



RESERVE DATA ANALYST

Sector 2A Snohomish Cascade Association

Snohomish, WA

Level III Reserve Study (No Site-Visit)

Fiscal Year: 2022

Report#: 16389

Version: Draft

Reserve Data Analyst, Inc.

www.reservedataanalyst.com

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Table of Contents

Introduction	3
Executive Summary	4
Reserve Study Knowledge Base	5
Plat Map	10
Reserve Analyst Comments	11
The Component List	13
Current Cost by Category Chart	14
Projected Percent Funded Chart	15
Projected Reserve Account Balance Chart	16
100% Funded - Summary	17
100% Funded - Year End Projections	18
Recommended Funding - Summary	19
Recommended Funding - Year End Projections	20
Baseline Funding - Summary	21
Baseline Funding - Year End Projections	22
Current Funding - Summary	23
Current Funding - Year End Projections	24
Projected Expenditures Chart	25
Projected Expenditures Report	26
Spreadsheet - Component Expenditures	33
Fully Funded Balance Calculations (Beginning Fiscal Year)	39
About the Component Detail Reports Section	41
Component Detail Reports	42
Definitions, Disclosure & Calculations Appendixes	62
Component Index	67

Sector 2A Snohomish Cascade Association Introduction

Thank you for utilizing the services of Reserve Data Analyst for your reserve study. We strive to create a comprehensive report that can be utilized for your budgeting needs. If there are any questions, concerns, corrections, or revisions needed please do not hesitate to call or email us. While this study does have some explanations of the methodology used, we have kept it to a minimum for brevity. More detailed explanations of methodology & concepts are explained in our Reserve Study Guidebook available at the following link:



www.reservedataanalyst.com/guidebook

The recommendations for the allocation rates of the different funding models are only for the beginning year of this reserve study; all future years are projections which are educated guesses and have numerous assumptions (e.g., inflation, proper maintenance, proper installation, known reserve account balances, etc.) built into the models. The further out in time a reader of the study goes, the less reliable the projections are likely to be. Note that therefore the recommendations for the first fiscal year in the study are based on current cost and current useful life estimates levels as opposed to future cost and future useful life projections.

From year to year the recommendations of the reserve analyst will typically change (sometimes significantly) based on variables such as what projects have been done, what projects has been deferred, changes to the allocation rate, changes to the starting balance, changes to the component list, actual inflation rate figure (versus projections), maintenance or lack of maintenance of components, etc. Annual updates to the study help to incorporate change to these variables as they occur so changes to the recommendations are less significant than if updates are done infrequently.

There are a couple of tips to consider that will help you both navigate this study and understand the different sections within the study:

- ❏ **Study Navigation** - To navigate this study more easily, we recommend printing out the Table of Contents page at the beginning of the study and the Component Index pages at the rear of the study. We have found it easiest for most readers to have the PDF of this study open on their computer while referring to the printed-out Table of Contents and Component Index pages.

Within this reserve study you will find:

- ❏ A list of common questions that a typical reader of our reserve study will have, as well as links to additional information on the topics: (*Reserve Study Knowledge Base*)
- ❏ A list of the site and building components that are reportedly the Client's responsibility along with their respective costs and quantity: (*The Component List*)
- ❏ A timeline of the estimated dates that we recommend funds be allocated to the repair/replacement project. (*Projected Expenditures Report*)
- ❏ Various funding models with different goals in mind. (*Summary and Projections for each Funding Model*)

Sector 2A Snohomish Cascade Association Executive Summary

Name	Sector 2A Snohomish Cascade Association
Location	Snohomish, WA
Contributing Members	247
Base Year / Age	June 1, 1997
Fiscal Year Ends	December 31, 2022
Level of Service	Level III Reserve Study (No Site-Visit)
Prepared for Fiscal Year	2022
Last On-Site Inspection Date	November 27, 2019
Inflation Rate for Projections	3.00%
*Interest Rate for Projections	0.50%
*Tax Rate On Interest Earned	30.0%
Funding Plan Method	Pooled Cash Flow Method

Reserve Account Summary

*Current Annual Reserve Allocation Rate	\$30,875 per year
*Estimated FY Start Balance	\$16,936
*Approved Special Assessments	None approved for fiscal year 2022.
*Approved Loans	None approved for fiscal year 2022.
Fiscal Year Beginning Fully Funded Balance	\$277,995 (ideal amount in reserve account)
Current Percent Funded	-----> 6% <div style="display: flex; justify-content: space-between; width: 100%; font-size: small;"> 0-30% LOW 30-70% FAIR 70-100% GOOD </div>
Avg. (Deficit) or Surplus Per Contributing Member	(-\$1,057) per member

5-Year Summary - Annual Reserve Allocation Rates & Year End % Funded

	100% Funding Model		Recommended Funding Model		Baseline Funding Model		**Current Funding Model		
2022	\$297,418	100%	\$90,000	7%	\$74,183	0%	\$30,875	-19%	2022
2023	\$39,931	101%	\$46,700	23%	\$41,296	15%	\$31,801	-5%	2023
2024	\$41,129	101%	\$48,101	36%	\$42,535	27%	\$32,755	6%	2024
2025	\$42,363	101%	\$49,544	39%	\$43,811	29%	\$33,738	5%	2025
2026	\$43,634	101%	\$51,030	43%	\$45,125	31%	\$34,750	4%	2026
	Account is at least 100% funded each year.		Achieve 100% funded within the timeframe of this study.		Reserve account above \$0 within timeframe of study.		Current allocation rate has been supplied by the Client.		

* Data supplied by the Client, assumed to be correct and not independently verified.

**Any negative percent funded shown is for visual representation of deficiency.

Sector 2A Snohomish Cascade Association Reserve Study Knowledge Base

What is a Reserve Study?

A reserve study is a budgeting tool that can be utilized to make more informed budgeting decisions regarding a reserve account, it is an independent assessment of the adequacy of the reserve account balance and allocation rate utilizing a mathematical formula known as the “Percent Funded” calculation.

The Reserve Analyst develops funding models that:

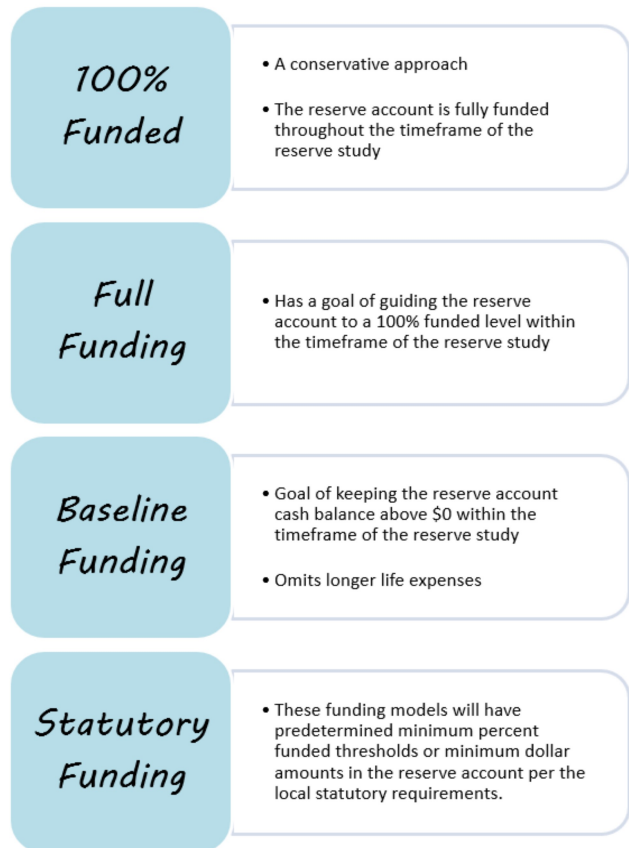
- Distribute the costs as fairly as possible over time
- Have stable budgets over time (i.e., limiting large fluctuations from one year to the next)
- Limit the risk for reliance on emergency financing or having to defer overdue projects

A Reserve Study is an independent assessment of the reserve account and is not the Budget

The reserve study is not the budget, and it should not be revised to just reflect the budgeting decisions of the Client. An example of this is to push off overdue projects that the Client may not have the funds to complete. The reserve study should reflect the replacement dates of the components utilizing average useful lives and average costs for these projects; the useful lives can be updated to reflect actual on-site conditions as the components age. Should the Client decide to defer projects that appear to be overdue this is simply a budgeting decision that carries its own risk.

How Much Should We Reserve?

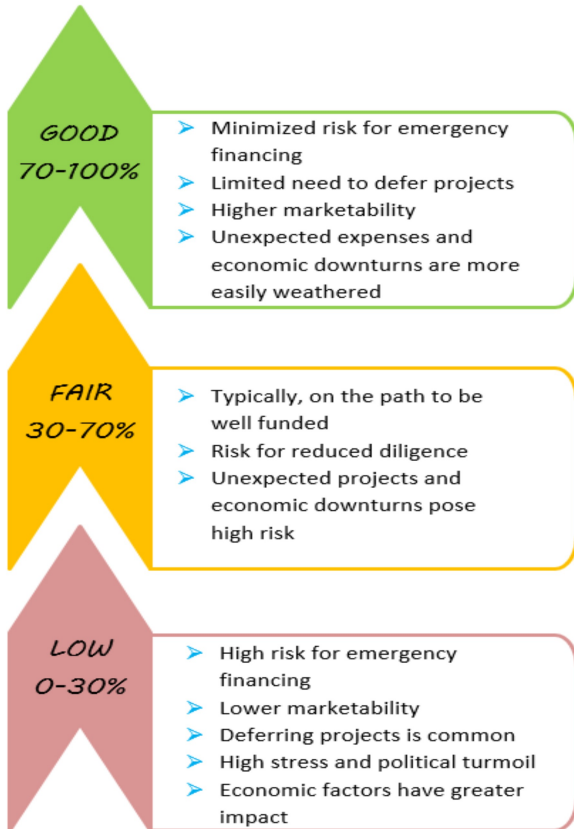
There is no right or wrong answer to the question of “How Much Should We Reserve?” as the reserve contributions in all the funding models in this study are based on different funding goals. It is more appropriate to consider the risk levels associated with different funding models as each Client has different risk tolerances and challenges in enacting whatever funding model is most appropriate to them. In our opinion any funding model that projects the reserve account balance to dip to zero would not be appropriate or fiscally responsible as future emergency financing or deferring projects are typically the outcome. Below are some of the more common funding models utilized:



Sector 2A Snohomish Cascade Association Reserve Study Knowledge Base

About Percent Funded

Percent funded is a calculation of how much is in the reserve account versus an ideal amount known as the Fully Funded Balance. The different risk levels associated with the levels of funding are explained in more depth below.



The below video link explains the Percent Funded calculation in more detail:

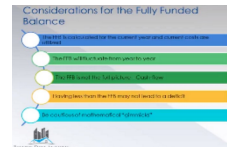


www.reservedataanalyst.com/pf

About the Fully Funded Balance

The Fully Funded balance is a mathematical calculation that represents the accrued deterioration of a component or a group of components at a specific point in time. It is an answer to the question of “How much should be in a reserve account at a specific point in time?” When the reserve account balance is the same as the Fully Funded Balance the reserve account is considered Fully Funded (100% Funded) at that specific point in time.

The below video link provides a more in-depth explanation of the Fully Funded balance:



www.reservedataanalyst.com/ffb

Calculating Inflation in the Reserve Study

Inflationary factors impact the project costs over time and are the main driving force that must be overcome with diligent and steadfast budgeting towards reserves. Due to the compounding impact of inflation on costs, in a relatively short period of time, a reserve account can become severely underfunded if it is not considered in the budgeting scenarios. Follow the below link to learn more about how we calculate inflationary factors (escalation of the prices) in the reserve study and some of the tools we use in the process:



www.reservedataanalyst.com/inf

Sector 2A Snohomish Cascade Association Reserve Study Knowledge Base

Component Useful Life Estimates

The useful life of components in the reserve study are predominantly based on our experiences with many different types of organizations and their respective repair and replacement cycles with building and site components. In addition to our own experiences working with many organizations over the years there is ample data available online regarding useful life estimates of building and site components. It is important to note that the estimates in the reserve study are based on averages and are not specific to any one property. Follow the below link to view some of the various useful life tables that we utilize:



www.reservedataanalyst.com/ul

Determining Component Project Costs

We utilize many sources for determining what is an appropriate component project cost in the reserve study. These can include:

- Client invoices, bids, estimates
- Our in-house database that is based on the collection of many Client invoices, bids, and estimates
- Cost manuals that, when used correctly, are very accurate for average cost figures

It's important to understand that unless we are provided actual project costs based on a client invoice/bid or estimate we utilize average costs figures that are not specific to any one Client. In the bidding process you will find that there is a ...

... large difference in price from one vendor to the next for a variety of reasons. We aim to be in the middle of these estimates unless we have Client data to incorporate into the reserve study. Future costs (projections) for the component expenses are simply inflated from current cost based on the inflation assumption in the reserve study. It is important to remember that our current recommendations are based on current project costs and not the inflated number that is utilized in the projections portion of the reserve study. The below link goes into this topic in more detail:



www.reservedataanalyst.com/cost

National Reserve Study Standards

There are two recognized organizations that dictate national reserve study standards in the industry. The Community Association's Institute and the Association of Professional Reserve Analysts award designations to those reserve study professionals that meet education & work experience, adhere to the minimum report requirements, complete ongoing continuing education courses, and abide by ethical considerations in the field. The standards for both organizations can be viewed at the links below:



www.reservedataanalyst.com/CAI



www.reservedataanalyst.com/APRA

Sector 2A Snohomish Cascade Association Reserve Study Knowledge Base

What Components to Include in the Study?

Reserve expenses for components are major expenses which must be budgeted for in advance to provide the necessary funds in time for their occurrence. Reserve expenses are reasonably predictable both in terms of frequency and cost. They are expenses that when incurred would have a significant impact on the smooth operation of the budgetary process from one year to the next if they were not reserved for in advance.

A common concern when beginning this process is what components are to be included and funded for in the Reserve Study. Nationally recognized CAI Reserve Study Standards as well as APRA Standards of Practice dictate that the reserve components need to meet the following criteria:

- It's not already covered in the Operating Budget
- The component has a limited life expectancy
- The component has a reasonably defined remaining useful life
- As required by local statutes

When to Complete Reserve Projects?

Components should be replaced when they are no longer functioning as designed. This is best determined by your component specific Vendor who can inspect and give their best professional advice on the condition assessment and timeframe on when/what needs to be done. Note that this reserve study is ***not*** a "to do list"; it is a budgeting document with recommendations for when we suggest having the funds allocated towards the projects ...

... If something fails earlier than projected than replace it, if it lasts longer (as determined by your component specific Vendor) then take their advice as they are the professionals in their specific field. Projects should be completed when they need to be completed regardless of our projections in the study. Note that this does not mean it would be appropriate to delay projects simply because funds are not available though as that is a budgeting decision not based on component specific Vendor recommendations. A common issue we see is the delay of projects simply because there is a lack of reserve funds available, only to have a much larger and more expensive project later due to collateral damage (e.g. not replacing a roof in a timely manner, which then leaks and causes siding damage).

Ongoing Component Maintenance

While this reserve study has been developed to disclose and inform the Client of the predictable larger long-term project costs related to site and building components, there is also a need to complete regular inspections and repairs to virtually all components on much shorter cycles. These costs would typically be covered in the annual and ongoing Operating Budget (e.g. roof inspections & repairs, spot painting, sprinkler head replacement, door hardware replacement).

Virtually all the components should receive regular cycles of inspection and repairs by a qualified Vendor. Failure to complete ongoing maintenance typically leads to shorter useful lives and higher costs later. RSMeans provides a free link to common building and site component items to inspect at various corresponding time frames.

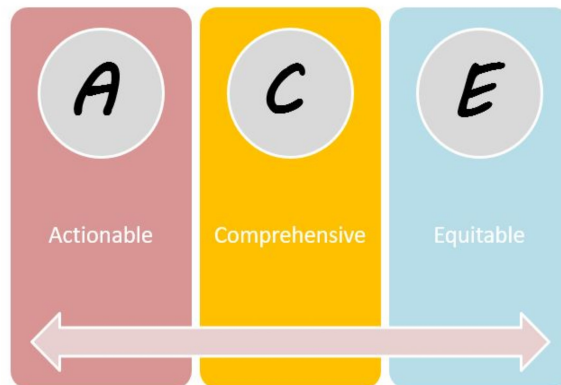


www.reservedataanalyst.com/RMeans

Sector 2A Snohomish Cascade Association Reserve Study Knowledge Base

You Have a Reserve Study Now What?... Goal Setting

Adequately budgeting for reserves is often one of the more difficult tasks our clients face. Reserve component projects are infrequent and often years down the line, making it very easy to just “deal with it later”. We have found those that are most successful with reserve budgeting goals typically follow some simple rules.



1. Actionable

Is your goal possible within the constraints & limitations of very important but often overlooked factors related to statutory requirements and the governing documents? What may seem very “Reasonable” to the Board may very well be illegal or against the governing documents.

2. Comprehensive

Your goal should be clear and specific, otherwise you won't be able to focus your efforts or feel truly motivated to achieve it. When drafting your goal, try to answer the four "W" questions - What do we want to accomplish? Why is this goal important? Who is involved? When is this goal set to occur?

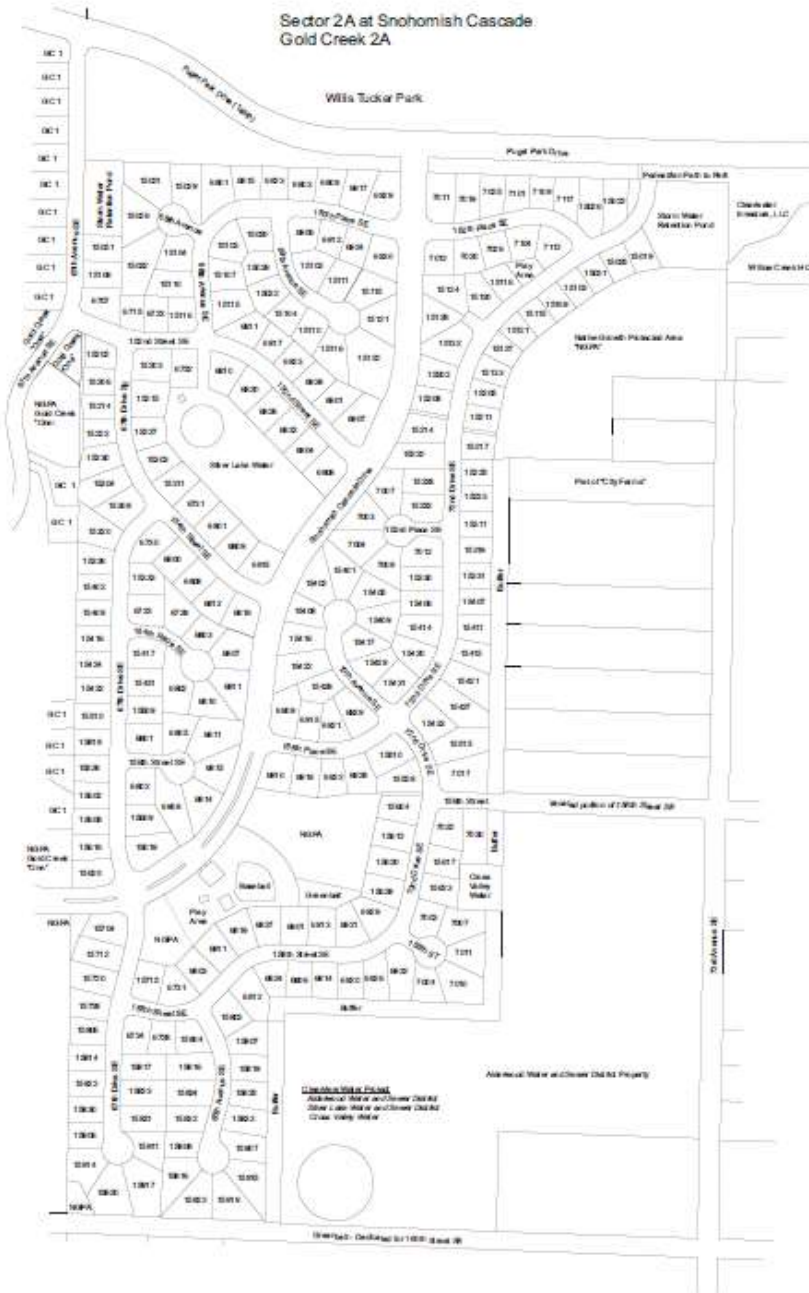
3. Equitable

Your goal should be reasonable and attainable to be successful. In other words, it should stretch your abilities but remain possible. When you set an achievable goal, you may be able to identify previously overlooked opportunities or resources that can bring you closer to it. This often means that transitioning to a more stable financial track will take years of smaller goals being obtained. Severely underfunded reserve accounts typically develop after many years or decades; it's usually not reasonable for the answers to come quick or easily.



Beware setting reserve budgeting goals that someone else has the ultimate control over (e.g., future Boards). For example, “We’ll plan to start raising the reserve allocation rate in 3 years”. This simply puts the responsibility on someone else and is just another way to “deal with it later”. A future Board may have other ideas entirely or could be dealing with an economic downturn during which times raising the allocation rate is extremely difficult.

Sector 2A Snohomish Cascade Association Plat Map



Sector 2A Snohomish Cascade Association Reserve Analyst Comments

Reserve Study Update Comments on Inflation - FY 2022 Update

Per the most recent construction cost data in this region the inflation rate has been 7.1% since the prior reserve study was performed in 2020. This inflation rate has been applied to the component project estimated costs in this reserve study update.

Note that a historical average 3% has been applied to projections (future estimated project costs) in the reserve study as even though there will be time periods of inflation that are well above and below this historical average inflation rate, we would expect the long-term average to fall back in line with the historical average in the United States based on data going back over 100 years. To learn more about how inflation is applied to the reserve study please visit www.reservedataanalyst.com/inf

Comments on Fully Funded Balance Calculations (Fully Funded Balance Calculation Page)

The Fully Funded balance calculations for each component (age & useful life) have been adjusted if a component has been superseded by another component, received a positive or negative life adjustment, been phased over a period of time or is overdue (e.g., has an age greater than the typical useful life of the component). These adjustments are needed so that the fully funded balance mathematical calculation for each component is accurate and appropriately contributes to the total fully funded balance calculation (located on the executive summary & projection pages) for all components in this reserve study.

Comments on Assessment & Disclosure Form

Included in the fee for this reserve study is an Assessment & Disclosure Form which complies with statutory requirements for common interest communities. Please follow the following link to complete the request form on our website: <https://www.reservedataanalyst.com/rad/>

Note that this form can only be requested after the budget has been voted on and approved by the Board and/or Community Membership. This disclosure is a requirement for Boards to provide to the membership annually.

Excluded Components

Unless noted otherwise the below components have been excluded from funding in this reserve study. Note that the inclusion of any of these items later via a revision or update to this study will impact the funding strategies developed by the Reserve Analyst.

Not Client's Responsibility

The below components are reportedly not the Client's responsibility per their interpretation of their governing documents. Note that the Reserve Analyst does not interpret governing documents and have excluded items based on the Client's request and their interpretation of their own governing documents. If there is ambiguity or questions as to what specific wording means in the governing documents, we recommend consulting with a qualified and experienced attorney.

1. Utility Main Lines - Utility Companies / County
2. Asphalt Streets - County
3. Utility Lines - County
4. Streetlights - County
5. Public Sidewalks (31,900 sf abutting common area parcels) - County

**Sector 2A Snohomish Cascade Association
Reserve Analyst Comments**

6. Hydrants - County
7. Fencing at Private Lots (excluding Sno-Cascade Dr)- Lot Owner's Responsibility
8. Landscaping & Chain Link Fence at Puget Park Drive - County

Operating Account Expense

The below components are reportedly paid from the Operating Account and have not been included in this reserve study.

1. Storm Sewer System Maintenance - We recommend setting up an annual contract with a qualified Vendor.
2. Asphalt Crack Sealing - Complete Annually as needed
3. Small Signage (at parks and native growth area)
4. Ongoing Landscaping
5. Minor Irrigation System Repairs
6. Baseball Field Upkeep

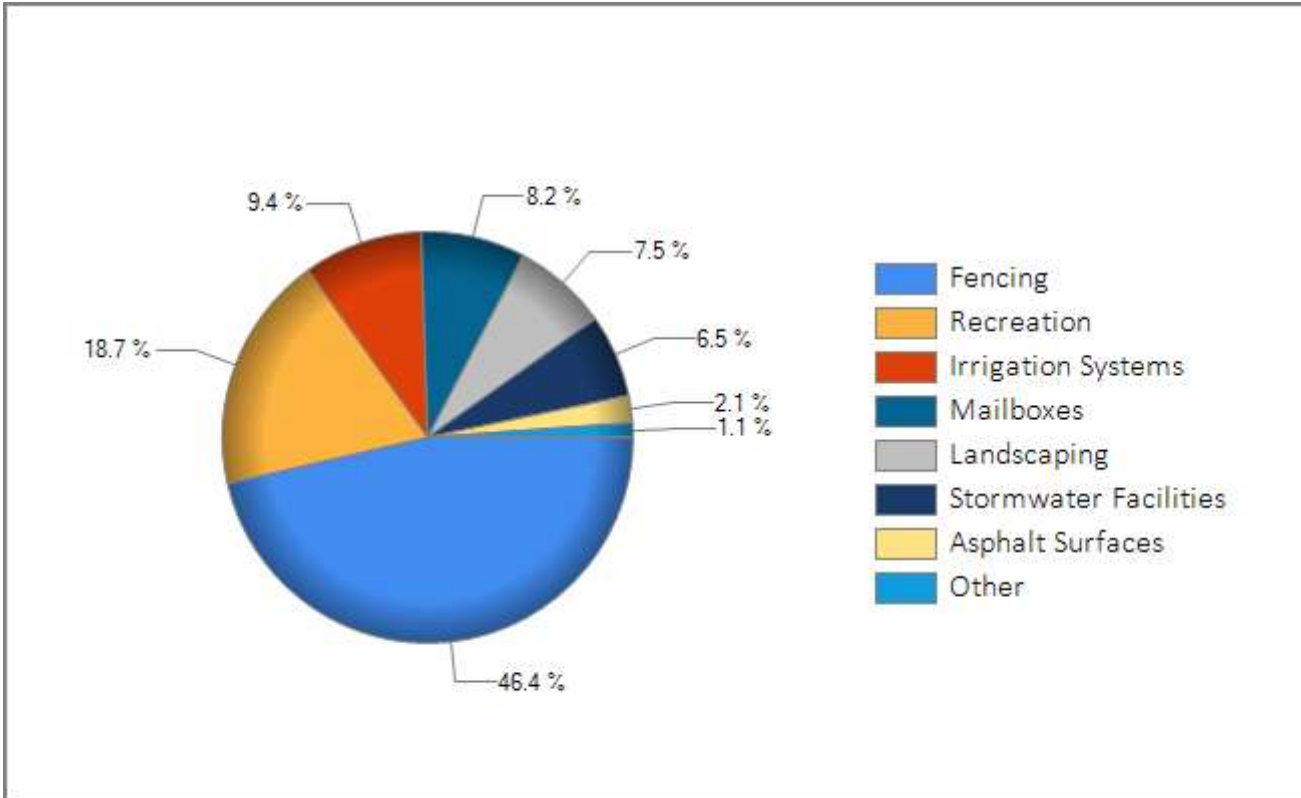
**Sector 2A Snohomish Cascade Association
The Component List**

Report Date October 05, 2021
 Beginning Fiscal Year January 01, 2022
 Account Number 16389

Version Number Draft

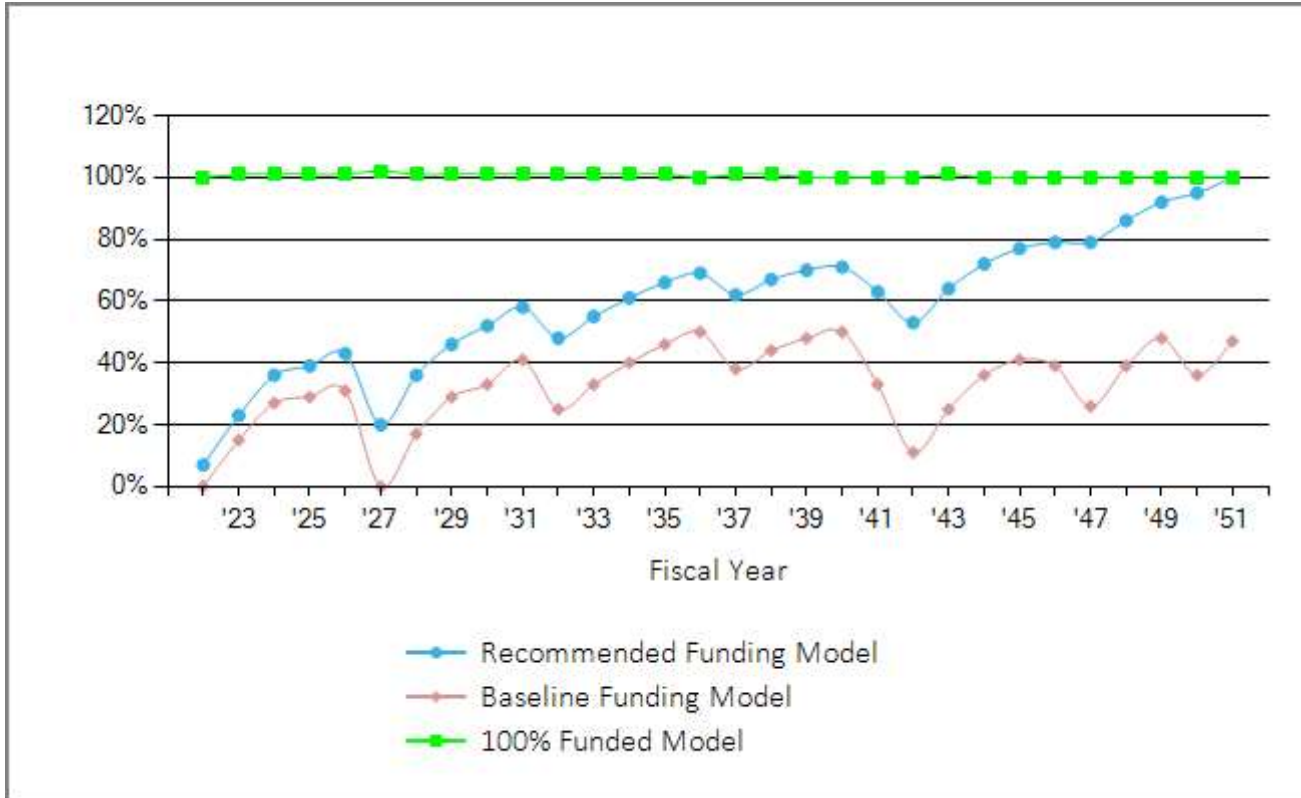
Component Description	Approx. Date In Service	Replacement Year	Useful Life	Adjustment	Remaining Ul	Units	Per Unit Cost And Percent Replacement	Current Cost
Asphalt - Overlay	1997	2022	25	0	0	4,113 sf	2.38	9,789
Asphalt - Sealcoat	2015	2022	5	2	0	4,113 sf	0.33	1,357
Baseball Backstop (chain link) - Replace	1997	2042	45	0	20	1 ea	8,653.68	8,654
Baseball Infield Fence (chain link) - Replace	1997	2042	45	0	20	152 lf	44.35	6,741
Concrete Curb - 20% Repair	1997	2022	5	15	0	227 lf	40.02@ 20%	1,817
Fence (chn link - NE Pond) - Replace	2010	2050	40	0	28	760 lf	39.48	30,005
Fence (chn link - NW Pond) - Replace	2016	2056	40	0	34	430 lf	39.48	16,976
Fence (chn link baseball 3.5') - Replace	1997	2037	40	0	15	345 lf	27.04	9,329
Fence (sno-cascade drive) - Paint/Stain	2016	2022	5	0	0	3,821 lf	9.19	35,115
Fence (sno-cascade drive) - Replace	2016	2041	25	0	19	3,821 lf	34.61	132,245
Fence (wood - NW Pond) - Paint/Stain	2017	2022	5	0	0	203 lf	9.19	1,866
Fence (wood - NW Pond) - Replace	1997	2022	25	0	0	203 lf	34.61	7,026
Irrigation Backflow Valve - Replace	1997	2022	25	0	0	1 ea	1,622.57	1,623
Irrigation Controller Panels - Replace	1997	2032	35	0	10	4 ea	811.28	3,245
Irrigation Controllers - Replace	2015	2030	15	0	8	4 ea	811.28	3,245
Irrigation Piping - 25% Replace	1997	2027	5	25	5	105,307 sf	1.62@ 25%	42,649
Irrigation Valves (in-ground) - 10% Replace	2019	2022	1	0	0	52 ea	270.43@ 10%	1,406
Landscape Drainage (boat park) - Refurbish	2020	2040	20	0	18	1 ls	16,065.00	16,065
Landscaping (gravel) - Replenish	2017	2022	5	0	0	2,451 sf	1.35	3,309
Landscaping - 25% Tree Care	1997	2022	5	20	0	111 ea	378.60@ 25%	10,506
Lights (pole) - Replace	1997	2027	30	0	5	1 ea	2,487.93	2,488
Mailbox Cluster (2009) - Replace	2009	2033	24	0	11	3 ea	1,717.17	5,152
Mailbox Cluster (2013) - Replace	2013	2037	24	0	15	1 ea	1,717.17	1,717
Mailbox Cluster (2015) - Replace	2015	2039	24	0	17	1 ea	1,717.17	1,717
Mailbox Cluster (2017) - Replace	2017	2041	24	0	19	2 ea	1,717.17	3,434
Mailbox Clusters (2020) - Replace	2002	2026	24	0	4	18 ea	1,717.17	30,909
Parking Bollards (boat park) - Replace	1997	2032	35	0	10	3 ea	1,081.71	3,245
Pavers (sand set) - Replace	1997	2022	25	0	0	145 sf	16.23	2,353
Playground Structure (boat park) - Replace	2021	2046	25	0	24	1 ea	44,510.00	44,510
Playground Structure (small park) - Replace	1997	2025	25	3	3	1 ea	29,988.00	29,988
Playground Surface (boat park) - Replenish	2021	2024	3	0	2	1,600 sf	1.03	1,648
Playground Surface (small park) - Replenish	2018	2022	3	0	0	1,271 sf	1.03	1,309
Playground Timber Edging (boat park) - Repl..	2021	2046	25	0	24	160 lf	8.65	1,384
Playground Timber Edging (small park) - Repl..	1997	2022	24	0	0	144 lf	8.65	1,246
Recreation - Benches (wood) - Replace	1997	2022	25	0	0	11 ea	811.28	8,924
Recreation - Picnic Table (wood) - Replace	1997	2022	25	0	0	3 ea	919.45	2,758
Retaining Walls (masonry) - Replace	2014	2054	40	0	32	67 sf	32.45	2,174
Retaining Walls (wood) - Replace	1997	2022	25	0	0	33 sf	21.63	714
Stormwater Pond (NE pond) - Refurbish	1997	2027	30	0	5	1 ea	21,634.20	21,634
Stormwater Pond (NW pond) - Refurbish	2015	2030	15	0	8	1 ea	12,439.67	12,440
Total Asset Summary								\$522,712

Sector 2A Snohomish Cascade Association Current Cost by Category Chart



The above chart illustrates the current cost breakdown percentage of the Component Categories in this reserve study (highest percentage components listed at top). Special attention should be given to those component categories which take up a bulk of the % of the current cost as these may require significant planning to adequately budget for their replacement. These large expenses may be well into the future during "Peak Year" cycles. Refer to the Cash Flow Projections and the Annual Expenditure Report for the projected timeline of expected expenditures.

Sector 2A Snohomish Cascade Association Projected Percent Funded Chart



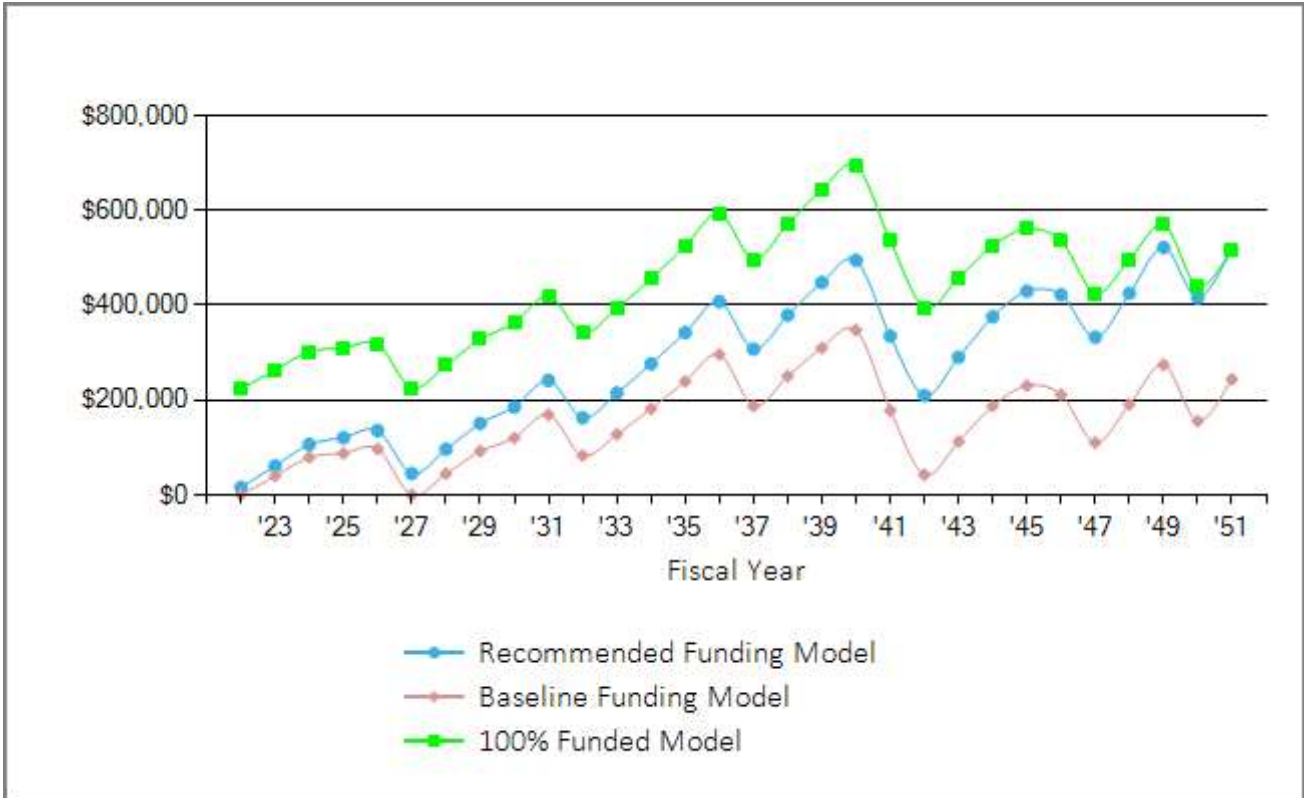
The above chart compares the funding models by the percentage funded levels over the 30-year timeframe of this reserve study, as calculated at the end of each fiscal year.

The Recommended Funding Model increase the Client's reserve account Percent Funded Level to 100% funding within the timeframe of this study. Once this 100% funded level is reached it is a good indicator that the Client is on track to meet its future obligations with minimal risk of reliance on emergency financing or having to defer projects that come due.

The Baseline Funding Model has only a goal of keeping the reserve account cash positive within the timeframe of the reserve study. This model carries significant risk for reliance on emergency financing and/or having to defer projects due to the common occurrence of components failing earlier than projected or costs increasing more rapidly than projected.

The 100% Funded Model assumes the reserve account is an average of 100% Funded in each year of the reserve study. This model minimizes risk for reliance on emergency financing and places the reserve account onto a low risk path for budgeting.

Sector 2A Snohomish Cascade Association Projected Reserve Account Balance Chart



The chart above compares the annual year-end balance of the reserve account for the respective funding models over the 30 years covered in this reserve study. Projected reserve account balances will see large fluctuations from year to year due to projects occurring in any given year.

**Sector 2A Snohomish Cascade Association
100% Funded - Summary**

Report Date	October 5, 2021
Account Number	16389
Version	Draft
Budget Year Beginning	January 1, 2022
Budget Year Ending	December 31, 2022
Total Units	247

<i>Report Parameters</i>	
Inflation	3.00%
Annual Contribution Increase	3.00%
Interest Rate on Reserve Deposit	0.35%
Tax Rate Included in Interest Rate	
2022 Beginning Balance	\$16,936

This funding model has a goal of being a minimum of 100% funded, annually, over the timeframe of this reserve study. Allocation rates will fluctuate based on the expenditures projected in any given year. The initial year has a much higher allocation rate than subsequent years as the reserve account is currently underfunded and requires a significant cash injection in the initial fiscal year to elevate the reserve account to a 100% Funded track.

The following page provides the 30-year projections for this funding model.

<i>Full Funding Model 30 Year Summary of Calculations</i>	
Required Annual Contribution	\$297,417.78
Average Net Annual Interest Earned	\$781.33
Total Annual Allocation to Reserves	\$298,199.11

Sector 2A Snohomish Cascade Association
100% Funded - Year End Projections

Beginning Balance: \$16,936

Year	Replacement Cost	Reserve Contribution	Net Interest Earned	Reserve Expenditures	Year End Account Balance	Year End Fully Fund Balance	Year End % Funded
2022	522,712	297,418	781	91,118	224,017	224,017	100%
2023	538,394	39,931	919	1,448	263,419	261,725	101%
2024	554,545	41,129	1,055	3,240	302,362	299,693	101%
2025	571,182	42,363	1,081	35,736	310,071	306,478	101%
2026	588,317	43,634	1,111	36,371	318,444	313,850	101%
2027	605,967	49,154	784	143,513	224,870	220,644	102%
2028	624,146	50,628	953	3,242	273,208	270,476	101%
2029	642,870	55,572	1,145	1,729	328,196	324,759	101%
2030	662,156	57,240	1,266	23,738	362,964	359,439	101%
2031	682,021	58,957	1,464	3,543	419,842	417,442	101%
2032	702,482	60,726	1,190	140,460	341,298	337,687	101%
2033	723,556	62,547	1,374	11,359	393,860	390,085	101%
2034	745,263	64,424	1,590	3,871	456,003	453,386	101%
2035	767,621	69,096	1,831	2,065	524,864	522,115	101%
2036	790,649	71,168	2,070	4,620	593,482	591,991	100%
2037	814,369	73,304	1,732	171,969	496,549	493,364	101%
2038	838,800	75,503	1,994	2,257	571,789	568,403	101%
2039	863,964	77,768	2,246	7,886	643,916	641,772	100%
2040	889,883	80,101	2,422	31,972	694,467	694,466	100%
2041	916,579	80,117	1,870	240,380	536,073	536,073	100%
2042	944,076	64,876	1,376	207,826	394,499	392,641	100%
2043	893,058	66,823	1,597	5,051	457,868	455,401	101%
2044	919,850	68,827	1,834	2,694	525,835	524,157	100%
2045	947,446	70,892	1,959	36,983	561,703	561,394	100%
2046	975,869	73,019	1,867	101,345	535,244	535,244	100%
2047	1,005,145	73,736	1,482	185,431	425,031	423,542	100%
2048	1,035,299	75,948	1,730	6,587	496,123	494,596	100%
2049	1,066,358	78,226	1,989	6,032	570,307	570,307	100%
2050	1,098,349	79,145	1,534	211,194	439,791	438,984	100%
2051	1,131,300	81,519	1,799	7,198	515,912	515,912	100%

**Sector 2A Snohomish Cascade Association
Recommended Funding - Summary**

Report Date	October 5, 2021
Account Number	16389
Version	Draft
Budget Year Beginning	January 1, 2022
Budget Year Ending	December 31, 2022
Total Units	247

<i>Report Parameters</i>	
Inflation	3.00%
Interest Rate on Reserve Deposit	0.35%
Tax Rate Included in Interest Rate	
2022 Beginning Balance	\$16,936

We have developed a funding plan which will help steer the reserve account into a high funded range within the 30-year timeframe of this reserve study. This Recommended Funding Model requires the Client to allocate the recommended allocation amount into the reserve account with annual increases thereafter. In the following pages you will find the recommended allocation rates to the reserve account, annual projected expenditures and the percent funded of the reserve account if following this Recommended Funding Model.

In the initial year of this funding model the reserve contribution rate is higher due to the need to fund projects in the near future. After these projects have been adequately funded for the reserve allocation rate can be lowered (still increases annually to offset inflationary factors) while still reaching the goal of this particular funding model.

This Recommended Funding Plan Considers 4 Basic Principles:

1. There are adequate reserves when needed.
2. The budget should remain stable but increasing to offset inflationary factors.
3. The costs are fairly distributed over time.
4. The funding plan must allow the Client to be fiscally responsible.

The following page provides the 30-year projections for this funding model.

<i>Recommended Funding Model Summary of Calculations</i>	
Required Annual Contribution	\$90,000.00
Average Net Annual Interest Earned	\$55.36
Total Annual Allocation to Reserves	\$90,055.36

**Sector 2A Snohomish Cascade Association
Recommended Funding - Year End Projections**

Beginning Balance: \$16,936

Year	Replacement Cost	Reserve Contribution	Net Interest Earned	Reserve Expenditures	Year End Account Balance	Year End Fully Fund Balance	Year End % Funded
2022	522,712	90,000	55	91,118	15,874	224,017	7%
2023	538,394	46,700	214	1,448	61,339	261,725	23%
2024	554,545	48,101	372	3,240	106,572	299,693	36%
2025	571,182	49,544	421	35,736	120,801	306,478	39%
2026	588,317	51,030	474	36,371	135,935	313,850	43%
2027	605,967	52,561	157	143,513	45,140	220,644	20%
2028	624,146	54,138	336	3,242	96,372	270,476	36%
2029	642,870	55,762	526	1,729	150,931	324,759	46%
2030	662,156	57,435	646	23,738	185,275	359,439	52%
2031	682,021	59,158	843	3,543	241,733	417,442	58%
2032	702,482	60,933	568	140,460	162,774	337,687	48%
2033	723,556	62,761	750	11,359	214,925	390,085	55%
2034	745,263	64,644	965	3,871	276,663	453,386	61%
2035	767,621	66,583	1,194	2,065	342,375	522,115	66%
2036	790,649	68,581	1,422	4,620	407,758	591,991	69%
2037	814,369	70,638	1,072	171,969	307,499	493,364	62%
2038	838,800	72,757	1,323	2,257	379,322	568,403	67%
2039	863,964	74,940	1,562	7,886	447,938	641,772	70%
2040	889,883	77,188	1,726	31,972	494,880	694,466	71%
2041	916,579	79,504	1,169	240,380	335,172	536,073	63%
2042	944,076	81,889	732	207,826	209,967	392,641	53%
2043	893,058	84,345	1,012	5,051	290,274	455,401	64%
2044	919,850	86,876	1,311	2,694	375,766	524,157	72%
2045	947,446	89,482	1,499	36,983	429,764	561,394	77%
2046	975,869	92,166	1,472	101,345	422,057	535,244	79%
2047	1,005,145	94,931	1,160	185,431	332,718	423,542	79%
2048	1,035,299	97,779	1,484	6,587	425,395	494,596	86%
2049	1,066,358	100,713	1,820	6,032	521,896	570,307	92%
2050	1,098,349	103,734	1,451	211,194	415,886	438,984	95%
2051	1,131,300	106,846	1,804	7,198	517,340	515,912	100%

**Sector 2A Snohomish Cascade Association
Baseline Funding - Summary**

Report Date	October 5, 2021
Account Number	16389
Version	Draft
Budget Year Beginning	January 1, 2022
Budget Year Ending	December 31, 2022
Total Units	247

Report Parameters	
Inflation	3.00%
Annual Contribution Increase	3.00%
Interest Rate on Reserve Deposit	0.35%
Tax Rate Included in Interest Rate	
2022 Beginning Balance	\$16,936

The Baseline Funding Model is considered a bare minimum approach which has a goal of keeping the reserve account balance above \$0 within the 30-year timeframe of this reserve study and *does not* take into consideration projected expenses that fall outside of the 30-year timeframe of the reserve study (i.e. longer life components are simply ignored).

This funding model carries a higher risk for reliance on emergency financing specifically in years when large component expenses occur earlier than projected or costs see significant increases. Additionally, in the future when longer life components come into the 30-year timeframe of future reserve studies their projected expenditures will have a significant impact on the allocation requirements to keep the reserve account cash positive going forward.

Should the Client have an interest in not funding longer life component projects (i.e. projects that are set to occur after the 30 year projections in this study) at this time then we suggest setting a goal of at least funding to the Baseline Funding Model which has the goal of only staying cash positive for the 30 year time-frame of the projections in this study.

In the initial year of this funding model the reserve contribution rate is higher due to the need to fund projects in the near future. After these projects have been adequately funded for the reserve allocation rate can be lowered (still increases annually to offset inflationary factors) while still reaching the goal of this particular funding model.

The following page provides the 30-year projections for this funding model.

Baseline Threshold Funding Model Summary of Calculations	
Required Annual Contribution	\$74,183.00
Average Net Annual Interest Earned	<u>\$0.00</u>
Total Annual Allocation to Reserves	\$74,183.00

**Sector 2A Snohomish Cascade Association
Baseline Funding - Year End Projections**

Beginning Balance: \$16,936

Year	Replacement Cost	Reserve Contribution	Net Interest Earned	Reserve Expenditures	Year End Account Balance	Year End Fully Fund Balance	Year End % Funded
2022	522,712	74,183		91,118	1	224,017	0%
2023	538,394	41,296	139	1,448	39,988	261,725	15%
2024	554,545	42,535	277	3,240	79,561	299,693	27%
2025	571,182	43,811	307	35,736	87,942	306,478	29%
2026	588,317	45,125	338	36,371	97,035	313,850	31%
2027	605,967	46,479		143,513	1	220,644	0%
2028	624,146	47,873	156	3,242	44,788	270,476	17%
2029	642,870	49,310	323	1,729	92,692	324,759	29%
2030	662,156	50,789	419	23,738	120,162	359,439	33%
2031	682,021	52,313	591	3,543	169,522	417,442	41%
2032	702,482	53,882	290	140,460	83,234	337,687	25%
2033	723,556	55,498	446	11,359	127,820	390,085	33%
2034	745,263	57,163	634	3,871	181,746	453,386	40%
2035	767,621	58,878	835	2,065	239,394	522,115	46%
2036	790,649	60,645	1,034	4,620	296,452	591,991	50%
2037	814,369	62,464	654	171,969	187,602	493,364	38%
2038	838,800	64,338	874	2,257	250,557	568,403	44%
2039	863,964	66,268	1,081	7,886	310,020	641,772	48%
2040	889,883	68,256	1,212	31,972	347,515	694,466	50%
2041	916,579	70,304	621	240,380	178,060	536,073	33%
2042	944,076	72,413	149	207,826	42,796	392,641	11%
2043	893,058	74,585	393	5,051	112,723	455,401	25%
2044	919,850	76,823	654	2,694	187,505	524,157	36%
2045	947,446	79,127	804	36,983	230,453	561,394	41%
2046	975,869	81,501	737	101,345	211,347	535,244	39%
2047	1,005,145	83,946	385	185,431	110,246	423,542	26%
2048	1,035,299	86,465	665	6,587	190,790	494,596	39%
2049	1,066,358	89,059	958	6,032	274,775	570,307	48%
2050	1,098,349	91,730	544	211,194	155,855	438,984	36%
2051	1,131,300	94,482	851	7,198	243,990	515,912	47%

**Sector 2A Snohomish Cascade Association
Current Funding - Summary**

Report Date	October 5, 2021
Account Number	16389
Version	Draft
Budget Year Beginning	January 1, 2022
Budget Year Ending	December 31, 2022
Total Units	247

Report Parameters	
Inflation	3.00%
Annual Contribution Increase	3.00%
Interest Rate on Reserve Deposit	0.35%
Tax Rate Included in Interest Rate	
2022 Beginning Balance	\$16,936

The Current Funding Model is based on the reserve allocation data supplied by the Client; it has not been independently verified and is assumed to be correct.

The following page provides the 30-year projections for this funding model. It is assumed the reserve allocation rate will have annual increases to offset inflationary factors.

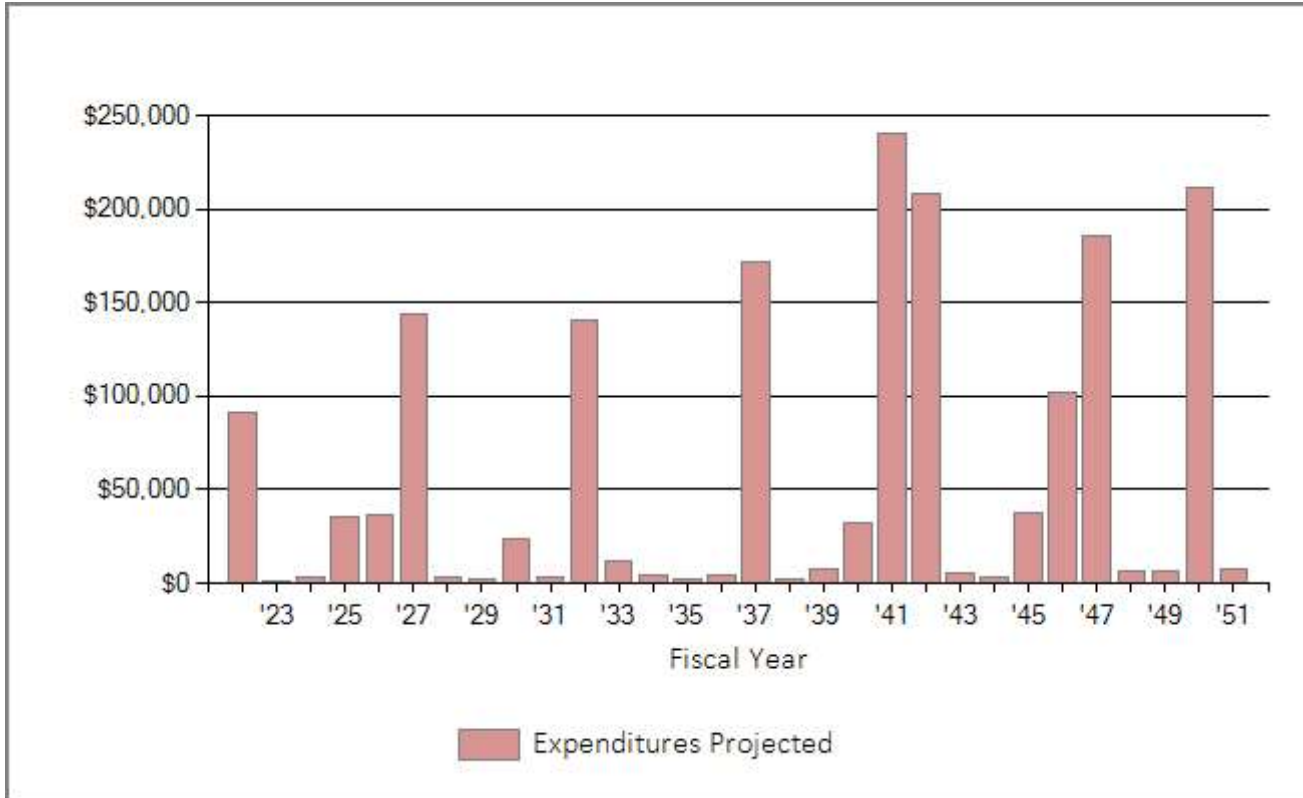
Current Assessment Funding Model Summary of Calculations	
Required Annual Contribution	\$30,875.00
Average Net Annual Interest Earned	<u> \$0.00</u>
Total Annual Allocation to Reserves	\$30,875.00

Sector 2A Snohomish Cascade Association
Current Funding - Year End Projections

Beginning Balance: \$16,936

Year	Replacement Cost	Reserve Contribution	Net Interest Earned	Reserve Expenditures	Year End Account Balance	Year End Fully Fund Balance	Year End % Funded
2022	522,712	30,875		91,118	-43,307	224,017	
2023	538,394	31,801		1,448	-12,954	261,725	
2024	554,545	32,755	58	3,240	16,619	299,693	6%
2025	571,182	33,738	51	35,736	14,672	306,478	5%
2026	588,317	34,750	46	36,371	13,097	313,850	4%
2027	605,967	35,793		143,513	-94,623	220,644	
2028	624,146	36,866		3,242	-60,999	270,476	
2029	642,870	37,972		1,729	-24,756	324,759	
2030	662,156	39,112		23,738	-9,383	359,439	
2031	682,021	40,285	96	3,543	27,455	417,442	7%
2032	702,482	41,493		140,460	-71,512	337,687	
2033	723,556	42,738		11,359	-40,132	390,085	
2034	745,263	44,020		3,871	17	453,386	0%
2035	767,621	45,341	152	2,065	43,444	522,115	8%
2036	790,649	46,701	299	4,620	85,825	591,991	14%
2037	814,369	48,102		171,969	-38,042	493,364	
2038	838,800	49,545	32	2,257	9,279	568,403	2%
2039	863,964	51,032	183	7,886	52,608	641,772	8%
2040	889,883	52,563	256	31,972	73,454	694,466	11%
2041	916,579	54,139		240,380	-112,786	536,073	
2042	944,076	55,764		207,826	-264,849	392,641	
2043	893,058	57,437		5,051	-212,463	455,401	
2044	919,850	59,160		2,694	-155,998	524,157	
2045	947,446	60,934		36,983	-132,047	561,394	
2046	975,869	62,763		101,345	-170,629	535,244	
2047	1,005,145	64,645		185,431	-291,415	423,542	
2048	1,035,299	66,585		6,587	-231,417	494,596	
2049	1,066,358	68,582		6,032	-168,866	570,307	
2050	1,098,349	70,640		211,194	-309,420	438,984	
2051	1,131,300	72,759		7,198	-243,859	515,912	

Sector 2A Snohomish Cascade Association Projected Expenditures Chart



The above chart provides a visual of the reserve account projected expenditures over the 30 years covered in this study. We suggest making a note of large expenditure years (peak years) when there will be significant projected expenditures related to one or more component projects that will require repair/replacement. These large but infrequent component expenses during “peak” years are typically the most difficult to budget for as they are often overlooked or ignored due to the perception that the expenses are far in the future and there will be time to budget for them later.

**Sector 2A Snohomish Cascade Association
Projected Expenditures Report**

Description	Expenditures
Replacement Year 2022	
1001 Asphalt - Overlay	9,789
1002 Asphalt - Sealcoat	1,357
1005 Concrete Curb - 20% Repair	1,817
1009 Fence (sno-cascade drive) - Paint/Stain	35,115
1011 Fence (wood - NW Pond) - Paint/Stain	1,866
1012 Fence (wood - NW Pond) - Replace	7,026
1013 Irrigation Backflow Valve - Replace	1,623
1017 Irrigation Valves (in-ground) - 10% Replace	1,406
1019 Landscaping (gravel) - Replenish	3,309
1020 Landscaping - 25% Tree Care	10,506
1028 Pavers (sand set) - Replace	2,353
1032 Playground Surface (small park) - Replenish	1,309
1034 Playground Timber Edging (small park) - Replace	1,246
1035 Recreation - Benches (wood) - Replace	8,924
1036 Recreation - Picnic Table (wood) - Replace	2,758
1038 Retaining Walls (wood) - Replace	714
Total for 2022	\$91,118
Replacement Year 2023	
1017 Irrigation Valves (in-ground) - 10% Replace	1,448
Total for 2023	\$1,448
Replacement Year 2024	
1017 Irrigation Valves (in-ground) - 10% Replace	1,492
1031 Playground Surface (boat park) - Replenish	1,748
Total for 2024	\$3,240
Replacement Year 2025	
1017 Irrigation Valves (in-ground) - 10% Replace	1,537
1030 Playground Structure (small park) - Replace	32,769
1032 Playground Surface (small park) - Replenish	1,431
Total for 2025	\$35,736
Replacement Year 2026	
1017 Irrigation Valves (in-ground) - 10% Replace	1,583

**Sector 2A Snohomish Cascade Association
Projected Expenditures Report**

Description	Expenditures
Replacement Year 2026 continued...	
1026 Mailbox Clusters (2020) - Replace	34,788
Total for 2026	\$36,371
Replacement Year 2027	
1002 Asphalt - Sealcoat	1,573
1005 Concrete Curb - 20% Repair	2,106
1009 Fence (sno-cascade drive) - Paint/Stain	40,708
1011 Fence (wood - NW Pond) - Paint/Stain	2,163
1016 Irrigation Piping - 25% Replace	49,442
1017 Irrigation Valves (in-ground) - 10% Replace	1,630
1019 Landscaping (gravel) - Replenish	3,836
1020 Landscaping - 25% Tree Care	12,180
1021 Lights (pole) - Replace	2,884
1031 Playground Surface (boat park) - Replenish	1,910
1039 Stormwater Pond (NE pond) - Refurbish	25,080
Total for 2027	\$143,513
Replacement Year 2028	
1017 Irrigation Valves (in-ground) - 10% Replace	1,679
1032 Playground Surface (small park) - Replenish	1,563
Total for 2028	\$3,242
Replacement Year 2029	
1017 Irrigation Valves (in-ground) - 10% Replace	1,729
Total for 2029	\$1,729
Replacement Year 2030	
1015 Irrigation Controllers - Replace	4,111
1017 Irrigation Valves (in-ground) - 10% Replace	1,781
1031 Playground Surface (boat park) - Replenish	2,088
1040 Stormwater Pond (NW pond) - Refurbish	15,758
Total for 2030	\$23,738
Replacement Year 2031	
1017 Irrigation Valves (in-ground) - 10% Replace	1,835

**Sector 2A Snohomish Cascade Association
Projected Expenditures Report**

Description	Expenditures
<i>Replacement Year 2031 continued...</i>	
1032 Playground Surface (small park) - Replenish	1,708
Total for 2031	\$3,543
Replacement Year 2032	
1002 Asphalt - Sealcoat	1,824
1005 Concrete Curb - 20% Repair	2,442
1009 Fence (sno-cascade drive) - Paint/Stain	47,192
1011 Fence (wood - NW Pond) - Paint/Stain	2,507
1014 Irrigation Controller Panels - Replace	4,361
1016 Irrigation Piping - 25% Replace	57,317
1017 Irrigation Valves (in-ground) - 10% Replace	1,890
1019 Landscaping (gravel) - Replenish	4,447
1020 Landscaping - 25% Tree Care	14,119
1027 Parking Bollards (boat park) - Replace	4,361
Total for 2032	\$140,460
Replacement Year 2033	
1017 Irrigation Valves (in-ground) - 10% Replace	1,947
1022 Mailbox Cluster (2009) - Replace	7,131
1031 Playground Surface (boat park) - Replenish	2,281
Total for 2033	\$11,359
Replacement Year 2034	
1017 Irrigation Valves (in-ground) - 10% Replace	2,005
1032 Playground Surface (small park) - Replenish	1,867
Total for 2034	\$3,871
Replacement Year 2035	
1017 Irrigation Valves (in-ground) - 10% Replace	2,065
Total for 2035	\$2,065
Replacement Year 2036	
1017 Irrigation Valves (in-ground) - 10% Replace	2,127
1031 Playground Surface (boat park) - Replenish	2,493
Total for 2036	\$4,620

**Sector 2A Snohomish Cascade Association
Projected Expenditures Report**

Description	Expenditures
Replacement Year 2037	
1002 Asphalt - Sealcoat	2,115
1005 Concrete Curb - 20% Repair	2,831
1008 Fence (chn link baseball 3.5') - Replace	14,534
1009 Fence (sno-cascade drive) - Paint/Stain	54,708
1011 Fence (wood - NW Pond) - Paint/Stain	2,906
1016 Irrigation Piping - 25% Replace	66,446
1017 Irrigation Valves (in-ground) - 10% Replace	2,191
1019 Landscaping (gravel) - Replenish	5,155
1020 Landscaping - 25% Tree Care	16,368
1023 Mailbox Cluster (2013) - Replace	2,675
1032 Playground Surface (small park) - Replenish	2,040
Total for 2037	\$171,969
Replacement Year 2038	
1017 Irrigation Valves (in-ground) - 10% Replace	2,257
Total for 2038	\$2,257
Replacement Year 2039	
1017 Irrigation Valves (in-ground) - 10% Replace	2,324
1024 Mailbox Cluster (2015) - Replace	2,838
1031 Playground Surface (boat park) - Replenish	2,724
Total for 2039	\$7,886
Replacement Year 2040	
1017 Irrigation Valves (in-ground) - 10% Replace	2,394
1018 Landscape Drainage (boat park) - Refurbish	27,350
1032 Playground Surface (small park) - Replenish	2,229
Total for 2040	\$31,972
Replacement Year 2041	
1010 Fence (sno-cascade drive) - Replace	231,892
1017 Irrigation Valves (in-ground) - 10% Replace	2,466
1025 Mailbox Cluster (2017) - Replace	6,022
Total for 2041	\$240,380

**Sector 2A Snohomish Cascade Association
Projected Expenditures Report**

Description	Expenditures
Replacement Year 2042	
1002 Asphalt - Sealcoat	2,451
1003 Baseball Backstop (chain link) - Replace	15,630
1004 Baseball Infield Fence (chain link) - Replace	12,175
1005 Concrete Curb - 20% Repair	3,282
1009 Fence (sno-cascade drive) - Paint/Stain	63,422
1011 Fence (wood - NW Pond) - Paint/Stain	3,369
1016 Irrigation Piping - 25% Replace	77,029
1017 Irrigation Valves (in-ground) - 10% Replace	2,540
1019 Landscaping (gravel) - Replenish	5,976
1020 Landscaping - 25% Tree Care	18,975
1031 Playground Surface (boat park) - Replenish	2,976
Total for 2042	\$207,826
Replacement Year 2043	
1017 Irrigation Valves (in-ground) - 10% Replace	2,616
1032 Playground Surface (small park) - Replenish	2,435
Total for 2043	\$5,051
Replacement Year 2044	
1017 Irrigation Valves (in-ground) - 10% Replace	2,694
Total for 2044	\$2,694
Replacement Year 2045	
1015 Irrigation Controllers - Replace	6,405
1017 Irrigation Valves (in-ground) - 10% Replace	2,775
1031 Playground Surface (boat park) - Replenish	3,252
1040 Stormwater Pond (NW pond) - Refurbish	24,551
Total for 2045	\$36,983
Replacement Year 2046	
1017 Irrigation Valves (in-ground) - 10% Replace	2,859
1029 Playground Structure (boat park) - Replace	90,480
1032 Playground Surface (small park) - Replenish	2,661
1033 Playground Timber Edging (boat park) - Replace	2,813
1034 Playground Timber Edging (small park) - Replace	2,532
Total for 2046	\$101,345

**Sector 2A Snohomish Cascade Association
Projected Expenditures Report**

Description	Expenditures
Replacement Year 2047	
1001 Asphalt - Overlay	20,496
1002 Asphalt - Sealcoat	2,842
1005 Concrete Curb - 20% Repair	3,804
1009 Fence (sno-cascade drive) - Paint/Stain	73,523
1011 Fence (wood - NW Pond) - Paint/Stain	3,906
1012 Fence (wood - NW Pond) - Replace	14,711
1013 Irrigation Backflow Valve - Replace	3,397
1017 Irrigation Valves (in-ground) - 10% Replace	2,944
1019 Landscaping (gravel) - Replenish	6,928
1020 Landscaping - 25% Tree Care	21,998
1028 Pavers (sand set) - Replace	4,927
1035 Recreation - Benches (wood) - Replace	18,685
1036 Recreation - Picnic Table (wood) - Replace	5,775
1038 Retaining Walls (wood) - Replace	1,495
Total for 2047	\$185,431
Replacement Year 2048	
1017 Irrigation Valves (in-ground) - 10% Replace	3,033
1031 Playground Surface (boat park) - Replenish	3,554
Total for 2048	\$6,587
Replacement Year 2049	
1017 Irrigation Valves (in-ground) - 10% Replace	3,124
1032 Playground Surface (small park) - Replenish	2,908
Total for 2049	\$6,032
Replacement Year 2050	
1006 Fence (chn link - NE Pond) - Replace	68,649
1017 Irrigation Valves (in-ground) - 10% Replace	3,217
1026 Mailbox Clusters (2020) - Replace	70,718
1030 Playground Structure (small park) - Replace	68,610
Total for 2050	\$211,194
Replacement Year 2051	
1017 Irrigation Valves (in-ground) - 10% Replace	3,314

**Sector 2A Snohomish Cascade Association
Projected Expenditures Report**

Description	Expenditures
<i>Replacement Year 2051 continued...</i>	
1031 Playground Surface (boat park) - Replenish	<u>3,884</u>
Total for 2051	<u>\$7,198</u>

**Sector 2A Snohomish Cascade Association
Spreadsheet - Component Expenditures**

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Beginning Balance	16,936	15,874	61,339	106,572	120,801	135,935	45,140	96,372	150,931	185,275
Annual Reserve Account Contribution	90,000	46,700	48,101	49,544	51,030	52,561	54,138	55,762	57,435	59,158
Interest Earned	55	214	372	421	474	157	336	526	646	843
Expenditures	91,118	1,448	3,240	35,736	36,371	143,513	3,242	1,729	23,738	3,543
Fully Funded Balance	224,017	261,725	299,693	306,478	313,850	220,644	270,476	324,759	359,439	417,442
Percent Funded	7%	23%	36%	39%	43%	20%	36%	46%	52%	58%
Ending Reserve Account Balance	15,874	61,339	106,572	120,801	135,935	45,140	96,372	150,931	185,275	241,733

ID	Description	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
1001	Asphalt - Overlay	9,789									
1002	Asphalt - Sealcoat	1,357					1,573				
1003	Baseball Backstop (chain link) - Replace										
1004	Baseball Infield Fence (chain link) - Replace										
1005	Concrete Curb - 20% Repair	1,817					2,106				
1006	Fence (chn link - NE Pond) - Replace										
1007	Fence (chn link - NW Pond) - Replace										
1008	Fence (chn link baseball 3.5') - Replace										
1009	Fence (sno-cascade drive) - Paint/Stain	35,115					40,708				
1010	Fence (sno-cascade drive) - Replace										
1011	Fence (wood - NW Pond) - Paint/Stain	1,866					2,163				
1012	Fence (wood - NW Pond) - Replace	7,026									
1013	Irrigation Backflow Valve - Replace	1,623									
1014	Irrigation Controller Panels - Replace										
1015	Irrigation Controllers - Replace									4,111	
1016	Irrigation Piping - 25% Replace						49,442				
1017	Irrigation Valves (in-ground) - 10% Replace	1,406	1,448	1,492	1,537	1,583	1,630	1,679	1,729	1,781	1,835
1018	Landscape Drainage (boat park) - Refurbish										
1019	Landscaping (gravel) - Replenish	3,309					3,836				
1020	Landscaping - 25% Tree Care	10,506					12,180				
1021	Lights (pole) - Replace						2,884				
1022	Mailbox Cluster (2009) - Replace										
1023	Mailbox Cluster (2013) - Replace										
1024	Mailbox Cluster (2015) - Replace										

**Sector 2A Snohomish Cascade Association
Spreadsheet - Component Expenditures**

ID Description	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
1025 Mailbox Cluster (2017) - Replace										
1026 Mailbox Clusters (2020) - Replace					34,788					
1027 Parking Bollards (boat park) - Replace										
1028 Pavers (sand set) - Replace	2,353									
1029 Playground Structure (boat park) - Replace										
1030 Playground Structure (small park) - Replace				32,769						
1031 Playground Surface (boat park) - Replenish			1,748			1,910			2,088	
1032 Playground Surface (small park) - Replenish	1,309			1,431			1,563			1,708
1033 Playground Timber Edging (boat park) - Repla..										
1034 Playground Timber Edging (small park) - Repl..	1,246									
1035 Recreation - Benches (wood) - Replace	8,924									
1036 Recreation - Picnic Table (wood) - Replace	2,758									
1037 Retaining Walls (masonry) - Replace										
1038 Retaining Walls (wood) - Replace	714									
1039 Stormwater Pond (NE pond) - Refurbish						25,080				
1040 Stormwater Pond (NW pond) - Refurbish									15,758	
Year Total:	91,118	1,448	3,240	35,736	36,371	143,513	3,242	1,729	23,738	3,543

**Sector 2A Snohomish Cascade Association
Spreadsheet - Component Expenditures**

	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Beginning Balance	241,733	162,774	214,925	276,663	342,375	407,758	307,499	379,322	447,938	494,880
Annual Reserve Account Contribution	60,933	62,761	64,644	66,583	68,581	70,638	72,757	74,940	77,188	79,504
Interest Earned	568	750	965	1,194	1,422	1,072	1,323	1,562	1,726	1,169
Expenditures	140,460	11,359	3,871	2,065	4,620	171,969	2,257	7,886	31,972	240,380
Fully Funded Balance	337,687	390,085	453,386	522,115	591,991	493,364	568,403	641,772	694,466	536,073
Percent Funded	48%	55%	61%	66%	69%	62%	67%	70%	71%	63%
Ending Reserve Account Balance	162,774	214,925	276,663	342,375	407,758	307,499	379,322	447,938	494,880	335,172

ID Description

1001 Asphalt - Overlay										
1002 Asphalt - Sealcoat	1,824					2,115				
1003 Baseball Backstop (chain link) - Replace										
1004 Baseball Infield Fence (chain link) - Replace										
1005 Concrete Curb - 20% Repair	2,442					2,831				
1006 Fence (chn link - NE Pond) - Replace										
1007 Fence (chn link - NW Pond) - Replace										
1008 Fence (chn link baseball 3.5') - Replace						14,534				
1009 Fence (sno-cascade drive) - Paint/Stain	47,192					54,708				
1010 Fence (sno-cascade drive) - Replace										231,892
1011 Fence (wood - NW Pond) - Paint/Stain	2,507					2,906				
1012 Fence (wood - NW Pond) - Replace										
1013 Irrigation Backflow Valve - Replace										
1014 Irrigation Controller Panels - Replace	4,361									
1015 Irrigation Controllers - Replace										
1016 Irrigation Piping - 25% Replace	57,317					66,446				
1017 Irrigation Valves (in-ground) - 10% Replace	1,890	1,947	2,005	2,065	2,127	2,191	2,257	2,324	2,394	2,466
1018 Landscape Drainage (boat park) - Refurbish									27,350	
1019 Landscaping (gravel) - Replenish	4,447					5,155				
1020 Landscaping - 25% Tree Care	14,119					16,368				
1021 Lights (pole) - Replace										
1022 Mailbox Cluster (2009) - Replace		7,131								
1023 Mailbox Cluster (2013) - Replace						2,675				
1024 Mailbox Cluster (2015) - Replace								2,838		

**Sector 2A Snohomish Cascade Association
Spreadsheet - Component Expenditures**

ID Description	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
1025 Mailbox Cluster (2017) - Replace										6,022
1026 Mailbox Clusters (2020) - Replace										
1027 Parking Bollards (boat park) - Replace	4,361									
1028 Pavers (sand set) - Replace										
1029 Playground Structure (boat park) - Replace										
1030 Playground Structure (small park) - Replace										
1031 Playground Surface (boat park) - Replenish		2,281			2,493			2,724		
1032 Playground Surface (small park) - Replenish			1,867			2,040			2,229	
1033 Playground Timber Edging (boat park) - Repla..										
1034 Playground Timber Edging (small park) - Repl..										
1035 Recreation - Benches (wood) - Replace										
1036 Recreation - Picnic Table (wood) - Replace										
1037 Retaining Walls (masonry) - Replace										
1038 Retaining Walls (wood) - Replace										
1039 Stormwater Pond (NE pond) - Refurbish										
1040 Stormwater Pond (NW pond) - Refurbish										
Year Total:	140,460	11,359	3,871	2,065	4,620	171,969	2,257	7,886	31,972	240,380

**Sector 2A Snohomish Cascade Association
Spreadsheet - Component Expenditures**

	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051
Beginning Balance	335,172	209,967	290,274	375,766	429,764	422,057	332,718	425,395	521,896	415,886
Annual Reserve Account Contribution	81,889	84,345	86,876	89,482	92,166	94,931	97,779	100,713	103,734	106,846
Interest Earned	732	1,012	1,311	1,499	1,472	1,160	1,484	1,820	1,451	1,804
Expenditures	207,826	5,051	2,694	36,983	101,345	185,431	6,587	6,032	211,194	7,198
Fully Funded Balance	392,641	455,401	524,157	561,394	535,244	423,542	494,596	570,307	438,984	515,912
Percent Funded	53%	64%	72%	77%	79%	79%	86%	92%	95%	100%
Ending Reserve Account Balance	209,967	290,274	375,766	429,764	422,057	332,718	425,395	521,896	415,886	517,340

ID Description

1001 Asphalt - Overlay						20,496				
1002 Asphalt - Sealcoat	2,451					2,842				
1003 Baseball Backstop (chain link) - Replace	15,630									
1004 Baseball Infield Fence (chain link) - Replace	12,175									
1005 Concrete Curb - 20% Repair	3,282					3,804				
1006 Fence (chn link - NE Pond) - Replace									68,649	
1007 Fence (chn link - NW Pond) - Replace										
1008 Fence (chn link baseball 3.5') - Replace										
1009 Fence (sno-cascade drive) - Paint/Stain	63,422					73,523				
1010 Fence (sno-cascade drive) - Replace										
1011 Fence (wood - NW Pond) - Paint/Stain	3,369					3,906				
1012 Fence (wood - NW Pond) - Replace						14,711				
1013 Irrigation Backflow Valve - Replace						3,397				
1014 Irrigation Controller Panels - Replace										
1015 Irrigation Controllers - Replace				6,405						
1016 Irrigation Piping - 25% Replace	77,029									
1017 Irrigation Valves (in-ground) - 10% Replace	2,540	2,616	2,694	2,775	2,859	2,944	3,033	3,124	3,217	3,314
1018 Landscape Drainage (boat park) - Refurbish										
1019 Landscaping (gravel) - Replenish	5,976					6,928				
1020 Landscaping - 25% Tree Care	18,975					21,998				
1021 Lights (pole) - Replace										
1022 Mailbox Cluster (2009) - Replace										
1023 Mailbox Cluster (2013) - Replace										
1024 Mailbox Cluster (2015) - Replace										

**Sector 2A Snohomish Cascade Association
Spreadsheet - Component Expenditures**

ID Description	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051
1025 Mailbox Cluster (2017) - Replace										
1026 Mailbox Clusters (2020) - Replace									70,718	
1027 Parking Bollards (boat park) - Replace										
1028 Pavers (sand set) - Replace						4,927				
1029 Playground Structure (boat park) - Replace					90,480					
1030 Playground Structure (small park) - Replace									68,610	
1031 Playground Surface (boat park) - Replenish	2,976			3,252			3,554			3,884
1032 Playground Surface (small park) - Replenish		2,435			2,661			2,908		
1033 Playground Timber Edging (boat park) - Repla..					2,813					
1034 Playground Timber Edging (small park) - Repl..					2,532					
1035 Recreation - Benches (wood) - Replace						18,685				
1036 Recreation - Picnic Table (wood) - Replace						5,775				
1037 Retaining Walls (masonry) - Replace										
1038 Retaining Walls (wood) - Replace						1,495				
1039 Stormwater Pond (NE pond) - Refurbish										
1040 Stormwater Pond (NW pond) - Refurbish				24,551						
Year Total:	207,826	5,051	2,694	36,983	101,345	185,431	6,587	6,032	211,194	7,198

Sector 2A Snohomish Cascade Association
Fully Funded Balance Calculations (Beginning Fiscal Year)

Asset ID	Description	Current Cost	x	Age	/	Useful Life	=	Fully Funded
1001	Asphalt - Overlay	\$9,789	x	25	/	25	=	\$9,789
1002	Asphalt - Sealcoat	\$1,357	x	7	/	7	=	\$1,357
1003	Baseball Backstop (chain link...	\$8,654	x	25	/	45	=	\$4,808
1004	Baseball Infield Fence (chain ...	\$6,741	x	25	/	45	=	\$3,745
1005	Concrete Curb - 20% Repair	\$1,817	x	20	/	20	=	\$1,817
1006	Fence (chn link - NE Pond) - ...	\$30,005	x	12	/	40	=	\$9,001
1007	Fence (chn link - NW Pond) - ...	\$16,976	x	6	/	40	=	\$2,546
1008	Fence (chn link baseball 3.5')...	\$9,329	x	25	/	40	=	\$5,831
1009	Fence (sno-cascade drive) - P...	\$35,115	x	5	/	5	=	\$35,115
1010	Fence (sno-cascade drive) - R...	\$132,245	x	6	/	25	=	\$31,739
1011	Fence (wood - NW Pond) - P...	\$1,866	x	5	/	5	=	\$1,866
1012	Fence (wood - NW Pond) - R...	\$7,026	x	25	/	25	=	\$7,026
1013	Irrigation Backflow Valve - R...	\$1,623	x	25	/	25	=	\$1,623
1014	Irrigation Controller Panels - ...	\$3,245	x	25	/	35	=	\$2,318
1015	Irrigation Controllers - Replace	\$3,245	x	7	/	15	=	\$1,514
1016	Irrigation Piping - 25% Replace	\$42,649	x	25	/	30	=	\$35,541
1017	Irrigation Valves (in-ground) ...	\$1,406	x	1	/	1	=	\$1,406
1018	Landscape Drainage (boat pa...	\$16,065	x	2	/	20	=	\$1,607
1019	Landscaping (gravel) - Reple...	\$3,309	x	5	/	5	=	\$3,309
1020	Landscaping - 25% Tree Care	\$10,506	x	25	/	25	=	\$10,506
1021	Lights (pole) - Replace	\$2,488	x	25	/	30	=	\$2,073
1022	Mailbox Cluster (2009) - Repl...	\$5,152	x	13	/	24	=	\$2,790
1023	Mailbox Cluster (2013) - Repl...	\$1,717	x	9	/	24	=	\$644
1024	Mailbox Cluster (2015) - Repl...	\$1,717	x	7	/	24	=	\$501
1025	Mailbox Cluster (2017) - Repl...	\$3,434	x	5	/	24	=	\$715
1026	Mailbox Clusters (2020) - Re...	\$30,909	x	20	/	24	=	\$25,758
1027	Parking Bollards (boat park) -...	\$3,245	x	25	/	35	=	\$2,318
1028	Pavers (sand set) - Replace	\$2,353	x	25	/	25	=	\$2,353
1029	Playground Structure (boat p...	\$44,510	x	1	/	25	=	\$1,780
1030	Playground Structure (small ...	\$29,988	x	25	/	28	=	\$26,775
1031	Playground Surface (boat pa...	\$1,648	x	1	/	3	=	\$549
1032	Playground Surface (small pa...	\$1,309	x	3	/	3	=	\$1,309
1033	Playground Timber Edging (b...	\$1,384	x	1	/	25	=	\$55
1034	Playground Timber Edging (s...	\$1,246	x	24	/	24	=	\$1,246
1035	Recreation - Benches (wood)...	\$8,924	x	25	/	25	=	\$8,924
1036	Recreation - Picnic Table (wo...	\$2,758	x	25	/	25	=	\$2,758

**Sector 2A Snohomish Cascade Association
Fully Funded Balance Calculations (Beginning Fiscal Year)**

Asset ID	Description	Current Cost	x	Age	/	Useful Life	=	Fully Funded
1037	Retaining Walls (masonry) - ...	\$2,174	x	8	/	40	=	\$435
1038	Retaining Walls (wood) - Rep...	\$714	x	25	/	25	=	\$714
1039	Stormwater Pond (NE pond) ...	\$21,634	x	25	/	30	=	\$18,029
1040	Stormwater Pond (NW pond...	\$12,440	x	7	/	15	=	\$5,805

Total Asset Summary:

\$277,995

Sector 2A Snohomish Cascade Association About the Component Detail Reports Section

In the following Component Details Section of this reserve study you will find each component that has been listed within the Component List. This section has more detailed information for each component and reviewing it will often answer questions that arise regarding specific components within this reserve study. Below you will find an explanation of what and where this information is located.

1

Elevated Walkways/Hallways- Topcoat- 2019

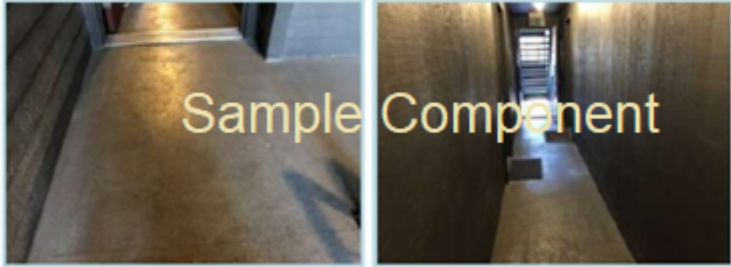
3

	Asset ID	1055	1,340 sf	@ \$4.75
			Asset Cost	\$6,365.00
			Percent Replacement	100%
			Future Cost	\$6,365.00

2

	Category	Decks/Porches/Patios
	Placed in Service	June 2012
	Useful Life	5
	Replacement Year	2019
	Remaining Life	0

4



5

This elastomeric surface type (at elevated walkways, covered staircases and covered hallways) needs to be top coated periodically for waterproof integrity, protection of surrounding structure and appearance. As routine maintenance, we strongly suggest annual professional inspections, with cleaning and repair as needed. Clean with mild solution such as TSP; bleach can be added if mold/mildew becomes a problem. Plan for regular intervals of professional maintenance top coating at the interval indicated.

1. Component Name and next Replacement Year as well as a unique Asset ID to cross reference with other sections within this reserve study.
2. This area has the category of the component, estimated placed in-service date (when last installed), the estimated useful life of the component (estimate of how long the component will last), the next replacement year in this reserve study and the remaining useful life (how many years before replacement is estimated to occur).
3. The area has the total measurement/unit count of the component, the cost per unit, the total asset cost (unit count X unit cost), the percent replacement (amount funded to be replaced in a cycle), and the future cost (estimated cost at the next replacement date).
4. Pictures of the component are included for Level I studies unless the Client has requested fewer pages in the study in which case we will omit them.
5. Specific comments about this component which can include explanations for adjustments to the useful life, phasing, maintenance of the component, Vendor recommendations, etc.

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Asphalt - Overlay - 2022

		4,113 sf	@ \$2.38
Asset ID	1001	Asset Actual Cost	\$9,788.94
		Percent Replacement	100%
Category	Asphalt Surfaces	Future Cost	\$9,788.94
Placed in Service	June 1997		
Useful Life	25		
Replacement Year	2022		
Remaining Life	0		

Appears to be deteriorating at a rate typical of its age. As routine maintenance, keep surface clean, ensure that drains are clean and free flowing, repair cracks and clean oils stains promptly. Best to plan for eventual intervals of resurfacing (overlay).

If properly built, asphalt surfaces will deteriorate from the top down, which only requires the replacement of a layer of asphalt, or preferably the application of a layer on top of the existing asphalt (overlay). The asphalt overlay not only provides a new paving surface for a fraction of the cost of rebuilding the entire surface, but it is the only preventive maintenance technique that adds structural value while extending a pavement's service life.

Cost estimate assumes a 2 inch overlay over existing surfaces.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Asphalt - Sealcoat - 2022

		4,113 sf	@ \$0.33
Asset ID	1002	Asset Actual Cost	\$1,357.29
		Percent Replacement	100%
Category	Asphalt Surfaces	Future Cost	\$1,357.29
Placed in Service	June 2015		
Useful Life	5		
Adjustment	2		
Replacement Year	2022		
Remaining Life	0		

The primary reason to seal-coat is to protect the pavement from the deteriorating effects of sun and water, which causes the asphalt to harden, or oxidize; the pavement turns brittle. The seal-coat provides a waterproof membrane which slows the oxidation process and helps the pavement shed water, preventing the water to infiltrate the base material.

Proper drainage is vital for the longevity of asphalt surfaces. Standing water can seep through the asphalt and get into the sub-base and sub-grade below, significantly weakening the structural integrity of the road and causing premature failure.

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Asphalt - Sealcoat continued...

Oil spills eat through the asphalt seal and should be cleaned up between seal coats. Power washing is recommended annually where needed and treated as an operating expense.

Cost estimate includes crack filling and 2 coats are to be applied. In years when an Overlay/Replacement project is set to occur sealcoats will typically be applied 12 months after the project is completed. We typically recommend funding for this component within the same year as the Overlay/Replacement project for cost efficiency with the Vendor.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Baseball Backstop (chain link) - Replace - 2042

		1 ea	@ \$8,653.68
Asset ID	1003	Asset Actual Cost	\$8,653.68
		Percent Replacement	100%
Category	Recreation	Future Cost	\$15,629.51
Placed in Service	June 1997		
Useful Life	45		
Replacement Year	2042		
Remaining Life	20		

Baseball backstop appears to be deteriorating at a rate typical of its age. We recommend budgeting for replacement at the timeframe indicated. Wood areas should be replaced repairs as need from the Operating Account.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Baseball Infield Fence (chain link) - Replace - 2042

		152 lf	@ \$44.35
Asset ID	1004	Asset Actual Cost	\$6,741.20
		Percent Replacement	100%
Category	Fencing	Future Cost	\$12,175.36
Placed in Service	June 1997		
Useful Life	45		
Replacement Year	2042		
Remaining Life	20		

Appears to be deteriorating at a rate typical of its age. Sturdy component that can last for extended

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Baseball Infield Fence (chain link) - Replace continued...

period of time if not damaged or abused. Clean, repair as needed from operating funds. Best to plan for eventual replacement at roughly the time frame indicated.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Concrete Curb - 20% Repair - 2022		227 lf	@ \$40.02
Asset ID	1005	Asset Actual Cost	\$1,816.91
Category	Concrete Surfaces	Percent Replacement	20%
Placed in Service	June 1997	Future Cost	\$1,816.91
Useful Life	5		
Adjustment	15		
Replacement Year	2022		
Remaining Life	0		

Concrete curbs appear to be deteriorating at a rate typical of their age. This repair contingency has been included due to the likelihood of additional damage from roots and vehicles.

[This component has been set to cycle at 5 year increments after 20 years of age \(typically when roots and vehicles have caused significant damage\).](#)

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Fence (chn link - NE Pond) - Replace - 2050		760 lf	@ \$39.48
Asset ID	1006	Asset Actual Cost	\$30,004.80
Category	Fencing	Percent Replacement	100%
Placed in Service	June 2010	Future Cost	\$68,648.81
Useful Life	40		
Replacement Year	2050		
Remaining Life	28		

Appears to be deteriorating at a rate typical of its age. Sturdy component that can last for extended period of time if not damaged or abused. Clean, repair as needed from operating funds. Best to plan for eventual replacement at roughly the time frame indicated.

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Fence (chn link - NE Pond) - Replace continued...

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Fence (chn link - NW Pond) - Replace - 2056		430 lf	@ \$39.48
Asset ID	1007	Asset Actual Cost	\$16,976.40
		Percent Replacement	100%
Category	Fencing	Future Cost	\$46,377.91
Placed in Service	June 2016		
Useful Life	40		
Replacement Year	2056		
Remaining Life	34		

Appears to be deteriorating at a rate typical of its age. Sturdy component that can last for extended period of time if not damaged or abused. Clean, repair as needed from operating funds. Best to plan for eventual replacement at roughly the time frame indicated.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Fence (chn link baseball 3.5') - Replace - 2037		345 lf	@ \$27.04
Asset ID	1008	Asset Actual Cost	\$9,328.80
		Percent Replacement	100%
Category	Fencing	Future Cost	\$14,533.97
Placed in Service	June 1997		
Useful Life	40		
Replacement Year	2037		
Remaining Life	15		

Chain link fence (3.5' high) at the baseball outfield appears to be deteriorating at a rate typical of its age. Sturdy component that can last for extended period of time if not damaged or abused. Clean, repair as needed from operating funds. Best to plan for eventual replacement at roughly the time frame indicated.

[Damaged observed in numerous areas.](#)

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Fence (sno-cascade drive) - Paint/Stain - 2022

Asset ID	1009	3,821 lf	@ \$9.19
Category	Fencing	Asset Actual Cost	\$35,114.99
Placed in Service	January 2016	Percent Replacement	100%
Useful Life	5	Future Cost	\$35,114.99
Replacement Year	2022		
Remaining Life	0		

Regular sealer applications (stain/paint, etc.) on the timeline indicated are strongly recommended for appearance and protection of wood fencing. Remove any contact with ground and surrounding landscape and sprinkler patterns, repair as needed and clean prior to sealer application. Life of finish will vary depending upon surface preparation, material quality, application method and weather conditions.

Cost estimate assumes both sides of the fence will be coated to adequately protect from the elements.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Fence (sno-cascade drive) - Replace - 2041

Asset ID	1010	3,821 lf	@ \$34.61
Category	Fencing	Asset Actual Cost	\$132,244.81
Placed in Service	January 2016	Percent Replacement	100%
Useful Life	25	Future Cost	\$231,892.07
Replacement Year	2041		
Remaining Life	19		

Wood fencing (at Snohomish Cascade Drive) appears to be deteriorating at a rate typical of its age. As routine maintenance, inspect regularly for any damage, repair as needed. Avoid contact with ground and surrounding vegetation. Regular cycles of stain/paint will help to maintain appearance and maximize life. Plan to replace at roughly the time frame indicated.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Fence (wood - NW Pond) - Paint/Stain - 2022

Asset ID	1011	203 lf	@ \$9.19
Category	Fencing	Asset Actual Cost	\$1,865.57
Placed in Service	January 2017	Percent Replacement	100%
Useful Life	5	Future Cost	\$1,865.57
Replacement Year	2022		
Remaining Life	0		

Regular sealer applications (stain/paint, etc.) on the timeline indicated are strongly recommended for appearance and protection of wood fencing. Remove any contact with ground and surrounding landscape and sprinkler patterns, repair as needed and clean prior to sealer application. Life of finish will vary depending upon surface preparation, material quality, application method and weather conditions.

Cost estimate assumes both sides of the fence will be coated to adequately protect from the elements.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Fence (wood - NW Pond) - Replace - 2022

Asset ID	1012	203 lf	@ \$34.61
Category	Fencing	Asset Actual Cost	\$7,025.83
Placed in Service	June 1997	Percent Replacement	100%
Useful Life	25	Future Cost	\$7,025.83
Replacement Year	2022		
Remaining Life	0		

Wood fencing (at NW Pond) appears to be deteriorating at a rate typical of its age. As routine maintenance, inspect regularly for any damage, repair as needed. Avoid contact with ground and surrounding vegetation. Regular cycles of stain/paint will help to maintain appearance and maximize life. Plan to replace at roughly the time frame indicated.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Irrigation Backflow Valve - Replace - 2022

		1 ea	@ \$1,622.57
Asset ID	1013	Asset Actual Cost	\$1,622.57
		Percent Replacement	100%
Category	Plumbing	Future Cost	\$1,622.57
Placed in Service	June 1997		
Useful Life	25		
Replacement Year	2022		
Remaining Life	0		

Reportedly in functional and in operating condition. As routine maintenance, inspect regularly, test system, repair as needed from operating budget. We recommend funding for this component at the time frame indicated.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Irrigation Controller Panels - Replace - 2032

		4 ea	@ \$811.28
Asset ID	1014	Asset Actual Cost	\$3,245.12
		Percent Replacement	100%
Category	Irrigation Systems	Future Cost	\$4,361.17
Placed in Service	June 1997		
Useful Life	35		
Replacement Year	2032		
Remaining Life	10		

Reported to be functioning properly with no significant repair/replacement history. We recommend funding for replacement at the timeframe indicated.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Irrigation Controllers - Replace - 2030

		4 ea	@ \$811.28
Asset ID	1015	Asset Actual Cost	\$3,245.12
		Percent Replacement	100%
Category	Irrigation Systems	Future Cost	\$4,110.82
Placed in Service	June 2015		
Useful Life	15		
Replacement Year	2030		
Remaining Life	8		

Reported to be functioning properly with no significant repair/replacement history. We recommend funding for replacement at the timeframe indicated.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Irrigation Piping - 25% Replace - 2027

		105,307 sf	@ \$1.62
Asset ID	1016	Asset Actual Cost	\$42,649.33
		Percent Replacement	25%
Category	Irrigation Systems	Future Cost	\$49,442.27
Placed in Service	June 1997		
Useful Life	5		
Adjustment	25		
Replacement Year	2027		
Remaining Life	5		

No reported problems with the irrigation distribution piping at this time. As routine maintenance, inspect and test system regularly, perform any minor repairs as necessary from maintenance budget. Although the failure rate of the elements within this component are typically difficult to predict, prudent planning suggests setting aside funding, for larger scale refurbishing of irrigation systems (i.e. piping, valves, etc.), on a cyclical basis.

This component is for the replacement of the underground irrigation piping. Note that ongoing repairs and replacement of sprinkler heads are assumed to be paid from the Operating Account as needed.

This component has been set to cycle at 5 year increments after 30 years of age (typically when roots begin to cause significant damage) so that that there is a total replacement cycles within a 40 year time period.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Irrigation Valves (in-ground) - 10% Replace - 2022

		52 ea	@ \$270.43
Asset ID	1017	Asset Actual Cost	\$1,406.24
		Percent Replacement	10%
Category	Landscaping	Future Cost	\$1,406.24
Placed in Service	June 2019		
Useful Life	1		
Replacement Year	2022		
Remaining Life	0		

The Client has stated that historically they replace about 5 in-ground irrigation valves per year. We recommend budgeting for this component at a timeframe and percentage that has been historically typical in the community.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Landscape Drainage (boat park) - Refurbish - 2040

		1 ls	@ \$16,065.00
Asset ID	1018	Asset Actual Cost	\$16,065.00
		Percent Replacement	100%
Category	Landscaping	Future Cost	\$27,349.59
Placed in Service	June 2020		
Useful Life	20		
Replacement Year	2040		
Remaining Life	18		

Assumed to have been properly designed with adequate provisions for the site drainage needs. This component is for a refurbishment of the current drainage system which will tend to clog and have root intrusion issues with time; these drainage systems typically require periodic refurbishment to adequately operate as designed. If after invasive testing is completed a larger scale replacement project is determined more appropriate then the costs can be included in future reserve studies. Cost estimate based on past experiences with similar sized communities.

*Cost Source: Client Historical Records – Inflated to Current Estimate

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Landscaping (gravel) - Replenish - 2022

		2,451 sf	@ \$1.35
Asset ID	1019	Asset Actual Cost	\$3,308.85
		Percent Replacement	100%
Category	Landscaping	Future Cost	\$3,308.85
Placed in Service	June 2017		
Useful Life	5		
Replacement Year	2022		
Remaining Life	0		

Gravel areas require regular cycles of replenishment. Inspect regularly, maintain any containment borders, control vegetation and fill in any low spots which may develop as needed using operating/maintenance funds. Plan for larger scale refurbish project with gravel at the time frame indicated.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Landscaping - 25% Tree Care - 2022

		111 ea	@ \$378.60
Asset ID	1020	Asset Actual Cost	\$10,506.15
		Percent Replacement	25%
Category	Landscaping	Future Cost	\$10,506.15
Placed in Service	June 1997		
Useful Life	5		
Adjustment	20		
Replacement Year	2022		
Remaining Life	0		

This component may be utilized for medium to large tree care projects which do not occur on an annual basis. If the Client has not already done so, we recommend consulting with a qualified arborist for a long term plan for the care and management of the trees on site; balancing aesthetics with protection of asset as well as following a plan which is most cost effective for long term budgeting of the reserve account.

These trees require regular trimming/thinning/root control and/or removal as they mature to prevent damage to nearby walkways, roads, structures and underground piping. The provided cost estimate is based on our estimation for the total expected cost for each tree on site and based on similar sized sites (and tree count) we have worked with in the past. We suggest updating future reserve studies with actual cost figures and timeframes for projects.

[This component has been set to cycle at 5 year increments after 25 years of age, when trees and roots have grown large enough that the cost to maintain the limbs and roots is significant. Cost assumes a qualified, licensed and insured professional complete the work.](#)

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Landscaping - 25% Tree Care continued...

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Lights (pole) - Replace - 2027

		1 ea	@ \$2,487.93
Asset ID	1021	Asset Actual Cost	\$2,487.93
		Percent Replacement	100%
Category	Lighting	Future Cost	\$2,884.19
Placed in Service	June 1997		
Useful Life	30		
Replacement Year	2027		
Remaining Life	5		

Pole lights appear to be deteriorating at a rate typical of their age. Observed during daylight hours and assumed to be in functional operating condition. As routine maintenance, inspect, repair/change bulbs as needed. Best to plan for large scale replacement at roughly the time frame below, for cost efficiency and consistent quality/appearance. Cost estimated based on a licensed professional completing this replacement project.

This expense is only to replacement the pole and fixtures, not to rewire the whole system. It is assumed the wiring was appropriately installed and buried to a depth that has minimized the deterioration/damage to it. Should it be determined that the wiring also need to be redone this can be added into an update to this reserve study.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Mailbox Cluster (2009) - Replace - 2033

		3 ea	@ \$1,717.17
Asset ID	1022	Asset Actual Cost	\$5,151.51
		Percent Replacement	100%
Category	Mailboxes	Future Cost	\$7,130.89
Placed in Service	January 2009		
Useful Life	24		
Replacement Year	2033		
Remaining Life	11		

Appears to be deteriorating at a rate typical of its age based on our visual inspection of this component. As routine maintenance, inspect regularly, clean by wiping down for appearance, change

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Mailbox Cluster (2009) - Replace continued...

lock cylinders, lubricate hinges and repair as needed from operating budget. Best to plan for total replacement at roughly the time frame indicated due to constant usage and wear over time.

*Cost Source: Client Historical Records – Inflated to Current Estimate

Mailbox Cluster (2013) - Replace - 2037

Asset ID	1023	1 ea	@ \$1,717.17
		Asset Actual Cost	\$1,717.17
		Percent Replacement	100%
Category	Mailboxes	Future Cost	\$2,675.29
Placed in Service	January 2013		
Useful Life	24		
Replacement Year	2037		
Remaining Life	15		

Appears to be deteriorating at a rate typical of its age based on our visual inspection of this component. As routine maintenance, inspect regularly, clean by wiping down for appearance, change lock cylinders, lubricate hinges and repair as needed from operating budget. Best to plan for total replacement at roughly the time frame indicated due to constant usage and wear over time.

*Cost Source: Client Historical Records – Inflated to Current Estimate

Mailbox Cluster (2015) - Replace - 2039

Asset ID	1024	1 ea	@ \$1,717.17
		Asset Actual Cost	\$1,717.17
		Percent Replacement	100%
Category	Mailboxes	Future Cost	\$2,838.22
Placed in Service	January 2015		
Useful Life	24		
Replacement Year	2039		
Remaining Life	17		

Appears to be deteriorating at a rate typical of its age based on our visual inspection of this component. As routine maintenance, inspect regularly, clean by wiping down for appearance, change lock cylinders, lubricate hinges and repair as needed from operating budget. Best to plan for total replacement at roughly the time frame indicated due to constant usage and wear over time.

*Cost Source: Client Historical Records – Inflated to Current Estimate

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Mailbox Cluster (2015) - Replace continued...

Mailbox Cluster (2017) - Replace - 2041

		2 ea	@ \$1,717.17
Asset ID	1025	Asset Actual Cost	\$3,434.34
		Percent Replacement	100%
Category	Mailboxes	Future Cost	\$6,022.13
Placed in Service	September 2017		
Useful Life	24		
Replacement Year	2041		
Remaining Life	19		

Appears to be deteriorating at a rate typical of its age based on our visual inspection of this component. As routine maintenance, inspect regularly, clean by wiping down for appearance, change lock cylinders, lubricate hinges and repair as needed from operating budget. Best to plan for total replacement at roughly the time frame indicated due to constant usage and wear over time.

*Cost Source: Client Historical Records – Inflated to Current Estimate

Mailbox Clusters (2020) - Replace - 2026

		18 ea	@ \$1,717.17
Asset ID	1026	Asset Actual Cost	\$30,909.06
		Percent Replacement	100%
Category	Mailboxes	Future Cost	\$34,788.42
Placed in Service	June 2002		
Useful Life	24		
Replacement Year	2026		
Remaining Life	4		

Appears to be deteriorating at a rate typical of its age based on our visual inspection of this component. As routine maintenance, inspect regularly, clean by wiping down for appearance, change lock cylinders, lubricate hinges and repair as needed from operating budget. Best to plan for total replacement at roughly the time frame indicated due to constant usage and wear over time.

[These mailboxes are still functional but dated looking and are no longer approved by the USPS. We recommend budgeting for replacement of all over the next 6 years, replacing with USPS approved mailbox clusters.](#)

*Cost Source: Client Historical Records – Inflated to Current Estimate

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Mailbox Clusters (2020) - Replace continued...

Parking Bollards (boat park) - Replace - 2032

		3 ea	@ \$1,081.71
Asset ID	1027	Asset Actual Cost	\$3,245.13
Category	Fencing	Percent Replacement	100%
Placed in Service	June 1997	Future Cost	\$4,361.18
Useful Life	35		
Replacement Year	2032		
Remaining Life	10		

Parking bollards at Boat Park were recently installed. We recommend budgeting for eventual replacement due to exposure to the elements and the likelihood that they will receive vehicular damage over time.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Pavers (sand set) - Replace - 2022

		145 sf	@ \$16.23
Asset ID	1028	Asset Actual Cost	\$2,353.35
Category	Landscaping	Percent Replacement	100%
Placed in Service	June 1997	Future Cost	\$2,353.35
Useful Life	25		
Replacement Year	2022		
Remaining Life	0		

We recommend budgeting for replacement at the timeframe indicated as these sand set paver systems will typically become uneven with time due to settling, root intrusion, drainage issues and use.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Playground Structure (boat park) - Replace - 2046

			1 ea	@ \$44,510.00
Asset ID	1029	Asset Actual Cost		\$44,510.00
		Percent Replacement		100%
Category	Recreation	Future Cost		\$90,479.66
Placed in Service	June 2021			
Useful Life	25			
Replacement Year	2046			
Remaining Life	24			

We recommend budgeting for replacement at the timeframe indicated to limit liability issues that arise from old structures that require ongoing repairs and have safety issues and before actual failure of the structure. There is a very wide range in cost figures for this type of component due to significant quality variations. The estimate in this reserve study is based on replacement with a similar quality structure.

The boat climbing/play structure has reportedly been removed and will not be replaced.

*Cost Source: Client Historical Records – Inflated to Current Estimate

Playground Structure (small park) - Replace - 2025

			1 ea	@ \$29,988.00
Asset ID	1030	Asset Actual Cost		\$29,988.00
		Percent Replacement		100%
Category	Recreation	Future Cost		\$32,768.70
Placed in Service	June 1997			
Useful Life	25			
Adjustment	3			
Replacement Year	2025			
Remaining Life	3			

Play structure appears to be deteriorating at a rate typical of its age. We recommend budgeting for replacement at the timeframe indicated to limit liability issues that arise from old structures that require ongoing repairs and have safety issues and before actual failure of the structure. There is a very wide range in cost figures for this type of component due to significant quality variations. The estimate in this reserve study is based on replacement with a similar quality structure.

Slight life adjustment as Client stated they will be replacing large Boat Park structures first then the Smaller Park play structures second at a later date.

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Playground Structure (small park) - Replace continued...

*Cost Source: Client Historical Records – Inflated to Current Estimate

Playground Surface (boat park) - Replenish - 2024

		1,600 sf	@ \$1.03
Asset ID	1031	Asset Actual Cost	\$1,648.00
		Percent Replacement	100%
Category	Recreation	Future Cost	\$1,748.36
Placed in Service	June 2021		
Useful Life	3		
Replacement Year	2024		
Remaining Life	2		

We recommend budgeting for replenishment at the time scale indicated to limit liability and safety issues.

The second play area at Boat Park is reportedly not being replaced and has not been included in this measurement.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Playground Surface (small park) - Replenish - 2022

		1,271 sf	@ \$1.03
Asset ID	1032	Asset Actual Cost	\$1,309.13
		Percent Replacement	100%
Category	Recreation	Future Cost	\$1,309.13
Placed in Service	March 2018		
Useful Life	3		
Replacement Year	2022		
Remaining Life	0		

We recommend budgeting for replenishment at the time scale indicated to limit liability and safety issues.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Playground Timber Edging (boat park) - Replace - 2046

Asset ID	1033	160 lf	@ \$8.65
Category	Landscaping	Asset Actual Cost	\$1,384.00
Placed in Service	June 2021	Percent Replacement	100%
Useful Life	25	Future Cost	\$2,813.38
Replacement Year	2046		
Remaining Life	24		

We recommend budgeting for replacement of these wood surfaces at the time frame indicated due to constant exposure to the elements.

The second play area at Boat Park is reportedly not being replaced and has not been included in this measurement.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Playground Timber Edging (small park) - Replace - 2022

Asset ID	1034	144 lf	@ \$8.65
Category	Landscaping	Asset Actual Cost	\$1,245.60
Placed in Service	June 1997	Percent Replacement	100%
Useful Life	24	Future Cost	\$1,245.60
Replacement Year	2022		
Remaining Life	0		

We recommend budgeting for replacement of these wood surfaces at the time frame indicated due to constant exposure to the elements.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Recreation - Benches (wood) - Replace - 2022

Asset ID	1035	11 ea	@ \$811.28
		Asset Actual Cost	\$8,924.08
		Percent Replacement	100%
Category	Recreation	Future Cost	\$8,924.08
Placed in Service	June 1997		
Useful Life	25		
Replacement Year	2022		
Remaining Life	0		

We recommend planning for replacement at the time frame indicated due to constant exposure. Clean and inspect annually - paint/stain from paid for from the Operating budget as necessary.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Recreation - Picnic Table (wood) - Replace - 2022

Asset ID	1036	3 ea	@ \$919.45
		Asset Actual Cost	\$2,758.35
		Percent Replacement	100%
Category	Recreation	Future Cost	\$2,758.35
Placed in Service	June 1997		
Useful Life	25		
Replacement Year	2022		
Remaining Life	0		

Picnic tables appear to be deteriorating at a rate typical of their age. We recommend for eventual replacement at the time frame indicated due to constant exposure. We recommend cleaning and inspecting annually - paint/stain and repair as needed paid for from the Operating account.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Retaining Walls (masonry) - Replace - 2054

		67 sf	@ \$32.45
Asset ID	1037	Asset Actual Cost	\$2,174.15
		Percent Replacement	100%
Category	Landscaping	Future Cost	\$5,598.61
Placed in Service	June 2014		
Useful Life	40		
Replacement Year	2054		
Remaining Life	32		

Masonry retaining walls on site appear to be in generally fair and stable condition; no significant instability noted. We assume that retaining walls were designed and installed properly with adequate base and surrounding drainage. Monitor closely and if areas of instability emerge, consult with civil or geotechnical engineer for repair scope.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Retaining Walls (wood) - Replace - 2022

		33 sf	@ \$21.63
Asset ID	1038	Asset Actual Cost	\$713.79
		Percent Replacement	100%
Category	Landscaping	Future Cost	\$713.79
Placed in Service	June 1997		
Useful Life	25		
Replacement Year	2022		
Remaining Life	0		

Wood retaining walls on site appear to be deteriorating at a rate typical of their age. We assume that these were designed and installed properly with adequate base and surrounding drainage. Monitor closely and if areas of deterioration emerge, consult with civil or geotechnical engineer for repair scope.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

**Sector 2A Snohomish Cascade Association
Component Detail Reports**

Stormwater Pond (NE pond) - Refurbish - 2027

			1 ea	@ \$21,634.20
Asset ID	1039	Asset Actual Cost		\$21,634.20
		Percent Replacement		100%
Category	Stormwater Facilities	Future Cost		\$25,079.97
Placed in Service	June 1997			
Useful Life	30			
Replacement Year	2027			
Remaining Life	5			

The stormwater facilities are assumed to be functioning as designed. It has been our experience that it is best to budget for periodic refurbishment of these stormwater ponds which can include reseeded, regrading, sediment removal, vegetation removal, rodent control, concrete repair, invasive testing of the elements, etc. It has been our experience with similar size system that without periodic refurbishment there is a strong likelihood of much larger scale repairs/replacement of the elements of these systems at a much greater expense.

*Cost Source: Reserve Data Analyst In-House Research & Cost Records

Stormwater Pond (NW pond) - Refurbish - 2030

			1 ea	@ \$12,439.67
Asset ID	1040	Asset Actual Cost		\$12,439.67
		Percent Replacement		100%
Category	Stormwater Facilities	Future Cost		\$15,758.20
Placed in Service	June 2015			
Useful Life	15			
Replacement Year	2030			
Remaining Life	8			

The stormwater facilities are assumed to be functioning as designed. It has been our experience that it is best to budget for periodic refurbishment of these stormwater ponds which can include reseeded, regrading, sediment removal, vegetation removal, rodent control, concrete repair, invasive testing of the elements, etc. It has been our experience with similar size system that without periodic refurbishment there is a strong likelihood of much larger scale repairs/replacement of the elements of these systems at a much greater expense.

[Cost estimate from prior work performed by the county.](#)

*Cost Source: Client Historical Records – Inflated to Current Estimate

Sector 2A Snohomish Cascade Association

Definitions, Disclosure & Calculations Appendixes

Definitions Index

Abbreviations

ea = each	FY = fiscal year	If or lin ft = lineal feet	ls = lump sum
RL = remaining life	sf or sq ft = square feet	sy or sq yd= square yard	
UL = useful life	100 sq ft = 1 square)	% = percent	

1. **Allocation %**
A percentage of the total Reserve Allocation. See - Calculations Appendix
2. **Allocation Increase Rate**
Expressed as a percentage rate that reflects the increase of a given year's Reserve Allocation over the previous year's Reserve Allocation and utilized only in the Cash Flow Analysis.
3. **Base Year**
The year in which the governing documents were recorded and/or the buildings constructed (average year may be used for phases built over a period) and utilized to determine the approximate complex age. This parameter is provided for information only.
4. **Common Interest Development (CID)**
Defined by shared property and restrictions in the deed on use of the property. A CID is governed by a mandatory Association of homeowners which administers the property and enforces its restrictions. The following are two typical CID subdivision types:
 - Condominium- In general, the recorded owner has title to the unit (or airspace). They are typically responsible for the interior of their individual unit/garage, all utilities that service their unit and any exclusive use common area associated with their unit.
 - Planned Development- In general, the recorded owner has title to the lot. They are typically responsible for the maintenance and repair of any structure or improvement located on their respective lot.

**Note- CIDs & subdivision types are general and may not apply or may vary, based on your local.*

5. **Component Inventory**
The task of selecting and quantifying reserve items. This task can be accomplished through on-site visual observations, review of association design and organizational documents, review of established association precedents, and discussion with appropriate association representatives.
6. **Condition Assessment**
The task of evaluating the current condition of the component based on observed or reported characteristics and normal documented in the field report for a Level 1 or Level 2 Reserve Study.
7. **Contingency Rate**
Expressed as a percentage rate that reflects a factor added to the unit cost to prepare for an event that is liable to occur, but not with certainty.

8. **Current Cost**
The current fiscal year's estimated cost to maintain, replace, repair, or restore a reserve component to its original functional condition. Sources utilized to obtain estimates may include: the association, its contractors, other contractors, specialists and independent consultants, the State department of Real Estate (or other state department as applicable), construction pricing and estimating manuals, and the preparer's own experience and/or database of costs formulated in the preparation of other reserve study reports. See - Calculations Appendix.
9. **Disbursement / Expenditures**
The funds expected to be paid or expended from the Reserve Balance.
10. **Extended Cost**
See - Calculations Appendix.
11. **Fiscal Year (FY)**
A twelve-month period for which an organization plans the use of its funds. There are two distinct types:
 - Calendar Fiscal Year (ends December 31)
 - Non-Calendar Fiscal Year (does not end December 31)
12. **Full Funded Balance (FFB)**
Total Accrued Depreciation. An indicator against which the FY Start Balance can be compared. The balance that is in direct proportion to the fraction of life "used up" of the cost. See - Calculations Appendix.
13. **Funding Goal**
Independent of methodology utilized, the following represents the basic categories of funding plan goals:
 - Baseline Funding- Maintaining a Net Reserve Balance above zero for length of the study.
 - Full Funding- Maintaining a Reserve Balance at or near Percent Funded of 100%.
 - Statutory Funding- Maintaining a specified Reserve Balance/Percent Funded per statutes.
 - Threshold Funding- Establishing and maintaining a set predetermined Reserve Balance or Percent Funded.
14. **Funding Method (or Funding Plan)**
An Association's plan to provide income to the reserve fund to offset expected disbursements from that fund. The following represents two (2) basic methodologies used to fund reserves:
 - Cash Flow Method- A method of developing a reserve funding plan where allocations to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different reserve funding plans are tested against the anticipated schedule of reserve expenses until the desired funding goal is achieved.
 - Component Method- The component method develops a reserve-funding plan where the total contribution is based on the sum of contributions for individual components. The component method is the more conservative (typically higher reserve account balance) of the two funding options and assures that the association will achieve and maintain an ideal level of reserves over time. This method also allows for computations on individual components in the analysis. However, this method has also limitations with respects to variations in actual useful life of components and is much more time intensive to accurately follow this funding strategy.

Sector 2A Snohomish Cascade Association Definitions, Disclosure & Calculations Appendixes

15. **Funding Plan**
The combined Funding Method & Funding Goal.
16. **FY End Balance (same as next FY Start Balance)**
The balance in reserves at end of applicable fiscal year. See - Calculations Appendix.
17. **FY Start Balance (same as prior year FY End Balance)**
The balance in reserves at start of applicable fiscal year.
18. **Inflation Rate**
Expressed as a percentage rate that reflects the increase of this year's costs over the previous year's costs. Also known as a 'cost increase factor'.
19. **Interest Earned**
The annual earning of reserve funds that have been deposited into certificates of deposit (CDs), money market accounts or other investment vehicles. See - Calculations Appendix.
20. **Interest Rate**
The ratio of the gain received from an investment and the investment over a period (usually one year), prior to any federal or state-imposed taxes.
21. **Interest Rate (net effective)**
The ratio of the gain received from an investment and the investment over a period (usually one year), after any federal or state-imposed taxes.
22. **Levels of Service**
Level 1 Reserve Study (Full or Comprehensive)- A Reserve Study in which the following five Reserve Study tasks are performed:
- Component Inventory
 - Condition Assessment (based upon on-site visual observations)
 - Life and Valuation Estimates
 - Fund Status
 - Funding Plan
- Level 2 Reserve Study** (Update, With-Site-Visit/On-Site Review)- A Reserve Study update in which the following five tasks are performed:
- Component Inventory (from prior study)
 - Condition Assessment (based upon on-site visual observations)
 - Life and Valuation Estimates
 - Fund Status
 - Funding Plan
- *Note- Updates are reliant on the validity of prior Reserve Studies.
- Level 3 Reserve Study** (Update, No-Site-Visit/Off-Site Review)- A Reserve Study update with no on-site visual observations in which the following three tasks are performed:
- Component Inventory (from prior study)
 - Condition Assessment (based upon on-site visual observations)
 - Life and Valuation Estimates
 - Fund Status
 - Funding Plan
- *Note- Updates are reliant on the validity of prior Reserve Studies.
23. **Percent Funded**
A comparison of the Fully Funded Balance (ideal balance) to the Fiscal Year Actual Start Balance expressed as a percentage and used to provide a 'general indication' of reserve strength. See Calculations Appendix.
24. **Quantity**
The number or amount of a reserve component or subcomponent.
25. **Remaining Life (RL)**
The estimated time, in years, that a reserve component can be expected to continue to serve its intended function.
26. **Replacement %**
A percentage of the total replacement for a reserve component or subcomponent. This parameter is normally 100%.
27. **Reserve Allocation**
The amount to be annually budgeted towards reserves based on a Funding Plan.
28. **Reserve Component (or subcomponent)**
The individual line items in the reserve study, developed or updated in the physical analysis that form the building blocks of the reserve study. They typically are:
- an association responsibility,
 - with limited useful life expectancies,
 - predictable remaining useful life expectancies,
 - above a minimum threshold cost,
 - and, as required by statutes.
29. **Restoration**
Defined as to bring back to an unimpaired or improved condition. General types follow:
- Building- In general, funding utilized to defray the cost (in whole or part) of major building components that are not necessarily included as line items and may include termite treatment.
 - Irrigation System- In general, funding utilized to defray the cost (in whole or part) of sectional irrigation system areas including modernization to improve water management.
 - Landscape- In general, funding utilized to defray the cost (in whole or part) of sectional landscape areas including modernization to improve water conservation & drainage.
30. **Risk Factor (Percent Funded)**
The associated risk of the availability of reserves to fund expenditures by interpreting the Percent Funded parameter as follows:
- 70% and above - LOW
 - 30% to 70% - MODERATE
 - 30% and below - HIGH
- *High risk is associated with a higher risk for reliance on special assessments, loans and litigation.
31. **Unit Cost**
The current fiscal year's estimated cost to maintain, replace, repair, or restore an individual "unit of measure" of a reserve component or subcomponent to its original functional condition.
32. **Unit of Measure**
A system of units used in measuring a reserve component or subcomponent (i.e. each, lineal feet, square feet, etc.).
33. **Useful Life (UL)**
Total Useful Life or Depreciable Life. The estimated time, in years, that a reserve item can be expected to serve its intended function if properly constructed and maintained in its present application or installation.

Sector 2A Snohomish Cascade Association

Definitions, Disclosure & Calculations Appendixes

Disclosures Index

The below disclosures are in accordance with reserve study standards developed by CAI, APRA and statutory requirements.

1. **Items Beyond the Scope of this Report**

This reserve study has been conducted to outline a financial plan for the proper and adequate budgeting of the Association component repair and/or replacement. This report should not be utilized for any other purpose and should not be considered or deemed appropriate or reliable for, but not limited to, any of the following:

- Building or land appraisals for any purpose
- State or local zoning ordinance violations
- Building code violations
- Soils conditions, soils contamination or geological stability of site
- Engineering analysis or structural stability of site
- Air quality, asbestos, electromagnetic radiation, formaldehyde, lead, mercury, or radon
- Water quality or other environmental hazards
- Invasions by termites and any or all other destroying organisms or insects
- Damage or destruction due to pests, birds, bats or animals to buildings or site
- Adequacy or efficiency of any system or component on site
- Specifically excluded reserve items
- Septic systems and septic tanks
- Buried or concealed portions of swing pools, pool liners, Jacuzzis/spas or similar items
- Items concealed by signs, carpets or other things
- Missing or omitted information supplied by the Association for the purposes of reserve study preparation
- Hidden improvements such as sewer lines, water lines, or other buried or concealed items

2. **Qualifications**

We are a professional business in the market to prepare Reserve Studies. Our Reserve Analysts' are either designated with or working towards the RS and/or PRA designations which are given by the two leading industry organizations which require peer review, continuing education and provide resources to stay on top of industry trends.

3. **Invasive Testing**

Estimated life expectancies and life cycles are based upon conditions that were readily accessible and visible at the time of the site visit. We did not destroy any landscape work, building walls, or perform any methods of intrusive/invasive testing during the site visit. In these cases, information may have been obtained by contacting the contractor or vendor that has worked on the property. The physical analysis performed during this site visit is not intended to be exhaustive in nature and may include representative sampling.

4. **Conflicts of Interests**

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

5. **Representative Sampling**

This study and report is based on observations of the visible and apparent conditions of a reasonable representative sampling of the property's elements at the time of inspection. Although due diligence was performed during the inspection phase, we make no representations regarding latent or concealed defects that may exist. The inspection did not constitute any invasive investigations and was not intended to determine whether applicable building components, systems, or equipment are adequate or in compliance with any specific or commonly accepted design requirement, building code, or specification. Such tasks as material testing, engineering analysis, destructive testing, or performance testing of building systems, components, or equipment are not considered as part of the scope of work, nor are they considered by the reserve study industry standard.

6. **Reliance on Client & Vendor Data Provided**

Information provided to the preparer of a reserve study by an official representative of the association regarding financial, historical, physical, quantitative or reserve project issues will be deemed reliable by the preparer. A reserve study will reflect information provided to the preparer of the reserve study. The total of actual or projected reserves required as presented in the reserve study is based upon information provided that was not audited. A reserve study is not intended to be used to perform an audit, an analysis of quality, a forensic study or a background check of historical records. A site visit conducted in conjunction with a reserve study should not be deemed to be a project audit or quality inspection. The results of this study are based on the independent opinion of the preparer and their experience and research during their career in preparing Reserve Studies. In addition, the opinions of experts on certain components have been gathered through research within their industry and with client's actual vendors. There is no implied warranty or guarantee regarding our life and cost estimates/predictions. There is no implied warranty or guarantee in any of our work product. Our results and findings will vary from another preparer's results and findings. A Reserve Study is necessarily a work in progress and subsequent Reserve Studies will vary from prior studies.

7. **Update to Prior Reserve Studies**

Level II Studies: Quantities of major components as reported in previous reserve studies are deemed to be accurate and reliable. The reserve study relies upon the validity of previous reserve studies. Level III Studies: In addition to the above we have not visited the property when completing a Level III "No Site Visit" study. Therefore, we have not verified the current condition of the common area components. It is assumed all prior study component information related to quantities, condition assessments, useful life and remaining useful life are accurate.

8. **Assumption Regarding Ongoing Maintenance**

The projected life expectancy of the major components and the funding needs of the reserves of the association are based upon the association performing appropriate routine and preventative maintenance for each major component. Failure to perform such maintenance can negatively impact the remaining useful life of the major components.

Sector 2A Snohomish Cascade Association Definitions, Disclosure & Calculations Appendixes

9. Assumptions Regarding Defect in Design or Construction

This Reserve Study assumes that all construction assemblies and components identified herein are built properly and are free from defects in materials and/or workmanship. Defects can lead to reduced useful life and premature failure. It was not the intent of this Reserve Study to inspect for or to identify defects. If defects exist, repairs should be made so that the construction components and assemblies at the community reach their full and expected useful lives. We have assumed all components have been properly built and will reach normal, typical life expectancies. In general, a reserve study is not intended to identify or fund for construction defects. We did not and will not look for or identify construction defects during our site visit.

10. Basis of Cost Estimates

Pricing used for the repair or replacement costs indicated in this report are derived from a variety of sources, e.g., recent contractor bids received by subject property HOA or prior clients, construction product vendor catalogs, internet, or national construction cost estimating publishers (RS Means / Marshall & Swift). The material and labor pricing provided are estimates and have been augmented, as necessary, to account for specific site conditions (i.e. material handling, scaffolding, etc.). The total expenses represent a useful guideline whereby reserve funds can be accumulated for future repairs and replacements. The estimated repair and replacement expenses, unless otherwise noted, do not include allowances for architectural, engineering, or permitting fees.

11. Limitations on Report Use

A reserve study is not intended to be used to perform an audit, an analysis of quality, a forensic study or a background check of historical records. A site visit conducted in conjunction with a reserve study should not be deemed to be a project audit or quality inspection. This Reserve Study is provided as an aid for planning purposes and not as an accounting tool. Since it deals with events yet to take place, there is no assurance that the results enumerated within it will, in fact, occur as described. Additionally, other unanticipated expenses may arise that are not included within this reserve study. This reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require 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.

12. State Specific Disclosures

Washington State

RCW 64.34.382 & WA State RCW 64.38.070

This reserve study includes all aspects required per WA State RCW requirements outlined in the Washington Condominium Act and the Homeowners' Association Act.

This reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require you to pay on demand as a special assessment your share of common expenses for the cost of major maintenance, repair, or replacement of a reserve component.

Washington State

Disclosures Required by RCW 64.90.550.

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

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

Sector 2A Snohomish Cascade Association

Definitions, Disclosure & Calculations Appendixes

Calculations Index

1. Allocation % =

Reserve Allocation (Component Method) / Total Reserve Allocation (Component Method) x 100

2. Current Cost =

Extended Cost (for a component without subcomponents)
 i. -or-
 Sum of subcomponent Extended Costs (for a component with subcomponents)

3. Extended Cost =

Quantity x Unit Cost x Replacement % x (1+Contingency Rate)

4. FY End Balance (same as Next FY Start Balance) =

Initial or current fiscal year-

Current Reserve Balance + Interest Earned +
 Reserve Allocation to Fund + Special Assessment
 to
 Fund + Funds Due from Operating - Approved
 Funds to Disburse - Disbursements

Subsequent fiscal years-

FY Start Balance + Interest Earned + (Reserve Allocation (from previous year) x (1 + Reserve Allocation Rate) - Disbursements

5. Interest Earned=

Initial fiscal year-

Current Reserve Balance x (Interest Rate (net effective)/12 x Number of funding months remaining in current fiscal year)

Subsequent fiscal years-

FY Start Balance x Interest Rate (net effective)

Accumulation Function and Amount Function

<https://www.reservedataanalyst.com/int>

6. Percent Funded =

(Reserve Account Balance / Fully Funded Balance) x 100

7. Reserve Allocation (Component Method) =

Current Cost / Useful Life

8. Fully Funded Balance (FFB) =

Basic Fully Funded

Fully Funded = Age/Useful Life * Cost

Note that "Age" is adjusted for each year of the study (e.g. one year later also equates to an Age which is one year greater). We do not use the age from the first year of the study for future FFB calculations as this would not appropriately address the deterioration of the component over time (i.e. when providing future projections one can make a valid assumption that a component will deteriorate by one year if providing projections for one year later).

Cost (component project cost) is inflated for each year based on an annual inflation rate (compounding) given in this reserve study (e.g. a paint project "cost" may be \$1,000 in Year 1 of the study but will have a "cost" of \$1,030 in Year 2 of the study, and \$1,060.90 in Year 3 of the study, when utilizing an annual 3% inflation rate. Note that we do not use the "cost" (current project cost) from the first year of the study for future year's FFB calculations as this approach does not consider the impact of inflation on the project cost and will usually result in a significantly underfunded reserve account over time. This is also known as the Inflation Adjusted Cost Method

***Unless specifically noted otherwise we have utilized the above FFB formula and methodology in this reserve study.*

Community Association Institute FFB Formula

The Community Association Institute published the below FFB formula to account for inflation and interest earned on deposit ("present value" is based on the current cost only - with no inflation of the project cost) the writers of 'RESERVE FUNDS: How & Why community Associations Invest Assets' published:

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

$$CAI_FF = Basic_FF$$

$$+ Basic_FF / (1 + interest)^{Remaining\ Life}$$

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

More mathematical information can be found at the following link: www.reservedataanalyst.com/math

**Sector 2A Snohomish Cascade Association
Component Index**

Asset ID	Description	Replacement	Page
1001	Asphalt - Overlay	2022	42
1002	Asphalt - Sealcoat	2022	42
1003	Baseball Backstop (chain link) - Replace	2042	43
1004	Baseball Infield Fence (chain link) - Replace	2042	43
1005	Concrete Curb - 20% Repair	2022	44
1006	Fence (chn link - NE Pond) - Replace	2050	44
1007	Fence (chn link - NW Pond) - Replace	2056	45
1008	Fence (chn link baseball 3.5') - Replace	2037	45
1009	Fence (sno-cascade drive) - Paint/Stain	2022	46
1010	Fence (sno-cascade drive) - Replace	2041	46
1011	Fence (wood - NW Pond) - Paint/Stain	2022	47
1012	Fence (wood - NW Pond) - Replace	2022	47
1013	Irrigation Backflow Valve - Replace	2022	48
1014	Irrigation Controller Panels - Replace	2032	48
1015	Irrigation Controllers - Replace	2030	49
1016	Irrigation Piping - 25% Replace	2027	49
1017	Irrigation Valves (in-ground) - 10% Replace	2022	50
1018	Landscape Drainage (boat park) - Refurbish	2040	50
1019	Landscaping (gravel) - Replenish	2022	51
1020	Landscaping - 25% Tree Care	2022	51
1021	Lights (pole) - Replace	2027	52
1022	Mailbox Cluster (2009) - Replace	2033	52
1023	Mailbox Cluster (2013) - Replace	2037	53
1024	Mailbox Cluster (2015) - Replace	2039	53
1025	Mailbox Cluster (2017) - Replace	2041	54
1026	Mailbox Clusters (2020) - Replace	2026	54
1027	Parking Bollards (boat park) - Replace	2032	55
1028	Pavers (sand set) - Replace	2022	55
1029	Playground Structure (boat park) - Replace	2046	56
1030	Playground Structure (small park) - Replace	2025	56
1031	Playground Surface (boat park) - Replenish	2024	57
1032	Playground Surface (small park) - Replenish	2022	57
1033	Playground Timber Edging (boat park) - Replace	2046	58
1034	Playground Timber Edging (small park) - Replace	2022	58
1035	Recreation - Benches (wood) - Replace	2022	59
1036	Recreation - Picnic Table (wood) - Replace	2022	59

**Sector 2A Snohomish Cascade Association
Component Index**

Asset ID	Description	Replacement	Page
1037	Retaining Walls (masonry) - Replace	2054	60
1038	Retaining Walls (wood) - Replace	2022	60
1039	Stormwater Pond (NE pond) - Refurbish	2027	61
1040	Stormwater Pond (NW pond) - Refurbish	2030	61
	Total Funded Assets	40	
	Total Unfunded Assets	<u>0</u>	
	Total Assets	40	