Reserve Study Level II

Prepared for Cougar Ridge

2023 Fiscal Year

Prepared by CEDCORE, LLC
Version 1

Contents

1. Executive Summary

Report Details			
Association Name:	Cougar Ridge		
Location:	Olympia, WA	**Number of Units:**	94
Physical Description	PUD/Single Family	**Site Visit Date:**	5/9/2022
Level of Service:	Level II		
Report Period:	FY 2023	**Projection Period:**	2023 - 2052

Reserve Account Snap Shot January 1, 2023		
Projected Reserve Balance:		$244,516
Fully Funded Reserve Balance:		$457,265
Percent Funded:		53 %
Reserve Surplus or (-) Deficit Per Unit:		($2,263)
Current Monthly Reserve Fund Contribution:		$83
Interest Rate		1.00 %
Inflation Rate		3.00 %

2023 Reserve Contribution Requirements (based on the above position)		
Full Funding	Monthly Reserve Contribution:	$3,470
	Monthly Reserve Contribution Per Unit (Average):	$37
	Special Assessment Required for this Plan:	$0
Baseline Funding	Monthly Reserve Contribution:	$1,308
	Monthly Reserve Contribution Per Unit (Average):	$14
	Special Assessment Required for this Plan:	$0

Based upon the budget and maintenance practices of the association we have used a funding threshold of $750. Expenses below $750 are not funded within this report and best treated as a maintenance expense. We have included comments within the Component Analysis Section of this report.

The projected reserve fund balance is estimated based on the current reserve fund balance adding any remaining budgeted contributions and subtracting any planned projects to be completed prior to the end of the fiscal year.

The Association will need to increase contributions by $36.03 per Unit per month to get onto the path to becoming Fully Funded in 2051.

1.1 Table 1 - Component List

Component	Quantity	Current Cost	UL	RUL
Backflow Preventers	12 Each	$2,700	30	24
Blow-off/Standpipe Pair: Replace, Phase 1	6 Each	$26,760	25	22
Blow-off/Standpipe Pair: Replace, Phase 2	5 Each	$22,300	25	23
Blow-off/Standpipe Pair: Replace, Phase 3	4 Each	$17,840	25	0
Blow-off/Standpipe Pair: Replace, Phase 4	5 Each	$22,300	25	0
Concrete Curbs, Curved: Replace	40 Linear Feet	$880	50	11
Concrete Curbs, Straight: Replace	72 Linear Feet	$940	50	37
Concrete Curbs, Straight: Replace	1,585 Linear Feet	$20,600	50	44
Drainage	1 Allowance	$10,000	5	0
Electrical Controls, Pump House: Replace	1 Allowance	$10,600	25	20
Electrical Panel	1 Each	$840	50	45
Electrical Panel	1 Each	$840	50	44
Electrical Panels	2 Each	$1,680	50	0
Entry Monument: Repair	Unfunded, outside the 30 year scope of report			
Fence, Chainlink: Replace	100 Linear Feet	$3,800	40	35
Fence, Metal: Replace	1 Allowance	$17,000	50	45
Fence, Security: Replace	1 Allowance	$11,600	40	33
Fence: Metal, Replace	130 Linear Feet	$10,400	40	38
Fencing, Split Rail: Replace	100 Linear Feet	$2,500	20	18
Fencing: Wood Rail, Replace	30 Linear Feet	$750	20	16
Fountain Pump and Electrical: Repair/Refurbish	1 Allowance	$22,300	99	81
Generator, Back up	1 Each	$35,700	30	22
Lawn Tractor	1 Each	$3,800	10	7
Lights: Pole, Replace Fixture	38 Each	$19,000	50	17
Mailbox Cluster A: Replace	1 Clusters	$2,000	40	35
Mailbox Clusters, B - F: Replace	5 Clusters	$10,000	40	34
Mailbox Structure: Repair/Replace	1 Each	$11,000	50	24
Masonry Wall: Repairs	1 Allowance	$5,000	5	3
Plumbing System	685 Linear Feet	$27,400	30	14
Propane Tank: Replace	1 Each	$1,700	20	12
Pump House: Repair	1 Allowance	$4,000	50	9
Pump, Booster, #1: Replace	1 Each	$11,000	20	9
Pump, Booster, #2: Replace	1 Each	$11,000	20	9
Pump, Well, #1: Replace	1 Each	$9,500	20	15
Pump, Well, #2: Replace	1 Each	$9,500	20	15
Retention Pond	1 Allowance	$3,000	5	0
Roof: Replace	1 Allowance	$25,000	50	0
Service Connections: Replace	95 Each	$11,900	50	13
Signs: Replace	Unfunded, operating expense			
Streets	Unfunded, not Association responsibility			

Surveillance System: Replace	1 Allowance	$6,400	10	3
Utility Shed	1 Each	$2,200	20	8
Valves, Gate, 6": Replace, Phase 1	4 Each	$18,000	25	21
Valves, Gate, 6": Replace, Phase 2	1 Each	$4,500	25	22
Valves, Gate, 6": Replace, Phase 3	2 Each	$9,000	25	23
Valves, Gate, 6": Replace, Phase 4	1 Each	$4,500	25	0
Valves, Gate, Smaller: Replace, Phase 1	3 Each	$13,500	25	21
Valves, Gate, Smaller: Replace, Phase 2	1 Each	$4,500	25	22
Valves, Gate, Smaller: Replace, Phase 3	2 Each	$9,000	25	23
Valves, Gate, Smaller: Replace, Phase 4	4 Each	$18,000	25	0
Water Meter	12 Each	$2,700	30	24
Water Tank, Concrete: Repair/Replace	1 Each	$52,400	75	39
Waterlines, 2": Replace	1,100 Linear Feet	$66,000	100	59
Waterlines, 3": Replace	700 Linear Feet	$42,700	100	59
Waterlines, 4": Replace	1,800 Linear Feet	$113,400	100	59
Waterlines, 6": Replace	4,400 Linear Feet	$295,000	100	59
Well	1 Each	$12,000	75	34
	Total Current Costs	$1,080,930		
	Total Funded Components	54		

Components without a UL are one-time expenses, not expecting to reoccur at this time. It is important to note that actual costs may vary significantly based on scope of work, actual conditions, hidden deterioration, vendor selection, etc. This component list is for budget planning purposes only.

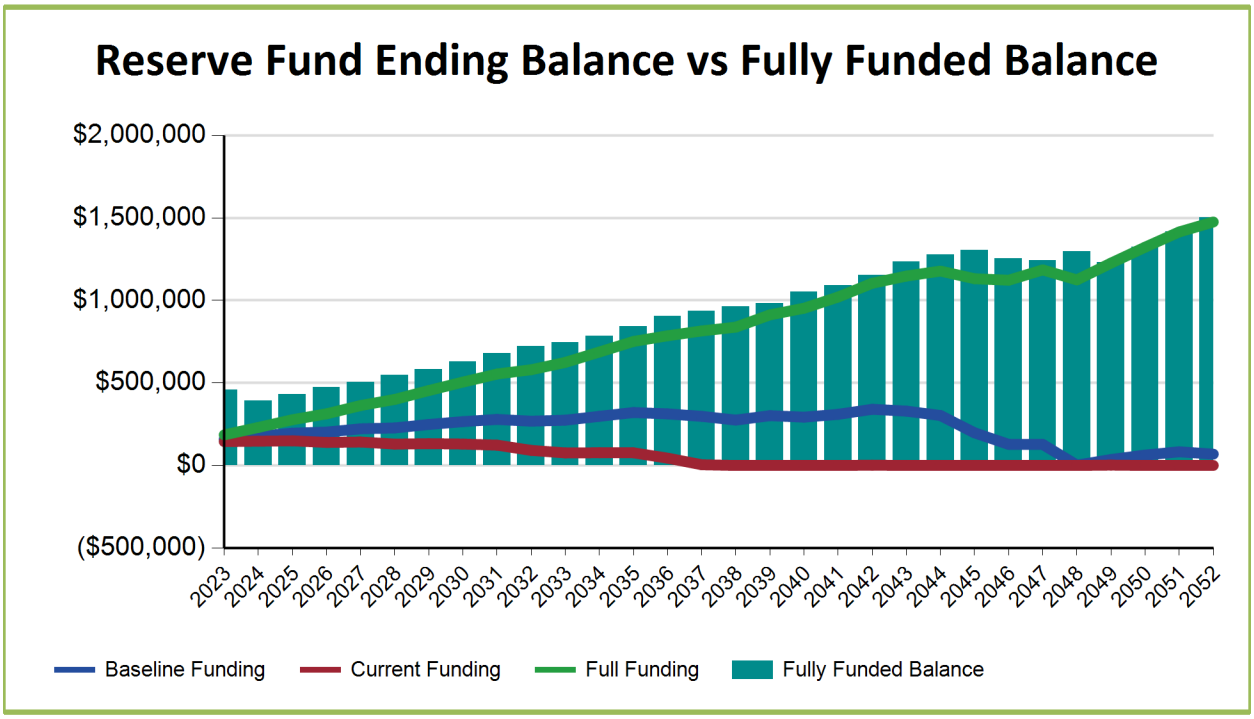
2. Financial Analysis

We have created the financial projections and recommendations based on the component list in Table One and a projected reserve fund balance $244,516. For your Association to be 100% funded there should be $457,265 in your reserve account(s). Therefore, your Association is projected to be 53.00% funded.

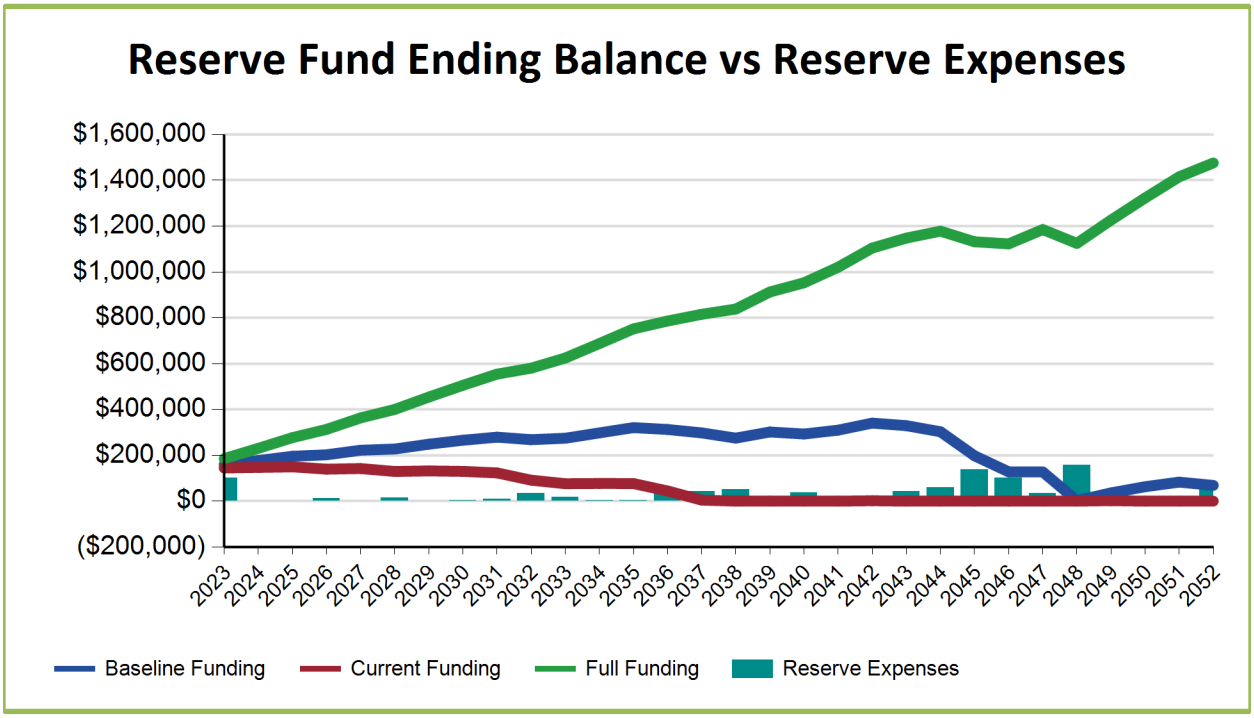
We recommend the Full Funding, which requires a monthly reserve contribution of $3,470 with a 3.00 % increase in contributions each year for the next 30 years.

Currently the Association has monthly reserve contributions of $83 and are Not projected to be sufficient over the next 30 years. The Baseline monthly reserve contribution requires $1,308, with a 3.00 % increase in contributions each year for the next 30 years. The baseline funding plan is the lowest contribution amount calculated to prevent the Reserve Fund from dropping below a zero balance.

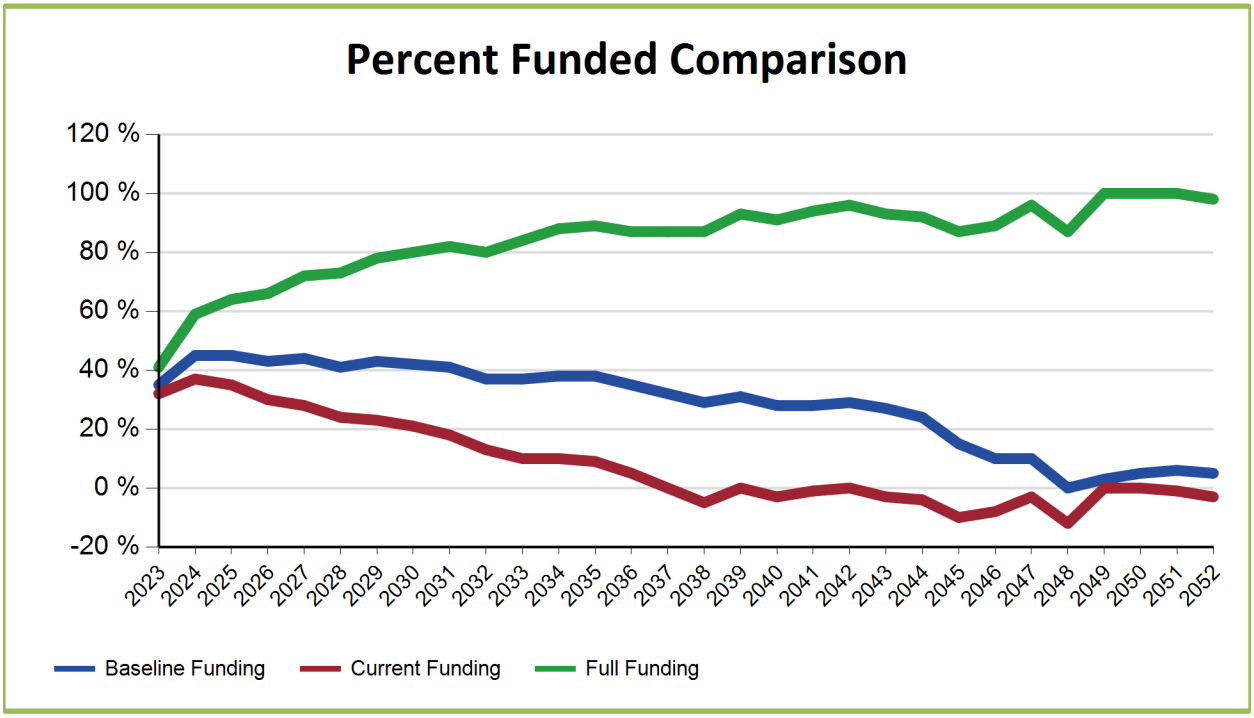
2.1 Figure 1 - Reserve Fund Ending Balance vs Fully Funded Balance



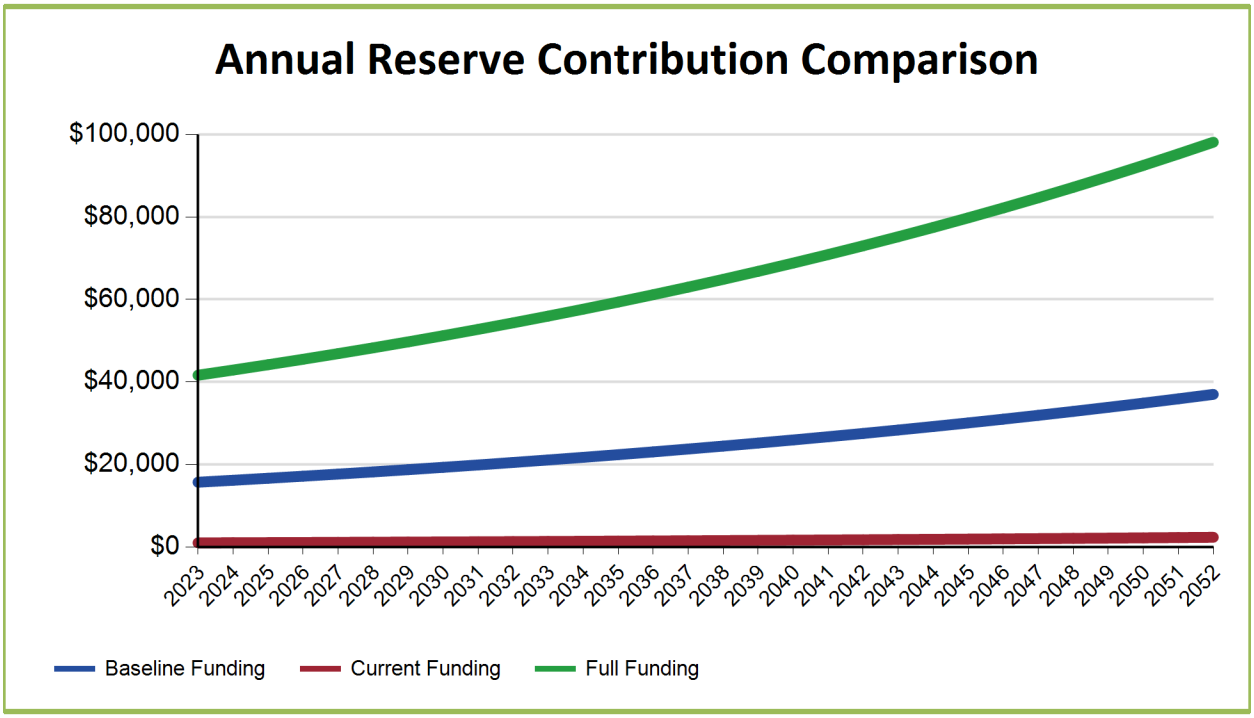
2.2 Figure 2 - Reserve Fund Ending Balance vs Reserve Expenses



2.3 Figure 3 - Percent Funded Comparison



2.4 Figure 4 – Reserve Contribution Comparison



2.5.1 - 30 Year Reserve Fund Projection (Current Funding)

Current Funding Plan

Year	Start Balance	Annual Reserve Contribution	Special Assessments	Additional Assessments Necessary Per Unit /Per Year	Interest Income	Reserve Expenses	Ending Balance	Fully Funded Balance	Ending Percent Funded
2023	$244,516	$996	$0		$1,427	$102,320	$144,619	$457,265	31.63 %
2024	$144,619	$1,026	$0		$1,451	$0	$147,096	$392,390	37.49 %
2025	$147,096	$1,057	$0		$1,476	$0	$149,629	$431,762	34.66 %
2026	$149,629	$1,088	$0		$1,377	$12,457	$139,637	$473,144	29.51 %
2027	$139,637	$1,121	$0		$1,402	$0	$142,160	$503,789	28.22 %
2028	$142,160	$1,155	$0		$1,277	$15,071	$129,521	$549,063	23.59 %
2029	$129,521	$1,189	$0		$1,301	$0	$132,011	$581,077	22.72 %
2030	$132,011	$1,225	$0		$1,279	$4,674	$129,841	$630,506	20.59 %
2031	$129,841	$1,262	$0		$1,214	$9,121	$123,196	$677,564	18.18 %
2032	$123,196	$1,300	$0		$899	$33,925	$91,470	$722,442	12.66 %
2033	$91,470	$1,339	$0		$747	$17,471	$76,085	$744,138	10.22 %
2034	$76,085	$1,379	$0		$756	$1,218	$77,002	$784,479	9.82 %
2035	$77,002	$1,420	$0		$753	$2,424	$76,751	$843,852	9.10 %
2036	$76,751	$1,463	$0		$433	$34,218	$44,429	$904,877	4.91 %
2037	$44,429	$1,507	$0		$37	$41,445	$4,528	$936,132	0.48 %
2038	$4,528	$1,552	$0	$466	$0	$49,856	$0	$962,060	-4.55 %
2039	$0	$1,598	$0		$0	$1,204	$394	$981,320	0.04 %
2040	$394	$1,646	$0	$379	$0	$37,685	$0	$1,052,521	-3.39 %
2041	$0	$1,696	$0	$118	$0	$12,768	$0	$1,089,573	-1.02 %
2042	$0	$1,746	$0		$9	$0	$1,755	$1,154,728	0.15 %
2043	$1,755	$1,799	$0	$416	$0	$42,624	$0	$1,236,359	-3.16 %
2044	$0	$1,853	$0	$604	$0	$58,599	$0	$1,277,944	-4.44 %
2045	$0	$1,908	$0	$1,436	$0	$136,924	$0	$1,305,776	-10.34 %
2046	$0	$1,966	$0	$1,065	$0	$102,034	$0	$1,255,262	-7.97 %
2047	$0	$2,025	$0	$333	$0	$33,339	$0	$1,240,710	-2.52 %
2048	$0	$2,085	$0	$1,663	$0	$158,373	$0	$1,298,066	-12.04 %
2049	$0	$2,148	$0		$11	$0	$2,159	$1,229,990	0.18 %
2050	$2,159	$2,212	$0	$43	$0	$8,441	$0	$1,324,679	-0.31 %
2051	$0	$2,279	$0	$151	$0	$16,473	$0	$1,415,249	-1.00 %
2052	$0	$2,347	$0	$527	$0	$51,844	$0	$1,502,049	-3.30 %

2.5.3 - 30 Year Reserve Fund Projection (Full Funding)

Full Funding Plan

Year	Start Balance	Annual Reserve Contribution	Special Assessments	Interest Income	Reserve Expenses	Ending Balance	Fully Funded Balance	Ending Percent Funded
2023	$244,516	$41,640	$0	$1,630	$102,320	$185,466	$457,265	40.56 %
2024	$185,466	$42,889	$0	$2,069	$0	$230,424	$392,390	58.72 %
2025	$230,424	$44,176	$0	$2,525	$0	$277,125	$431,762	64.18 %
2026	$277,125	$45,501	$0	$2,874	$12,457	$313,043	$473,144	66.16 %
2027	$313,043	$46,866	$0	$3,365	$0	$363,274	$503,789	72.11 %
2028	$363,274	$48,272	$0	$3,723	$15,071	$400,198	$549,063	72.89 %
2029	$400,198	$49,720	$0	$4,251	$0	$454,169	$581,077	78.16 %
2030	$454,169	$51,212	$0	$4,751	$4,674	$505,458	$630,506	80.17 %
2031	$505,458	$52,748	$0	$5,227	$9,121	$554,312	$677,564	81.81 %
2032	$554,312	$54,331	$0	$5,476	$33,925	$580,194	$722,442	80.31 %
2033	$580,194	$55,961	$0	$5,907	$17,471	$624,591	$744,138	83.93 %
2034	$624,591	$57,640	$0	$6,522	$1,218	$687,534	$784,479	87.64 %
2035	$687,534	$59,369	$0	$7,148	$2,424	$751,627	$843,852	89.07 %
2036	$751,627	$61,150	$0	$7,480	$34,218	$786,039	$904,877	86.87 %
2037	$786,039	$62,984	$0	$7,761	$41,445	$815,339	$936,132	87.10 %
2038	$815,339	$64,874	$0	$7,979	$49,856	$838,336	$962,060	87.14 %
2039	$838,336	$66,820	$0	$8,705	$1,204	$912,657	$981,320	93.00 %
2040	$912,657	$68,825	$0	$9,094	$37,685	$952,891	$1,052,521	90.53 %
2041	$952,891	$70,889	$0	$9,756	$12,768	$1,020,768	$1,089,573	93.69 %
2042	$1,020,768	$73,016	$0	$10,573	$0	$1,104,357	$1,154,728	95.64 %
2043	$1,104,357	$75,206	$0	$10,993	$42,624	$1,147,932	$1,236,359	92.85 %
2044	$1,147,932	$77,463	$0	$11,281	$58,599	$1,178,077	$1,277,944	92.19 %
2045	$1,178,077	$79,787	$0	$10,810	$136,924	$1,131,750	$1,305,776	86.67 %
2046	$1,131,750	$82,180	$0	$10,708	$102,034	$1,122,604	$1,255,262	89.43 %
2047	$1,122,604	$84,646	$0	$11,316	$33,339	$1,185,227	$1,240,710	95.53 %
2048	$1,185,227	$87,185	$0	$10,704	$158,373	$1,124,743	$1,298,066	86.65 %
2049	$1,124,743	$89,800	$0	$11,696	$0	$1,226,239	$1,229,990	99.70 %
2050	$1,226,239	$92,494	$0	$12,640	$8,441	$1,322,932	$1,324,679	99.87 %
2051	$1,322,932	$95,269	$0	$13,541	$16,473	$1,415,269	$1,415,249	100.00 %
2052	$1,415,269	$98,127	$0	$14,125	$51,844	$1,475,677	$1,502,049	98.24 %

2.5.2 - 30 Year Reserve Fund Projection (Baseline Funding)

Baseline Funding Plan

Year	Start Balance	Annual Reserve Contribution	Special Assessments	Interest Income	Reserve Expenses	Ending Balance	Fully Funded Balance	Ending Percent Funded
2023	$244,516	$15,697	$0	$1,500	$102,320	$159,393	$457,265	34.86 %
2024	$159,393	$16,168	$0	$1,675	$0	$177,236	$392,390	45.17 %
2025	$177,236	$16,653	$0	$1,856	$0	$195,745	$431,762	45.34 %
2026	$195,745	$17,152	$0	$1,919	$12,457	$202,359	$473,144	42.77 %
2027	$202,359	$17,667	$0	$2,112	$0	$222,138	$503,789	44.09 %
2028	$222,138	$18,197	$0	$2,162	$15,071	$227,426	$549,063	41.42 %
2029	$227,426	$18,743	$0	$2,368	$0	$248,537	$581,077	42.77 %
2030	$248,537	$19,305	$0	$2,535	$4,674	$265,703	$630,506	42.14 %
2031	$265,703	$19,884	$0	$2,665	$9,121	$279,131	$677,564	41.20 %
2032	$279,131	$20,481	$0	$2,554	$33,925	$268,241	$722,442	37.13 %
2033	$268,241	$21,095	$0	$2,613	$17,471	$274,478	$744,138	36.89 %
2034	$274,478	$21,728	$0	$2,841	$1,218	$297,829	$784,479	37.97 %
2035	$297,829	$22,380	$0	$3,066	$2,424	$320,851	$843,852	38.02 %
2036	$320,851	$23,052	$0	$2,982	$34,218	$312,667	$904,877	34.55 %
2037	$312,667	$23,743	$0	$2,831	$41,445	$297,796	$936,132	31.81 %
2038	$297,796	$24,455	$0	$2,602	$49,856	$274,997	$962,060	28.58 %
2039	$274,997	$25,189	$0	$2,864	$1,204	$301,846	$981,320	30.76 %
2040	$301,846	$25,945	$0	$2,771	$37,685	$292,877	$1,052,521	27.83 %
2041	$292,877	$26,723	$0	$2,935	$12,768	$309,767	$1,089,573	28.43 %
2042	$309,767	$27,525	$0	$3,235	$0	$340,527	$1,154,728	29.49 %
2043	$340,527	$28,350	$0	$3,121	$42,624	$329,374	$1,236,359	26.64 %
2044	$329,374	$29,201	$0	$2,854	$58,599	$302,830	$1,277,944	23.70 %
2045	$302,830	$30,077	$0	$1,809	$136,924	$197,792	$1,305,776	15.15 %
2046	$197,792	$30,979	$0	$1,112	$102,034	$127,849	$1,255,262	10.19 %
2047	$127,849	$31,909	$0	$1,105	$33,339	$127,524	$1,240,710	10.28 %
2048	$127,524	$32,866	$0	$0	$158,373	$2,017	$1,298,066	0.16 %
2049	$2,017	$33,852	$0	$189	$0	$36,058	$1,229,990	2.93 %
2050	$36,058	$34,867	$0	$451	$8,441	$62,935	$1,324,679	4.75 %
2051	$62,935	$35,914	$0	$644	$16,473	$83,020	$1,415,249	5.87 %
2052	$83,020	$36,991	$0	$497	$51,844	$68,664	$1,502,049	4.57 %

2.6 Funding Plan Cash Flow Projections

Full Funding Plan					
Year	2023	2024	2025	2026	2027
Percent Funded	40.56 %	58.72 %	64.18 %	66.16 %	72.11 %
Fully Funded Balance	$457,265	$392,390	$431,762	$473,144	$503,789
Beginning Balance	$244,516	$185,466	$230,424	$277,125	$313,043
Annual Contributions	$41,640	$42,889	$44,176	$45,501	$46,866
Interest Earnings	$1,630	$2,069	$2,525	$2,874	$3,365
Special Assessment	$0	$0	$0	$0	$0
Reserve Expenses	$102,320	$0	$0	$12,457	$0
Ending Balance	$185,466	$230,424	$277,125	$313,043	$363,274

Expenses by Component & Year					
Components	2023	2024	2025	2026	2027
Backflow Preventers	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 1	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 2	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 3	$17,840	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 4	$22,300	$0	$0	$0	$0
Concrete Curbs, Curved: Replace	$0	$0	$0	$0	$0
Concrete Curbs, Straight: Replace	$0	$0	$0	$0	$0
Concrete Curbs, Straight: Replace	$0	$0	$0	$0	$0
Drainage	$10,000	$0	$0	$0	$0
Electrical Controls, Pump House: Replace	$0	$0	$0	$0	$0
Electrical Panel	$0	$0	$0	$0	$0
Electrical Panel	$0	$0	$0	$0	$0
Electrical Panels	$1,680	$0	$0	$0	$0
Fence, Chainlink: Replace	$0	$0	$0	$0	$0
Fence, Metal: Replace	$0	$0	$0	$0	$0
Fence, Security: Replace	$0	$0	$0	$0	$0
Fence: Metal, Replace	$0	$0	$0	$0	$0
Fencing, Split Rail: Replace	$0	$0	$0	$0	$0
Fencing: Wood Rail, Replace	$0	$0	$0	$0	$0
Fountain Pump and Electrical: Repair/Refurbish	$0	$0	$0	$0	$0
Generator, Back up	$0	$0	$0	$0	$0
Lawn Tractor	$0	$0	$0	$0	$0
Lights: Pole, Replace Fixture	$0	$0	$0	$0	$0
Mailbox Cluster A: Replace	$0	$0	$0	$0	$0
Mailbox Clusters, B - F: Replace	$0	$0	$0	$0	$0
Mailbox Structure: Repair/Replace	$0	$0	$0	$0	$0
Masonry Wall: Repairs	$0	$0	$0	$5,464	$0
Plumbing System	$0	$0	$0	$0	$0
Propane Tank: Replace	$0	$0	$0	$0	$0

Pump House: Repair	$0	$0	$0	$0	$0
Pump, Booster, #1: Replace	$0	$0	$0	$0	$0
Pump, Booster, #2: Replace	$0	$0	$0	$0	$0
Pump, Well, #1: Replace	$0	$0	$0	$0	$0
Pump, Well, #2: Replace	$0	$0	$0	$0	$0
Retention Pond	$3,000	$0	$0	$0	$0
Roof: Replace	$25,000	$0	$0	$0	$0
Service Connections: Replace	$0	$0	$0	$0	$0
Surveillance System: Replace	$0	$0	$0	$6,993	$0
Utility Shed	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 1	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 2	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 3	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 4	$4,500	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 1	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 2	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 3	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 4	$18,000	$0	$0	$0	$0
Water Meter	$0	$0	$0	$0	$0
Water Tank, Concrete: Repair/Replace	$0	$0	$0	$0	$0
Waterlines, 2": Replace	$0	$0	$0	$0	$0
Waterlines, 3": Replace	$0	$0	$0	$0	$0
Waterlines, 4": Replace	$0	$0	$0	$0	$0
Waterlines, 6": Replace	$0	$0	$0	$0	$0
Well	$0	$0	$0	$0	$0

Full Funding Plan					
Year	2028	2029	2030	2031	2032
Percent Funded	72.89 %	78.16 %	80.17 %	81.81 %	80.31 %
Fully Funded Balance	$549,063	$581,077	$630,506	$677,564	$722,442
Beginning Balance	$363,274	$400,198	$454,169	$505,458	$554,312
Annual Contributions	$48,272	$49,720	$51,212	$52,748	$54,331
Interest Earnings	$3,723	$4,251	$4,751	$5,227	$5,476
Special Assessment	$0	$0	$0	$0	$0
Reserve Expenses	$15,071	$0	$4,674	$9,121	$33,925
Ending Balance	$400,198	$454,169	$505,458	$554,312	$580,194

Expenses by Component & Year					
Components	2028	2029	2030	2031	2032
Backflow Preventers	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 1	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 2	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 3	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 4	$0	$0	$0	$0	$0
Concrete Curbs, Curved: Replace	$0	$0	$0	$0	$0
Concrete Curbs, Straight: Replace	$0	$0	$0	$0	$0
Concrete Curbs, Straight: Replace	$0	$0	$0	$0	$0
Drainage	$11,593	$0	$0	$0	$0
Electrical Controls, Pump House: Replace	$0	$0	$0	$0	$0
Electrical Panel	$0	$0	$0	$0	$0
Electrical Panel	$0	$0	$0	$0	$0
Electrical Panels	$0	$0	$0	$0	$0
Fence, Chainlink: Replace	$0	$0	$0	$0	$0
Fence, Metal: Replace	$0	$0	$0	$0	$0
Fence, Security: Replace	$0	$0	$0	$0	$0
Fence: Metal, Replace	$0	$0	$0	$0	$0
Fencing, Split Rail: Replace	$0	$0	$0	$0	$0
Fencing: Wood Rail, Replace	$0	$0	$0	$0	$0
Fountain Pump and Electrical: Repair/Refurbish	$0	$0	$0	$0	$0
Generator, Back up	$0	$0	$0	$0	$0
Lawn Tractor	$0	$0	$4,674	$0	$0
Lights: Pole, Replace Fixture	$0	$0	$0	$0	$0
Mailbox Cluster A: Replace	$0	$0	$0	$0	$0
Mailbox Clusters, B - F: Replace	$0	$0	$0	$0	$0
Mailbox Structure: Repair/Replace	$0	$0	$0	$0	$0
Masonry Wall: Repairs	$0	$0	$0	$6,334	$0
Plumbing System	$0	$0	$0	$0	$0
Propane Tank: Replace	$0	$0	$0	$0	$0
Pump House: Repair	$0	$0	$0	$0	$5,219
Pump, Booster, #1: Replace	$0	$0	$0	$0	$14,353

Pump, Booster, #2: Replace	$0	$0	$0	$0	$14,353
Pump, Well, #1: Replace	$0	$0	$0	$0	$0
Pump, Well, #2: Replace	$0	$0	$0	$0	$0
Retention Pond	$3,478	$0	$0	$0	$0
Roof: Replace	$0	$0	$0	$0	$0
Service Connections: Replace	$0	$0	$0	$0	$0
Surveillance System: Replace	$0	$0	$0	$0	$0
Utility Shed	$0	$0	$0	$2,787	$0
Valves, Gate, 6": Replace, Phase 1	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 2	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 3	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 4	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 1	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 2	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 3	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 4	$0	$0	$0	$0	$0
Water Meter	$0	$0	$0	$0	$0
Water Tank, Concrete: Repair/Replace	$0	$0	$0	$0	$0
Waterlines, 2": Replace	$0	$0	$0	$0	$0
Waterlines, 3": Replace	$0	$0	$0	$0	$0
Waterlines, 4": Replace	$0	$0	$0	$0	$0
Waterlines, 6": Replace	$0	$0	$0	$0	$0
Well	$0	$0	$0	$0	$0

Full Funding Plan					
Year	2033	2034	2035	2036	2037
Percent Funded	83.93 %	87.64 %	89.07 %	86.87 %	87.10 %
Fully Funded Balance	$744,138	$784,479	$843,852	$904,877	$936,132
Beginning Balance	$580,194	$624,591	$687,534	$751,627	$786,039
Annual Contributions	$55,961	$57,640	$59,369	$61,150	$62,984
Interest Earnings	$5,907	$6,522	$7,148	$7,480	$7,761
Special Assessment	$0	$0	$0	$0	$0
Reserve Expenses	$17,471	$1,218	$2,424	$34,218	$41,445
Ending Balance	$624,591	$687,534	$751,627	$786,039	$815,339

Expenses by Component & Year					
Components	2033	2034	2035	2036	2037
Backflow Preventers	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 1	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 2	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 3	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 4	$0	$0	$0	$0	$0
Concrete Curbs, Curved: Replace	$0	$1,218	$0	$0	$0
Concrete Curbs, Straight: Replace	$0	$0	$0	$0	$0
Concrete Curbs, Straight: Replace	$0	$0	$0	$0	$0
Drainage	$13,439	$0	$0	$0	$0
Electrical Controls, Pump House: Replace	$0	$0	$0	$0	$0
Electrical Panel	$0	$0	$0	$0	$0
Electrical Panel	$0	$0	$0	$0	$0
Electrical Panels	$0	$0	$0	$0	$0
Fence, Chainlink: Replace	$0	$0	$0	$0	$0
Fence, Metal: Replace	$0	$0	$0	$0	$0
Fence, Security: Replace	$0	$0	$0	$0	$0
Fence: Metal, Replace	$0	$0	$0	$0	$0
Fencing, Split Rail: Replace	$0	$0	$0	$0	$0
Fencing: Wood Rail, Replace	$0	$0	$0	$0	$0
Fountain Pump and Electrical: Repair/Refurbish	$0	$0	$0	$0	$0
Generator, Back up	$0	$0	$0	$0	$0
Lawn Tractor	$0	$0	$0	$0	$0
Lights: Pole, Replace Fixture	$0	$0	$0	$0	$0
Mailbox Cluster A: Replace	$0	$0	$0	$0	$0
Mailbox Clusters, B - F: Replace	$0	$0	$0	$0	$0
Mailbox Structure: Repair/Replace	$0	$0	$0	$0	$0
Masonry Wall: Repairs	$0	$0	$0	$7,343	$0
Plumbing System	$0	$0	$0	$0	$41,445
Propane Tank: Replace	$0	$0	$2,424	$0	$0
Pump House: Repair	$0	$0	$0	$0	$0
Pump, Booster, #1: Replace	$0	$0	$0	$0	$0

Pump, Booster, #2: Replace	$0	$0	$0	$0	$0
Pump, Well, #1: Replace	$0	$0	$0	$0	$0
Pump, Well, #2: Replace	$0	$0	$0	$0	$0
Retention Pond	$4,032	$0	$0	$0	$0
Roof: Replace	$0	$0	$0	$0	$0
Service Connections: Replace	$0	$0	$0	$17,476	$0
Surveillance System: Replace	$0	$0	$0	$9,399	$0
Utility Shed	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 1	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 2	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 3	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 4	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 1	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 2	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 3	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 4	$0	$0	$0	$0	$0
Water Meter	$0	$0	$0	$0	$0
Water Tank, Concrete: Repair/Replace	$0	$0	$0	$0	$0
Waterlines, 2": Replace	$0	$0	$0	$0	$0
Waterlines, 3": Replace	$0	$0	$0	$0	$0
Waterlines, 4": Replace	$0	$0	$0	$0	$0
Waterlines, 6": Replace	$0	$0	$0	$0	$0
Well	$0	$0	$0	$0	$0

Full Funding Plan					
Year	2038	2039	2040	2041	2042
Percent Funded	87.14 %	93.00 %	90.53 %	93.69 %	95.64 %
Fully Funded Balance	$962,060	$981,320	$1,052,521	$1,089,573	$1,154,728
Beginning Balance	$815,339	$838,336	$912,657	$952,891	$1,020,768
Annual Contributions	$64,874	$66,820	$68,825	$70,889	$73,016
Interest Earnings	$7,979	$8,705	$9,094	$9,756	$10,573
Special Assessment	$0	$0	$0	$0	$0
Reserve Expenses	$49,856	$1,204	$37,685	$12,768	$0
Ending Balance	$838,336	$912,657	$952,891	$1,020,768	$1,104,357

Expenses by Component & Year					
Components	2038	2039	2040	2041	2042
Backflow Preventers	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 1	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 2	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 3	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 4	$0	$0	$0	$0	$0
Concrete Curbs, Curved: Replace	$0	$0	$0	$0	$0
Concrete Curbs, Straight: Replace	$0	$0	$0	$0	$0
Concrete Curbs, Straight: Replace	$0	$0	$0	$0	$0
Drainage	$15,580	$0	$0	$0	$0
Electrical Controls, Pump House: Replace	$0	$0	$0	$0	$0
Electrical Panel	$0	$0	$0	$0	$0
Electrical Panel	$0	$0	$0	$0	$0
Electrical Panels	$0	$0	$0	$0	$0
Fence, Chainlink: Replace	$0	$0	$0	$0	$0
Fence, Metal: Replace	$0	$0	$0	$0	$0
Fence, Security: Replace	$0	$0	$0	$0	$0
Fence: Metal, Replace	$0	$0	$0	$0	$0
Fencing, Split Rail: Replace	$0	$0	$0	$4,256	$0
Fencing: Wood Rail, Replace	$0	$1,204	$0	$0	$0
Fountain Pump and Electrical: Repair/Refurbish	$0	$0	$0	$0	$0
Generator, Back up	$0	$0	$0	$0	$0
Lawn Tractor	$0	$0	$6,281	$0	$0
Lights: Pole, Replace Fixture	$0	$0	$31,404	$0	$0
Mailbox Cluster A: Replace	$0	$0	$0	$0	$0
Mailbox Clusters, B - F: Replace	$0	$0	$0	$0	$0
Mailbox Structure: Repair/Replace	$0	$0	$0	$0	$0
Masonry Wall: Repairs	$0	$0	$0	$8,512	$0
Plumbing System	$0	$0	$0	$0	$0
Propane Tank: Replace	$0	$0	$0	$0	$0
Pump House: Repair	$0	$0	$0	$0	$0
Pump, Booster, #1: Replace	$0	$0	$0	$0	$0

Pump, Booster, #2: Replace	$0	$0	$0	$0	$0
Pump, Well, #1: Replace	$14,801	$0	$0	$0	$0
Pump, Well, #2: Replace	$14,801	$0	$0	$0	$0
Retention Pond	$4,674	$0	$0	$0	$0
Roof: Replace	$0	$0	$0	$0	$0
Service Connections: Replace	$0	$0	$0	$0	$0
Surveillance System: Replace	$0	$0	$0	$0	$0
Utility Shed	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 1	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 2	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 3	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 4	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 1	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 2	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 3	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 4	$0	$0	$0	$0	$0
Water Meter	$0	$0	$0	$0	$0
Water Tank, Concrete: Repair/Replace	$0	$0	$0	$0	$0
Waterlines, 2": Replace	$0	$0	$0	$0	$0
Waterlines, 3": Replace	$0	$0	$0	$0	$0
Waterlines, 4": Replace	$0	$0	$0	$0	$0
Waterlines, 6": Replace	$0	$0	$0	$0	$0
Well	$0	$0	$0	$0	$0

Full Funding Plan					
Year	2043	2044	2045	2046	2047
Percent Funded	92.85 %	92.19 %	86.67 %	89.43 %	95.53 %
Fully Funded Balance	$1,236,359	$1,277,944	$1,305,776	$1,255,262	$1,240,710
Beginning Balance	$1,104,357	$1,147,932	$1,178,077	$1,131,750	$1,122,604
Annual Contributions	$75,206	$77,463	$79,787	$82,180	$84,646
Interest Earnings	$10,993	$11,281	$10,810	$10,708	$11,316
Special Assessment	$0	$0	$0	$0	$0
Reserve Expenses	$42,624	$58,599	$136,924	$102,034	$33,339
Ending Balance	$1,147,932	$1,178,077	$1,131,750	$1,122,604	$1,185,227

Expenses by Component & Year					
Components	2043	2044	2045	2046	2047
Backflow Preventers	$0	$0	$0	$0	$5,489
Blow-off/Standpipe Pair: Replace, Phase 1	$0	$0	$51,275	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 2	$0	$0	$0	$44,011	$0
Blow-off/Standpipe Pair: Replace, Phase 3	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 4	$0	$0	$0	$0	$0
Concrete Curbs, Curved: Replace	$0	$0	$0	$0	$0
Concrete Curbs, Straight: Replace	$0	$0	$0	$0	$0
Concrete Curbs, Straight: Replace	$0	$0	$0	$0	$0
Drainage	$18,061	$0	$0	$0	$0
Electrical Controls, Pump House: Replace	$19,145	$0	$0	$0	$0
Electrical Panel	$0	$0	$0	$0	$0
Electrical Panel	$0	$0	$0	$0	$0
Electrical Panels	$0	$0	$0	$0	$0
Fence, Chainlink: Replace	$0	$0	$0	$0	$0
Fence, Metal: Replace	$0	$0	$0	$0	$0
Fence, Security: Replace	$0	$0	$0	$0	$0
Fence: Metal, Replace	$0	$0	$0	$0	$0
Fencing, Split Rail: Replace	$0	$0	$0	$0	$0
Fencing: Wood Rail, Replace	$0	$0	$0	$0	$0
Fountain Pump and Electrical: Repair/Refurbish	$0	$0	$0	$0	$0
Generator, Back up	$0	$0	$68,405	$0	$0
Lawn Tractor	$0	$0	$0	$0	$0
Lights: Pole, Replace Fixture	$0	$0	$0	$0	$0
Mailbox Cluster A: Replace	$0	$0	$0	$0	$0
Mailbox Clusters, B - F: Replace	$0	$0	$0	$0	$0
Mailbox Structure: Repair/Replace	$0	$0	$0	$0	$22,361
Masonry Wall: Repairs	$0	$0	$0	$9,868	$0
Plumbing System	$0	$0	$0	$0	$0
Propane Tank: Replace	$0	$0	$0	$0	$0
Pump House: Repair	$0	$0	$0	$0	$0
Pump, Booster, #1: Replace	$0	$0	$0	$0	$0

Pump, Booster, #2: Replace	$0	$0	$0	$0	$0
Pump, Well, #1: Replace	$0	$0	$0	$0	$0
Pump, Well, #2: Replace	$0	$0	$0	$0	$0
Retention Pond	$5,418	$0	$0	$0	$0
Roof: Replace	$0	$0	$0	$0	$0
Service Connections: Replace	$0	$0	$0	$0	$0
Surveillance System: Replace	$0	$0	$0	$12,631	$0
Utility Shed	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 1	$0	$33,485	$0	$0	$0
Valves, Gate, 6": Replace, Phase 2	$0	$0	$8,622	$0	$0
Valves, Gate, 6": Replace, Phase 3	$0	$0	$0	$17,762	$0
Valves, Gate, 6": Replace, Phase 4	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 1	$0	$25,114	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 2	$0	$0	$8,622	$0	$0
Valves, Gate, Smaller: Replace, Phase 3	$0	$0	$0	$17,762	$0
Valves, Gate, Smaller: Replace, Phase 4	$0	$0	$0	$0	$0
Water Meter	$0	$0	$0	$0	$5,489
Water Tank, Concrete: Repair/Replace	$0	$0	$0	$0	$0
Waterlines, 2": Replace	$0	$0	$0	$0	$0
Waterlines, 3": Replace	$0	$0	$0	$0	$0
Waterlines, 4": Replace	$0	$0	$0	$0	$0
Waterlines, 6": Replace	$0	$0	$0	$0	$0
Well	$0	$0	$0	$0	$0

Full Funding Plan					
Year	2048	2049	2050	2051	2052
Percent Funded	86.65	99.70	99.87	100.00	98.24
Fully Funded Balance	$1,298,066	$1,229,990	$1,324,679	$1,415,249	$1,502,049
Beginning Balance	$1,185,227	$1,124,743	$1,226,239	$1,322,932	$1,415,269
Annual Contributions	$87,185	$89,800	$92,494	$95,269	$98,127
Interest Earnings	$10,704	$11,696	$12,640	$13,541	$14,125
Special Assessment	$0	$0	$0	$0	$0
Reserve Expenses	$158,373	$0	$8,441	$16,473	$51,844
Ending Balance	$1,124,743	$1,226,239	$1,322,932	$1,415,269	$1,475,677

Expenses by Component & Year					
Components	2048	2049	2050	2051	2052
Backflow Preventers	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 1	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 2	$0	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 3	$37,353	$0	$0	$0	$0
Blow-off/Standpipe Pair: Replace, Phase 4	$46,691	$0	$0	$0	$0
Concrete Curbs, Curved: Replace	$0	$0	$0	$0	$0
Concrete Curbs, Straight: Replace	$0	$0	$0	$0	$0
Concrete Curbs, Straight: Replace	$0	$0	$0	$0	$0
Drainage	$20,938	$0	$0	$0	$0
Electrical Controls, Pump House: Replace	$0	$0	$0	$0	$0
Electrical Panel	$0	$0	$0	$0	$0
Electrical Panel	$0	$0	$0	$0	$0
Electrical Panels	$0	$0	$0	$0	$0
Fence, Chainlink: Replace	$0	$0	$0	$0	$0
Fence, Metal: Replace	$0	$0	$0	$0	$0
Fence, Security: Replace	$0	$0	$0	$0	$0
Fence: Metal, Replace	$0	$0	$0	$0	$0
Fencing, Split Rail: Replace	$0	$0	$0	$0	$0
Fencing: Wood Rail, Replace	$0	$0	$0	$0	$0
Fountain Pump and Electrical: Repair/Refurbish	$0	$0	$0	$0	$0
Generator, Back up	$0	$0	$0	$0	$0
Lawn Tractor	$0	$0	$8,441	$0	$0
Lights: Pole, Replace Fixture	$0	$0	$0	$0	$0
Mailbox Cluster A: Replace	$0	$0	$0	$0	$0
Mailbox Clusters, B - F: Replace	$0	$0	$0	$0	$0
Mailbox Structure: Repair/Replace	$0	$0	$0	$0	$0
Masonry Wall: Repairs	$0	$0	$0	$11,440	$0
Plumbing System	$0	$0	$0	$0	$0
Propane Tank: Replace	$0	$0	$0	$0	$0
Pump House: Repair	$0	$0	$0	$0	$0
Pump, Booster, #1: Replace	$0	$0	$0	$0	$25,922

Pump, Booster, #2: Replace	$0	$0	$0	$0	$25,922
Pump, Well, #1: Replace	$0	$0	$0	$0	$0
Pump, Well, #2: Replace	$0	$0	$0	$0	$0
Retention Pond	$6,281	$0	$0	$0	$0
Roof: Replace	$0	$0	$0	$0	$0
Service Connections: Replace	$0	$0	$0	$0	$0
Surveillance System: Replace	$0	$0	$0	$0	$0
Utility Shed	$0	$0	$0	$5,033	$0
Valves, Gate, 6": Replace, Phase 1	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 2	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 3	$0	$0	$0	$0	$0
Valves, Gate, 6": Replace, Phase 4	$9,422	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 1	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 2	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 3	$0	$0	$0	$0	$0
Valves, Gate, Smaller: Replace, Phase 4	$37,688	$0	$0	$0	$0
Water Meter	$0	$0	$0	$0	$0
Water Tank, Concrete: Repair/Replace	$0	$0	$0	$0	$0
Waterlines, 2": Replace	$0	$0	$0	$0	$0
Waterlines, 3": Replace	$0	$0	$0	$0	$0
Waterlines, 4": Replace	$0	$0	$0	$0	$0
Waterlines, 6": Replace	$0	$0	$0	$0	$0
Well	$0	$0	$0	$0	$0

3. Physical Analysis

We completed a site visit as part of this reserve study on 5/9/2022. Table 2 below shows all the components considered for funding and explains the basis of the funding decision.

3.1 Table 2: Component Funding Basis

Component	Condition	Funding Basis
Backflow Preventers	Good	Funded based on Association records
Blow-off/Standpipe Pair: Replace, Phase 1	Good	Funded based on the typical life expectancy
Blow-off/Standpipe Pair: Replace, Phase 2	Good	Funded based on the typical life expectancy
Blow-off/Standpipe Pair: Replace, Phase 3	Good	Funded based on the typical life expectancy
Blow-off/Standpipe Pair: Replace, Phase 4	Functional	Funded based on prior reserve study
Concrete Curbs, Curved: Replace	Assorted Condition	Funded based on the typical life expectancy
Concrete Curbs, Straight: Replace	Assorted Condition	Funded based on Association records
Concrete Curbs, Straight: Replace	Assorted Condition	Funded based on the typical life expectancy
Drainage	Unknown	Funded for further evaluation/investigation/inspection
Electrical Controls, Pump House: Replace	Functional	Funded based on the typical life expectancy
Electrical Panel	Good	Funded based on the typical life expectancy
Electrical Panel	Good	Funded based on Association records
Electrical Panels	Good	Funded based on the typical life expectancy
Entry Monument: Repair		Unfunded, outside the 30 year scope of report
Fence, Chainlink: Replace	Good	Funded based on the typical life expectancy
Fence, Metal: Replace	Good	Funded based on the typical life expectancy
Fence, Security: Replace	Good	Funded based on the typical life expectancy
Fence: Metal, Replace	Good	Funded based on the typical life expectancy
Fencing, Split Rail: Replace	Good	Funded based on the typical life expectancy
Fencing: Wood Rail, Replace	Good	Funded based on the typical life expectancy
Fountain Pump and Electrical: Repair/Refurbish	Unknown	Funded based on the typical life expectancy
Generator, Back up	Functional	Funded based on Association records
Lawn Tractor	Good	Funded based on the typical life expectancy
Lights: Pole, Replace Fixture	Functional	Funded based on the typical life expectancy
Mailbox Cluster A: Replace	Good	Funded based on the typical life expectancy
Mailbox Clusters, B - F: Replace	Good	Funded based on the typical life expectancy
Mailbox Structure: Repair/Replace	Good	Funded based on the typical life expectancy
Masonry Wall: Repairs	Good	Funded for repair
Plumbing System	Unknown	Unfunded, no predictable expectation of expense
Propane Tank: Replace	Functional	Funded based on Association records
Pump House: Repair	Assorted Condition	Funded based on prior reserve study
Pump, Booster, #1: Replace	Functional	Funded based on the typical life expectancy
Pump, Booster, #2: Replace	Functional	Funded based on Association records
Pump, Well, #1: Replace	Good	Funded based on the typical life expectancy
Pump, Well, #2: Replace	Functional	Funded based on Association records
Retention Pond	Functional	Funded for repair
Roof: Replace	Functional	Funded based on Association records
Service Connections: Replace	Unknown	Funded based on the typical life expectancy

Signs: Replace	Good	Unfunded, operating expense
Streets	Good	Unfunded, not Association responsibility
Surveillance System: Replace	Functional	Funded based on the typical life expectancy
Utility Shed	Fair	Funded based on the typical life expectancy
Valves, Gate, 6": Replace, Phase 1	Good	Funded based on the typical life expectancy
Valves, Gate, 6": Replace, Phase 2	Good	Funded based on the typical life expectancy
Valves, Gate, 6": Replace, Phase 3	Good	Funded based on the typical life expectancy
Valves, Gate, 6": Replace, Phase 4	Functional	Funded based on the typical life expectancy
Valves, Gate, Smaller: Replace, Phase 1	Good	Funded based on the typical life expectancy
Valves, Gate, Smaller: Replace, Phase 2	Good	Funded based on the typical life expectancy
Valves, Gate, Smaller: Replace, Phase 3	Good	Funded based on the typical life expectancy
Valves, Gate, Smaller: Replace, Phase 4	Functional	Funded based on the typical life expectancy
Water Meter	Unknown	Unfunded, no predictable expectation of expense
Water Tank, Concrete: Repair/Replace	Functional	Funded based on Association records
Waterlines, 2": Replace	Unknown	Funded based on the typical life expectancy
Waterlines, 3": Replace	Unknown	Funded based on the typical life expectancy
Waterlines, 4": Replace	Unknown	Funded based on the typical life expectancy
Waterlines, 6": Replace	Unknown	Funded based on the typical life expectancy
Well	Unknown	Funded based on the typical life expectancy

3.2 Table 3: Component Metrics

Component	FFB	% FFB	Annual Cost	% Annual Cost
Backflow Preventers	$540	0.12%	$90	0.35%
Blow-off/Standpipe Pair: Replace, Phase 1	$3,211	0.70%	$1,070	4.11%
Blow-off/Standpipe Pair: Replace, Phase 2	$1,784	0.39%	$892	3.43%
Blow-off/Standpipe Pair: Replace, Phase 3	$17,840	3.90%	$714	2.74%
Blow-off/Standpipe Pair: Replace, Phase 4	$22,300	4.88%	$892	3.43%
Concrete Curbs, Curved: Replace	$686	0.15%	$18	0.07%
Concrete Curbs, Straight: Replace	$244	0.05%	$19	0.07%
Concrete Curbs, Straight: Replace	$2,472	0.54%	$412	1.58%
Drainage	$10,000	2.19%	$2,000	7.69%
Electrical Controls, Pump House: Replace	$2,120	0.46%	$424	1.63%
Electrical Panel	$84	0.02%	$17	0.06%
Electrical Panel	$101	0.02%	$17	0.06%
Electrical Panels	$1,680	0.37%	$34	0.13%
Fence, Chainlink: Replace	$475	0.10%	$95	0.37%
Fence, Metal: Replace	$1,700	0.37%	$340	1.31%
Fence, Security: Replace	$2,030	0.44%	$290	1.11%
Fence: Metal, Replace	$520	0.11%	$260	1.00%
Fencing, Split Rail: Replace	$250	0.05%	$125	0.48%
Fencing: Wood Rail, Replace	$150	0.03%	$38	0.14%
Fountain Pump and Electrical: Repair/Refurbish	$4,055	0.89%	$225	0.87%
Generator, Back up	$9,520	2.08%	$1,190	4.57%
Lawn Tractor	$1,140	0.25%	$380	1.46%
Lights: Pole, Replace Fixture	$12,540	2.74%	$380	1.46%
Mailbox Cluster A: Replace	$250	0.05%	$50	0.19%
Mailbox Clusters, B - F: Replace	$1,500	0.33%	$250	0.96%
Mailbox Structure: Repair/Replace	$5,720	1.25%	$220	0.85%
Masonry Wall: Repairs	$2,000	0.44%	$1,000	3.84%
Plumbing System	$14,613	3.20%	$913	3.51%
Propane Tank: Replace	$680	0.15%	$85	0.33%
Pump House: Repair	$3,280	0.72%	$80	0.31%
Pump, Booster, #1: Replace	$6,050	1.32%	$550	2.11%
Pump, Booster, #2: Replace	$6,050	1.32%	$550	2.11%
Pump, Well, #1: Replace	$2,375	0.52%	$475	1.83%
Pump, Well, #2: Replace	$2,375	0.52%	$475	1.83%
Retention Pond	$3,000	0.66%	$600	2.31%
Roof: Replace	$25,000	5.47%	$500	1.92%
Service Connections: Replace	$8,806	1.93%	$238	0.91%
Surveillance System: Replace	$4,480	0.98%	$640	2.46%
Utility Shed	$1,320	0.29%	$110	0.42%
Valves, Gate, 6": Replace, Phase 1	$2,880	0.63%	$720	2.77%
Valves, Gate, 6": Replace, Phase 2	$540	0.12%	$180	0.69%
Valves, Gate, 6": Replace, Phase 3	$720	0.16%	$360	1.38%

Valves, Gate, 6": Replace, Phase 4	$4,500	0.98%	$180	0.69%
Valves, Gate, Smaller: Replace, Phase 1	$2,160	0.47%	$540	2.08%
Valves, Gate, Smaller: Replace, Phase 2	$540	0.12%	$180	0.69%
Valves, Gate, Smaller: Replace, Phase 3	$720	0.16%	$360	1.38%
Valves, Gate, Smaller: Replace, Phase 4	$18,000	3.94%	$720	2.77%
Water Meter	$540	0.12%	$90	0.35%
Water Tank, Concrete: Repair/Replace	$25,152	5.50%	$699	2.69%
Waterlines, 2": Replace	$27,060	5.92%	$660	2.54%
Waterlines, 3": Replace	$17,507	3.83%	$427	1.64%
Waterlines, 4": Replace	$46,494	10.17%	$1,134	4.36%
Waterlines, 6": Replace	$120,950	26.45%	$2,950	11.34%
Well	$6,560	1.43%	$160	0.61%
Current Fully Funded Balance	$457,265		$26,016	Per Year
Current Reserve Fund Deficit/Surplus	($212,749)		$2,168	Per Month

This table shows metric information regarding the influence each component has on the fully funded balance and contribution requirements.

3.3 Component Details

Mechanical & Equipment - Backflow Preventers

Quantity:	12 Each	UL:	30
Condition:	Good	RUL:	24
Funding Basis:	Funded based on Association records	Current Cost:	$2,700.00

Mechanical & Equipment - Blow-off/Standpipe Pair: Replace, Phase 1

Quantity:	6 Each
UL:	25
RUL:	22
Current Cost:	$26,760
Condition:	Good
Funding Basis:	Funded based on the typical life expectancy

Mechanical & Equipment - Blow-off/Standpipe Pair: Replace, Phase 2

Quantity:	5 Each	UL:	25
Condition:	Good	RUL:	23
Funding Basis:	Funded based on the typical life expectancy	Current Cost:	$22,300.00

Mechanical & Equipment - Blow-off/Standpipe Pair: Replace, Phase 3

Quantity:	4 Each	UL:	25
Condition:	Good	RUL:	0
Funding Basis:	Funded based on the typical life expectancy	Current Cost:	$17,840.00

Mechanical & Equipment - Blow-off/Standpipe Pair: Replace, Phase 4

Quantity:	5 Each	UL:	25
Condition:	Functional	RUL:	0
Funding Basis:	Funded based on prior reserve study	Current Cost:	$22,300.00

Site/Grounds - Concrete Curbs, Curved: Replace

Location: Center Rounds, Fountain Island and Lane Divider Islands

Quantity: 40 Linear Feet

UL: 50

RUL: 11

Current Cost: $880

Condition: Assorted Condition

Funding Basis: Funded based on the typical life expectancy

Generally fair condition. We have included an allowance to replace curbs and concrete as needed. The Association should consider having the contractor add reinforcing steel to the concrete curbs to provide more durable curbs that will withstand impact from vehicles and snow removal equipment.

Site/Grounds - Concrete Curbs, Straight: Replace

Quantity: 1585 Linear Feet

UL: 50

Condition: Assorted Condition

RUL: 44

Funding Basis: Funded based on the typical life expectancy

Current Cost: $20,600.00

Generally good condition. We have included an allowance to replace curbs and concrete as needed. The Association should consider having the contractor add reinforcing steel to the concrete curbs to provide more durable curbs that will withstand impact from vehicles and snow removal equipment. Routine pressure washing to minimize slip and fall hazard is recommended.

Site/Grounds - Concrete Curbs, Straight: Replace

Quantity: 72 Linear Feet

UL: 50

Condition: Assorted Condition

RUL: 37

Funding Basis: Funded based on Association records

Current Cost: $940.00

Site/Grounds - Drainage

Location: Throughout

Quantity: 1 Allowance

UL: 5

RUL: 0

Current Cost: $10,000

Condition: Unknown

Funding Basis: Funded for further evaluation/investigation/inspection

No reported problems or history of drainage concerns. We suggest regular cleaning and inspection take place to ensure that Association drainage/storm drainage system is functioning properly. No funding at this time, update as needed in future reserve studies.

Mechanical & Equipment - Electrical Controls, Pump House: Replace

Location: Pump House

Quantity: 1 Allowance

UL: 25

RUL: 20

Current Cost: $10,600

Condition: Functional

Funding Basis: Funded based on the typical life expectancy

Mechanical & Equipment - Electrical Panel

Quantity: 1 Each

UL: 50

RUL: 45

Current Cost: $840

Condition: Good

Funding Basis: Funded based on the typical life expectancy

No reported problems. Analysis of the electrical system is beyond the scope of a Reserve Study. At this time, there is no expectation of significant repair or expenses required. An inspection by an electrical engineer would warn the Board of any current problems and allow them to be repaired or replaced in an organized process rather than in an emergency with a price premium cost. This inspection could include the use of infrared or thermographic equipment to detect hot spots. We recommend regular inspections of the system by a qualified electrician incorporating the results into future reserve study updates.

Mechanical & Equipment - Electrical Panel

Quantity: 1 Each

UL: 50

Condition: Good

RUL: 44

Funding Basis: Funded based on Association records

Current Cost: $840.00

Mechanical & Equipment - Electrical Panels

Quantity: 2 Each

UL: 50

Condition: Good

RUL: 0

Funding Basis: Funded based on the typical life expectancy

Current Cost: $1,680.00

Site/Grounds - Entry Monument: Repair

Location: Entry

Current Cost:

Funding Basis: Unfunded, outside the 30 year scope of report

Site/Grounds - Fence, Chainlink: Replace

Location: Retention Pond #2

Quantity: 100 Linear Feet

UL: 40

RUL: 35

Current Cost: $3,800

Condition: Good

Funding Basis: Funded based on the typical life expectancy

Fair condition of black vinyl chain link fencing. Indications are that this fencing is Association responsibility. This fencing runs along the north perimeter of the property line adjacent to Unit Owner lots and Track A. We suggest planning for eventual replacement. While the black vinyl may fade over time the fencing will remain functional if not damaged or abused.

Site/Grounds - Fence, Metal: Replace

Location: Mailbox Clusters

Quantity: 1 Allowance

UL: 50

RUL: 45

Current Cost: $17,000

Condition: Good

Funding Basis: Funded based on the typical life expectancy

Good condition of the black steel fencing. The life expectancy of these units are approximately 30 to 40 years. Reserve funding recommended.

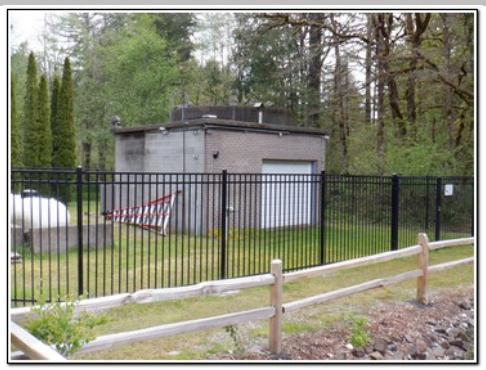
Site/Grounds - Fence, Security: Replace

Location: Pump House
Quantity: 1 Allowance
UL: 40
RUL: 33
Current Cost: $11,600
Condition: Good
Funding Basis: Funded based on the typical life expectancy

Good condition of the black metal fencing. The life expectancy of these units are approximately 40 years. Reserve funding recommended.

Site/Grounds - Fence: Metal, Replace

Location: The Pit
Quantity: 130 Linear Feet
UL: 40
RUL: 38
Current Cost: $10,400
Condition: Good
Funding Basis: Funded based on the typical life expectancy



Good condition of the metal fencing. The life expectancy of these units are approximately 40 years. Reserve funding recommended.

Site/Grounds - Fencing, Split Rail: Replace

Quantity: 100 Linear Feet
UL: 20
RUL: 18
Current Cost: $2,500
Condition: Good
Funding Basis: Funded based on the typical life expectancy

Good condition of wood fencing with no unusual deterioration. We suggest inspecting regularly and repairing as needed from the operating budget. Remove any overgrowth to minimize advanced deterioration. Reserve funding is provided for the replacement at approximately 20 years of age.

Site/Grounds - Fencing: Wood Rail, Replace

Location: Rocky Mt end of Pipeline Rd
Quantity: 30 Linear Feet
UL: 20
RUL: 16
Current Cost: $750
Condition: Good
Funding Basis: Funded based on the typical life expectancy

Generally fair condition of wood fencing with no unusual deterioration, however, several areas of missing, damaged or removed rails. We suggest inspecting regularly and repairing as needed from the operating budget. Remove any overgrowth to minimize advanced deterioration. Reserve funding is provided for the replacement at approximately 20 years of age.

Mechanical & Equipment - Fountain Pump and Electrical: Repair/Refurbish

Quantity: 1 Allowance
UL: 99
RUL: 81
Current Cost: $22,300
Condition: Unknown
Funding Basis: Funded based on the typical life expectancy

Mechanical & Equipment - Generator, Back up

Quantity: 1 Each
UL: 30
RUL: 22
Current Cost: $35,700
Condition: Functional
Funding Basis: Funded based on Association records

Mechanical & Equipment - Lawn Tractor

Quantity: 1 Each
UL: 10
RUL: 7
Current Cost: $3,800
Condition: Good
Funding Basis: Funded based on the typical life expectancy

Stored in the pictured shed.

Site/Grounds - Lights: Pole, Replace Fixture

Location: Various
Quantity: 38 Each
UL: 50
RUL: 17
Current Cost: $19,000
Condition: Functional
Funding Basis: Funded based on the typical life expectancy

Good condition with no unusual deterioration or instability observed. No history of concern. Repair as needed from the operating budget. Best to plan for total replacement for appearance and functionality.

Site/Grounds - Mailbox Cluster A: Replace

Quantity: 1 Clusters
UL: 40
RUL: 35
Current Cost: $2,000
Condition: Good
Funding Basis: Funded based on the typical life expectancy

Good condition of mailboxes with no unusual damage observed. Clean as needed to maintain appearance. Oil hinges to maintain ease of operation. We suggest planning for eventual replacement of the mailboxes to ensure functionality and community aesthetics.

Site/Grounds - Mailbox Clusters, B - F: Replace

Quantity: 5 Clusters
UL: 40
Condition: Good
RUL: 34
Funding Basis: Funded based on the typical life expectancy
Current Cost: $10,000.00

Building Exterior - Mailbox Structure: Repair/Replace

Quantity: 1 Each
UL: 50
RUL: 24
Current Cost: $11,000
Condition: Good
Funding Basis: Funded based on the typical life expectancy

Fair condition with no substantial damage or unusual deterioration noted. These units have components that will last a significant amount of time, such as the metal roofs, however, local areas of repair may be anticipated. Additionally, there is no expectation of total simultaneous replacement, therefore, we have included a funding allowance every 10 years for partial repair/replacement.

Site/Grounds - Masonry Wall: Repairs

Quantity: 1 Allowance

UL: 5

RUL: 3

Current Cost: $5,000

Condition: Good

Funding Basis: Funded for repair

Good condition of the wall with no significant deterioration observed. Minimal settlement of perimeter columns resulting in wall mortar cracks are expected, therefore funding allowance every 5 years with the option to adjust as necessary on future site inspection.

Site/Grounds - Plumbing System

Quantity: 685 Linear Feet

UL: 30

Condition: Unknown

RUL: 14

Funding Basis: Unfunded, no predictable expectation of expense

Current Cost: $27,400.00

Mechanical & Equipment - Propane Tank: Replace

Location: Pump House

Quantity: 1 Each

UL: 20

RUL: 12

Current Cost: $1,700

Condition: Functional

Funding Basis: Funded based on Association records

Building Exterior - Pump House: Repair

Quantity: 1 Allowance

UL: 50

RUL: 9

Current Cost: $4,000

Condition: Assorted Condition

Funding Basis: Funded based on prior reserve study

Mechanical & Equipment - Pump, Booster, #1: Replace

Quantity: 1 Each

UL: 20

RUL: 9

Current Cost: $11,000

Condition: Functional

Funding Basis: Funded based on the typical life expectancy

No concerns at this time. We recommend all required maintenance and testing. No predictable expenses within the scope of this study.

Mechanical & Equipment - Pump, Booster, #2: Replace

Quantity: 1 Each

UL: 20

Condition: Functional

RUL: 9

Funding Basis: Funded based on Association records

Current Cost: $11,000.00

Mechanical & Equipment - Pump, Well, #1: Replace

Quantity: 1 Each

UL: 20

RUL: 15

Current Cost: $9,500

Condition: Good

Funding Basis: Funded based on the typical life expectancy

Mechanical & Equipment - Pump, Well, #2: Replace

Quantity: 1 Each

UL: 20

Condition: Functional

RUL: 15

Funding Basis: Funded based on Association records

Current Cost: $9,500.00

Site/Grounds - Retention Pond

Quantity: 1 Allowance

UL: 5

RUL: 0

Current Cost: $3,000

Condition: Functional

Funding Basis: Funded for repair

This component may be used to include funding for cycles of anticipated pond refurbishment. At this time we strongly recommend working with a qualified engineer or storm water official to develop a operations and maintenance plan. With regular proactive maintenance there is little expectation of large expenses. However, if not maintained may include removing sediment, rebuilding the retention pond, clearing clogged inlets/outlets, correcting inadequate erosion control, etc.

Building Exterior - Roof: Replace

Location: Pumphouse

Quantity: 1 Allowance

UL: 50

RUL: 0

Current Cost: $25,000

Condition: Functional

Funding Basis: Funded based on Association records

Functional condition but planning to replace with a pitched roof with metal roofing. We assume proper installation techniques and practices will be used. Inspect regularly and repair as needed utilizing the general Operating Budget. The typical life expectancy is between 50 years for this type of roofing. We recommend that the Association should have a professional roof inspection performed by an independent, qualified Roofing Inspector registered with RCI not a roofing contractor.

Mechanical & Equipment - Service Connections: Replace

Quantity: 95 Each

Condition: Unknown

Funding Basis: Funded based on the typical life expectancy

UL: 50

RUL: 13

Current Cost: $11,900.00

Site/Grounds - Signs: Replace

Each

Condition: Good

Funding Basis: Unfunded, operating expense

Good condition with no damage or concerns at this time. We understand there is no expectation to replace at one time, therefore, no reserve funding. Treat as a maintenance item.

Site/Grounds - Streets

Location: Throughout

Current Cost:

Condition: Good

Funding Basis: Unfunded, not Association responsibility

Mechanical & Equipment - Surveillance System: Replace

Quantity: 1 Allowance

UL: 10

RUL: 3

Current Cost: $6,400

Condition: Functional

Funding Basis: Funded based on the typical life expectancy

This component may be used to fund partial replacement as needed. These systems typically become technologically obsolete before they become nonfunctional.

Building Exterior - Utility Shed

Quantity: 1 Each

UL: 20

RUL: 8

Current Cost: $2,200

Condition: Fair

Funding Basis: Funded based on the typical life expectancy

Mechanical & Equipment - Valves, Gate, 6": Replace, Phase 1

Quantity: 4 Each

UL: 25

Condition: Good

RUL: 21

Funding Basis: Funded based on the typical life expectancy

Current Cost: $18,000.00

Mechanical & Equipment - Valves, Gate, 6": Replace, Phase 2

Quantity: 1 Each

UL: 25

Condition: Good

RUL: 22

Funding Basis: Funded based on the typical life expectancy

Current Cost: $4,500.00

Mechanical & Equipment - Valves, Gate, 6": Replace, Phase 3

Quantity: 2 Each

UL: 25

Condition: Good

RUL: 23

Funding Basis: Funded based on the typical life expectancy

Current Cost: $9,000.00

Mechanical & Equipment - Valves, Gate, 6": Replace, Phase 4

Quantity: 1 Each

UL: 25

Condition: Functional

RUL: 0

Funding Basis: Funded based on the typical life expectancy

Current Cost: $4,500.00

Mechanical & Equipment - Valves, Gate, Smaller: Replace, Phase 1

Quantity:	3 Each	UL:	25
Condition:	Good	RUL:	21
Funding Basis:	Funded based on the typical life expectancy	Current Cost:	$13,500.00

Mechanical & Equipment - Valves, Gate, Smaller: Replace, Phase 2

Quantity:	1 Each	UL:	25
Condition:	Good	RUL:	22
Funding Basis:	Funded based on the typical life expectancy	Current Cost:	$4,500.00

Mechanical & Equipment - Valves, Gate, Smaller: Replace, Phase 3

Quantity:	2 Each	UL:	25
Condition:	Good	RUL:	23
Funding Basis:	Funded based on the typical life expectancy	Current Cost:	$9,000.00

Mechanical & Equipment - Valves, Gate, Smaller: Replace, Phase 4

Quantity:	4 Each	UL:	25
Condition:	Functional	RUL:	0
Funding Basis:	Funded based on the typical life expectancy	Current Cost:	$18,000.00

Mechanical & Equipment - Water Meter

Quantity:	12 Each	UL:	30
Condition:	Unknown	RUL:	24
Funding Basis:	Unfunded, no predictable expectation of expense	Current Cost:	$2,700.00

Mechanical & Equipment - Water Tank, Concrete: Repair/Replace

Quantity: 1 Each

UL: 75

RUL: 39

Current Cost: $52,400

Condition: Functional

Funding Basis: Funded based on Association records

35,000 gallons. Inspected annually.

Mechanical & Equipment - Waterlines, 2": Replace

Quantity:	1100 Linear Feet	UL:	100
Condition:	Unknown	RUL:	59
Funding Basis:	Funded based on the typical life expectancy	Current Cost:	$66,000.00

Mechanical & Equipment - Waterlines, 3": Replace

Quantity:	700 Linear Feet	UL:	100
Condition:	Unknown	RUL:	59
Funding Basis:	Funded based on the typical life expectancy	Current Cost:	$42,700.00

Mechanical & Equipment - Waterlines, 4": Replace

Quantity:	1800 Linear Feet	UL:	100
Condition:	Unknown	RUL:	59
Funding Basis:	Funded based on the typical life expectancy	Current Cost:	$113,400.00

Mechanical & Equipment - Waterlines, 6": Replace

Quantity:	4400 Linear Feet	UL:	100
Condition:	Unknown	RUL:	59
Funding Basis:	Funded based on the typical life expectancy	Current Cost:	$295,000.00

Mechanical & Equipment - Well

Quantity:	1 Each
UL:	75
RUL:	34
Current Cost:	$12,000
Condition:	Unknown
Funding Basis:	Funded based on the typical life expectancy

4. How to Read Your Reserve Study

This reserve study is an important planning tool that contains long-term common area replacement and financial recommendations for your Association. In order to accomplish this, we provide you with critical information that should be considered when evaluating the current health of your reserve fund, future maintenance, repair and replacement expenses and reserve contribution rates to include within the regular unit owner assessments. With the use of this reserve study your Association will be better prepared for present and future expenses.

We have worked to identify your common area assets, called **components**, which have maintenance or replacement expenses that can be anticipated. Our recommendations should help to minimize deferred maintenance and special assessments, as well as maximize your property value.

Having properly funded reserves enables the Association to keep the common area assets in good condition. When potential buyers consider which association to purchase a home in, the overall condition of the association and reserve fund may be considered. Having good financials, maintenance, and curb appeal, all work together to increase your property value.

We know that your needs are different from the needs of others. Therefore, we have created this report specifically for your Association. When possible, we have had discussions with the Association Board of Directors, vendors and professional management to provide recommendations that will help you meet your Association's goals and objectives.

4.1 About Reserve Studies

By definition a reserve study is a budget planning tool. It identifies the current status of the reserve fund with a stable and equitable funding plan, to offset the anticipated future major common area expenditures. Plainly, a reserve study is a long term plan that indicates how much money needs to be set aside to pay for future expenses. The reserve study consists of two parts: the physical analysis and financial analysis.

The **physical analysis** identifies which components are appropriate for reserve funding and the current physical condition assessment of each asset; then indicates the life expectancy or useful life of the component as well as the life remaining or remaining useful life of each component. The physical analysis is concluded with the current cost to replace each component. The physical analysis information is used within the financial analysis. Therefore, it generally contains many recommendations and justifications regarding component repair, maintenance and replacement recommendations as well as cost and life cycles.

The **financial analysis** includes two results. First, it reveals the health of the reserve fund. This is completed by determining the current status of the reserve fund known as percent funded. The second result is the reserve contribution recommendation. Using the information contained within the physical analysis, the future expected expenses are analyzed and reviewed. Then multi-year funding plans are developed to meet various funding goals. The reserve contributions required to meet the funding goal desired is then presented and recommended to the Association.

4.2 Reserve Study Levels

- **Level I:** Full Reserve Study Funding Analysis and Plan. This is the most labor intensive reserve study, as it includes both a physical and financial analysis. The component inventory list and current component condition assessments with life and valuation estimates are determined from an on-site visual inspection. This information is used to conduct the financial analysis, which includes the current fund status and a recommended funding plan. A "Full Reserve Study" is recommended when a previous reserve study is not available, a substantial time has elapsed since the last study (7-10

years), or there are concerns with an existing reserve study's component inventory or measurements.

- **Level II:** Update with Visual Site Inspection. This report updates both the physical analysis and financial analysis of an existing report. An on-site visual inspection is conducted to verify and/or make adjustments to the existing component list, condition assessments, useful life and component valuation estimates. The financial analysis is also updated, including the current fund status and recommended funding plan. A level II report is recommended at least every three years, before and after major projects and as required by state law.
- **Level III:** Update with No Visual Site Inspection. This report updates the financial analysis of an existing reserve study only. No on-site visual inspection is completed. An existing fund status and funding plan is updated using research conducted with board members, vendors, association managers and information contained within a prior reserve study. A level III report is recommended to review, adjust and verify that the existing funding plan is accurate and suitable for current economic conditions. A level III report is recommended at least annually.

4.3 Percent Funded

Percent funded is a way to measure the strength of the reserve fund. The Community Associations Institute (CAI) defines "Percent Funded" as "the ratio, at a particular point of time, of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage." The **fully funded balance** is the total accrued depreciation or deterioration of the component(s). This balance is the cost of how much life has been used up. The fully funded balance is then used as an indicator against which the actual (or projected) reserve fund balance can be compared; known as percent funded.

For example, if an association were to replace interior carpeting in 10 years at an expense of $10,000; then each year the cost of deterioration is 1/10th of the replacement cost. Therefore, each year $1,000 of cost is accrued. In year 2, the fully funded balance would be $2,000. In year 5, the cost of existing deterioration is $5,000, and so on. To determine the percent funded, the FFB is compared to the reserve fund balance. To continue the above example, the association has $2,000 in their reserve fund in year 2. The total accrued deterioration or FFB is $2,000, therefore they are 100% funded. The association has saved 100% of the accrued deterioration or fully funded balance. If they have set aside only $1,000, the association is 50% funded, having saved 50% of the existing deterioration or cost.

Using Percent Funded to Measure Strength

- **0-30% Funded is a "weak" status.** There is a lack of funds reserved toward the amount of accrued deterioration. Whenever an association has a weak status there is an increased possibility of requiring special assessments, loans or deferred maintenance.
- **31-69% Funded is a "fair" status.** There is a decreased chance of requiring special assessments or deferred maintenance, however, cash flow problems may very easily arise.
- **70-100% Funded is a "strong" status.** Associations in this range generally have financial stability. There are generally no cash flow issues, special assessments or deferred maintenance necessary.
- **100% Funded is known as "ideal."** The reserve fund balance equals the fully funded balance. This is "ideal" because funds are reserved as components are used. It is thought to be the most fair for members because they pay as they go, or they pay their share.

Use Caution When Using Percent Funded

Percent funded is a ratio and therefore does not convey the urgency that is often times required. There are two aspects that need to be considered when evaluating the urgency of the current situation, the time remaining before an expense is scheduled to occur, as well as the cost of the expense.

The first aspect that percent funded does not consider is the time remaining before the expense is to occur. Use the same carpet replacement example ($10,000 carpet expense to be saved over 10 years). If, in year 5 they have only saved $2,500 they are 50% funded (remember the total accrued deterioration or FFB would be $5,000). To have the capital required to complete the project as scheduled in year 10 for $10,000, they would need to save $1,500 each year for the next 5 years.

Changing the time frames, if in year 10 they have set aside $5,000, they would still be 50% funded (having saved 50% of the total accrued deterioration of $10,000). However, they now need to attain $5,000 of the required $10,000 expense immediately rather than over a period of time.

These examples show that the percent funded ratio lacks the urgency that each association may have in attaining the rest of the financing.

Percent funded also does not consider the cost of the expense. Using the same 10 year cycle, changing the cost of the required expense from $10,000 to a $30,000 paint project, in year 5 the association is 50% funded by having set aside $15,000. In this case, they must save $3,000 each year, not $1,500. If in year 10, they are 50% funded, they would need to save $15,000 not $5,000. Notice how the percent funded is the same, but the amount needed to meet the financial obligation is very different.

Percent funded is a very useful ratio, however, it must be placed in context. Remember to evaluate not only the percent funded but also the cash balance and size of the upcoming expenditures as well.

4.4 Reserve Funding Plans & Goals

To determine the contribution rate to the reserve fund, the association needs to determine their reserve fund goal. This may be based on a number of objectives and analysis' corresponding to the reserve fund. There are three different funding goals associations may choose based on their risk tolerance:

- **Baseline Funding Goal** – This sets the reserve contribution amount as low as possible without the reserve fund dropping below a zero balance. This is the most risky method with the least contributed to the reserve fund. If an expense arrives early, or unexpected, there is a significant chance of needing a special assessment or loan.
- **Threshold Funding Goal** - The goal of Threshold Funding is to set the reserve contribution amount to meet a specified goal. Common goals to achieve and maintain are 70 Percent Funded, to maintain a cash-balance of 15% of the prior year's expenses, or to maintain a minimum cash-balance of the prior year's reserve contribution amount.
- **Full Funding Goal** – Sets the goal at being fully funded. This plan sets the reserve contribution amount to achieve a fully funded balance. Fully funded is achieved when the percent funded is 100%. It requires the largest contribution to the reserve fund of the three goals, but is also the least risky.

4.5 Reserve Contributions

There are three ways to contribute to your Reserve Account:

- **Regular Contributions:** If adequate regular contributions are not established the reserve fund will eventually be underfunded. An underfunded reserve account leads to deferred maintenance and potentially extensive repair. As already mentioned, the effects of deferred maintenance and extensive repair are significantly more than routine or preventative maintenance. Additionally, it is the most fair and equitable to the association members. If reserve contributions are not set properly, whether too high or low, the individuals who use the asset will not be paying for it. If the contributions are set too high, current owners are paying for what future owners should pay for.

Likewise, when contributions are set too low, future owners will pay for what current owners should have paid for. Having properly set reserve contributions is the most fair for everyone involved.

- **Special Assessments:** If the reserve fund is underfunded at the time an expense is required, the association is forced to hold a special assessment. Most often, this occurs when deferred maintenance catches up and the association is forced to deal with it. It is better to have a small monthly increase now rather than a very large and unexpected increase later.
- **Loans:** If the association members do not have the finances to contribute to a special assessment or the required repairs are too extensive and costly for a special assessment, a loan may be required. This not only requires a monthly increase in dues, but members are then paying for past as well as future expenses, rather than just future expenses. The future still needs to be anticipated and saved for.

4.6 Reserve Components

The components of a reserve study have significant impact on the accuracy of the report. If items are improperly included or excluded from the reserve study, then the projected expenses and subsequent required reserve contributions will likewise be affected. Before a component is included within the reserve study, it is evaluated and qualified using a nationally recognized four-part test:

- **Common Area:** The component must be association responsibility; limited common areas may be included.
- **Limited Useful Life:** The life of the component must be limited.
- **Predictable Life:** The limited life must be predictable.
- **Minimum Threshold Cost:** Generally greater than 1% of the annual operating budget or $1,000 whichever is greater.

Repairs or replacements of components that are predicted to have an estimated remaining useful life exceeding this 30-year report period are generally not included. Items that are below the minimum threshold cost, or reoccur annually are generally included within the annual operating budget. Expenses that are necessitated by acts of nature, accidents or other occurrences that are more properly insured for, rather than reserved for, are also excluded.

Maintaining Components

There are three ways to manage capital reserve expenses:

- **Preventative Maintenance:** This is the most effective way to extend the useful life of components and save money in the long run, as it is a proactive maintaining of components. The cost of maintaining the condition and quality of a component is much less than repair or replacing the component to bring it back to a usable condition and may also prolong the life expectancy of an asset.
- **Deferred Maintenance:** This is deferring routine maintenance rather than completing maintenance as recommended. A common household example of this is deferring the oil changes in a vehicle. Deferred maintenance is likely the first indication of, and results in, having inadequate reserve funds. While in the short run the association is contributing less money, the effects of deferring maintenance and the costs associated with it are far greater than the cost of preventative maintenance.
- **Extensive Repair or Replacement:** This is when a component needs to have significant repair(s) completed or even replacement prior than anticipated. While not always, this is generally a result of deferred maintenance. The cost of significant repair or advanced replacement is not only expensive, it also decreases association morale through poor association management, poor curb appeal and out of commission assets.

4.7 Implementing Your Reserve Study

- **Step 1 - Understand:** The board of directors has the responsibility to lead the association, therefore, the first step is for the board to hold a meeting. This meeting should discuss the results of the reserve study in order for the Board to better understand the current position of the association and the upcoming reserve requirements of the association.
- **Step 2 - Plan:** The board should then create a plan to determine how best to manage the association's common area assets and financial position. Using this reserve study as a guide, the board should make the adjustments required to meet the needs of the association and its members. This includes setting the reserve contribution amount.
- **Step 3 - Communicate:** After the board has determined the best course of action, the plan needs to be communicated to the association members. This can be accomplished through the distribution of the results of this reserve study and/or through association meetings. This allows them to ask questions and understand the direction the association will be heading.
- **Step 4 - Update and Adjust:** Reserve studies are a one-year document, and need to be updated and adjusted annually. We recommend additional collaboration with specialized professionals to provide the expertise and adjustments to this reserve study. Additionally, we recommend the board review and make minor adjustments of this plan before and after reserve projects throughout the year.

5. Supplemental Report Information

5.1 Definitions

COMPONENT: The individual line items in the Reserve Study developed or updated in the Physical Analysis. These elements form the building blocks for the Reserve Study. Components are defined as being:

1. Association responsibility
2. Having a limited Useful Life expectancy
3. Predictable Remaining Useful Life expectancies
4. Above a minimum threshold cost
5. As required by law

DEFICIT/SURPLUS: The Reserve Balance less the Fully Funded Balance.

FULLY FUNDED BALANCE (FFB): Equivalent to Total Accrued Depreciation. This represents the deteriorated or used portion of the component. This is calculated for each component, then summed together for a total FFB.
FFB = Current Cost X Effective Age / Useful Life

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

PROJECTED RESERVE BALANCE: The anticipated reserve balance on the first day of the fiscal year for which this report has been prepared. This is based upon information provided and not audited.

REMAINING USEFUL LIFE (RUL): The estimated time, in years, that a reserve component can be expected to continue to serve its intended function.

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

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.

5.2 Table 4 - RCW Required Information & Location

RCW Required Information	Report Location
(a) A reserve component list, including any reserve component that would cost more than one percent of the annual budget of the association, not including the reserve account, 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 major maintenance, repair, or replacement cost for each reserve component;	Table 1 Table 4
(b) The date of the study and a statement that the study meets the requirements of this section;	Disclosure Page
(c) The level of reserve study performed:	Cover Page
(d) The association's reserve account balance;	Executive Summary
(e) The percentage of the fully funded balance that the reserve account is funded;	Executive Summary Financial Summary
(f) Special assessments already implemented or planned;	Executive Summary Financial Summary
(g) Interest and inflation assumptions;	Executive Summary Financial Summary
(h) Current reserve account contribution rate;	Executive Summary Financial Summary
(i) Recommended reserve account contribution rate; a contribution rate for a full funding plan to achieve one hundred percent fully funded reserves by the end of the thirty-year study period, a baseline funding plan to maintain the reserve balance above zero throughout the thirty-year study period without special assessments, and a contribution rate recommended by the reserve study professional;	Executive Summary Financial Summary
(j) Projected reserve account balance for thirty years and a funding plan to pay for projected costs from those reserves without reliance on future unplanned special assessments;	Spread Sheet of Reserve Expenses
(k) Whether the reserve study was prepared with the assistance of a reserve study professional.	Executive Summary
(3) A reserve study shall include the following disclosure: "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."	Disclosure Page

5.3 Reserve Study Disclosure

This document is the sole opinion of CEDCORE, LLC and has been provided pursuant to an agreement containing restrictions on its use. No part of this document may be copied or distributed, in any form or by any means, nor disclosed to third parties without the expressed written permission of CEDCORE. The client shall have the right to reproduce and distribute copies of this report, or the information contained within, as may be required for compliance with all applicable regulations.

This reserve 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, specialists and independent contractors. The site visit is a limited scope visual observation of the surface condition of identified and exposed components. Hidden systems including but not limited to mechanical, electrical, structural, plumbing, storm water, sewer, water supply, foundations, etc. are beyond the scope of a reserve study. No destructive testing was undertaken, nor does this study purport to address any latent and/or patent defects or life expectancies which are abnormally short due to either improper design and/or installation or due to subsequent improper maintenance. It is assumed that all components are to be reasonably maintained for the remainder of their life expectancy.

Various construction pricing and scheduling manuals may be used as well as costs and life expectancies obtained from numerous vendors, vendor catalogues, actual quotations or historical costs, and our own experience in the field of 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 Study be updated on an annual basis due to fluctuating interest rates, inflationary changes, and the unpredictable nature of the useful life and cost of many of the assets under consideration.

This Reserve Study is provided as an aid for planning purposes and not as an accounting tool. Since it deals with events yet to take place, there is no assurance that the results enumerated within it will, in fact, occur as described. Additionally, other unanticipated expenses may arise that are not included within this reserve study. 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.
This Reserve Study was prepared by or under the direct supervision of a Reserve Study Professional following National Reserve Study Standards and complies with RCW 64.34.382 and 64.90.550. The Reserve Study Professional is independent from the Association, and has no other involvement with the Association which would result in actual or perceived conflicts of interest. This Reserve Study needs to be updated annually as well as when any new material information is obtained.

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