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## Update "No-Site-Visit" Reserve Study



### Little Elk Creek Village Snowmass, CO

**Report #: 28062-1**  
**For Period Beginning: July 1, 2018**  
**Expires: June 30, 2019**

**Date Prepared: January 10, 2019**



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**Hello, and welcome to your Reserve Study!**

**T**his Report is a valuable budget planning tool, for with it you control the future of your association. It contains all the fundamental information needed to understand your current and future Reserve obligations, the most significant expenditures your association will face.

**W**ith respect to Reserves, this Report will tell you "where you are," and "where to go from here."

In this Report, you will find...

- 1) A List of What you're Reserving For**
- 2) An Evaluation of your Reserve Fund Size and Strength**
- 3) A Recommended Multi-Year Reserve Funding Plan**

**More Questions?**

Visit our website at [www.ReserveStudy.com](http://www.ReserveStudy.com) or call us at:

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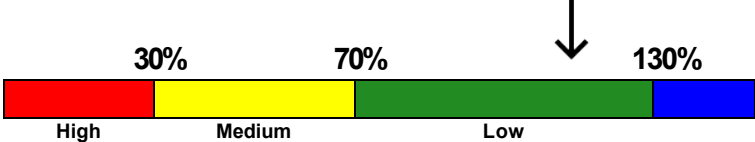
## 3- Minute Executive Summary

**Association:** Little Elk Creek Village **Assoc. #: 28062-1**  
**Location:** Snowmass, CO **# of Units:76**  
**Report Period:** July 1, 2018 through June 30, 2019

**Findings/Recommendations as-of: July 1, 2018**

Projected Starting Reserve Balance .....	\$525,926
Current Fully Funded Reserve Balance .....	\$454,247
Average Reserve Deficit or (Surplus) Per Unit .....	(\$943)
Percent Funded .....	115.8 %
Recommended 2018 Quarterly "Fully Funding" Contributions .....	\$27,740
Baseline Quarterly Minimum Contributions to Keep Reserves Above \$0 .....	\$24,500
Recommended 2018 Special Assessments for Reserves .....	\$0
Most Recent Quarterly Reserve Contribution Rate .....	\$26,040

**Reserves % Funded: 115.8%**



**Special Assessment Risk:**

**Economic Assumptions:**

**Net Annual "After Tax" Interest Earnings Accruing to Reserves .....** 1.25 %  
**Annual Inflation Rate .....** 3.00 %

- This is a Update "No-Site-Visit" Reserve Study, based on a prior Reserve Study for your 2015-2016 Fiscal Year. No site inspection was performed as part of this Reserve Study.
- The Reserve Study was prepared by a credentialed Reserve Specialist (RS #260).
- Your Reserve Fund is currently 115.8 % Funded. This means the client's special assessment & deferred maintenance risk is currently Low. The objective of your multi-year Funding Plan is to fund your Reserves to a level where you will enjoy a low risk of such Reserve cash flow problems.
- Based on this starting point and your anticipated future expenses, our recommendation is to budget the Quarterly Reserve contributions at \$27,740 with 3% annual increases in order to be within the 70% to 130% level as noted above. 100% "Full" contribution rates are designed to achieve these funding objectives by the end of our 30-year report scope.
- No assets appropriate for Reserve designation were excluded. See photo appendix for component details; the basis of our assumptions.
- We recommend that this Reserve Study be updated annually, with a With-Site-Visit Reserve Study every three years. Research has found that clients who update their Reserve Study annually with a No-Site-Visit Reserve Study reduce their risk of special assessment by ~ 35%.
- A sample 'How to Read a Reserve Study' video tutorial can be found by following this link - [tiny.cc/reservestudy](http://tiny.cc/reservestudy)

# Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Average Cost
<b>Sites &amp; Grounds</b>			
2111 Playground Equipment - Replace	15	5	\$27,500
2123 Asphalt - Chip Seal	6	3	\$206,500
2125 Asphalt - Mill and Overlay	18	11	\$410,000
2139 Fencing: Wood - Replace	25	23	\$25,000
2163 Ponds - Dredge/Maintain	10	5	\$43,500
2167 Sign/Monument - Refurbish/Replace	12	0	\$6,500
2189 Pump House - Refurbish	20	19	\$19,000
<b>Mechanical</b>			
2515 Water Line - Repair	1	0	\$27,500
2517 Wells - Treat/Maintain	4	0	\$3,300
2519 Wells - Drill	40	8	\$75,000
2533 Water Storage Tank - Exterior Paint	15	8	\$9,850
2535 Water Storage Tank - Interior Paint	15	5	\$38,500
2537 Water Storage Tank - Inspect/Clean	3	2	\$2,500
2543 Chlorine Injection System - Replace	5	4	\$4,700
2563 Filtration System Tanks - Replace	20	19	\$12,400
2567 Booster Pump/Motor (1) - Replace	20	5	\$4,950
2567 Booster Pump/Motor (2) - Replace	20	1	\$4,950
2567 Booster Pump/Motor (3) - Replace	20	13	\$4,950
2569 Well Pump/Motor (1) - Replace	10	1	\$3,300
2569 Well Pump/Motor (2) - Replace	10	9	\$3,300
2569 Well Pump/Motor (3) - Replace	10	0	\$3,300
2579 Sub Transducer - Replace (2003)	10	0	\$1,650
2579 Sub Transducer - Replace (2018)	10	9	\$1,650

**23 Total Funded Components**

Note 1: Yellow highlighted line items are expected to require attention in this initial year.

## Introduction



A Reserve Study is the art and science of anticipating, and preparing for, an association's major common area repair and replacement expenses. Partially art, because in this field we are making projections about the future. Partially science, because our work is a combination of research and well-defined computations, following consistent National Reserve Study Standard principles.

The foundation of this and every Reserve Study is your Reserve Component List (what you are reserving for). This is because the Reserve Component List defines the *scope and schedule* of all your anticipated upcoming Reserve projects. Based on that List and your starting balance, we calculate the association's Reserve Fund Strength (reported in terms of "Percent Funded"). Then we compute a Reserve Funding Plan to provide for the Reserve needs of the association. These form the three results of your Reserve Study.



Reserve contributions are not “for the future”. Reserve contributions are designed to offset the ongoing, daily deterioration of your Reserve assets. Done well, a stable, budgeted Reserve Funding Plan will collect sufficient funds from the owners who enjoyed the use of those assets, so the association is financially prepared for the irregular expenditures scattered through future years when those projects eventually require replacement.

## Methodology



For this [Update No-Site-Visit Reserve Study](#), we started with a review of your prior Reserve Study, then looked into recent Reserve expenditures, evaluated how expenditures are handled (ongoing maintenance vs Reserves), and researched any well-established association

precedents. We updated and adjusted your Reserve Component List on the basis of time elapsed since the last Reserve Study and interviews with association representatives.

## *Which Physical Assets are Funded by Reserves?*

There is a national-standard four-part test to determine which expenses should appear in your Reserve Component List. First, it must be a common area maintenance responsibility. Second, the component must have a limited life. Third, the remaining life must be predictable (or it by definition is a *surprise* which cannot be accurately anticipated). Fourth, the component must be above a minimum threshold cost (often between .5% and 1% of an association's total budget). This limits Reserve



RESERVE COMPONENT "FOUR-PART TEST"

Components to major, predictable expenses. Within this framework, it is inappropriate to include *lifetime* components, unpredictable expenses (such as damage due to fire, flood, or earthquake), and expenses more appropriately handled from the Operational Budget or as an insured loss.

## *How do we establish Useful Life and Remaining Useful Life estimates?*

- 1) Visual Inspection (observed wear and age)
- 2) Association Reserves database of experience
- 3) Client History (install dates & previous life cycle information)
- 4) Vendor Evaluation and Recommendation

## *How do we establish Current Repair/Replacement Cost Estimates?*

In this order...

- 1) Actual client cost history, or current proposals
- 2) Comparison to Association Reserves database of work done at similar associations
- 3) Vendor Recommendations
- 4) Reliable National Industry cost estimating guidebooks

## How much Reserves are enough?

Reserve adequacy is not measured in cash terms. Reserve adequacy is found when the *amount* of current Reserve cash is compared to Reserve component deterioration (the *needs of the association*). Having *enough* means the association can execute its projects in a timely manner with existing Reserve funds. Not having *enough* typically creates deferred maintenance or special assessments.

Adequacy is measured in a two-step process:

- 1) Calculate the *value of deterioration* at the association (called Fully Funded Balance, or FFB).
- 2) Compare that to the Reserve Fund Balance, and express as a percentage.



Each year, the *value of deterioration* at the association changes. When there is more deterioration (as components approach the time they need to be replaced), there should be more cash to offset that deterioration and prepare for the expenditure. Conversely, the *value of deterioration* shrinks after projects are accomplished. The *value of deterioration* (the FFB) changes each year, and is a moving but predictable target.

There is a high risk of special assessments and deferred maintenance when the Percent Funded is *weak*, below 30%. Approximately 30% of all associations are in this high risk range. While the 100% point is Ideal (indicating Reserve cash is equal to the *value of deterioration*), a Reserve Fund in the 70% - 130% range is considered strong (low risk of special assessment).

Measuring your Reserves by Percent Funded tells how well prepared your association is for upcoming Reserve expenses. New buyers should be very aware of this important disclosure!



## How much should we contribute?



RESERVE FUNDING PRINCIPLES

According to National Reserve Study Standards, there are four Funding Principles to balance in developing your Reserve Funding Plan. Our first objective is to design a plan that provides you with sufficient cash to perform your Reserve projects on time. Second, a stable contribution is desirable because it keeps these naturally irregular expenses from unsettling the budget.

Reserve contributions that are evenly distributed over current and future owners enable each owner to pay their fair share of the association's Reserve expenses over the years. And finally, we develop a plan that is fiscally responsible and safe for Boardmembers to recommend to their association. Remember, it is the Board's job to provide for the ongoing care of the common areas. Boardmembers invite liability exposure when Reserve contributions are inadequate to offset ongoing common area deterioration.

## What is our Recommended Funding Goal?

Maintaining the Reserve Fund at a level equal to the *value* of deterioration is called "Full Funding" (100% Funded). As each asset ages and becomes "used up," the Reserve Fund grows proportionally. **This is simple, responsible, and our recommendation.** Evidence shows that associations in the 70 - 130% range *enjoy a low risk of special assessments or deferred maintenance.*



FUNDING OBJECTIVES

Allowing the Reserves to fall close to zero, but not below zero, is called Baseline Funding. Doing so allows the Reserve Fund to drop into the 0 - 30% range, where there is a high risk of special assessments & deferred maintenance. Since Baseline Funding still provides for the timely execution of all Reserve projects, and only the "margin of safety" is different, Baseline Funding contributions average only 10% - 15% less than Full Funding contributions. Threshold Funding is the title of all other Cash or Percent Funded objectives *between* Baseline Funding and Full Funding.

## Projected Expenses

While this Reserve Study looks forward 30 years, we have no expectation that all these expenses will all take place as anticipated. This Reserve Study needs to be updated annually because we expect the timing of these expenses to shift and the size of these expenses to change. We do feel more certain of the timing and cost of near-term expenses than expenses many years away. Please be aware of your near-term expenses, which we are able to project more accurately than the more distant projections.

The figure below summarizes the projected future expenses as defined by your Reserve Component List. A summary of these expenses are shown in the 30-yr Summary Table, while details of the projects that make up these expenses are shown in the Cash Flow Detail Table.

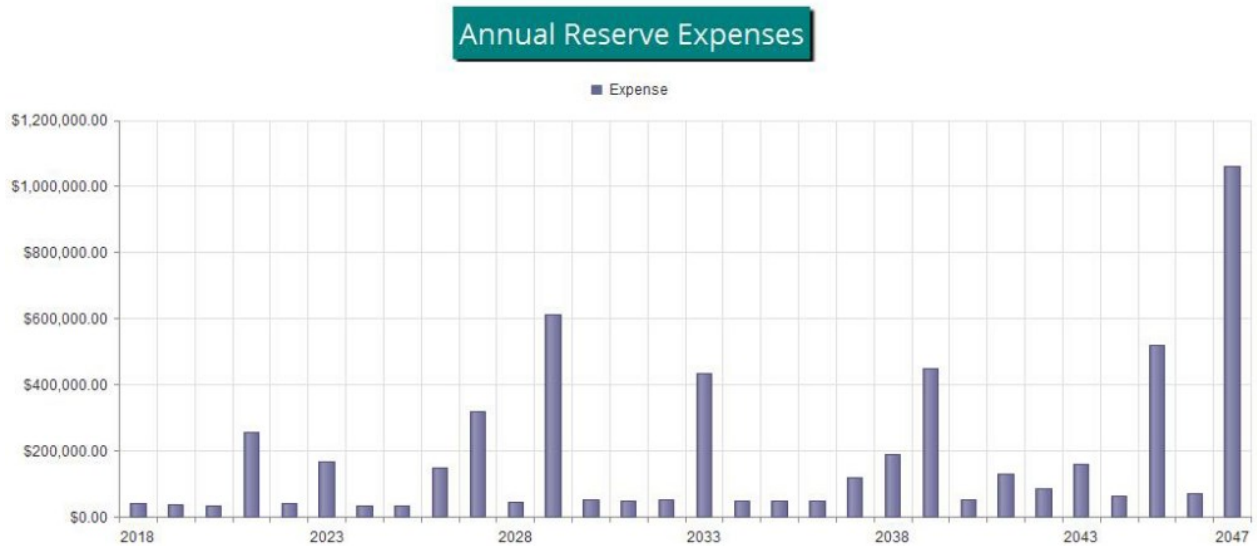


Figure 1

## Reserve Fund Status

As of 7/1/2018 your Reserve Fund balance is projected to be \$525,926 and your Fully Funded Balance is computed to be \$454,247 (see the Fully Funded Balance Table). This figure represents the deteriorated value of your common area components. Comparing your Reserve Balance to your Fully Funded Balance indicates your Reserves are 115.8 % Funded.

## Recommended Funding Plan

Based on your current Percent Funded and your near-term and long-term Reserve needs, we are recommending Quarterly budgeted contributions of \$27,740. The overall 30-yr plan, in perspective, is shown below. This same information is shown numerically in both the 30-yr Summary Table and the Cash Flow Detail Table.

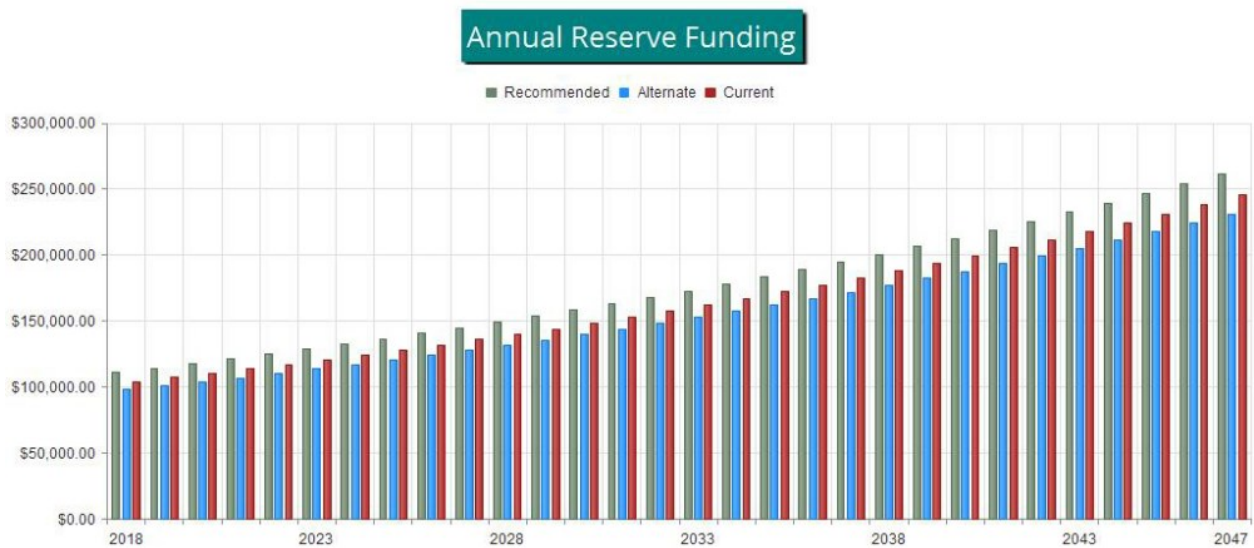


Figure 2

The following chart shows your Reserve balance under our recommended Full Funding Plan, an alternate Baseline Funding Plan, and at your current budgeted contribution rate, compared to your always-changing Fully Funded Balance target.

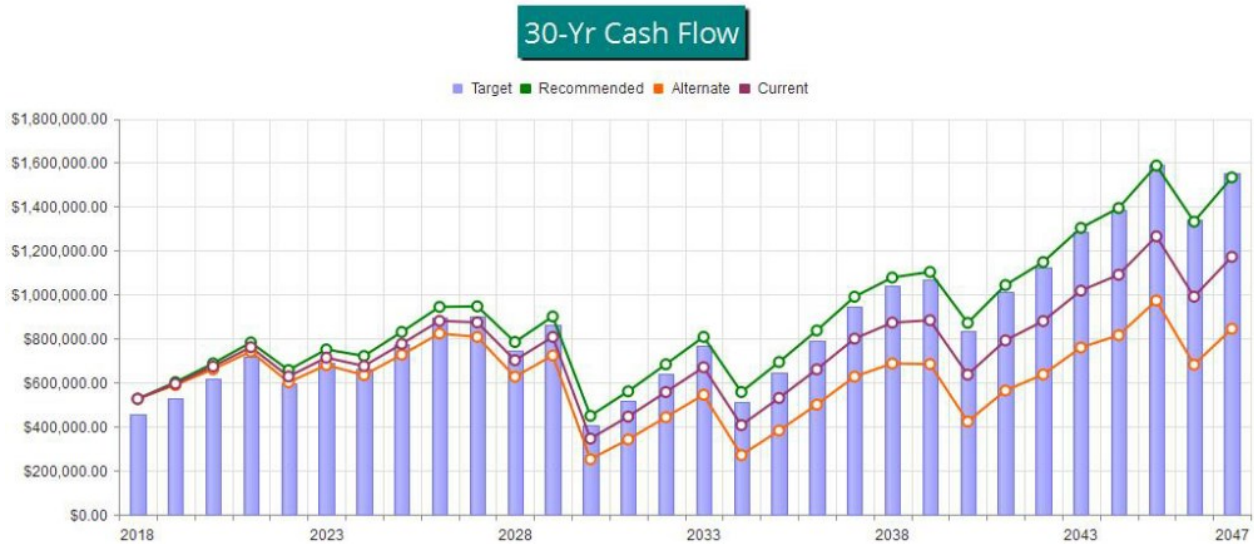


Figure 3

This figure shows the same information plotted on a Percent Funded scale. It is clear here to see how your Reserve Fund strength approaches the 100% Funded level under our recommended multi-yr Funding Plan.

A client that has a percent funded level of <30% may experience an ~ 20%-60% chance risk of special assessment. A client that is between 30% and 70% may experience an ~ 20%-5% chance risk of special assessment. A client that has a percent funded of >70% may experience an ~ <1% chance risk of special assessment.

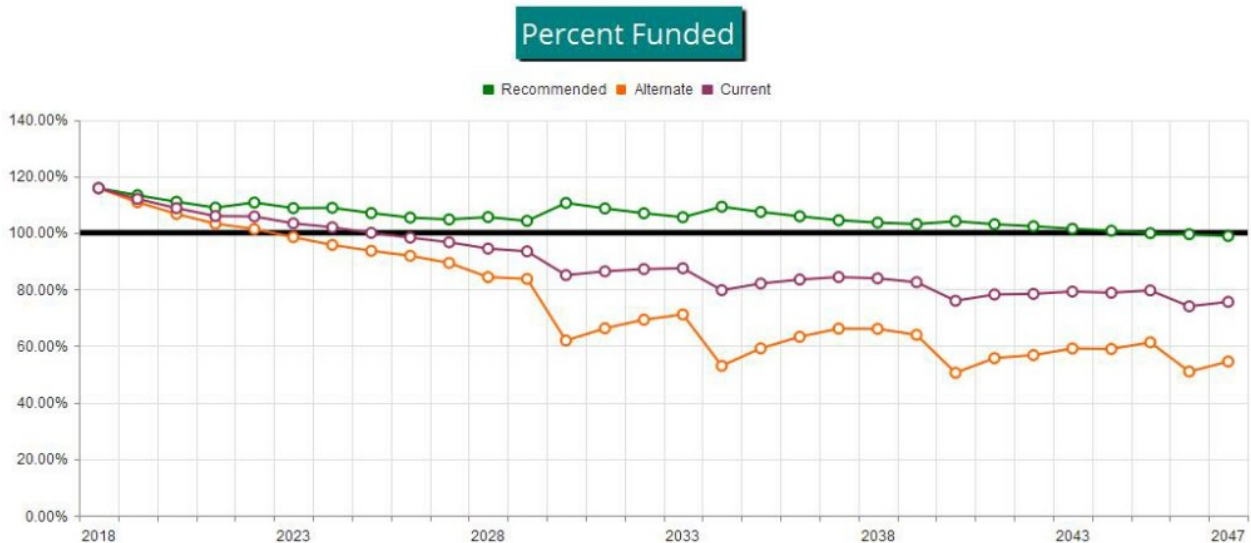


Figure 4

## Table Descriptions

The tabular information in this Report is broken down into nine tables, **not all which may have been chosen by your Project Manager to appear in your report.** Tables are listed in the order in which they appear in your Report.

Executive Summary is a summary of your Reserve Components

Budget Summary is a management and accounting tool, summarizing groupings of your Reserve Components.

Analysis Summary provides a summary of the starting financial information and your Project Manager's Financial Analysis decision points.

Reserve Component List Detail discloses key Component information, providing the foundation upon which the financial analysis is performed.

Fully Funded Balance shows the calculation of the Fully Funded Balance for each of your components, and their contributions to the association total. For each component, the Fully Funded Balance is the fraction of life used up multiplied by its estimated Current Replacement Cost.

Component Significance shows the relative significance of each component to Reserve funding needs of the association, helping you see which components have more (or less) influence than others on your total Reserve contribution rate. The deterioration cost/yr of each component is calculated by dividing the estimated Current Replacement Cost by its Useful Life, then that component's percentage of the total is displayed.

Accounting-Tax Summary provides information on each Component's proportionate portion of key totals, valuable to accounting professionals primarily during tax preparation time of year.

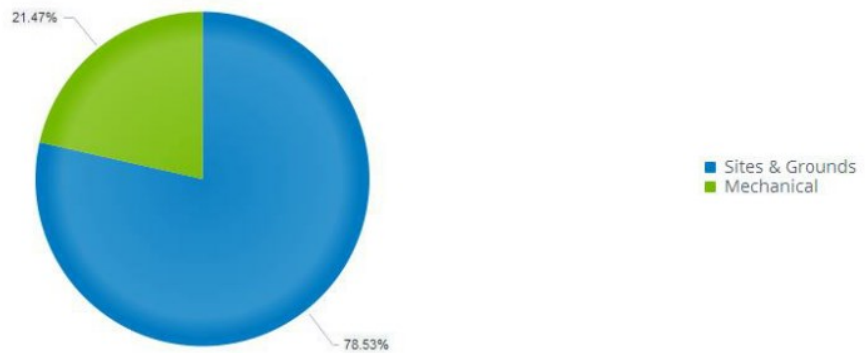
30-Yr Reserve Plan Summary provides a one-page 30-year summary of the cash flowing into and out of the Reserve Fund, with a display of the Fully Funded Balance, Percent Funded, and special assessment risk at the beginning of each year.

30-Year Income/Expense Detail shows the detailed income and expenses for each of the next 30 years. This table makes it possible to see which components are projected to require repair or replacement in a particular year, and the size of those individual expenses.

	Useful Life		2018 Rem. Useful Life		Estimated Replacement Cost in 2018	2018 Expenditures	07/01/2018	07/01/2018	Remaining Bal. to be Funded	2018 Contributions
	Min	Max	Min	Max			Current Fund Balance	Fully Funded Balance		
Sites & Grounds	6	25	0	23	\$738,000	\$6,500	\$361,497	\$312,228	\$376,503	\$70,448
Mechanical	1	40	0	19	\$201,800	\$35,750	\$164,429	\$142,019	\$37,371	\$40,512
					\$939,800	\$42,250	\$525,926	\$454,247	\$413,874	\$110,960

Percent Funded: 115.8%

**Budget Summary**



# Reserve Component List Detail

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#	Component	Quantity	Useful Life	Rem. Useful Life	Current Cost Estimate	
					Best Case	Worst Case
<b>Sites &amp; Grounds</b>						
2111	Playground Equipment - Replace	(1) Playground	15	5	\$22,000	\$33,000
2123	Asphalt - Chip Seal	~ 251,000 GSF	6	3	\$203,000	\$210,000
2125	Asphalt - Mill and Overlay	~ 251,000 GSF	18	11	\$270,000	\$550,000
2139	Fencing: Wood - Replace	~ 1,700 LF	25	23	\$24,000	\$26,000
2163	Ponds - Dredge/Maintain	(3) Ponds, (1) Silt Pond	10	5	\$38,000	\$49,000
2167	Sign/Monument - Refurbish/Replace	(1) Wood	12	0	\$5,000	\$8,000
2189	Pump House - Refurbish	(1) 10x20 Building	20	19	\$18,000	\$20,000
<b>Mechanical</b>						
2515	Water Line - Repair	Numerous LF	1	0	\$22,000	\$33,000
2517	Wells - Treat/Maintain	(3) Wells	4	0	\$2,200	\$4,400
2519	Wells - Drill	(3) Wells	40	8	\$70,000	\$80,000
2533	Water Storage Tank - Exterior Paint	~ 2,200 GSF	15	8	\$8,700	\$11,000
2535	Water Storage Tank - Interior Paint	~ 2,200 GSF	15	5	\$33,000	\$44,000
2537	Water Storage Tank - Inspect/Clean	~ 105k Gallons	3	2	\$2,000	\$3,000
2543	Chlorine Injection System - Replace	(2) Pumps, (2) Tanks	5	4	\$4,600	\$4,800
2563	Filtration System Tanks - Replace	(4) Tanks	20	19	\$12,000	\$12,800
2567	Booster Pump/Motor (1) - Replace	(1) 5 HP Pump/Motor	20	5	\$4,400	\$5,500
2567	Booster Pump/Motor (2) - Replace	(1) 5 HP Pump/Motor	20	1	\$4,400	\$5,500
2567	Booster Pump/Motor (3) - Replace	(1) 5 HP Pump/Motor	20	13	\$4,400	\$5,500
2569	Well Pump/Motor (1) - Replace	(1) Motor/Pump	10	1	\$2,200	\$4,400
2569	Well Pump/Motor (2) - Replace	(1) Motor/Pump	10	9	\$2,200	\$4,400
2569	Well Pump/Motor (3) - Replace	(1) Motor/Pump	10	0	\$2,200	\$4,400
2579	Sub Transducer - Replace (2003)	(1) Unit	10	0	\$1,100	\$2,200
2579	Sub Transducer - Replace (2018)	(1) Unit	10	9	\$1,100	\$2,200

23 Total Funded Components

#	Component	Current Cost Estimate	X	Effective Age	/	Useful Life	=	Fully Funded Balance
<b>Sites &amp; Grounds</b>								
2111	Playground Equipment - Replace	\$27,500	X	10	/	15	=	\$18,333
2123	Asphalt - Chip Seal	\$206,500	X	3	/	6	=	\$103,250
2125	Asphalt - Mill and Overlay	\$410,000	X	7	/	18	=	\$159,444
2139	Fencing: Wood - Replace	\$25,000	X	2	/	25	=	\$2,000
2163	Ponds - Dredge/Maintain	\$43,500	X	5	/	10	=	\$21,750
2167	Sign/Monument - Refurbish/Replace	\$6,500	X	12	/	12	=	\$6,500
2189	Pump House - Refurbish	\$19,000	X	1	/	20	=	\$950
<b>Mechanical</b>								
2515	Water Line - Repair	\$27,500	X	1	/	1	=	\$27,500
2517	Wells - Treat/Maintain	\$3,300	X	4	/	4	=	\$3,300
2519	Wells - Drill	\$75,000	X	32	/	40	=	\$60,000
2533	Water Storage Tank - Exterior Paint	\$9,850	X	7	/	15	=	\$4,597
2535	Water Storage Tank - Interior Paint	\$38,500	X	10	/	15	=	\$25,667
2537	Water Storage Tank - Inspect/Clean	\$2,500	X	1	/	3	=	\$833
2543	Chlorine Injection System - Replace	\$4,700	X	1	/	5	=	\$940
2563	Filtration System Tanks - Replace	\$12,400	X	1	/	20	=	\$620
2567	Booster Pump/Motor (1) - Replace	\$4,950	X	15	/	20	=	\$3,713
2567	Booster Pump/Motor (2) - Replace	\$4,950	X	19	/	20	=	\$4,703
2567	Booster Pump/Motor (3) - Replace	\$4,950	X	7	/	20	=	\$1,733
2569	Well Pump/Motor (1) - Replace	\$3,300	X	9	/	10	=	\$2,970
2569	Well Pump/Motor (2) - Replace	\$3,300	X	1	/	10	=	\$330
2569	Well Pump/Motor (3) - Replace	\$3,300	X	10	/	10	=	\$3,300
2579	Sub Transducer - Replace (2003)	\$1,650	X	10	/	10	=	\$1,650
2579	Sub Transducer - Replace (2018)	\$1,650	X	1	/	10	=	\$165
								\$454,247



# Component Significance

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#	Component	Useful Life (yrs)	Current Cost Estimate	Deterioration Cost/Yr	Deterioration Significance
<b>Sites &amp; Grounds</b>					
2111	Playground Equipment - Replace	15	\$27,500	\$1,833	1.77 %
2123	Asphalt - Chip Seal	6	\$206,500	\$34,417	33.17 %
2125	Asphalt - Mill and Overlay	18	\$410,000	\$22,778	21.95 %
2139	Fencing: Wood - Replace	25	\$25,000	\$1,000	0.96 %
2163	Ponds - Dredge/Maintain	10	\$43,500	\$4,350	4.19 %
2167	Sign/Monument - Refurbish/Replace	12	\$6,500	\$542	0.52 %
2189	Pump House - Refurbish	20	\$19,000	\$950	0.92 %
<b>Mechanical</b>					
2515	Water Line - Repair	1	\$27,500	\$27,500	26.51 %
2517	Wells - Treat/Maintain	4	\$3,300	\$825	0.80 %
2519	Wells - Drill	40	\$75,000	\$1,875	1.81 %
2533	Water Storage Tank - Exterior Paint	15	\$9,850	\$657	0.63 %
2535	Water Storage Tank - Interior Paint	15	\$38,500	\$2,567	2.47 %
2537	Water Storage Tank - Inspect/Clean	3	\$2,500	\$833	0.80 %
2543	Chlorine Injection System - Replace	5	\$4,700	\$940	0.91 %
2563	Filtration System Tanks - Replace	20	\$12,400	\$620	0.60 %
2567	Booster Pump/Motor (1) - Replace	20	\$4,950	\$248	0.24 %
2567	Booster Pump/Motor (2) - Replace	20	\$4,950	\$248	0.24 %
2567	Booster Pump/Motor (3) - Replace	20	\$4,950	\$248	0.24 %
2569	Well Pump/Motor (1) - Replace	10	\$3,300	\$330	0.32 %
2569	Well Pump/Motor (2) - Replace	10	\$3,300	\$330	0.32 %
2569	Well Pump/Motor (3) - Replace	10	\$3,300	\$330	0.32 %
2579	Sub Transducer - Replace (2003)	10	\$1,650	\$165	0.16 %
2579	Sub Transducer - Replace (2018)	10	\$1,650	\$165	0.16 %
23	Total Funded Components			\$103,749	100.00 %

# 30-Year Reserve Plan Summary

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NSV

Fiscal Year Start: 2018

Interest:

1.25 %

Inflation:

3.00 %

Reserve Fund Strength Calculations: (All values of Fiscal Year Start Date)

Projected Reserve Balance Changes

Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded	Special Assmt Risk	% Increase		Loan or Special Assmts	Interest Income	Reserve Expenses
					In Annual Reserve Contribs.	Reserve Contribs.			
2018	\$525,926	\$454,247	115.8 %	Low	6.53 %	\$110,960	\$0	\$7,044	\$42,250
2019	\$601,680	\$531,218	113.3 %	Low	3.00 %	\$114,289	\$0	\$8,051	\$36,823
2020	\$687,197	\$619,294	111.0 %	Low	3.00 %	\$117,717	\$0	\$9,179	\$31,827
2021	\$782,267	\$718,460	108.9 %	Low	3.00 %	\$121,249	\$0	\$8,989	\$255,698
2022	\$656,807	\$593,415	110.7 %	Low	3.00 %	\$124,886	\$0	\$8,791	\$39,956
2023	\$750,529	\$690,336	108.7 %	Low	3.00 %	\$128,633	\$0	\$9,192	\$167,457
2024	\$720,897	\$662,447	108.8 %	Low	3.00 %	\$132,492	\$0	\$9,689	\$32,836
2025	\$830,242	\$776,096	107.0 %	Low	3.00 %	\$136,467	\$0	\$11,083	\$33,822
2026	\$943,970	\$895,969	105.4 %	Low	3.00 %	\$140,561	\$0	\$11,810	\$149,669
2027	\$946,672	\$904,057	104.7 %	Low	3.00 %	\$144,778	\$0	\$10,813	\$317,908
2028	\$784,355	\$743,163	105.5 %	Low	3.00 %	\$149,121	\$0	\$10,524	\$43,610
2029	\$900,390	\$864,152	104.2 %	Low	3.00 %	\$153,595	\$0	\$8,428	\$613,631
2030	\$448,781	\$405,957	110.5 %	Low	3.00 %	\$158,202	\$0	\$6,302	\$53,181
2031	\$560,105	\$515,718	108.6 %	Low	3.00 %	\$162,949	\$0	\$7,766	\$47,654
2032	\$683,166	\$639,035	106.9 %	Low	3.00 %	\$167,837	\$0	\$9,314	\$52,487
2033	\$807,830	\$765,782	105.5 %	Low	3.00 %	\$172,872	\$0	\$8,525	\$432,336
2034	\$556,891	\$509,935	109.2 %	Low	3.00 %	\$178,058	\$0	\$7,810	\$49,425
2035	\$693,334	\$645,806	107.4 %	Low	3.00 %	\$183,400	\$0	\$9,558	\$49,585
2036	\$836,706	\$790,732	105.8 %	Low	3.00 %	\$188,902	\$0	\$11,412	\$46,817
2037	\$990,203	\$948,157	104.4 %	Low	3.00 %	\$194,569	\$0	\$12,916	\$120,203
2038	\$1,077,486	\$1,040,174	103.6 %	Low	3.00 %	\$200,406	\$0	\$13,622	\$188,287
2039	\$1,103,227	\$1,070,447	103.1 %	Low	3.00 %	\$206,418	\$0	\$12,334	\$450,656
2040	\$871,323	\$837,177	104.1 %	Low	3.00 %	\$212,611	\$0	\$11,959	\$52,693
2041	\$1,043,200	\$1,012,776	103.0 %	Low	3.00 %	\$218,989	\$0	\$13,687	\$127,987
2042	\$1,147,889	\$1,122,232	102.3 %	Low	3.00 %	\$225,559	\$0	\$15,312	\$85,377
2043	\$1,303,383	\$1,285,186	101.4 %	Low	3.00 %	\$232,326	\$0	\$16,847	\$159,022
2044	\$1,393,533	\$1,383,692	100.7 %	Low	3.00 %	\$239,295	\$0	\$18,617	\$64,698
2045	\$1,586,748	\$1,589,020	99.9 %	Low	3.00 %	\$246,474	\$0	\$18,230	\$519,782
2046	\$1,331,671	\$1,338,685	99.5 %	Low	3.00 %	\$253,868	\$0	\$17,894	\$70,468
2047	\$1,532,965	\$1,550,754	98.9 %	Low	3.00 %	\$261,485	\$0	\$14,255	\$1,059,630

## Accuracy, Limitations, and Disclosures

Association Reserves and its employees have no ownership, management, or other business relationships with the client other than this Reserve Study engagement. Bryan Farley, R.S., president of the Colorado LLC, is a credentialed Reserve Specialist (#260). All work done by Association Reserves is performed under his Responsible Charge and is performed in accordance with National Reserve Study Standards (NRSS). There are no material issues to our knowledge that have not been disclosed to the client that would cause a distortion of the client's situation.

Per NRSS, information provided by official representative(s) of the client, vendors, and suppliers regarding financial details, component physical details and/or quantities, or historical issues/conditions will be deemed reliable, and is not intended to be used for the purpose of any type of audit, quality/forensic analysis, or background checks of historical records. As such, information provided to us has not been audited or independently verified.

Estimates for interest and inflation have been included, because including such estimates are more accurate than ignoring them completely. When we are hired to prepare Update reports, the client is considered to have deemed those previously developed component quantities as accurate and reliable, whether established by our firm or other individuals/firms (unless specifically mentioned in our Site Inspection Notes). During inspections our company standard is to establish measurements within 5% accuracy, and our scope includes visual inspection of accessible areas and components and does not include any destructive or other testing. Our work is done only for budget purposes. Uses or expectations outside our expertise and scope of work include, but are not limited to, project audit, quality inspection, and the identification of construction defects, hazardous materials, or dangerous conditions. Identifying hidden issues such as but not limited to plumbing or electrical problems are also outside our scope of work. Our estimates assume proper original installation & construction, adherence to recommended preventive maintenance, a stable economic environment, and do not consider frequency or severity of natural disasters. Our opinions of component Useful Life, Remaining Useful Life, and current or future cost estimates are not a warranty or guarantee of actual costs or timing.

Because the physical and financial status of the property, legislation, the economy, weather, owner expectations, and usage are all in a continual state of change over which we have no control, we do not expect that the events projected in this document will all occur exactly as planned. This Reserve Study is by nature a "one-year" document in need of being updated annually so that more accurate estimates can be incorporated. It is only because a long-term perspective improves the accuracy of near-term planning that this Report projects expenses into the future. We fully expect a number of adjustments will be necessary through the interim years to the cost and timing of expense projections and the funding necessary to prepare for those estimated expenses.

## Terms and Definitions

<b>BTU</b>	British Thermal Unit (a standard unit of energy)
<b>DIA</b>	Diameter
<b>GSF</b>	Gross Square Feet (area). Equivalent to Square Feet
<b>GSY</b>	Gross Square Yards (area). Equivalent to Square Yards
<b>HP</b>	Horsepower
<b>LF</b>	Linear Feet (length)
<b>Effective Age</b>	The difference between Useful Life and Remaining Useful Life. Note that this is not necessarily equivalent to the chronological age of the component.
<b>Fully Funded Balance (FFB)</b>	The value of the deterioration of the Reserve Components. This is the fraction of life "used up" of each component multiplied by its estimated Current Replacement. While calculated for each component, it is summed together for an association total.
<b>Inflation</b>	Cost factors are adjusted for inflation at the rate defined in the Executive Summary and compounded annually. These increasing costs can be seen as you follow the recurring cycles of a component on the "30-yr Income/Expense Detail" table.
<b>Interest</b>	Interest earnings on Reserve Funds are calculated using the average balance for the year (taking into account income and expenses through the year) and compounded monthly using the rate defined in the Executive Summary. Annual interest earning assumption appears in the Executive Summary.
<b>Percent Funded</b>	The ratio, at a particular point in time (the first day of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage.
<b>Remaining Useful Life (RUL)</b>	The estimated time, in years, that a common area component can be expected to continue to serve its intended function.
<b>Useful Life (UL)</b>	The estimated time, in years, that a common area component can be expected to serve its intended function.

## Component Details

The primary purpose of the photographic appendix is to provide the reader with the basis of our funding assumptions resulting from our physical analysis and subsequent research. The photographs herein represent a wide range of elements that were observed and measured against National Reserve Study Standards to determine if they meet the criteria for reserve funding:

- 1) Common are maintenance, repair & replacement reasonability
- 2) Components must have a limited life
- 3) Life limit must be predictable
- 4) Above a minimum threshold cost (board's discretion – typically ½ to 1% of annual operating expenses).

Some components are recommended for reserve funding, while others are not. The components that meet these criteria in our judgment are shown with corresponding maintenance, repair or replacement cycles to the left of the photo (UL = Useful Life or how often the project is expected to occur, RUL = Remaining Useful Life or how many years from our reporting period) and a representative market cost range termed “Best Cost” and “Worst Cost” below the photo. There are many factors that can result in a wide variety of potential cost; we are attempting to represent a market average for budget purposes. Where there is no UL, the component is expected to be a one-time expense. Where no pricing, the component deemed inappropriate for Reserve Funding.

## Sites & Grounds

**Comp #: 2111 Playground Equipment - Replace****Quantity: (1) Playground**

Location: Scattered common area locations

Funded?: Yes.

History:

Comments:

Useful Life: 15 years

Remaining Life: 5 years

Best Case: \$ 22,000

Worst Case: \$33,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project

Cost History

---

**Comp #: 2113 Site Drainage - Clean/Repair****Quantity: Moderate Areas**

Location: Common area open space tracts throughout community

Funded?: No.

History:

Comments:

Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

---

**Comp #: 2123 Asphalt - Chip Seal****Quantity: ~ 251,000 GSF**

Location: Roadways of association

Funded?: Yes.

History: Sealed in 2016

Comments:

Useful Life: 6 years

Remaining Life: 3 years

Best Case: \$ 203,000

Worst Case: \$210,000

Lower allowance

Higher allowance

Cost Source: Client Cost History + Inflation

---

**Comp #: 2125 Asphalt - Mill and Overlay****Quantity: ~ 251,000 GSF**

Location: Roadways

Funded?: Yes.

History:

Comments:

Useful Life: 18 years

Remaining Life: 11 years

Best Case: \$ 270,000

Worst Case: \$550,000

Lower allowance

Higher allowance

Cost Source: Research with Local

Vendor/Contractor - GMCO

---

**Comp #: 2139 Fencing: Wood - Replace****Quantity: ~ 1,700 LF**

Location: Perimeter of Capitol Creek Rd. and Tot Lot

Funded?: Yes.

History: Replaced in 2016

Comments:

Useful Life: 25 years

Remaining Life: 23 years

Best Case: \$ 24,000

Worst Case: \$26,000

Lower allowance

Higher allowance

Cost Source: Client Cost History + Inflation

---

**Comp #: 2163 Ponds - Dredge/Maintain****Quantity: (3) Ponds, (1) Silt Pond**

Location: Common areas

Funded?: Yes.

History: Dredged in 2013/2014

Comments:

Useful Life: 10 years

Remaining Life: 5 years

Best Case: \$ 38,000

Worst Case: \$49,000

Lower allowance

Higher allowance

Cost Source: Client Cost History

**Comp #: 2167 Sign/Monument - Refurbish/Replace**

**Quantity: (1) Wood**

Location: Entry location

Funded?: Yes.

History:

Comments:

Useful Life: 12 years

Best Case: \$ 5,000

Lower allowance to replace

Remaining Life: 0 years

Worst Case: \$8,000

Higher allowance; more elaborate, better quality

Cost Source: Estimate Provided by Client

---

**Comp #: 2189 Pump House - Refurbish**

**Quantity: (1) 10x20 Building**

Location: Adjacent to pond

Funded?: Yes.

History: Rebuilt in 2018

Comments:

Useful Life: 20 years

Best Case: \$ 18,000

Lower allowance

Remaining Life: 19 years

Worst Case: \$20,000

Higher allowance

Cost Source: Client Cost History

---

## Mechanical

**Comp #: 2515 Water Line - Repair****Quantity: Numerous LF**

Location: Common area

Funded?: Yes.

History:

Comments:

Useful Life: 1 years

Remaining Life: 0 years

Best Case: \$ 22,000

Worst Case: \$33,000

Lower allowance

Higher allowance

Cost Source: Estimate Provided by Client

**Comp #: 2517 Wells - Treat/Maintain****Quantity: (3) Wells**

Location: Underground

Funded?: Yes.

History:

Comments:

Useful Life: 4 years

Remaining Life: 0 years

Best Case: \$ 2,200

Worst Case: \$4,400

Lower average allowance to replace

Higher average allowance to replace

Cost Source: Research with Local

Vendor/Contractor - Samuelson Pump

**Comp #: 2519 Wells - Drill****Quantity: (3) Wells**

Location: Underground

Funded?: Yes.

History: Installed in 1986

Comments:

Useful Life: 40 years

Remaining Life: 8 years

Best Case: \$ 70,000

Worst Case: \$80,000

Lower average allowance to replace

Higher average allowance to replace

Cost Source: Estimate Provided by Client

**Comp #: 2521 Agri Drain - Replace****Quantity: (1) Unit**

Location: Adjacent to pond

Funded?: No. Unpredictable useful life

History: Installed in 2014

Comments:

Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 2523 Cistern - Allowance****Quantity: (1) 5K Gallon Tank**

Location: Underground, pump house

Funded?: No.

History:

Comments:

Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 2533 Water Storage Tank - Exterior Paint****Quantity: ~ 2,200 GSF**

Location: Sopris Creek Road

Funded?: Yes.

History: Painted in 2011

Comments:

Useful Life: 15 years

Remaining Life: 8 years

Best Case: \$ 8,700

Worst Case: \$11,000

Lower allowance

Higher allowance

Cost Source: Client Cost History



**Comp #: 2535 Water Storage Tank - Interior Paint****Quantity: ~ 2,200 GSF**

Location: Sopris Creek Road

Funded?: Yes.

History: Reported by client that inspection in 2018 reported fair condition of surfaces

Comments:

Useful Life: 15 years

Remaining Life: 5 years

Best Case: \$ 33,000

Worst Case: \$44,000

Lower allowance

Higher allowance

Cost Source: Research with Local

Vendor/Contractor

**Comp #: 2537 Water Storage Tank - Inspect/Clean****Quantity: ~ 105k Gallons**

Location: Sopris Creek Road

Funded?: Yes.

History: Inspected fully in 2018

Comments:

Useful Life: 3 years

Remaining Life: 2 years

Best Case: \$ 2,000

Worst Case: \$3,000

Lower allowance

Higher allowance

Cost Source: Research with Local

Vendor/Contractor

**Comp #: 2539 Water Storage Tank - Replace****Quantity: ~ 105k Gallons**

Location: Sopris Creek Road

Funded?: No.

History:

Comments:

Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 2543 Chlorine Injection System - Replace****Quantity: (2) Pumps, (2) Tanks**

Location: Pump house

Funded?: Yes.

History:

Comments:

Useful Life: 5 years

Remaining Life: 4 years

Best Case: \$ 4,600

Worst Case: \$4,800

Cost Source: Research with Local

Vendor/Contractor

**Comp #: 2551 Surge Tracker - Replace****Quantity: (1) Unit**

Location: Pump house

Funded?: No.

History:

Comments:

Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 2561 Fire Hydrants - Replace****Quantity: (18) Hydrants**

Location: Common areas

Funded?: No.

History:

Comments:

Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 2563 Filtration System Tanks - Replace****Quantity: (4) Tanks**

Location: Pump house

Funded?: Yes.

History: Replaced in 2018

Comments:

Useful Life: 20 years

Remaining Life: 19 years

Best Case: \$ 12,000

Worst Case: \$12,800

Cost Source: Client Cost History

**Comp #: 2567 Booster Pump/Motor (1) - Replace**

**Quantity: (1) 5 HP Pump/Motor**

Location: Pump house

Funded?: Yes.

History: Replaced in 2003

Comments:

Useful Life: 20 years

Remaining Life: 5 years

Best Case: \$ 4,400

Worst Case: \$5,500

Lower allowance

Higher allowance

Cost Source: Research with Local

Vendor/Contractor - Samuelson Pump

---

**Comp #: 2567 Booster Pump/Motor (2) - Replace**

**Quantity: (1) 5 HP Pump/Motor**

Location: Pump house

Funded?: Yes.

History: Replaced in ~1999

Comments:

Useful Life: 20 years

Remaining Life: 1 years

Best Case: \$ 4,400

Worst Case: \$5,500

Lower allowance

Higher allowance

Cost Source: Research with Local

Vendor/Contractor - Samuelson Pump

---

**Comp #: 2567 Booster Pump/Motor (3) - Replace**

**Quantity: (1) 5 HP Pump/Motor**

Location: Pump house

Funded?: Yes.

History: Replaced in 2013

Comments:

Useful Life: 20 years

Remaining Life: 13 years

Best Case: \$ 4,400

Worst Case: \$5,500

Lower allowance

Higher allowance

Cost Source: Research with Local

Vendor/Contractor - Samuelson Pump

---

**Comp #: 2569 Well Pump/Motor (1) - Replace**

**Quantity: (1) Motor/Pump**

Location: Pump house

Funded?: Yes.

History: Replaced in 2009

Comments:

Useful Life: 10 years

Remaining Life: 1 years

Best Case: \$ 2,200

Worst Case: \$4,400

Lower allowance

Higher allowance

Cost Source: Research with Local

Vendor/Contractor - Samuelson Pump

---

**Comp #: 2569 Well Pump/Motor (2) - Replace**

**Quantity: (1) Motor/Pump**

Location: Pump house

Funded?: Yes.

History: Replaced in 2017

Comments:

Useful Life: 10 years

Remaining Life: 9 years

Best Case: \$ 2,200

Worst Case: \$4,400

Lower allowance

Higher allowance

Cost Source: Research with Local

Vendor/Contractor - Samuelson Pump

---

**Comp #: 2569 Well Pump/Motor (3) - Replace**

**Quantity: (1) Motor/Pump**

Location: Pump house

Funded?: Yes.

History: Replaced in 2008

Comments:

Useful Life: 10 years

Remaining Life: 0 years

Best Case: \$ 2,200

Worst Case: \$4,400

Lower allowance

Higher allowance

Cost Source: Research with Local

Vendor/Contractor - Samuelson Pump

---

**Comp #: 2571 Irrigation Pump/Motor - Replace**

**Quantity: (1) 2HP-Motor/Pump**

Location: Adjacent to pump house  
Funded?: No. Operating  
History: Replaced in 2002  
Comments:  
Useful Life:  
Best Case:  
Cost Source:

Remaining Life:  
Worst Case:

**Comp #: 2579 Sub Transducer - Replace (2003)**

**Quantity: (1) Unit**

Location: Water tank/pump house  
Funded?: Yes.  
History: Replaced in ~2003  
Comments:  
Useful Life: 10 years  
Best Case: \$ 1,100  
Lower allowance  
Cost Source: Estimate Provided by Client

Remaining Life: 0 years  
Worst Case: \$2,200  
Higher allowance

**Comp #: 2579 Sub Transducer - Replace (2018)**

**Quantity: (1) Unit**

Location: Water tank/pump house  
Funded?: Yes.  
History: Replaced in ~2010  
Comments:  
Useful Life: 10 years  
Best Case: \$ 1,100  
Lower allowance  
Cost Source: Client Cost History

Remaining Life: 9 years  
Worst Case: \$2,200  
Higher allowance

**Comp #: 2587 Irrigation Controllers - Replace**

**Quantity: (1) Rainbird**

Location: Pump house  
Funded?: No.  
History:  
Comments:  
Useful Life:  
Best Case:  
Cost Source:

Remaining Life:  
Worst Case: