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“Full” Reserve Study



Sun Country Maintenance Association Cle Elum, WA

Report #: 27561-0

For Period Beginning: January 1, 2016

Expires: December 31, 2016

Date Prepared: September 24, 2015



Hello, and welcome to your Reserve Study!

We don't want you to be surprised. This Report is designed to help you anticipate, and prepare for, the major common area expenses your association will face. Inside you will find:

- 1) **The Reserve Component List** (the “Scope and Schedule” of your Reserve projects) – telling you what your association is Reserving for, what condition they are in now, and what they'll cost to replace.
- 2) **An Evaluation of your current Reserve Fund Size and Strength** (Percent Funded). This tells you your financial starting point, revealing your risk of deferred maintenance and special assessments.
- 3) **A Recommended Multi-Year Reserve Funding Plan**, answering the question... “What do we do now?”

More Questions?

Visit our website at www.ReserveStudy.com or call us at:

253/661-5437

Relax, it's from



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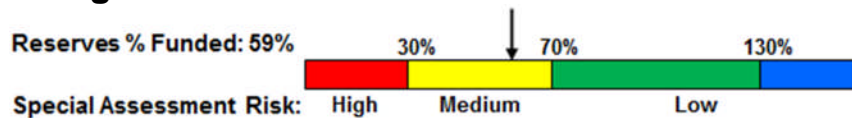
3- Minute Executive Summary

Association: Sun Country Maintenance Association #: 27561-0
Location: Cle Elum, WA # of Units: 300
Report Period: January 1, 2016 through December 31, 2016

Findings/Recommendations as-of 1/1/2016:

Projected Starting Reserve Balance:	\$226,289
Current Fully Funded Reserve Balance:	\$382,328
Average Reserve Deficit (Surplus) Per Unit:.....	\$520
100% 2016 Monthly "Full Funding" Contributions:	\$6,000
70% 2016 Monthly "Threshold Funding" Contributions:	\$4,800
Baseline contributions (min to keep Reserves above \$0):.....	\$2,300
Recommended 2016 Special Assessment for Reserves:.....	\$0

Most Recent Budgeted Reserve Contribution Rate:..... \$1,250



Economic Assumptions:

Net Annual "After Tax" Interest Earnings Accruing to Reserves..... 1.00%
 Annual Inflation Rate..... 3.00%

- This is a "Full" Reserve Study, based on our site inspection on May 22, 2015 and meets or exceeds all requirements of the RCW. This study was prepared by a credentialed Reserve Specialist (RS™).
- Your Reserve Fund is currently 59% Funded. This means the association's special assessment & deferred maintenance risk is currently in the mid-level range. 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 increase your Reserve contributions to within the 70% to 100% level as noted above (with annual increases as noted in Table 5 of this report). 100% "Full" and 70% 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.

#	Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Cost Estimate
Site / Grounds				
120	Asphalt - Chipseal	10	5	\$210,000
140	Post and Rail Fence - Replace	20	19	\$2,400
200	Entry Signs - Replace	20	13	\$3,000
201	Road Signs (metal) - Replace	20	10	\$8,000
205	Mailboxes - Replace	20	15	\$11,200
Water System				
805	Pump Station Roof - Replace	40	35	\$13,200
820	System Controls - Replace	30	25	\$92,500
830	Pumps - Replace	15	10	\$18,000
835	Booster Pumps - Replace	25	20	\$70,000
840	Chlorine Pump/Analyzer - Replace	10	5	\$3,000
902	Well Pumps/Motors - Replace	15	5	\$70,000
910	Concrete Storage Tanks - Replace	60	55	\$330,000
911	Concrete Storage Tanks - Clean	10	5	\$5,000
930	Water Main Lines (Iron) - Replace	75	70	\$40,000
931	Water Main Lines (PVC) - Replace	60	55	\$1,500,000
940	Pressure Reducing Station - Replace	20	15	\$37,500
950	Fire Hydrants - Replace	60	55	\$130,000
960	Gas Generator - Replace	40	35	\$50,000
18	Total Funded Components			

Note 1: a Useful Life of "N/A" means a one-time expense, not expected to repeat.

Note 2: Yellow highlighted line items are expected to require attention in the initial year, green highlighted items are expected to occur within the first five years.

Cross reference component numbers with photographic inventory appendix.

A reserve-funding threshold of \$2,000 is suggested for your association (expenses below this level expected to be factored within operating budget).

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 STUDY RESULTS

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

LEVELS OF SERVICE



For this [Full Reserve Study](#), we started with a review of your Governing Documents, recent Reserve expenditures, an evaluation of how expenditures are handled (ongoing maintenance vs Reserves), and research into any well-established association precedents.

We performed an on-site inspection to quantify and evaluate your common areas, creating your Reserve Component List *from scratch*.

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 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.



RESERVE COMPONENT "FOUR-PART TEST"

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...

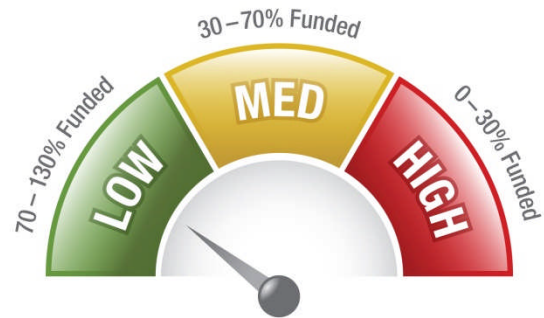
- 1) Actual client cost history, or current proposals
- 2) Comparison to Association Reserves database of work done at similar associations
- 3) Vendor Recommendations
- 4) Reliable National Industry cost estimating guidebooks

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.



SPECIAL ASSESSMENT RISK

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.

Site Inspection Notes

During our site visit on May 22, 2015, we started with a meeting with Sun Country Maintenance Association Board members Dianne D'Alessandro and Wayne Tyrrell, and then started the site inspection. We visually inspected all visible common area while compiling a photographic inventory, noting: current condition, make & model information where appropriate, apparent levels of care and maintenance, exposure to weather elements and other factors that may affect the components useful life.

The current water system at Sun Country was reportedly placed in service in 2011. Although these systems typically have an extended useful life, the eventual large scale replacement costs of these components will be significant and need to be planned for.

Early planning for future maintenance projects, efficient execution and tracking within reserve study updates is key to avoiding future special assessments and cash flow problems. Inspecting and proactively maintaining the roadway, water and sewer systems should be viewed as your top priority.

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. Your *first five years* of projected Reserve expenses total \$0. Adding the next five years, your *first ten years* of projected Reserve expenses are \$333,871. 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 at your association as defined by your Reserve Component List. A summary of these expenses are shown in Table 5, while details of the projects that make up these expenses are shown in Table 6.

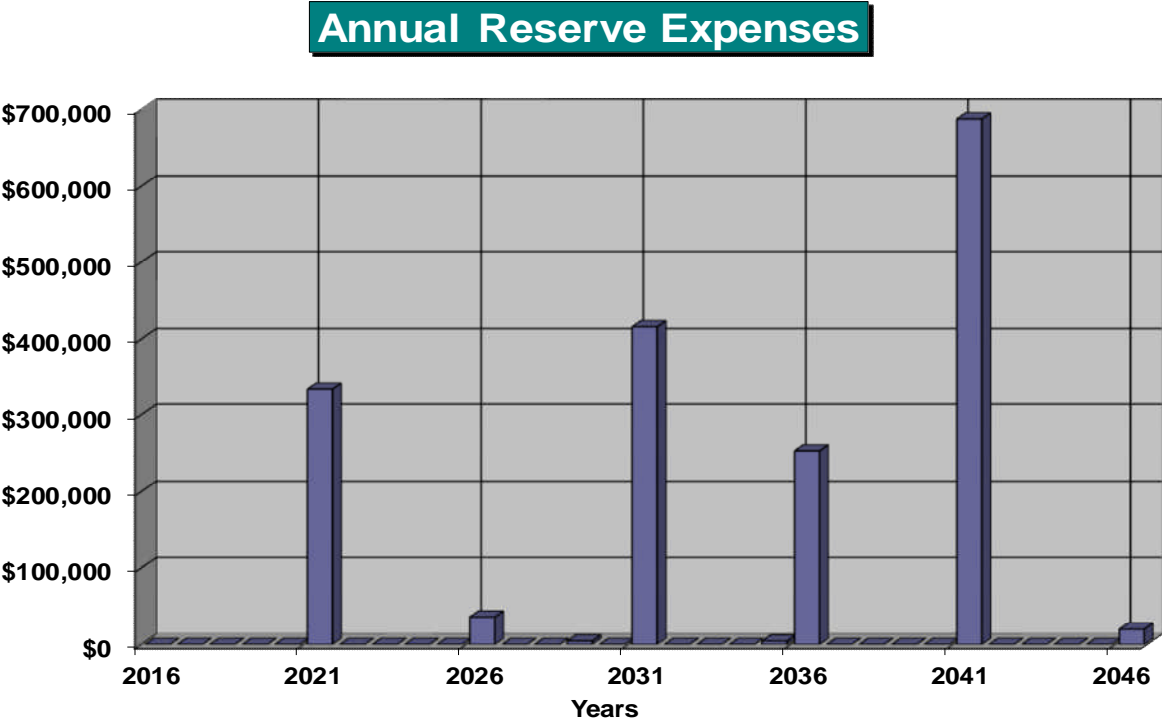


Figure 1

Reserve Fund Status

The starting point for our financial analysis is your Reserve Fund balance, projected to be \$226,289 as-of the start of your Fiscal Year on January 1, 2016. As of January 1, 2016, your Fully Funded Balance is computed to be \$382,328 (see Table 3). This figure represents the deteriorated value of your common area components. Comparing your Reserve Balance to your Fully Funded Balance indicates your Reserves are 59% Funded. Across the country, approx 6% of associations in this range experience special assessments or deferred maintenance.

Recommended Funding Plan

Based on your current Percent Funded and your near-term and long-term Reserve needs, we are recommending budgeted contributions of \$6,000/month this Fiscal Year. The overall 30-yr plan, in perspective, is shown below. This same information is shown numerically in both Table 5 and Table 6.

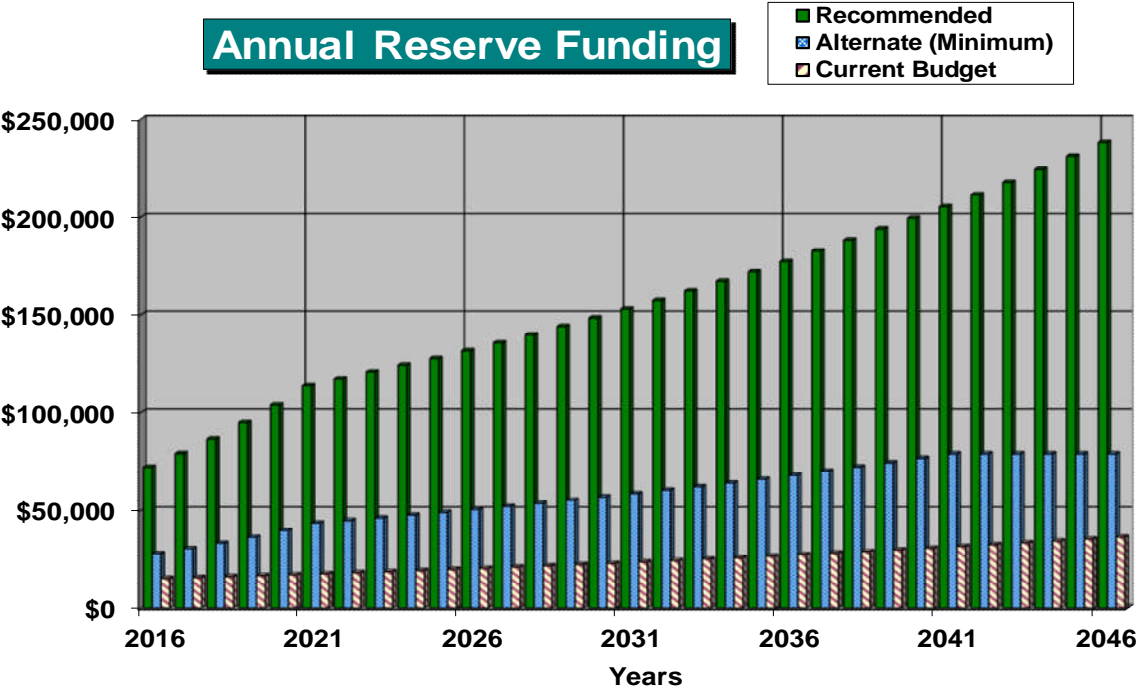


Figure 2

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.

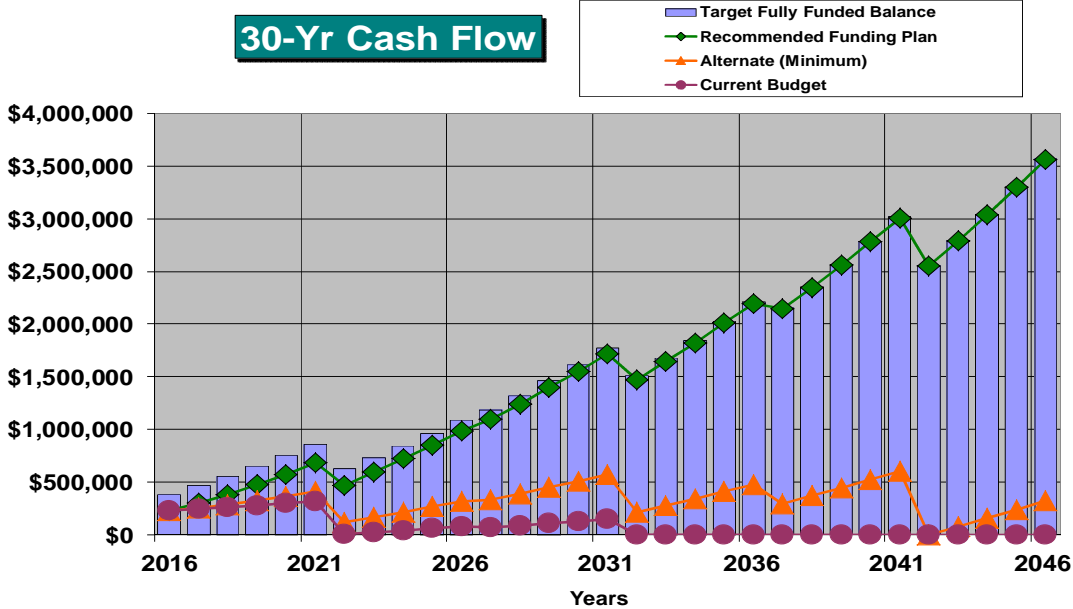


Figure 3

This figure shows this same information, plotted on a [Percent Funded](#) scale.

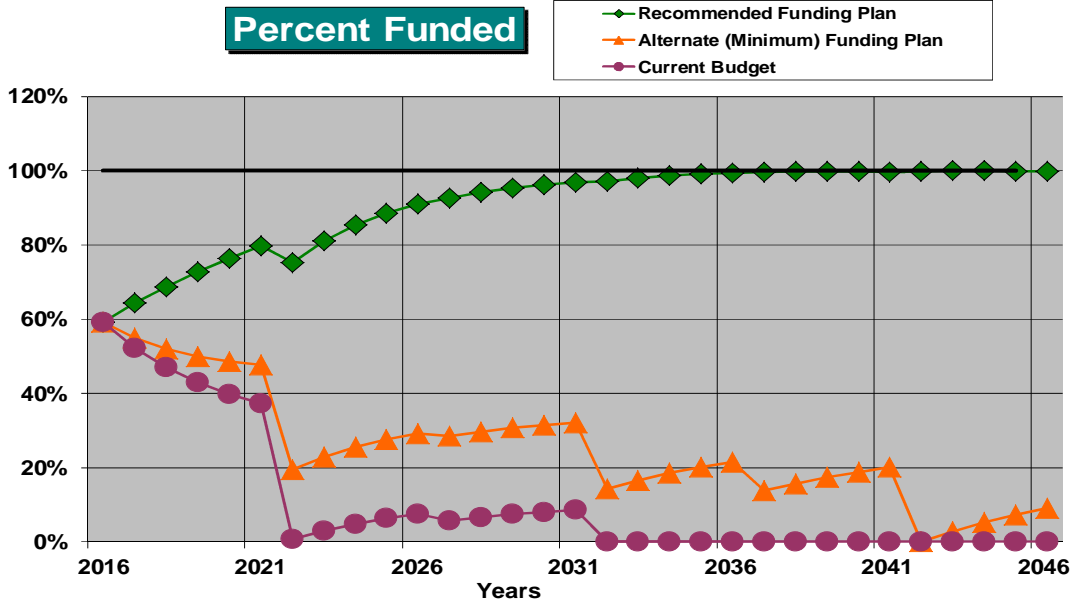


Figure 4

Table Descriptions

The tabular information in this Report is broken down into six tables.

Table 1 is a summary of your Reserve Components (your Reserve Component List), the information found in Table 2.

Table 2 is your Reserve Component List, which forms the foundation of this Reserve Study. This table represents the information from which all other tables are derived.

Table 3 shows the calculation of your Fully Funded Balance, the measure of your current Reserve component deterioration. For each component, the Fully Funded Balance is the fraction of life used up multiplied by its estimated Current Replacement Cost.

Table 4 shows the significance of each component to Reserve 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 Current Replacement Cost by Useful Life, then that component's percentage of the total is displayed.

Table 5: This table 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 for each year.

Table 6: This table shows the cash flow detail for the next 30 years. This table makes it possible to see which components are projected to require repair or replacement each year, and the size of those individual expenses.

Table 2: Reserve Component List Detail

27561-0

#	Component	Quantity	Useful Life	Rem. Useful Life	[--- Current Cost Estimate ---]	
					Best Case	Worst Case
Site / Grounds						
120	Asphalt - Chipseal	~ 386,000 Sq Ft	10	5	\$200,000	\$220,000
140	Post and Rail Fence - Replace	~ 150 Lin Ft	20	19	\$2,100	\$2,700
200	Entry Signs - Replace	(3) wood signs	20	13	\$2,400	\$3,600
201	Road Signs (metal) - Replace	~ (80) metal signs	20	10	\$6,400	\$9,600
205	Mailboxes - Replace	(8) cluster stands	20	15	\$9,600	\$12,800
Water System						
805	Pump Station Roof - Replace	~ 1,200 Sq Ft	40	35	\$12,000	\$14,400
820	System Controls - Replace	(1) control system	30	25	\$85,000	\$100,000
830	Pumps - Replace	(3) 5hp Grundfos pumps	15	10	\$15,000	\$21,000
835	Booster Pumps - Replace	(4) 25hp Grundfos pumps	25	20	\$60,000	\$80,000
840	Chlorine Pump/Analyzer - Replace	Pump, sensor, monitors	10	5	\$2,500	\$3,500
902	Well Pumps/Motors - Replace	(4) well pumps	15	5	\$60,000	\$80,000
910	Concrete Storage Tanks - Replace	(1) 158k gal (1) 100k gal	60	55	\$300,000	\$360,000
911	Concrete Storage Tanks - Clean	(1) 158k gal (1) 100k gal	10	5	\$4,000	\$6,000
930	Water Main Lines (Iron) - Replace	~ 402 Lin Ft	75	70	\$32,000	\$48,000
931	Water Main Lines (PVC) - Replace	~ 14,542 Lin Ft	60	55	\$1,200,000	\$1,800,000
940	Pressure Reducing Station - Replace	(1) station	20	15	\$35,000	\$40,000
950	Fire Hydrants - Replace	~ (26) hydrants	60	55	\$104,000	\$156,000
960	Gas Generator - Replace	(1) Kohler Power Systems	40	35	\$40,000	\$60,000
18	Total Funded Components					

Table 3: Fully Funded Balance

27561-0

#	Component	Current Cost Estimate	X	Effective Age	/	Useful Life	=	Fully Funded Balance
Site / Grounds								
120	Asphalt - Chipseal	\$210,000	X	5	/	10	=	\$105,000
140	Post and Rail Fence - Replace	\$2,400	X	1	/	20	=	\$120
200	Entry Signs - Replace	\$3,000	X	7	/	20	=	\$1,050
201	Road Signs (metal) - Replace	\$8,000	X	10	/	20	=	\$4,000
205	Mailboxes - Replace	\$11,200	X	5	/	20	=	\$2,800
Water System								
805	Pump Station Roof - Replace	\$13,200	X	5	/	40	=	\$1,650
820	System Controls - Replace	\$92,500	X	5	/	30	=	\$15,417
830	Pumps - Replace	\$18,000	X	5	/	15	=	\$6,000
835	Booster Pumps - Replace	\$70,000	X	5	/	25	=	\$14,000
840	Chlorine Pump/Analyzer - Replace	\$3,000	X	5	/	10	=	\$1,500
902	Well Pumps/Motors - Replace	\$70,000	X	10	/	15	=	\$46,667
910	Concrete Storage Tanks - Replace	\$330,000	X	5	/	60	=	\$27,500
911	Concrete Storage Tanks - Clean	\$5,000	X	5	/	10	=	\$2,500
930	Water Main Lines (Iron) - Replace	\$40,000	X	5	/	75	=	\$2,667
931	Water Main Lines (PVC) - Replace	\$1,500,000	X	5	/	60	=	\$125,000
940	Pressure Reducing Station - Replace	\$37,500	X	5	/	20	=	\$9,375
950	Fire Hydrants - Replace	\$130,000	X	5	/	60	=	\$10,833
960	Gas Generator - Replace	\$50,000	X	5	/	40	=	\$6,250
								\$382,328

Table 4: Component Significance**27561-0**

#	Component	Useful Life	Current Cost Estimate	Deterioration Cost/yr	Deterioration Significance
Site / Grounds					
120	Asphalt - Chipseal	10	\$210,000	\$21,000	29.4%
140	Post and Rail Fence - Replace	20	\$2,400	\$120	0.2%
200	Entry Signs - Replace	20	\$3,000	\$150	0.2%
201	Road Signs (metal) - Replace	20	\$8,000	\$400	0.6%
205	Mailboxes - Replace	20	\$11,200	\$560	0.8%
Water System					
805	Pump Station Roof - Replace	40	\$13,200	\$330	0.5%
820	System Controls - Replace	30	\$92,500	\$3,083	4.3%
830	Pumps - Replace	15	\$18,000	\$1,200	1.7%
835	Booster Pumps - Replace	25	\$70,000	\$2,800	3.9%
840	Chlorine Pump/Analyzer - Replace	10	\$3,000	\$300	0.4%
902	Well Pumps/Motors - Replace	15	\$70,000	\$4,667	6.5%
910	Concrete Storage Tanks - Replace	60	\$330,000	\$5,500	7.7%
911	Concrete Storage Tanks - Clean	10	\$5,000	\$500	0.7%
930	Water Main Lines (Iron) - Replace	75	\$40,000	\$533	0.7%
931	Water Main Lines (PVC) - Replace	60	\$1,500,000	\$25,000	35.0%
940	Pressure Reducing Station - Replace	20	\$37,500	\$1,875	2.6%
950	Fire Hydrants - Replace	60	\$130,000	\$2,167	3.0%
960	Gas Generator - Replace	40	\$50,000	\$1,250	1.7%
18	Total Funded Components			\$71,435	100.0%

Table 5: 30-Year Reserve Plan Summary

27561-0

Fiscal Year Start: 01/01/16

Interest: 1.0% Inflation: 3.0%

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

Projected Reserve Balance Changes

Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded	Special Assmt Risk	Reserve Contribs.	Loans or Special Assmts	Interest Income	Reserve Expenses
2016	\$226,289	\$382,328	59.2%	Med	\$72,000	\$0	\$2,635	\$0
2017	\$300,924	\$467,376	64.4%	Med	\$78,898	\$0	\$3,419	\$0
2018	\$383,241	\$557,183	68.8%	Med	\$86,456	\$0	\$4,284	\$0
2019	\$473,981	\$651,957	72.7%	Low	\$94,738	\$0	\$5,237	\$0
2020	\$573,957	\$751,917	76.3%	Low	\$103,814	\$0	\$6,287	\$0
2021	\$684,059	\$857,287	79.8%	Low	\$113,760	\$0	\$5,766	\$333,871
2022	\$469,714	\$624,416	75.2%	Low	\$117,173	\$0	\$5,307	\$0
2023	\$592,194	\$731,004	81.0%	Low	\$120,688	\$0	\$6,555	\$0
2024	\$719,437	\$843,426	85.3%	Low	\$124,308	\$0	\$7,852	\$0
2025	\$851,597	\$961,935	88.5%	Low	\$128,038	\$0	\$9,198	\$0
2026	\$988,833	\$1,086,796	91.0%	Low	\$131,879	\$0	\$10,421	\$34,942
2027	\$1,096,191	\$1,182,293	92.7%	Low	\$135,835	\$0	\$11,695	\$0
2028	\$1,243,721	\$1,319,611	94.2%	Low	\$139,910	\$0	\$13,197	\$0
2029	\$1,396,828	\$1,464,104	95.4%	Low	\$144,108	\$0	\$14,734	\$4,406
2030	\$1,551,264	\$1,611,541	96.3%	Low	\$148,431	\$0	\$16,330	\$0
2031	\$1,716,025	\$1,771,180	96.9%	Low	\$152,884	\$0	\$15,920	\$415,510
2032	\$1,469,318	\$1,510,973	97.2%	Low	\$157,470	\$0	\$15,552	\$0
2033	\$1,642,340	\$1,674,373	98.1%	Low	\$162,194	\$0	\$17,314	\$0
2034	\$1,821,848	\$1,846,218	98.7%	Low	\$167,060	\$0	\$19,141	\$0
2035	\$2,008,050	\$2,026,866	99.1%	Low	\$172,072	\$0	\$21,016	\$4,208
2036	\$2,196,929	\$2,212,357	99.3%	Low	\$177,234	\$0	\$21,690	\$252,856
2037	\$2,142,998	\$2,151,176	99.6%	Low	\$182,551	\$0	\$22,445	\$0
2038	\$2,347,995	\$2,352,589	99.8%	Low	\$188,028	\$0	\$24,532	\$0
2039	\$2,560,555	\$2,564,149	99.9%	Low	\$193,669	\$0	\$26,696	\$0
2040	\$2,780,919	\$2,786,287	99.8%	Low	\$199,479	\$0	\$28,939	\$0
2041	\$3,009,337	\$3,019,444	99.7%	Low	\$205,463	\$0	\$27,809	\$687,806
2042	\$2,554,803	\$2,555,643	100.0%	Low	\$211,627	\$0	\$26,728	\$0
2043	\$2,793,158	\$2,790,990	100.1%	Low	\$217,976	\$0	\$29,155	\$0
2044	\$3,040,288	\$3,038,158	100.1%	Low	\$224,515	\$0	\$31,670	\$0
2045	\$3,296,474	\$3,297,644	100.0%	Low	\$231,250	\$0	\$34,278	\$0

Table 6: 30-Year Income/Expense Detail (yrs 0 through 4)

27561-0

Fiscal Year	2016	2017	2018	2019	2020
Starting Reserve Balance	\$226,289	\$300,924	\$383,241	\$473,981	\$573,957
Annual Reserve Contribution	\$72,000	\$78,898	\$86,456	\$94,738	\$103,814
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$2,635	\$3,419	\$4,284	\$5,237	\$6,287
Total Income	\$300,924	\$383,241	\$473,981	\$573,957	\$684,059
# Component					
Site / Grounds					
120 Asphalt - Chipseal	\$0	\$0	\$0	\$0	\$0
140 Post and Rail Fence - Replace	\$0	\$0	\$0	\$0	\$0
200 Entry Signs - Replace	\$0	\$0	\$0	\$0	\$0
201 Road Signs (metal) - Replace	\$0	\$0	\$0	\$0	\$0
205 Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
Water System					
805 Pump Station Roof - Replace	\$0	\$0	\$0	\$0	\$0
820 System Controls - Replace	\$0	\$0	\$0	\$0	\$0
830 Pumps - Replace	\$0	\$0	\$0	\$0	\$0
835 Booster Pumps - Replace	\$0	\$0	\$0	\$0	\$0
840 Chlorine Pump/Analyzer - Replace	\$0	\$0	\$0	\$0	\$0
902 Well Pumps/Motors - Replace	\$0	\$0	\$0	\$0	\$0
910 Concrete Storage Tanks - Replace	\$0	\$0	\$0	\$0	\$0
911 Concrete Storage Tanks - Clean	\$0	\$0	\$0	\$0	\$0
930 Water Main Lines (Iron) - Replace	\$0	\$0	\$0	\$0	\$0
931 Water Main Lines (PVC) - Replace	\$0	\$0	\$0	\$0	\$0
940 Pressure Reducing Station - Replace	\$0	\$0	\$0	\$0	\$0
950 Fire Hydrants - Replace	\$0	\$0	\$0	\$0	\$0
960 Gas Generator - Replace	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$0	\$0	\$0	\$0	\$0
Ending Reserve Balance:	\$300,924	\$383,241	\$473,981	\$573,957	\$684,059

Table 6: 30-Year Income/Expense Detail (yrs 5 through 9)

27561-0

Fiscal Year	2021	2022	2023	2024	2025
Starting Reserve Balance	\$684,059	\$469,714	\$592,194	\$719,437	\$851,597
Annual Reserve Contribution	\$113,760	\$117,173	\$120,688	\$124,308	\$128,038
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$5,766	\$5,307	\$6,555	\$7,852	\$9,198
Total Income	\$803,585	\$592,194	\$719,437	\$851,597	\$988,833
# Component					
Site / Grounds					
120 Asphalt - Chipseal	\$243,448	\$0	\$0	\$0	\$0
140 Post and Rail Fence - Replace	\$0	\$0	\$0	\$0	\$0
200 Entry Signs - Replace	\$0	\$0	\$0	\$0	\$0
201 Road Signs (metal) - Replace	\$0	\$0	\$0	\$0	\$0
205 Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
Water System					
805 Pump Station Roof - Replace	\$0	\$0	\$0	\$0	\$0
820 System Controls - Replace	\$0	\$0	\$0	\$0	\$0
830 Pumps - Replace	\$0	\$0	\$0	\$0	\$0
835 Booster Pumps - Replace	\$0	\$0	\$0	\$0	\$0
840 Chlorine Pump/Analyzer - Replace	\$3,478	\$0	\$0	\$0	\$0
902 Well Pumps/Motors - Replace	\$81,149	\$0	\$0	\$0	\$0
910 Concrete Storage Tanks - Replace	\$0	\$0	\$0	\$0	\$0
911 Concrete Storage Tanks - Clean	\$5,796	\$0	\$0	\$0	\$0
930 Water Main Lines (Iron) - Replace	\$0	\$0	\$0	\$0	\$0
931 Water Main Lines (PVC) - Replace	\$0	\$0	\$0	\$0	\$0
940 Pressure Reducing Station - Replace	\$0	\$0	\$0	\$0	\$0
950 Fire Hydrants - Replace	\$0	\$0	\$0	\$0	\$0
960 Gas Generator - Replace	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$333,871	\$0	\$0	\$0	\$0
Ending Reserve Balance:	\$469,714	\$592,194	\$719,437	\$851,597	\$988,833

Table 6: 30-Year Income/Expense Detail (yrs 10 through 14)

27561-0

Fiscal Year	2026	2027	2028	2029	2030
Starting Reserve Balance	\$988,833	\$1,096,191	\$1,243,721	\$1,396,828	\$1,551,264
Annual Reserve Contribution	\$131,879	\$135,835	\$139,910	\$144,108	\$148,431
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$10,421	\$11,695	\$13,197	\$14,734	\$16,330
Total Income	\$1,131,133	\$1,243,721	\$1,396,828	\$1,555,670	\$1,716,025
# Component					
Site / Grounds					
120 Asphalt - Chipseal	\$0	\$0	\$0	\$0	\$0
140 Post and Rail Fence - Replace	\$0	\$0	\$0	\$0	\$0
200 Entry Signs - Replace	\$0	\$0	\$0	\$4,406	\$0
201 Road Signs (metal) - Replace	\$10,751	\$0	\$0	\$0	\$0
205 Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
Water System					
805 Pump Station Roof - Replace	\$0	\$0	\$0	\$0	\$0
820 System Controls - Replace	\$0	\$0	\$0	\$0	\$0
830 Pumps - Replace	\$24,190	\$0	\$0	\$0	\$0
835 Booster Pumps - Replace	\$0	\$0	\$0	\$0	\$0
840 Chlorine Pump/Analyzer - Replace	\$0	\$0	\$0	\$0	\$0
902 Well Pumps/Motors - Replace	\$0	\$0	\$0	\$0	\$0
910 Concrete Storage Tanks - Replace	\$0	\$0	\$0	\$0	\$0
911 Concrete Storage Tanks - Clean	\$0	\$0	\$0	\$0	\$0
930 Water Main Lines (Iron) - Replace	\$0	\$0	\$0	\$0	\$0
931 Water Main Lines (PVC) - Replace	\$0	\$0	\$0	\$0	\$0
940 Pressure Reducing Station - Replace	\$0	\$0	\$0	\$0	\$0
950 Fire Hydrants - Replace	\$0	\$0	\$0	\$0	\$0
960 Gas Generator - Replace	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$34,942	\$0	\$0	\$4,406	\$0
Ending Reserve Balance:	\$1,096,191	\$1,243,721	\$1,396,828	\$1,551,264	\$1,716,025

Table 6: 30-Year Income/Expense Detail (yrs 15 through 19)

27561-0

Fiscal Year	2031	2032	2033	2034	2035
Starting Reserve Balance	\$1,716,025	\$1,469,318	\$1,642,340	\$1,821,848	\$2,008,050
Annual Reserve Contribution	\$152,884	\$157,470	\$162,194	\$167,060	\$172,072
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$15,920	\$15,552	\$17,314	\$19,141	\$21,016
Total Income	\$1,884,828	\$1,642,340	\$1,821,848	\$2,008,050	\$2,201,138
# Component					
Site / Grounds					
120 Asphalt - Chipseal	\$327,173	\$0	\$0	\$0	\$0
140 Post and Rail Fence - Replace	\$0	\$0	\$0	\$0	\$4,208
200 Entry Signs - Replace	\$0	\$0	\$0	\$0	\$0
201 Road Signs (metal) - Replace	\$0	\$0	\$0	\$0	\$0
205 Mailboxes - Replace	\$17,449	\$0	\$0	\$0	\$0
Water System					
805 Pump Station Roof - Replace	\$0	\$0	\$0	\$0	\$0
820 System Controls - Replace	\$0	\$0	\$0	\$0	\$0
830 Pumps - Replace	\$0	\$0	\$0	\$0	\$0
835 Booster Pumps - Replace	\$0	\$0	\$0	\$0	\$0
840 Chlorine Pump/Analyzer - Replace	\$4,674	\$0	\$0	\$0	\$0
902 Well Pumps/Motors - Replace	\$0	\$0	\$0	\$0	\$0
910 Concrete Storage Tanks - Replace	\$0	\$0	\$0	\$0	\$0
911 Concrete Storage Tanks - Clean	\$7,790	\$0	\$0	\$0	\$0
930 Water Main Lines (Iron) - Replace	\$0	\$0	\$0	\$0	\$0
931 Water Main Lines (PVC) - Replace	\$0	\$0	\$0	\$0	\$0
940 Pressure Reducing Station - Replace	\$58,424	\$0	\$0	\$0	\$0
950 Fire Hydrants - Replace	\$0	\$0	\$0	\$0	\$0
960 Gas Generator - Replace	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$415,510	\$0	\$0	\$0	\$4,208
Ending Reserve Balance:	\$1,469,318	\$1,642,340	\$1,821,848	\$2,008,050	\$2,196,929

Table 6: 30-Year Income/Expense Detail (yrs 20 through 24)

27561-0

Fiscal Year	2036	2037	2038	2039	2040
Starting Reserve Balance	\$2,196,929	\$2,142,998	\$2,347,995	\$2,560,555	\$2,780,919
Annual Reserve Contribution	\$177,234	\$182,551	\$188,028	\$193,669	\$199,479
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$21,690	\$22,445	\$24,532	\$26,696	\$28,939
Total Income	\$2,395,854	\$2,347,995	\$2,560,555	\$2,780,919	\$3,009,337
# Component					
Site / Grounds					
120 Asphalt - Chipseal	\$0	\$0	\$0	\$0	\$0
140 Post and Rail Fence - Replace	\$0	\$0	\$0	\$0	\$0
200 Entry Signs - Replace	\$0	\$0	\$0	\$0	\$0
201 Road Signs (metal) - Replace	\$0	\$0	\$0	\$0	\$0
205 Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
Water System					
805 Pump Station Roof - Replace	\$0	\$0	\$0	\$0	\$0
820 System Controls - Replace	\$0	\$0	\$0	\$0	\$0
830 Pumps - Replace	\$0	\$0	\$0	\$0	\$0
835 Booster Pumps - Replace	\$126,428	\$0	\$0	\$0	\$0
840 Chlorine Pump/Analyzer - Replace	\$0	\$0	\$0	\$0	\$0
902 Well Pumps/Motors - Replace	\$126,428	\$0	\$0	\$0	\$0
910 Concrete Storage Tanks - Replace	\$0	\$0	\$0	\$0	\$0
911 Concrete Storage Tanks - Clean	\$0	\$0	\$0	\$0	\$0
930 Water Main Lines (Iron) - Replace	\$0	\$0	\$0	\$0	\$0
931 Water Main Lines (PVC) - Replace	\$0	\$0	\$0	\$0	\$0
940 Pressure Reducing Station - Replace	\$0	\$0	\$0	\$0	\$0
950 Fire Hydrants - Replace	\$0	\$0	\$0	\$0	\$0
960 Gas Generator - Replace	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$252,856	\$0	\$0	\$0	\$0
Ending Reserve Balance:	\$2,142,998	\$2,347,995	\$2,560,555	\$2,780,919	\$3,009,337

Table 6: 30-Year Income/Expense Detail (yrs 25 through 29)**27561-0**

Fiscal Year	2041	2042	2043	2044	2045
Starting Reserve Balance	\$3,009,337	\$2,554,803	\$2,793,158	\$3,040,288	\$3,296,474
Annual Reserve Contribution	\$205,463	\$211,627	\$217,976	\$224,515	\$231,250
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$27,809	\$26,728	\$29,155	\$31,670	\$34,278
Total Income	\$3,242,609	\$2,793,158	\$3,040,288	\$3,296,474	\$3,562,002
# Component					
Site / Grounds					
120 Asphalt - Chipseal	\$439,693	\$0	\$0	\$0	\$0
140 Post and Rail Fence - Replace	\$0	\$0	\$0	\$0	\$0
200 Entry Signs - Replace	\$0	\$0	\$0	\$0	\$0
201 Road Signs (metal) - Replace	\$0	\$0	\$0	\$0	\$0
205 Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
Water System					
805 Pump Station Roof - Replace	\$0	\$0	\$0	\$0	\$0
820 System Controls - Replace	\$193,674	\$0	\$0	\$0	\$0
830 Pumps - Replace	\$37,688	\$0	\$0	\$0	\$0
835 Booster Pumps - Replace	\$0	\$0	\$0	\$0	\$0
840 Chlorine Pump/Analyzer - Replace	\$6,281	\$0	\$0	\$0	\$0
902 Well Pumps/Motors - Replace	\$0	\$0	\$0	\$0	\$0
910 Concrete Storage Tanks - Replace	\$0	\$0	\$0	\$0	\$0
911 Concrete Storage Tanks - Clean	\$10,469	\$0	\$0	\$0	\$0
930 Water Main Lines (Iron) - Replace	\$0	\$0	\$0	\$0	\$0
931 Water Main Lines (PVC) - Replace	\$0	\$0	\$0	\$0	\$0
940 Pressure Reducing Station - Replace	\$0	\$0	\$0	\$0	\$0
950 Fire Hydrants - Replace	\$0	\$0	\$0	\$0	\$0
960 Gas Generator - Replace	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$687,806	\$0	\$0	\$0	\$0
Ending Reserve Balance:	\$2,554,803	\$2,793,158	\$3,040,288	\$3,296,474	\$3,562,002

Accuracy, Limitations, and Disclosures

Washington disclosure, per RCW:

The 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.

Because we have no control over future events, we do not expect that all the events we anticipate will occur as planned. We expect that inflationary trends will continue, and we expect Reserve funds to continue to earn interest, so we believe that reasonable estimates for these figures are much more accurate than ignoring these economic realities. We can control measurements, which we attempt to establish within 5% accuracy through a combination of on-site measurements, drawings, and satellite imagery. The starting Reserve Balance and interest rate earned on deposited Reserve funds that you provided to us were considered reliable and were not confirmed independently. We have considered the association's representation of current and historical Reserve projects reliable, and we have considered the representations made by its vendors and suppliers to also be accurate and reliable. Component Useful Life, Remaining Useful Life, and Current Cost estimates assume a stable economic environment and lack of natural disasters.

Because the physical condition of your components, the association's Reserve balance, the economic environment, and legislative environment change each year, this Reserve Study is by nature a "one-year" document. Because a long-term perspective improves the accuracy of near-term planning, this Report projects expenses for the next 30 years. It is our recommendation and that of the Financial Accounting Standards Board (FASB) that your Reserve Study be updated each year as part of the annual budget process.

Association Reserves WA, LLC and its employees have no ownership, management, or other business relationships with the client other than this Reserve Study engagement. James D. Talaga R.S., company president, is a credentialed Reserve Specialist (#66). All work done by Association Reserves WA, LLC is performed under his Responsible Charge. There are no material issues to our knowledge that have not been disclosed to the client that would cause a distortion of the association's situation.

Component quantities indicated in this Report were developed by Association Reserves unless otherwise noted in our “Site Inspection Notes” comments. No destructive or intrusive testing was performed. This Report and this site inspection were accomplished only for Reserve budget purposes (to help identify and address the normal deterioration of properly built and installed components with predictable life expectancies). The Funding Plan in this Report was developed using the cash-flow methodology to achieve the specified Funding Objective.

Association Reserves’ liability in any matter involving this Reserve Study is limited to our Fee for services rendered.

Terms and Definitions

BTU	British Thermal Unit (a standard unit of energy)
DIA	Diameter
GSF	Gross Square Feet (area). Equivalent to Square Feet
GSY	Gross Square Yards (area). Equivalent to Square Yards
HP	Horsepower
LF	Linear Feet (length)

Effective Age: The difference between Useful Life and Remaining Useful Life. Note that this is not necessarily equivalent to the chronological age of the component.

Fully Funded Balance (FFB): 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.

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

Inflation: 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 Table 6.

Interest: 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.

Percent Funded: 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.

Remaining Useful Life (RUL): The estimated time, in years, that a common area component can be expected to continue to serve its intended function.

Useful Life (UL): 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 area maintenance repair & replacement responsibility
- 2) Components must have a limited life
- 3) Life limit must be predictable
- 4) Above a minimum threshold cost (board's discretion – typically 1/2 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 costs, 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.

Client: 27561A Sun Country Maintenance Association

Comp # : 106 Gravel Areas - Refurbish Quantity: ~ 9,000 Sq Ft

Location : Adjacent to pump house, Volunteer Park and roads to water towers

Funded? : No Annual costs, best handled in operational budget

History : No history reported

Evaluation : Fair coverage observed with no significant depressions or drainage issues apparent.

This component represents gravel adjacent to pump station, Volunteer Park and roads to water towers only. It is our understanding that gravel roadway off Hermitage Drive adjacent to golf course is maintained by the developer.

Review these areas each year and replenish as necessary with general maintenance funds. No predictable expectation for large scale projects meeting the criteria for reserve funding.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding

Client: 27561A Sun Country Maintenance Association

Comp # : 120 Asphalt - Chipseal Quantity: ~ 386,000 Sq Ft
Location : Roadways throughout association
Funded? : Yes

History : Asphalt was reportedly chipsealed in 2011 at a cost of \$180,000

Evaluation : Overall fair condition noted with random areas of cracking, but no significant deterioration observed. We were informed that when the chipseal was completed in November of 2011, there were areas where the rocks did not set properly. At this time, there are no reported problems; if issues arise at these areas before the next chipseal cycle, repair funding can be added to reserve study update.

Asphalt chipseal is an application of asphalt binder on existing pavement followed by a layer of aggregate chips. The treatment is then rolled to embed the aggregate into the binder to create new non-structural wearing course. If not maintained proactively, at some point repaving may be necessary.

Best to plan for regular cycles of chipseal at roughly the time frame indicated below. As timing draws nearer, consult with asphalt vendor/consultant for recommendations and complete scope.

As routine maintenance, keep roadway clean, free of debris and well drained; fill/seal cracks (hot rubberized crack fill) to prevent water from penetrating into the sub-base and accelerating damage.

Useful Life:
10 years

Remaining Life:
5 years



Best Case: \$200,000

Worst Case: \$220,000

Lower allowance to chipseal

Higher allowance to chipseal

Cost Source: Client Cost History, Adjusted for Inflation

Client: 27561A Sun Country Maintenance Association

Comp # : 140 **Post and Rail Fence - Replace** Quantity: ~ 150 Lin Ft
Location : Volunteer Park and River Front Park
Funded? : Yes

History : Reportedly installed in 2015

Evaluation : Post and rail fencing appeared in good, stable condition. This component represents fencing at Volunteer Park and River Front Park only. It is our understanding that fencing adjacent to gravel roadway off Hermitage Drive is maintained by the developer.

Plan for eventual replacement at roughly the time frame indicated below.

Assumed that this will not be sealed and left to weather/age naturally. Avoid contact with surrounding vegetation if possible. Repair in between replacement cycles as needed from operating budget.

Useful Life:
20 years

Remaining Life:
19 years



Best Case: \$2,100

Worst Case: \$2,700

\$14/Lin Ft, Lower allowance to replace

\$18/Lin Ft, Higher allowance to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 27561A Sun Country Maintenance Association

Comp # : 157 Retention Walls - Repair/Replace Quantity: ~ 260 Lin Ft

Location : Adjacent to St. Andrews Drive and the pump station

Funded? : No Useful life not predictable, repair/replace as needed out of operating budget

History : No history reported

Evaluation : Our limited observation revealed no signs of the concrete retaining walls being out of plumb or having large scale cracking and spalling. Analysis of a retaining wall is beyond the scope of a reserve study. If problems, including shifting, leaning, or cracking are observed or suspected, consult with an engineer (structural, civil, and/or geo-technical) for evaluation and repair recommendations. No reported problems at this time.

At this time, no large scale repairs or replacements are predictable. Funding can be added to future reserve studies if conditions dictate.

No information was provided to us concerning how the retaining wall was designed or constructed. Observation of drainage was not possible. Proper drainage on the uphill side prevents a backlog of water (water, if present, can add substantial weight and pressure to the wall). A backlog of water, if left unchecked, could damage or break the wall. Interior of drainage lines (or pipes) can be viewed by video using a remote miniature camera. Clean out the drain lines as often as needed to prevent decreased drainage. See component #182 Drainage/Stormwater Sys for additional information. Utilize mobile evacuator service if needed. Inspect regularly and repair as needed using operating budget.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding

Client: 27561A Sun Country Maintenance Association

Comp # : 170 Landscape - Refurbish Quantity: Common area landscaping

Location : Common area open spaces throughout community

Funded? : No Annual costs, best handled in operational budget

History : Regular maintenance reported

Evaluation : Currently, landscaping is funded out of operational budget. The Association did not request an allowance be included for future refurbish projects.

This component can be used to supplement the operation landscape budget for larger projects that occur less frequently and are not included within the maintenance contract. These types of projects can include: tree trimming, major replanting, bark or mulch replacements, turf renovations, etc...

Walk area each year with landscape contractor and perhaps landscape architect to assess overall health, function and future needs of maintenance/refurbishment to determine if supplemental reserve funding should be planned for.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding

Client: 27561A Sun Country Maintenance Association

Comp # : 175 Irrigation System - Repair/Replace Quantity: Common irrigation

Location : Throughout common area landscaping

Funded? : No Annual costs, best handled in operational budget

History : No history reported

Evaluation : Our visual observation of the irrigation system was limited as the majority of system components are below grade. No reports of repairs or problems. At the time of this study, no information (plans and/or specifications) was provided to us regarding the extent of the irrigation system.

No predictable large scale costs at this time. The Association did not request an allowance be included for future reserve projects.

As routine maintenance, inspect, test, and repair system as needed from operating budget. Follow proper winterization and spring startup procedures. If properly installed and bedded without defect, the lines could last for many years. Controls for the system can vary greatly in number, cost, and life expectancy. Without additional information, these costs are not predictable. Other elements (i.e. sprinkler heads, valves) within this system are generally lower cost and have a failure rate that is difficult to predict. These elements are better suited to be handled through the maintenance and operating budget, not reserves.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding

Client: 27561A Sun Country Maintenance Association

Comp # : 182 Drainage/Stormwater Sys - Maintain Quantity: Common drainage

Location : Common areas, hidden

Funded? : No Useful life not predictable, repair/replace as needed out of operating budget

History : No history reported

Evaluation : Analysis of the drainage system is beyond the scope of a reserve study as the vast majority of the drainage systems are located below ground. Observations were very limited to catch basin areas. No problems were reported to us.

No predictable large scale repairs/replacement at this time. Local repairs should be performed as part of general maintenance. If problems become known from professional evaluation, funding can be included in future reserve studies.

As routine maintenance, inspect regularly and keep drains/grates free of debris to ensure water drains as intended. Maintenance schedules on stormwater systems depend on the condition of the system itself and the amount of sediment and debris moving around on site. Stormwater inspections usually consist of inspecting the catch basins and manholes, ensuring vaults and control structures are properly functioning. Evaluation of drainage can include the visual review of interior drain lines by use of miniature remote camera. Clean out drain lines and basins as often as needed in order to prevent decreased drainage capacity. Repair as needed.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding

Client: 27561A Sun Country Maintenance Association

Comp # : 190 Trees - Trim/Remove Quantity: Numerous, assorted

Location : Throughout common areas

Funded? : No Annual costs, best handled in operational budget

History : Recent hillside tree maintenance reported

Evaluation : Ongoing maintenance and consultation with arborist reported.

This component may be utilized for larger tree trimming/removal projects which do not occur on an annual basis. We were informed by Board contact that the Association is currently funding for tree maintenance out of the operational budget. Tree trimming/removal expenses can be incorporated into future reserve study updates at the discretion of the Board.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding

Comp # : 200 Entry Signs - Replace Quantity: (3) wood signs

Location : Entry locations

Funded? : Yes

History : Reportedly installed around 2009

Evaluation : Entry signs appeared in generally fair condition, with some minor deterioration of the wood structure (base of posts), but no significant damage observed.

Best to plan for regular cycles of replacement due to typical deterioration that will result from constant exposure to the elements.

Inspect regularly, clean, stain wood and touch-up signs as needed for appearance and extended useful life.

Useful Life:

20 years

Remaining Life:

13 years



Best Case: \$2,400

Worst Case: \$3,600

\$800/each (x3), Lower allowance to replace

\$1,200/each (x3), Higher allowance to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 27561A Sun Country Maintenance Association

Comp # : 201 Road Signs (metal) - Replace Quantity: ~ (80) metal signs
Location : Adjacent to roadways/intersections throughout community
Funded? : Yes

History : No history reported

Evaluation : The majority of signage appears to be in fair condition.

Individual replacement of these types of signs are a smaller cost item, but collectively will be a significant cost and merit reserve funding. Plan for eventual replacement at roughly the time frame indicated below.

Inspect regularly, clean for appearance and repair as needed.

Useful Life:
20 years

Remaining Life:
10 years



Best Case: \$6,400

Worst Case: \$9,600

\$80/each (x80), Lower allowance to replace

\$120/each (x80), Higher allowance to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Comp # : 202 Road Signs (wood) - Replace Quantity: ~ (16) wood signs
Location : Scattered throughout community
Funded? : No Cost projected to be too small for reserve funding

History : No history reported

Evaluation : The majority of wood signage/posts appeared to be in fair condition.

Small total quantity and replacement costs typically not at reserve funding threshold therefore not suitable for reserve funding. Anticipate repairs/replacements as needed as part of annual operating budget.

Inspect, clean for appearance and stain/paint as needed.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding

Client: 27561A Sun Country Maintenance Association

Comp # : 205 Mailboxes - Replace Quantity: (8) cluster stands

Location : Intersections of Augusta Blvd/Pebble Beach Dr and Hermitage Dr/Golf Course Rd

Funded? : Yes

History : Reportedly installed around 2011

Evaluation : Generally fair condition of cluster stands/boxes with no functional problems reported.

Best to plan for eventual replacement at roughly the time frame indicated below due to constant exposure, usage and wear over time. Note: USPS has a limited budget for replacement and should not be relied upon for purposes of long term planning.

Inspect regularly, clean by wiping down for appearance, change lock cylinders, lubricate hinges and repair as needed from operating budget.

Useful Life:

20 years

Remaining Life:

15 years



Best Case: \$9,600

\$1,200/cluster stand (x8), Lower allowance to replace

Worst Case: \$12,800

\$1,600/cluster stand (x8), Higher allowance to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 27561A Sun Country Maintenance Association

Comp # : 210 Guardrail - Repair/Replace Quantity: ~ 1,060 Lin Ft

Location : Adjacent to St. Andrews Drive

Funded? : No Useful life not predictable, repair/replace as needed out of operating budget

History : No history reported

Evaluation : Generally good, stable condition, no significant rust or corrosion evident.

Long lasting materials, no predictable timeframe for replacement at this time, therefore, no reserve funding suggested.

Inspect regularly, clean and repair as needed from operating budget.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding

Comp # : 346 Benches/Tables - Replace Quantity: ~ (6) assorted pieces

Location : Volunteer Park and Riverfront Park

Funded? : No Cost projected to be too small for reserves; replace as needed out of operating budget

History : No history reported

Evaluation : Various types of tables and benches noted (wood/concrete). Although some wood surfaces are weathered, we observed no significant damage or instability.

Smaller cost item that can be replaced on an as needed basis, funded through the operating budget. No reserve funding required.

Inspect regularly, clean for appearance, apply wood sealer where appropriate and repair as needed.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding

Client: 27561A Sun Country Maintenance Association

Comp # : 800 Pump Station Siding - Replace Quantity: ~ 1,300 Sq Ft

Location : Exterior pump station walls: concrete block

Funded? : No Useful life not predictable, repair/replace as needed out of operating budget

History : Reportedly built in 2011

Evaluation : Majority of pump station siding is CMU (Concrete Masonry Unit) block wall with a small amount of metal siding below gable ends, no significant damage or deterioration noted.

This type of siding (concrete and metal) can last for an extended period and with ordinary care and maintenance, there is no predictable basis for large scale repair or complete replacement expenses that would impact reserves. If need becomes apparent, funding can be incorporated into future reserve study updates.

As part of general maintenance/operating funding, inspect regularly, clean as needed. Monitor closely and if areas of deterioration emerge, consult with appropriate professional for repair scope.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding

Client: 27561A Sun Country Maintenance Association

Comp # : 805 Pump Station Roof - Replace

Quantity: ~ 1,200 Sq Ft

Location : Rooftop of pump station

Funded? : Yes

History : Reportedly installed in 2011

Evaluation : Metal standing seam roofing appeared to be functioning properly, no problems reported.

Although these metal panels can last for an extended period of time, the system will eventual wear out and require replacement. A 40-year useful life is factored below for financial planning purposes.

As routine maintenance, we recommend professional inspections at least twice annually and after windstorms. Promptly replace any damaged panels or any other repair needed to ensure waterproof integrity of roof.

Useful Life:
40 years

Remaining Life:
35 years



Best Case: \$12,000

Worst Case: \$14,400

\$10.00/Sq Ft, Lower allowance to replace

\$12.00/Sq Ft, Higher allowance to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 27561A Sun Country Maintenance Association

Comp # : 810 Pump Station Doors - Replace Quantity: (4) metal doors

Location : Pump station exterior walls

Funded? : No Useful life not predictable, repair/replace as needed out of operating budget

History : Reportedly installed in 2011

Evaluation : Exterior doors appeared in good condition, no significant damage observed.

There is no predictable expectation of large scale repair or replacement of exterior doors, therefore, reserve funding is not required at this time.

Inspect periodically and repair as needed to maintain appearance, security and operation. Paint as needed from operating/maintenance, no need for separate funding.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding

Comp # : 820 System Controls - Replace Quantity: (1) control system

Location : Pump station interior

Funded? : Yes

History : Installed in 2011

Evaluation : Master control panel is reportedly functioning as designed, no problems reported.

Although designed for extended use, eventual replacement is deemed necessary due to system upgrades and technological advances. This component factors in future cycles of replacement based on rough estimated cost provided by system designer Pump Tech, Inc.

Useful Life:

30 years

Remaining Life:

25 years



Best Case: \$85,000

Worst Case: \$100,000

Lower allowance to replace

Higher allowance to replace

Cost Source: Research with Pump Tech, Inc. (425) 644-8501

Client: 27561A Sun Country Maintenance Association

Comp # : 825 Transformers - Replace Quantity: (2) 480 Volt
 Location : Pump station interior
 Funded? : No Useful life not predictable, repair/replace as needed out of operating budget
 History : Installed in 2011
 Evaluation : Assumed to be performing as designed, no problems reported.

These types of transformers, especially when not exposed to outside elements, have an extended life expectancy. Based on expected long life and lower cost (~ \$2,000/each), reserve funding is not recommended for this component.



Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding

Comp # : 830 Pumps - Replace Quantity: (3) 5hp Grundfos pumps
 Location : Pump station interior
 Funded? : Yes
 History : Installed in 2011
 Evaluation : Main pressure pumps are reportedly functioning as designed.

These pumps will eventually wear out and require regular cycles of replacement at roughly the time frame indicated below. Monitor closely and adjust as needed in future reserve study updates.



Useful Life:
15 years

Remaining Life:
10 years

Best Case: \$15,000

Worst Case: \$21,000

\$5,000/each (x3), Lower allowance to replace

\$7,000/each (x3), Higher allowance to replace

Cost Source: Research with Pump Tech, Inc. (425) 644-8501

Client: 27561A Sun Country Maintenance Association

Comp # : 835 Booster Pumps - Replace

Quantity: (4) 25hp Grundfos pumps

Location : Pump station interior

Funded? : Yes

History : Installed in 2011

Evaluation : Booster pumps are reportedly functioning as designed.

These heavy demand pumps are seldom in use and are reportedly only needed under high demand situations. Useful life shown below is based on lower expected usage.

Useful Life:
25 years

Remaining Life:
20 years



Best Case: \$60,000

Worst Case: \$80,000

\$15,000/each (x4), Lower allowance to replace

\$20,000/each (x4), Higher allowance to replace

Cost Source: Research with Pump Tech, Inc. (425) 644-8501

Comp # : 840 Chlorine Pump/Analyzer - Replace

Quantity: Pump, sensor, monitors

Location : Pump station interior

Funded? : Yes

History : Installed in 2011

Evaluation : Chlorine system is reportedly in good operating condition.

This component factors in cyclical funding for replacement of the chemical injection analyzer and dosing pump.

Useful Life:
10 years

Remaining Life:
5 years



Best Case: \$2,500

Worst Case: \$3,500

Lower allowance to replace

Higher allowance to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 27561A Sun Country Maintenance Association

Comp # : 850 **Water System Components - Replace** Quantity: Assorted system parts

Location : Pump station interior

Funded? : No Useful life not predictable, repair/replace as needed out of operating budget

History : Installed in 2011

Evaluation : Although there was some condensation and corrosion on metal pipes, we were informed that condensation is common in this type of environment, inside a temperature controlled building with cold water running through the system.

Miscellaneous water system components can consist of, but are not limited to, piping, valves, gauges, meters, etc... These ancillary water system components will need replacement from time to time but are expected to individually be below the reserve funding threshold cost and therefore should be expensed as general maintenance from within the operating budget. No basis for reserve funding at this time.

Pipes can be regularly cleaned and re-coated to help prevent corrosion and extend life; funded as general operating/maintenance expense.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding

Client: 27561A Sun Country Maintenance Association

Comp # : 901 Wells - Repair/Replace Quantity: (4) wells
Location : Scattered throughout community
Funded? : No Useful life not predictable, repair/replace as needed out of operating budget
History : No history reported

Evaluation : Exact age unknown, assumed most wells were placed into service in the 1990's. We were informed that the water table is currently down approximately 10 feet and the main well may need to be drilled another 30 feet. If after further investigation, need becomes apparent to re-drill main well, funding may be added to future reserve study update.

Currently, there is no predictable expectation to replace existing wells or drill new wells within the 3-year scope of our report. Continue to monitor as community ages, and incorporate funding within future reserve study updates if there is indication that repair/re-drilling of existing wells or a new well will be necessary. No basis for reserve funding at this time.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding

Comp # : 902 Well Pumps/Motors - Replace Quantity: (4) submersible pumps
Location : Interior of each well
Funded? : Yes
History : No history reported

Evaluation : Well pumps are reported to be in functional condition, actual age unknown.

Service life for these types of pumps is typically in the 10-15 year range. Plan for regular cycles of replacement at roughly the time frame indicated below.

Useful Life:
15 years

Remaining Life:
5 years



Best Case: \$60,000

Worst Case: \$80,000

\$15,000/each (x4), Lower allowance to replace

\$20,000/each (x4), Higher allowance to replace

Cost Source: Research with Pump Tech, Inc. (425) 644-8501

Client: 27561A Sun Country Maintenance Association

Comp # : 910 Concrete Storage Tanks - Replace

Quantity: (1) 158k gal (1) 100k gal

Location : Northwest corner of property

Funded? : Yes

History : Main tank reportedly installed in 2011, secondary tank reportedly installed around early to mid 2000's

Evaluation : Although there was some minor cracking and areas of efflorescence at above ground concrete tanks, no significant damage or leaks were observed. Tanks had visible metal ladders and overflow pipes; we had no direct access to top or interior of tanks.

Research indicates planning for a typical service life of between 50-60 years for replacement of concrete tanks. Continue to monitor closely and have qualified engineer evaluate when remaining useful life draws close to five years or if significant cracking / spalling, leaking become prevalent.

We were informed that the interior of the concrete tanks have no liners. At some point, lining of the tanks may become necessary. If need becomes apparent to line tanks, funding may be added to reserve study update.

As routine maintenance, inspect regularly and repair/replace tank accessories (ladders, hatch, piping, etc.) as needed through operating/maintenance. Water storage tanks should also have regular cycles of inspection and cleaning, see next component #915.

Useful Life:
60 years

Remaining Life:
55 years



Best Case: \$300,000

Worst Case: \$360,000

\$1.15/gallon, Lower allowance to replace both tanks

\$1.40/gallon, Higher allowance to replace both tanks

Cost Source: ARI Cost Database: Mt. Baker Silo

Client: 27561A Sun Country Maintenance Association

Comp # : 911 Concrete Storage Tanks - Clean

Quantity: (1) 158k gal (1) 100k gal

Location : Northwest corner of property
Funded? : Yes

History : No cleaning history reported

Evaluation : Concrete water storage tanks need to be cleaned on a regular basis.

Best to plan for regular cycles of tank cleaning per tank manufacturer recommendation at the time frame indicated below.

Useful Life:
10 years

Remaining Life:
5 years



Best Case: \$4,000

Worst Case: \$6,000

Lower allowance to clean

Higher allowance to clean

Cost Source: ARI Cost Database: Similar Project Cost History

Comp # : 930 Water Main Lines (Iron) - Replace

Quantity: ~ 402 Lin Ft

Location : Partial main lines running down slope
Funded? : Yes

History : Reportedly installed in 2011

Evaluation : We were informed that a portion of water mains running down the steeper slope are 8" Ductile Iron pipe.

Although iron pipes are long lasting, they will deteriorate and require replacement. Best to plan for eventual replacement at roughly the time frame indicated below.

Useful Life:
75 years

Remaining Life:
70 years



Best Case: \$32,000

Worst Case: \$48,000

\$80/Lin Ft, Lower allowance to replace

\$120/Lin Ft, Higher allowance to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 27561A Sun Country Maintenance Association

Comp # : 931 **Water Main Lines (PVC) - Replace** Quantity: ~ 14,542 Lin Ft

Location : Water distribution throughout community: mains, service connections, meters, etc...

Funded? : Yes

History : Reportedly installed in 2011

Evaluation : We were informed that the majority of the water main lines consist of 12,681 Lin Ft of 8" PVC with another 1,861 Lin Ft of 2" PVC. There is also 402 Lin Ft of 8" Ductile Iron pipe (see next component #931).

Best to plan for eventual total replacement at roughly the time frame indicated below. Allowances shown below includes: professional specification and oversight, road repair, service connections, water meters, etc...

Useful Life:
60 years

Remaining Life:
55 years



Best Case: \$1,200,000

\$80/Lin Ft, Lower allowance to replace mains, service connections, meters, etc...

Worst Case: \$1,800,000

\$120/Lin Ft, Higher allowance to replace mains, service connections, meters, etc...

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 27561A Sun Country Maintenance Association

Comp # : 940 Pressure Reducing Station - Replace Quantity: (1) station

Location : Vault at bottom of hill

Funded? : Yes

History : Installed in 2011

Evaluation : We were informed by Chad Allen at Encompass Engineering that there was a Pressure Reducing Station installed in a vault at the bottom of the hill.

We have factored in a replacement allowance and useful life based on information provided by Encompass Engineering as shown below.

Inspect regularly and repair as needed through operating/maintenance budget.

Useful Life:
20 years

Remaining Life:
15 years



Best Case: \$35,000

Worst Case: \$40,000

Lower allowance to replace

Higher allowance to replace

Cost Source: Research with Chad Allen at Encompass Engineering

Comp # : 950 Fire Hydrants - Replace Quantity: ~ (26) hydrants

Location : Adjacent to roadways throughout community

Funded? : Yes

History : Reportedly installed in 2011

Evaluation : Functional condition assumed, no problems reported.

Although long lasting, eventual replacement will be needed based on typical deterioration. Cyclical replacement of hydrants is factored below, timed to coincide with main line replacement for cost efficiency..

Useful Life:
60 years

Remaining Life:
55 years



Best Case: \$104,000

Worst Case: \$156,000

\$4,000/each (x26), Lower allowance to replace

\$6,000/each (x26), Higher allowance to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 27561A Sun Country Maintenance Association

Comp # : 960 Gas Generator - Replace

Quantity: (1) Kohler Power Systems

Location : Adjancet to pump station

Funded? : Yes

History : Reportedly installed in 2011

Evaluation : Kohler Power Systems 150 generator is reported to be in functional condition.

Best to plan for regular cycles of replacement at roughly the 40-year mark of life as indicated below.

Generator should be exercised regularly with periodic inspections. Routine maintenance and incidental expenses should be factored in operating budget.

Useful Life:
40 years

Remaining Life:
35 years



Best Case: \$40,000

Worst Case: \$60,000

Lower allowance to replace

Higher allowance to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Comp # : 999 Reserve Study - Update

Quantity: Annual update

Location : Common areas of association

Funded? : No Annual costs, best handled in operational budget

History : No prior reserve studies completed by Association Reserves

Evaluation : Per Washington law (RCW), reserve studies are to be updated annually, with site inspections by an independent reserve study professional to occur no less than every three years to assess changes in condition (i.e., physical, economic, governmental, etc...) and the resulting effect on the community's long-term reserve plan. Most appropriately factored within operating budget, not as reserve component.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source: Does not meet NRSS criteria for reserve funding