over time.

Wolf Creek
Winthrop, WA
Current Assessment Funding Model Summary

<i>Report Parameters</i>	
Report Date	January 1, 2023
Account Number	0280
Budget Year Beginning	January 1, 2023
Budget Year Ending	December 31, 2023
Total Units	70
Inflation	3.00%
Annual Assessment Increase	3.00%
Interest Rate on Reserve Deposit	1.00%
2023 Beginning Balance	\$105,286

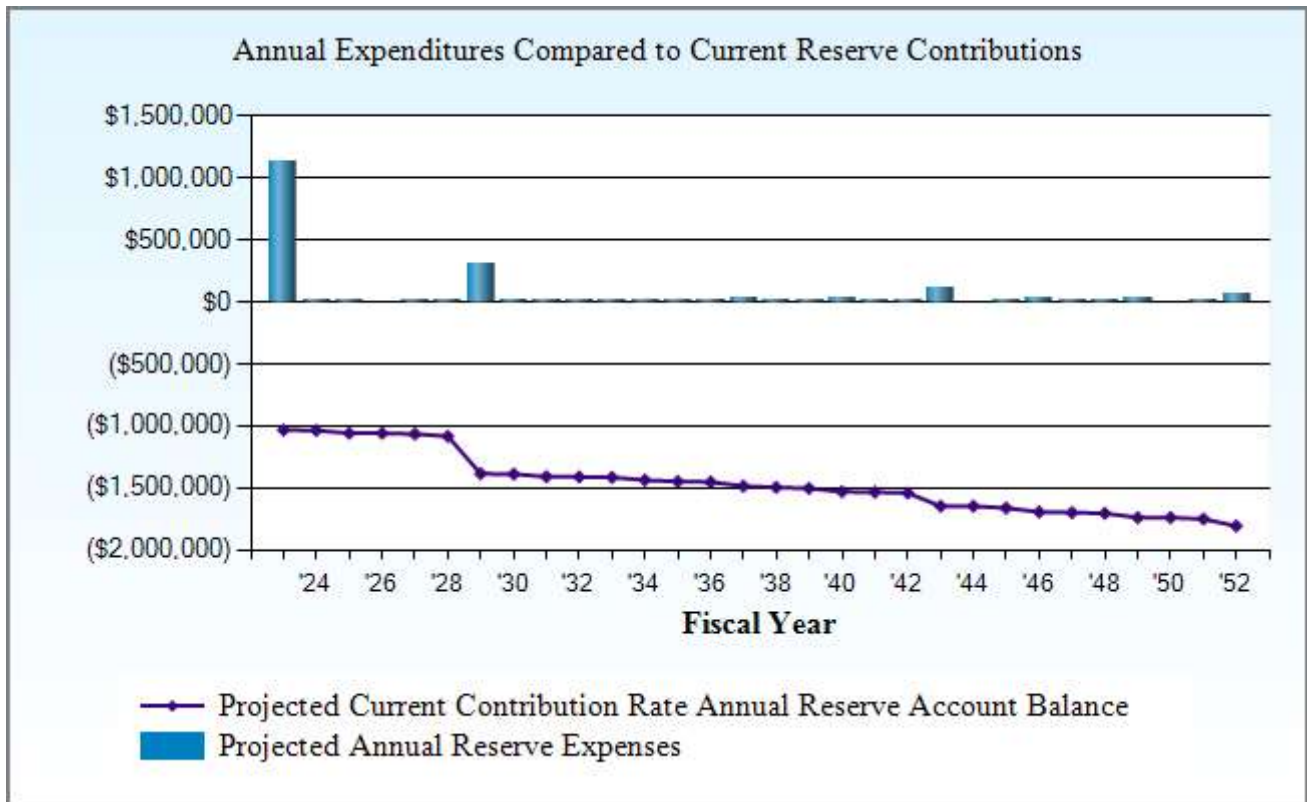
Current Assessment Funding Model

<i>Current Assessment Funding Model Summary of Calculations</i>	
No Required Annual Contribution	
Average Net Annual Interest Earned	\$0.00
Total Annual Allocation to Reserves	\$0.00

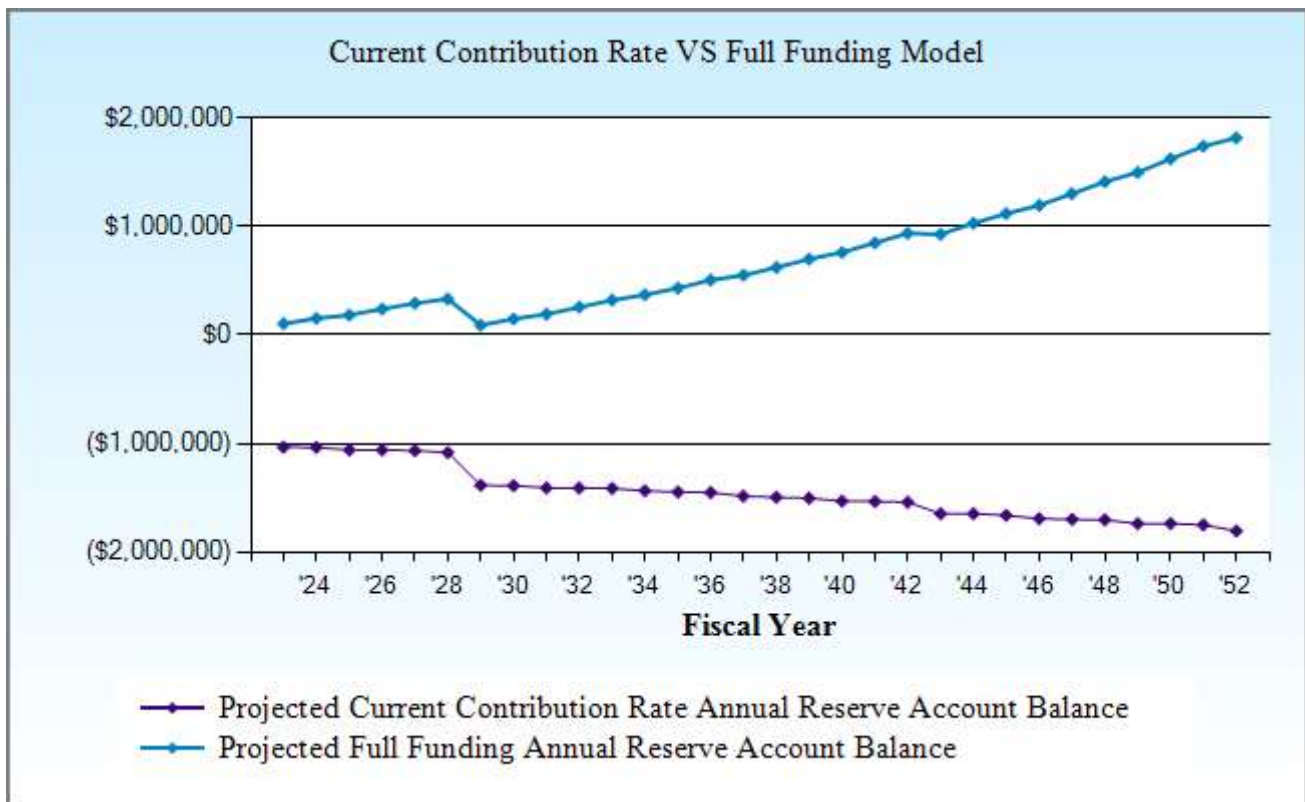
Wolf Creek
Current Assessment Funding Model Projection

Beginning Balance: \$105,286

Year	Current Cost	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2023	1,577,800			1,138,250	-1,032,964	369,252	
2024	1,625,134			2,678	-1,035,642	411,463	
2025	1,673,888			22,809	-1,058,451	435,221	
2026	1,724,105				-1,058,451	484,233	
2027	1,775,828			5,740	-1,064,191	529,882	
2028	1,829,103			18,548	-1,082,740	564,819	
2029	1,883,976			302,095	-1,384,835	309,894	
2030	1,940,495			3,198	-1,388,033	356,366	
2031	1,998,710			20,268	-1,408,301	387,862	
2032	2,058,671			1,696	-1,409,997	440,684	
2033	2,120,431			3,494	-1,413,491	494,526	
2034	2,184,044			22,148	-1,435,639	532,096	
2035	2,249,566			11,406	-1,447,045	583,224	
2036	2,317,052			3,818	-1,450,863	645,109	
2037	2,386,564			34,033	-1,484,897	679,179	
2038	2,458,161			10,127	-1,495,024	740,387	
2039	2,531,906			8,184	-1,503,208	806,971	
2040	2,607,863			26,446	-1,529,653	858,327	
2041	2,686,099			3,660	-1,533,313	936,324	
2042	2,766,682			6,839	-1,540,152	1,015,068	
2043	2,849,682			105,658	-1,645,809	996,121	
2044	2,935,173				-1,645,809	1,087,216	
2045	3,023,228			15,520	-1,661,330	1,166,895	
2046	3,113,925			31,577	-1,692,907	1,234,316	
2047	3,207,343			5,082	-1,697,989	1,332,998	
2048	3,303,563			5,444	-1,703,433	1,436,275	
2049	3,402,670			34,505	-1,737,939	1,514,784	
2050	3,504,750				-1,737,939	1,633,317	
2051	3,609,892			11,668	-1,749,607	1,745,581	
2052	3,718,189			56,086	-1,805,693	1,817,720	



This chart compares the projected yearly reserve balance at the association's current contribution rate against the cumulative expenses anticipated within that year.



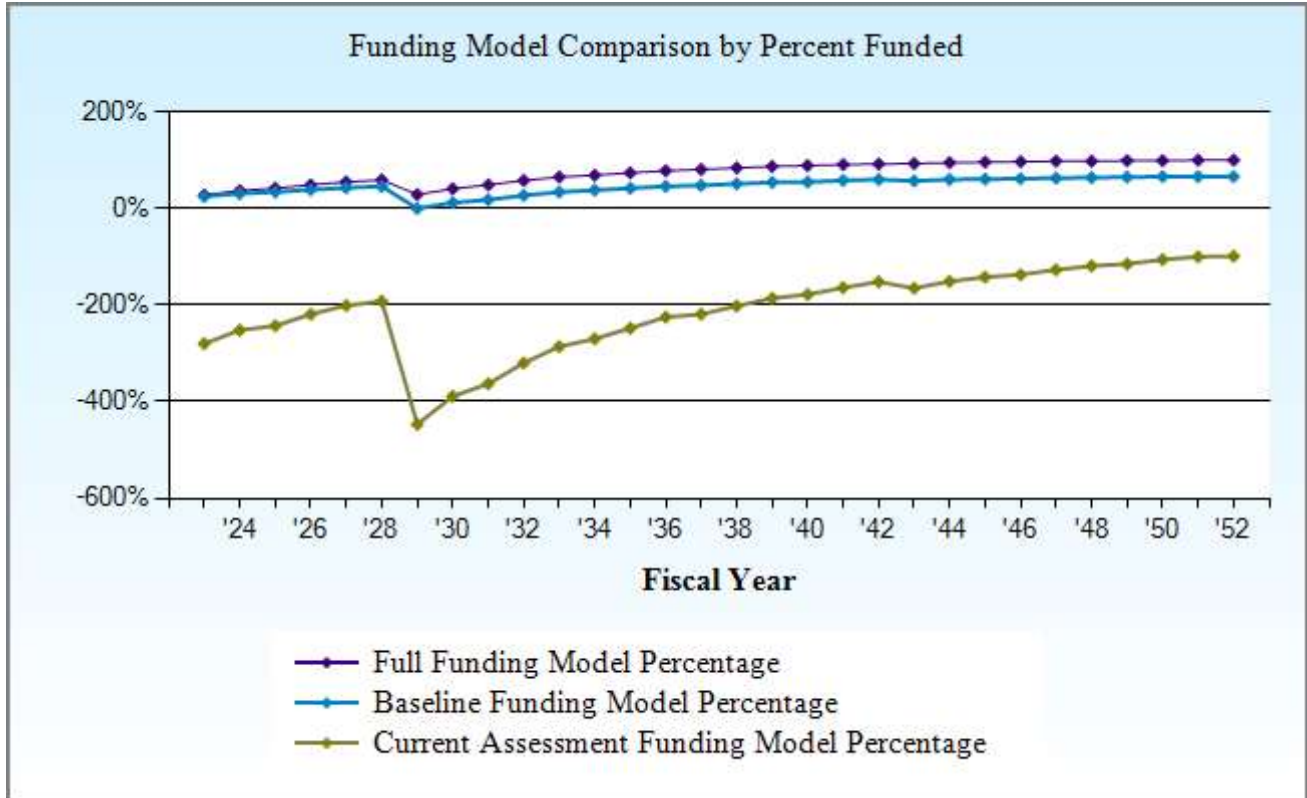
This chart compares the projected annual reserve account balances between the association's current contribution rate and the Full Funding model.



Comparison Charts

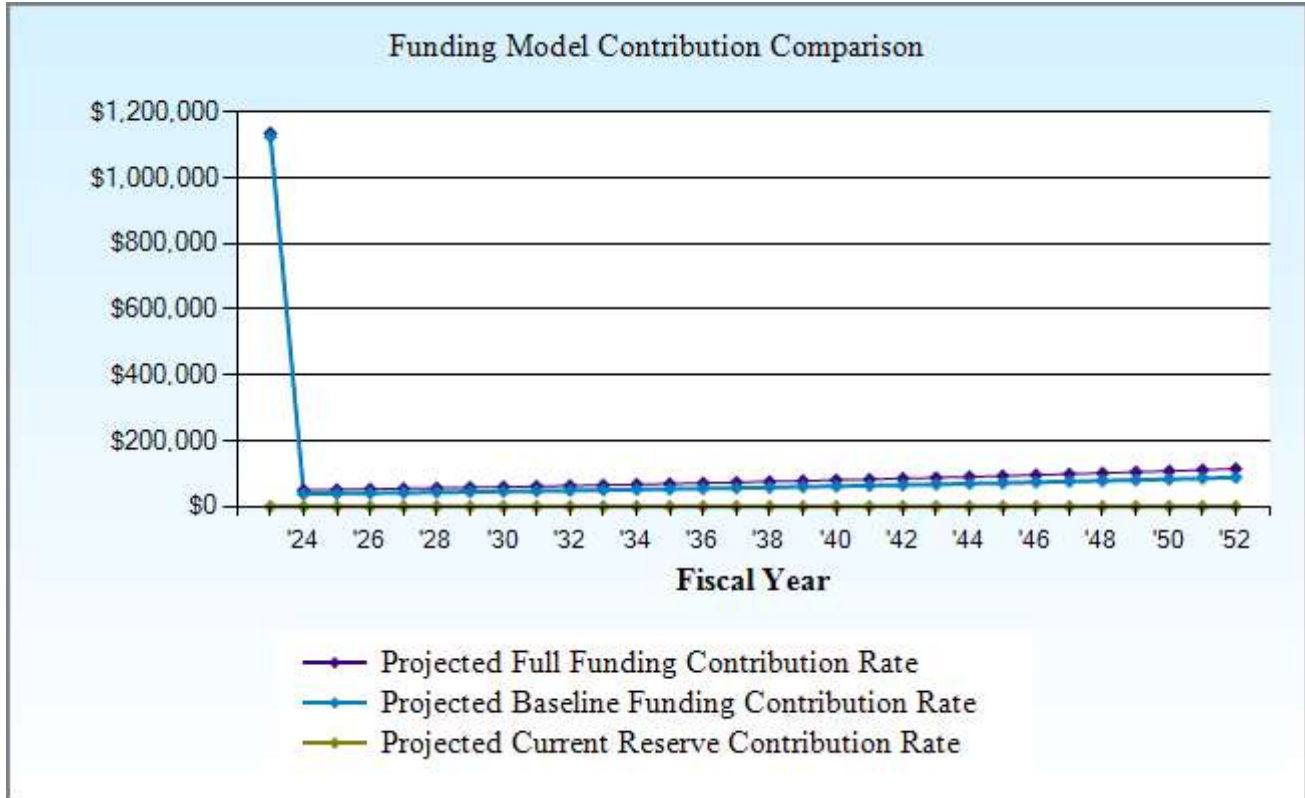
The charts within this section represent a visual comparison of the funding models included within this report. Each chart features a descriptive title indicating the data which is being compared and are extremely helpful for the association in comparing its current funding plan to the plans included within the study.

Wolf Creek
Funding Model Comparison by Percent Funded



This chart compares the association's projected percent funded on an annual basis between the Full and Baseline funding models, along with the association's current contribution rate, over 30 years.

**Wolf Creek
Funding Model Assessment Comparison Chart**



This chart compares the projected contribution rate between the Full and Baseline funding models, along with the association's current contribution rate, over 30 years.



Component Detail Report

The following section features a detailed breakdown of each of the association's reserve components. This section details component history, quantities, useful life, remaining useful life and cost breakdowns, among other important data. For Level I Full and Level II With-Site-Visit reports, this section also features maintenance recommendations and photographs of the components.

Wolf Creek
Index of Funded Components

Asset ID	Description	Replacement	Page
1020	Street & Common Area Signs - Replace	2023	39
1048	Gravel Roads - Regrade & Replenish	2025	40
1135	Landscape - Refurbish Allotment	2023	41
6005	Reserve Study - Annual Update	2023	42
7000	Well Casings - Replace	2053	43
7005	Well Controls/Telemetry - Replace	2023	44
7010	Submersible Well Pump - Replace (2008)	2023	45
7015	Submersible Well Pump - Replace (2015)	2027	46
7020	Water Mains - Replace	2023	47
7025	Water Meters - Replace (Service)	2023	48
7030	Water Meters - Replace (Source/Distribution)	2041	49
7035	Booster Pump - Replace (Virginia Ridge)	2023	50
7040	Booster Pump - Replace (Green Meadows)	2037	51
7045	Pressure Tanks - Replace	2023	52
7050	Chlorination System - Replace	2023	53
7055	Water Storage Tank - Replace	2029	54
7060	Water Storage Tank - Clean & Inspect	2024	55
7065	Generator - Replace	2025	56
7070	Generator - Replace (Portable)	2032	57
7080	Pump House Exterior - Refurbish (Cottonwood)	2029	58
7085	Pump House Exterior - Refurbish (Green Meadow)	2023	59
7100	Fire Hydrants - Replace	2023	60
7110	Electrical System - Replace	2023	61
Total Funded Assets		15	
Total Unfunded Assets		<u>8</u>	
Total Assets		23	

Wolf Creek **Detail Report by Category**

Street & Common Area Signs - Replace		27 Each	
Asset ID	1020	Asset Actual Cost	
		Percent Replacement	100%
	Grounds	Future Cost	
Placed in Service	January 2000		
No Useful Life			



Location: Scattered locations at private streets and within common areas

Component History: No history reported, an estimated in-service date of 2000 has been used for the purposes of this report

There is no predictable basis to anticipate wide scale replacement of signage at this time and cost of individual replacement is projected to be too small for reserve funding, therefore maintain, repair and replace individual signs on an as-needed basis through the annual operating budget.

**Wolf Creek
Detail Report by Category**

Gravel Roads - Regrade & Replenish - 2025

Asset ID	1048	1 Allowance	@ \$16,000.00
		Asset Actual Cost	\$16,000.00
		Percent Replacement	100%
		Future Cost	\$16,974.40
	Grounds		
Placed in Service	January 2022		
Useful Life	3		
Replacement Year	2025		
Remaining Life	2		



Cost Range: The allowance included here is a basic flat fee allowance. Actual cost may vary based on final scope of work including amount of gravel purchased.

Cost Source: Client cost history

Location: Private roads throughout association

Component History: 2022 \$16,032

Client reports that roads have been historically graded and partially re-graveled at 2-3 year intervals. Funding included here accordingly; cost can vary based on scope of work and amount of gravel purchased. Client reports no plans to pave roads at this time.

**Wolf Creek
Detail Report by Category**

Landscape - Refurbish Allotment

Asset ID	1135	1 Allowance	
		Asset Actual Cost	
		Percent Replacement	100%
		Future Cost	
Placed in Service	Grounds		
No Useful Life	January 1978		



Location: Common area landscaping

Component History: No history reported

Common area landscaping appeared to be generally natural vegetation. It is presumed that landscape maintenance is handled through the annual operating budget. There is no predictable basis to expect wide scale expenses affecting reserves at this time, therefore no funding included. Update future reserve studies as needed should expense history arise.

Wolf Creek
Detail Report by Category

Reserve Study - Annual Update			
Asset ID	6005	1 Ann Update Asset Actual Cost	
		Percent Replacement	100%
	Professional January 2023	Future Cost	
Placed in Service			
No Useful Life			



**Time for your annual
update, contact us today!**

Component History: 2023 FULL

It is recommended that this study is updated annually. Some states, including Washington and Oregon, feature statutes which require that studies be updated on an annual basis for many communities (consult with your legal counsel if you have questions about whether an update is required for your community). Some governing documents may also require that the study be updated annually. Regardless of any state requirements for updates, it is prudent to update your report annually to adjust for constantly changing information including, but not limited to, actual reserve account balance, actual project costs, vendor estimates, economic and market changes, etc. The cost to update your study annually is best treated through the operating budget, therefore no reserve funding included.

Wolf Creek **Detail Report by Category**

Well Casings - Replace - 2053		2 Each	@ \$75,000.00
Asset ID	7000	Asset Actual Cost	\$150,000.00
		Percent Replacement	100%
		Future Cost	\$364,089.37
	Water System		
Placed in Service	January 1978		
Useful Life	75		
Replacement Year	2053		
Remaining Life	30		



Cost Range: The allowance included here is a basic flat fee allowance. Actual cost may vary based on final scope of work and depth of wells.

Cost Source: Accurate Reserve Professionals, LLC Database

Location: Wells #2 & #3, located at each entrance to Cottonwood (Source #1 reportedly decommissioned)

Component History: No history reported, presumed drilled ~ 1978 at time of community development

No problems reported of well casing(s) by client at the time of this report. Casing replacement is factored at 75 year intervals for financial planning purposes; it may be more cost effective to drill a new well rather than replace casing however it cannot be assumed that a new well will be a possibility therefore funding for casing replacement is a best practice. Cost can vary depending on a number of factors including depth of well therefore a middle range allowance has been included for the purposes of this report.

**Wolf Creek
Detail Report by Category**

Well Controls/Telemetry - Replace - 2023

		1 System	@ \$25,000.00
Asset ID	7005	Asset Actual Cost	\$25,000.00
		Percent Replacement	100%
		Future Cost	\$25,000.00
		Water System	
Placed in Service	January 2000		
Useful Life	20		
Replacement Year	2023		
Remaining Life	0		



Cost Range: The allowance included here is a basic flat fee allowance. Actual cost may vary based on final scope of work and features/function of system.

Cost Source: Accurate Reserve Professionals, LLC Database

Location: At Wells #2 & #3

Component History: No history reported, an estimated in-service date of 2000 has been used for the purposes of this report

The 2013 Water System Assessment report recommended transitioning wells to a duplex control system with radio links. Plan to replace control/telemetry equipment at 20 year intervals to maintain function. Cost can vary widely based on function of equipment.

**Wolf Creek
Detail Report by Category**

Submersible Well Pump - Replace (2008) - 2023

Asset ID	7010	1 Each	@ \$2,500.00
		Asset Actual Cost	\$2,500.00
		Percent Replacement	100%
	Water System	Future Cost	\$2,500.00
Placed in Service	January 2008		
Useful Life	12		
Replacement Year	2023		
Remaining Life	0		

Cost Range: The allowance included here is a basic flat fee allowance. Actual cost may vary based on final scope of work.

Cost Source: Accurate Reserve Professionals, LLC Database

Location: Within community well

Component History: Replaced 2008

The useful life of submersible well pumps can vary greatly depending on a number of factors, however most communities replace pumps at 8-12 year intervals to maintain function. Cost allowances assume replacement of pump only; electrical and/or plumbing work may increase project cost but are unpredictable for the purposes of this report.

**Wolf Creek
Detail Report by Category**

Submersible Well Pump - Replace (2015) - 2027

Asset ID	7015	1 Each	@ \$2,500.00
		Asset Actual Cost	\$2,500.00
		Percent Replacement	100%
	Water System	Future Cost	\$2,813.77
Placed in Service	January 2015		
Useful Life	12		
Replacement Year	2027		
Remaining Life	4		

Cost Range: The allowance included here is a basic flat fee allowance. Actual cost may vary based on final scope of work.

Cost Source: Accurate Reserve Professionals, LLC Database

Location: Within community well

Component History: Replaced 2015

The useful life of submersible well pumps can vary greatly depending on a number of factors, however most communities replace pumps at 8-12 year intervals to maintain function. Cost allowances assume replacement of pump only; electrical and/or plumbing work may increase project cost but are unpredictable for the purposes of this report.

Wolf Creek **Detail Report by Category**

Water Mains - Replace - 2023		14,490 LF	@ \$75.00
Asset ID	7020	Asset Actual Cost	\$1,086,750.00
		Percent Replacement	100%
		Future Cost	\$1,086,750.00
	Water System		
Placed in Service	January 1979		
Useful Life	75		
Adjustment	-31		
Replacement Year	2023		
Remaining Life	0		

Cost Range: The cost range within this component could deviate by 5-10% from the cost used here and in some cases may vary by a larger degree. Factors affecting cost may include, but are not limited to, the actual scope of work, association specific site conditions, contractor and material availability, levels of maintenance and economic factors.

Cost Source: Estimate provided by client (Pennock), adjusted to add allowance for administrative costs (engineering, permits, etc.) and system upgrades (additional hydrants, etc.)

Location: Water mains within private water system

Component History: Installed late 1970's per 2013 Water System Assessment

Most common materials for water mains include ductal iron, PVC and asbestos cement, although other materials have been known to be used. Determining the exact material and/or condition of a water main is beyond the scope of a reserve study, however the association's 2013 Water System Assessment identifies mains as primarily 2" and 4" glued joint PVC which it identifies as having a useful life of approximately 20 years and recommended system wide main replacement/upgrade within 5-10 years of the 2013 report.

While these systems tend to have an extended useful life, it is reasonable to expect that wide scale replacement of water distribution system mains will be required periodically. Cost allowances factor excavation of lines, installation of new and asphalt repairs following replacement. Properly bedding mains, especially PVC mains, is critical to obtaining the longest useful life of the system. Water main replacement can be one of the largest expenses experienced by a private water system therefore we recommend researching this project well in advance to narrow down the exact timing and cost range for your specific community.

The Washington State Department of Health has some helpful information on their website regarding small water system management through the following link: [Department of Health](#)

Note: While the 2013 Water System Assessment identifies a 20 year useful life for water mains, we have used a 75 year useful life here as it is assumed that at the time of replacement client will install a longer lived product which will achieve a more typical useful life before the next replacement is required.

Wolf Creek
Detail Report by Category

Water Meters - Replace (Service) - 2023		70 Each	@ \$250.00
Asset ID	7025	Asset Actual Cost	\$17,500.00
		Percent Replacement	100%
		Future Cost	\$17,500.00
Placed in Service	Water System		
Useful Life	January 2002		
Replacement Year	20		
Remaining Life	2023		
	0		



Cost Range: The allowance included here is a basic flat fee allowance. Actual cost may vary based on quality and functions of meter selected.

Cost Source: Accurate Reserve Professionals, LLC Database

Location: At each individual home

Component History: Average install date ~ 2002 per client

Most communities replace water meters at 15-20 year intervals to maintain function. Manual read meters tend to have a useful life on the longer end of the scale while remote read meters tend to have a shorter useful life to keep up with technological advances. Water meters vary in price based on quality and system functions (remote read, etc.). A middle range allowance has been used for the purposes of this report.

**Wolf Creek
Detail Report by Category**

Water Meters - Replace (Source/Distribution) - 2041

Asset ID	7030	1 Allowance	@ \$2,150.00
		Asset Actual Cost	\$2,150.00
		Percent Replacement	100%
		Future Cost	\$3,660.23
Placed in Service	Water System		
	January 2021		
Useful Life	20		
Replacement Year	2041		
Remaining Life	18		



2 - Source Meters	@	\$500.00	\$1,000.00
1 - 4" Transmission Line Meter	@	\$1,150.00	<u>\$1,150.00</u>
		Total =	\$2,150.00

Cost Range: The allowance included here is a basic flat fee allowance. Actual cost may vary based on quality and functions of meter selected.

Cost Source: Accurate Reserve Professionals, LLC Database

Location: At water sources and within distribution mains

Component History: Source meters replaced 2021 \$978.90, 4" transmission line meter replaced 2021 \$1,128

Most communities replace source and transmission line meters at 20 year intervals to maintain function. Individually meters are too inexpensive to qualify for reserve funding however we have included funding for replacement as a group based on client's history. Handle individual replacements through annual operating budget.

**Wolf Creek
Detail Report by Category**

Booster Pump - Replace (Virginia Ridge) - 2023

Asset ID	7035	1 Each	@ \$6,500.00
		Asset Actual Cost	\$6,500.00
		Percent Replacement	100%
		Future Cost	\$6,500.00
Placed in Service	Water System		
Useful Life	January 2007		
Replacement Year	15		
Remaining Life	2023		
	0		



Cost Range: The allowance included here is a basic flat fee allowance. Actual cost may vary based on final scope of work.

Cost Source: Client cost history, extrapolated from Green Meadows pump replacement cost

Location: Within reservoir pump house

Component History: Replaced ~ 2007

The useful life of booster pumps can vary due to the mechanical nature of the equipment, however most communities replace booster pumps at 10-15 year intervals to maintain function. Cost can vary based on size and quality of pump. Cost allowances assume replacement of pump and basic electrical work to connect new equipment. Wide scale plumbing or electrical work may cause cost to increase significantly. Sometimes, pumps can be rebuilt rather than replaced.

**Wolf Creek
Detail Report by Category**

Booster Pump - Replace (Green Meadows) - 2037

		1 Each	@ \$6,500.00
Asset ID	7040	Asset Actual Cost	\$6,500.00
		Percent Replacement	100%
	Water System	Future Cost	\$9,831.83
Placed in Service	January 2022		
Useful Life	15		
Replacement Year	2037		
Remaining Life	14		



Cost Range: The allowance included here is a basic flat fee allowance. Actual cost may vary based on final scope of work.

Cost Source: Client cost history

Location: Within reservoir pump house

Component History: Replaced 2022 \$6,500

The useful life of booster pumps can vary due to the mechanical nature of the equipment, however most communities replace booster pumps at 10-15 year intervals to maintain function. Cost can vary based on size and quality of pump. Cost allowances assume replacement of pump and basic electrical work to connect new equipment. Wide scale plumbing or electrical work may cause cost to increase significantly. Sometimes, pumps can be rebuilt rather than replaced.

Wolf Creek
Detail Report by Category

Pressure Tanks - Replace		2 Each	
Asset ID	7045	Asset Actual Cost	
		Percent Replacement	100%
		Future Cost	
Placed in Service	Water System		
No Useful Life	January 2008		



Location: Within pump house at reservoir

Component History: Replaced 2008

Cost to replace pressure tanks at reservoir pump house is projected to be too small to qualify for reserve funding therefore replace as needed through annual operating budget.

Wolf Creek
Detail Report by Category

Chlorination System - Replace			
Asset ID	7050	1 System	
		Asset Actual Cost	
		Percent Replacement	100%
		Future Cost	
Placed in Service	Water System		
No Useful Life	January 2022		



Location: Within pump house at reservoir

Component History: Pump replaced 2022 \$390

Cost to replace chlorination system is projected to be too small to qualify for reserve funding therefore replace system components as needed through annual operating budget.

Wolf Creek **Detail Report by Category**

Water Storage Tank - Replace - 2029

Asset ID	7055	1 Each	@ \$250,000.00
		Asset Actual Cost	\$250,000.00
		Percent Replacement	100%
		Future Cost	\$298,513.07
Placed in Service	Water System		
Useful Life	January 1979		
Replacement Year	50		
Remaining Life	2029		
	6		



Cost Range: The allowance included here is a basic flat fee allowance. Actual cost may vary based on final scope of work including extent of excavation required to replace tank.

Cost Source: Accurate Reserve Professionals, LLC Database

Location: Off Virginia Ridge Road

Component History: Reportedly constructed 1978

The 2013 Water System Assessment report suggests that the association may consider abandoning existing below grade tank and installing a new tank at the existing site if possible. The report also suggests increasing the size of the water reservoir to improve fire suppression capabilities. Concrete water storage tanks tend to have a prolonged useful life often ranging from 50-75 years. As routine maintenance inspect tank and clean regularly utilizing diver services (see separate component if applicable). Ensure ladder is secure (if present) and tank hatch closes securely to prevent debris from entering the tank and contaminating the water supply. Efflorescence, the white stains on the exterior of the tank left by water that has moved through the concrete and evaporated, is common at concrete tanks and can often be addressed by coating the interior of the tank. Coating cycles, if applicable, are handled separately within this report.

**Wolf Creek
Detail Report by Category**

Water Storage Tank - Clean & Inspect - 2024

Asset ID	7060	1 Allowance	@ \$2,600.00
		Asset Actual Cost	\$2,600.00
		Percent Replacement	100%
		Future Cost	\$2,678.00
Placed in Service	Water System		
Useful Life	January 2021		
Replacement Year	3		
Remaining Life	2024		
	1		



Cost Range: The allowance included here is a basic flat fee allowance. Actual cost may vary based on final scope of work including extent of cleaning necessary.

Cost Source: Client cost history

Location: Interior of underground water tank

Component History: Inspected & cleaned 2021 \$2,601.60

Frequency of tank inspections and cleaning varies by community but is typically performed at 2-3 year intervals. Cost can vary based on scope of work including extent of cleaning required. Prior to opening tank ensure hatch area is cleaned to prevent debris from entering tank and contaminating water supply.

**Wolf Creek
Detail Report by Category**

Generator - Replace - 2025

Asset ID	7065	1 Each	@ \$5,500.00
		Asset Actual Cost	\$5,500.00
		Percent Replacement	100%
		Future Cost	\$5,834.95
Placed in Service	Water System		
Useful Life	January 2015		
Replacement Year	10		
Remaining Life	2025		
	2		



Cost Range: The allowance included here is a basic flat fee allowance. Actual cost may vary based on final scope of work including quality of generator selected.

Cost Source: Accurate Reserve Professionals, LLC Database

Location: Adjacent to Cottonwood pump house

Component History: Installed ~ 2014/2015

Plan to replace generator at roughly 10 year intervals to maintain function. Cost can vary based on size and quality of equipment selected. Funding allowances assume replacement of generator and basic electrical connection of the new equipment; extensive electrical work may cause cost to increase significantly.

Generator is located within a small wood frame shelter with metal roofing. Cost to maintain, repair and replace shelter is projected to be too small to qualify for reserve funding therefore handle through annual operating budget or combine with larger generator replacement projects.

**Wolf Creek
Detail Report by Category**

Generator - Replace (Portable) - 2032

Asset ID	7070	1 Each	@ \$1,300.00
		Asset Actual Cost	\$1,300.00
		Percent Replacement	100%
		Future Cost	\$1,696.20
Placed in Service	Water System		
Useful Life	January 2022		
Replacement Year	10		
Remaining Life	2032		
	9		



Cost Range: The allowance included here is a basic flat fee allowance. Actual cost may vary based on size and quality of generator equipment selected.

Cost Source: Client cost history

Location: Within pump house at reservoir

Component History: Purchased 2022 \$1,300

Plan to replace portable generator at 8-10 year intervals to maintain function. Service as needed by a qualified technician. Cost can vary based on quality and size of generator therefore a middle range allowance has been used for the purposes of this report.

**Wolf Creek
Detail Report by Category**

Pump House Exterior - Refurbish (Cottonwood) - 2029

Asset ID	7080	1 Allowance	@ \$3,000.00
		Asset Actual Cost	\$3,000.00
		Percent Replacement	100%
		Future Cost	\$3,582.16
	Water System		
Placed in Service	January 1979		
Useful Life	50		
Replacement Year	2029		
Remaining Life	6		



Cost Range: The allowance included here is a basic flat fee allowance. Actual cost may vary based on final scope of work.

Cost Source: Accurate Reserve Professionals, LLC Database

Location: Corner of Cottonwood

Component History: No history reported

While there is no basis to expect complete replacement of the Cottonwood pump house, it is reasonable to expect that periodic cycles of large scale maintenance will be required to maintain the structure. Funding here assumes replacement of metal roof and wood log chinking at roughly 50 year intervals. As routine maintenance, inspect, repair and stain/seal wood as needed in between larger repair cycles.

**Wolf Creek
Detail Report by Category**

Pump House Exterior - Refurbish (Green Meadow)

Asset ID	7085	1 Allowance	
		Asset Actual Cost	
		Percent Replacement	100%
		Future Cost	
Placed in Service	Water System		
No Useful Life	January 1979		



Location: Adjacent to Green Meadow Drive

Component History: No history reported

Cost to maintain, repair and replace exterior of Green Meadow Drive pump house exterior is projected to be too small to qualify for reserve funding therefore handled through annual operating budget as needed.

Wolf Creek
Detail Report by Category

Fire Hydrants - Replace		5 Each	
Asset ID	7100	Asset Actual Cost	
		Percent Replacement	100%
		Future Cost	
Placed in Service	Water System		
No Useful Life	January 1979		



Location: Adjacent to roadways throughout community

Component History: No history reported

The 2013 Water System Assessment report recommends the installation of standard fire hydrants (current hydrants are standpipe style). It is presumed that current hydrants will be replaced as part of upcoming water main replacement project therefore no separate funding included; update future reserve studies should association transition to standard hydrants as part of that project.

Wolf Creek **Detail Report by Category**

Electrical System - Replace			
Asset ID	7110	1 Allowance	
		Asset Actual Cost	
		Percent Replacement	100%
		Future Cost	
Placed in Service	Water System		
No Useful Life	January 1979		



Location: Common area electrical

Component History: No history reported

No problems reported of electrical system at the time of this report. Evaluation of electrical components is beyond the scope of a reserve study; if problems are suspected, consult with a qualified electrician immediately. Generally, if installed without defect, there is no predictable basis to expect complete replacement of electrical system within the scope of this report therefore no reserve funding included. No known defects reported by client.

Regularly inspect common area electrical panels and equipment. Contact a qualified electrician if breakers routinely trip or fuses regularly blow, or if you notice a sizzling sound or a burning odor. Ensure that electrical plugs near wet locations are Ground-Fault Circuit Interrupters (GFCI).

Common Terms & Definitions

A portion of this information is from the National Reserve Study Standards published by Community Associations Institute, dated 03/2018. A link to the full National Reserve Study Standards document can be found here: [National Reserve Study Standards](#)

ALLOWANCE (QUANTITY)	When used in reference to quantity, the term allowance means that the component could not be reasonably quantified to assign a unit cost and therefore a flat cost allowance has been used.
ALLOWANCE (COST)	When used in reference to cost, the term allowance refers to the cost range assigned to that component. For example, the cost allowance for replacement of a roof may be \$4.00 per square foot to \$6.00 per square foot.
CAPITAL IMPROVEMENTS	Additions to the association's common elements that previously did not exist. While these components should be added to the reserve study for future replacement, the cost of construction should not be taken from the reserve fund.
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 reserve funding plans are tested against the anticipated schedule of reserve expenses until the desired funding goal is achieved.
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. These components comprise the common elements of the community and typically are: 1. association responsibility, 2. with limited useful life expectancies, 3. predictable remaining useful life expectancies, and 4. above a minimum threshold cost. It should be noted that in certain jurisdictions there may be statutory requirements for including components or groups of components in the reserve study.
COMPONENT 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, review of association precedents, and discussion with appropriate representative(s) of the association.
COMPONENT METHOD	A method of developing a reserve funding plan where the total contribution is based on the sum of contributions for the individual components.
CONDITION ASSESSMENT	The task of evaluating the current condition of the component based on observed or reported characteristics.
CY	Cubic yards.
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 the current status of the reserves (measured as cash or percent funded) and a recommended reserve contribution rate (funding plan) are derived, and the projected reserve income and expense over a period of time are presented. The financial analysis is one of the two parts of a reserve study.

FULLY FUNDED 100 percent funded. When the actual (or projected) reserve balance is equal to the fully funded balance.

FULLY FUNDED BALANCE (FFB) An indicator against which the 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, and then summed for an association total.

$$\text{FFB} = \text{Current Cost} \times \text{Effective Age/Useful Life}$$

Example: For a component with a \$10,000 current replacement cost, a 10-year useful life and effective age of 4 years the fully funded balance would be \$4,000.

FUND STATUS The status of the reserve fund reported in terms of cash or percent funded.

FUNDING GOALS Independent of methodology used, the following represent the basic categories of funding plan goals. They are presented in order of greatest risk to least risk. Risk includes, but is not limited to, cash problems, special assessments, and deferred maintenance.

- **Baseline Funding:** Establishing a reserve funding goal of allowing the reserve cash balance to never be below zero during the cash flow projection. This is the funding goal with the greatest risk due to the variabilities encountered in the timing of component replacements and repair and replacement costs.
- **Threshold Funding:** Establishing a reserve funding goal of keeping the reserve balance above a specified dollar or percent funded amount. Depending on the threshold selected, this funding goal may be weaker or stronger than “Fully Funded” with respective higher risk or less risk of cash problems.
- **Full Funding:** Setting a reserve funding goal to attain and maintain reserves at or near 100 percent funded. This is the most conservative funding goal.

It should be noted that in certain jurisdictions there may be statutory funding requirements that would dictate the minimum requirements for funding.

FUNDING PLAN An association’s plan to provide income to a reserve fund to offset anticipated expenditures from that fund. The plan must be a minimum of twenty (20) years.

FUNDING PRINCIPLES	<p>The reserve study must provide a funding plan addressing these principles:</p> <ul style="list-style-type: none"> • Sufficient funds when required. • Stable contribution rate over the years. • Equitable contribution rate over the years. • Fiscally responsible.
GSF	Gross square feet.
GSY	Gross square yards.
LIFE & VALUATION ESTIMATES	The task of estimating useful life, remaining useful life, and current repair or replacement costs for the reserve components.
LF	Lineal feet.
PERCENT FUNDED	<p>The ratio, at a particular point in time related to the fiscal year end, of the actual (or projected) reserve balance to the fully funded balance, expressed as a percentage. While percent funded is an indicator of an association's reserve fund size, it should be viewed in the context of how it is changing due to the association's reserve funding plan in light of the association's risk tolerance.</p>
PHYSICAL ANALYSIS	<p>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.</p>
REMAINING USEFUL LIFE (RUL)	<p>Also referred to as "remaining life" (RL). The estimated time, in years, that a reserve component can be expected to serve its intended function. Projects expected to occur in the initial year have zero remaining useful life.</p>
REPLACEMENT COST	<p>The cost to replace, repair, or restore the component to its original functional condition during that particular year, including all related expenses (including but not limited to shipping, engineering and design, permits, installation, disposal, etc.).</p>
RESERVE BALANCE	<p>Actual or projected funds, as of a particular point in time that the association has identified, to defray the future repair or replacement cost of those major components that the association is obligated to maintain or replace. Also known as reserves, reserve accounts, cash reserves. Based on information provided and not audited.</p>
RESERVE PROVIDER	<p>An individual who prepares reserve studies. In many instances the reserve provider will possess a specialized designation such as the Reserve Specialist (RS) designation provided by Community Associations Institute (CAI). This designation indicates that the provider has shown the necessary skills to perform a reserve study that conforms to these standards.</p>
RESERVE STUDY	<p>A budget planning tool which identifies the components that the association is responsible to maintain or replace, the current status of the reserve fund, and a stable and equitable funding plan to offset the anticipated future major</p>

common area expenditures. The reserve study consists of two parts: the physical analysis and the financial analysis.

SPECIAL ASSESSMENT

A temporary assessment levied on the members of an association in addition to regular assessments. Note that special assessments are often regulated by governing documents or local statutes.

USEFUL LIFE (UL)

The estimated time, in years, that a reserve component can be expected to serve its intended function if properly constructed in its present application or installation.

Disclosures

The report was prepared by, or with the oversight of, Karen McDonald, CMCA, AMS, PCAM, RS, Reserve Study Specialist (RS) # 355 through Community Associations Institute.

As of the date of this report, there are no known conflicts of interest involving Accurate Reserve Professionals, LLC and the client for which this report was prepared.

Any site visit work performed in the process of preparing this report was done through a limited visual review and included a sampling of the organization's common areas. No destructive testing or structural evaluation was performed. Unless otherwise noted, and in addition to any information provided directly by client, the component list and quantities for Level IV Preliminary Community Not Yet Constructed reports are developed using plans and drawings. Level I Full report component lists are developed using field measurements, other technology available (satellite imagery, etc.) and data provided by client. All quantities are approximate and may not be exact.

If this report is an update of a prior reserve study, it is reliant on the validity of the prior study(s) and Accurate Reserve Professionals, LLC cannot guarantee the accuracy of this report.

All known reserve components are included within this report. Any components which are unfunded are notated within the inventory appendix. There are no known material issues excluded from this report which would affect the data provided.

Any information provided by client regarding financial, physical, quantity, or historical issues is deemed reliable by Accurate Reserve Professionals, LLC and is assembled within this report for the association's use. This information is not validated by Accurate Reserve Professionals, LLC and this report is not for the purpose of performing an audit, quality/forensics analysis or a background check of the client's historical records.

The actual or projected starting balance within this Reserve Study is based upon information provided by client and was not audited or verified in any way.

For Level II With-Site-Visit and Level III No-Site-Visit reports, the client is considered to have deemed the previously developed component quantities as accurate and reliable. This data is not audited or verified in any way for these reports.

Information provided about current and prior reserve projects will be considered reliable. Any site inspection is not considered a project audit or quality inspection for these projects.

Reserve studies are for budgetary purposes only and are based on limited information. Accurate Reserve Professionals, LLC does not guarantee the accuracy of the information and client may not be able to fully rely on the final figures in the report, due to a variety of factors outside of Accurate Reserve Professionals, LLC's control, including but not limited to reliance on information provided by client, hidden damages, latent defects, economical factors, environmental factors, deferred maintenance, third party information, and other such factors.

Washington State Client Disclosures

This reserve study report meets the requirements of RCW 64.34.382, 64.38.070 and 64.90.550.

Washington State Client Disclosure for Clients Under RCW 64.34.682 and 64.38.070

"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."

Washington State Client Disclosure for Clients Under RCW 64.90.550

"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 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."