



RESERVE DATA ANALYST

Sector 2A Snohomish Cascade Association

Snohomish, WA

Level III Reserve Study (No Site-Visit)

Fiscal Year: 2021

Report#: 16388

Version: Final

Reserve Data Analyst, Inc.

www.reservedataanalyst.com

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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

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 most easily navigate this study, 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 (e.g. only staying cash positive). Keep in mind that funding models that remain in a *low percent funded range* for an extended period will carry a much higher risk for reliance on emergency financing or the need to defer overdue projects should some of the component projects occur sooner than projected. (*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, 2021

Level of Service	Level III Reserve Study (No Site-Visit)
Prepared for Fiscal Year	2021
Last On-Site Inspection Date	November 27, 2019
Inflation Rate for Projections	3.00%
*Interest Rate for Projections	1.00%
*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	\$56,929
*Approved Special Assessments	None approved for fiscal year 2021.
*Approved Loans	None approved for fiscal year 2021.
Fiscal Year Beginning Fully Funded Balance	\$284,946 (ideal amount in reserve account)
Current Percent Funded	-----> 20% <div style="display: flex; justify-content: space-between; width: 100%; border: 1px solid black;"> <div style="width: 33%; background-color: #f08080; text-align: center;">0-30% LOW</div> <div style="width: 33%; background-color: #ffff00; text-align: center;">30-70% FAIR</div> <div style="width: 33%; background-color: #90ee90; text-align: center;">70-100% GOOD</div> </div>
Avg. (Deficit) or Surplus Per Contributing Member	(-\$923) per member

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

	100% Funding Model		Recommended Funding Model		Baseline Funding Model		*Current Funding Model		
2021	\$260,243	100%	\$42,500	8%	\$37,165	5%	\$30,875	3%	2021
2022	\$36,132	101%	\$43,775	5%	\$38,280	0%	\$31,801	-5%	2022
2023	\$37,215	101%	\$45,088	22%	\$39,429	15%	\$32,755	8%	2023
2024	\$38,332	101%	\$46,441	33%	\$40,611	26%	\$33,738	17%	2024
2025	\$39,482	101%	\$47,834	38%	\$41,830	28%	\$34,750	17%	2025
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:

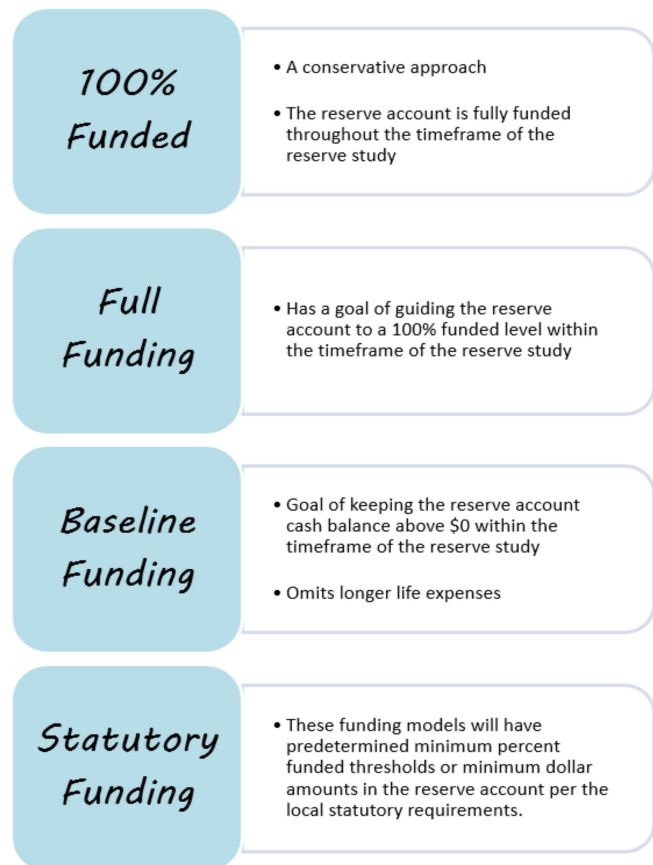
- Distribute the costs as fairly as possible over time
- Have stable budgets over time (i.e. limiting large fluctuations from one year to the next)
- Limit the risk for reliance on emergency financing or having to defer overdue projects

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?

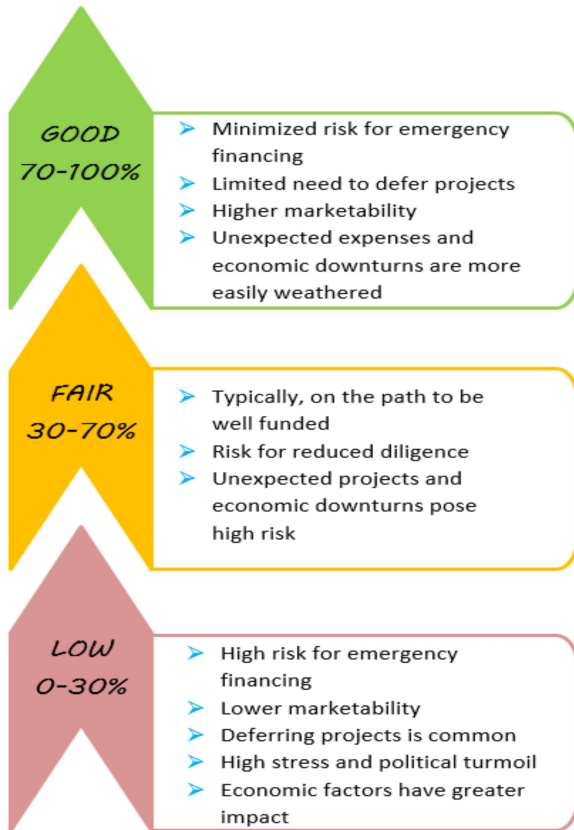
There is no right or wrong answer to the question of “How Much Should We Reserve?” as the reserve contributions in all the funding models in this study are based on different funding goals. It is more appropriate to consider the risk levels associated with different funding models as each Client has 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:

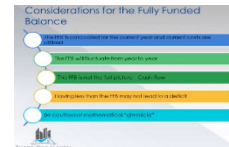


www.reservedataanalyst.com/pf

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:

- The component is owned and maintained by the Client
- The component expense is 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

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 either in-house or 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.

Many of our Clients have found these PDF checklists helpful in setting up maintenance plans. The link can be found below:

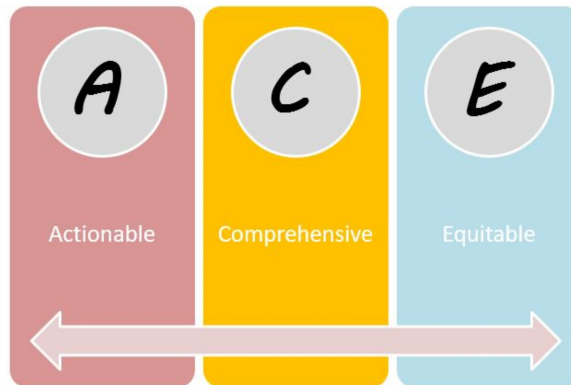


www.reservedataanalyst.com/RSmeans

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 2021 Update

Per the most recent construction cost data in this region the inflation rate has been 1.0% since the prior reserve study was performed. 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.

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. Street Lights - County
5. Public Sidewalks (31,900 sf abutting common area parcels) - County
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

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

3. Small Signage (at parks and native growth area)
4. Ongoing Landscaping
5. Minor Irrigation System Repairs
6. Baseball Field Upkeep

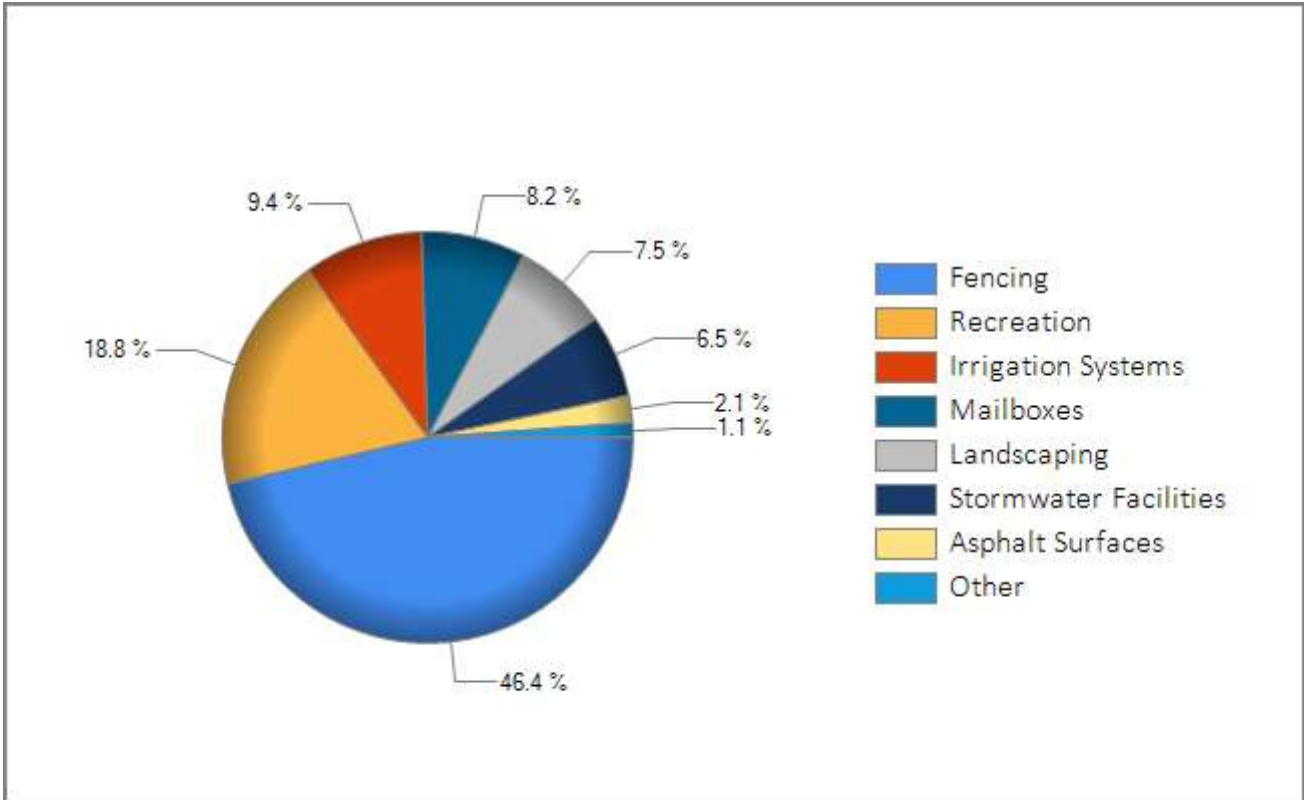
**Sector 2A Snohomish Cascade Association
The Component List**

Report Date September 23, 2020
 Beginning Fiscal Year January 01, 2021
 Account Number 16388

Version Number Final

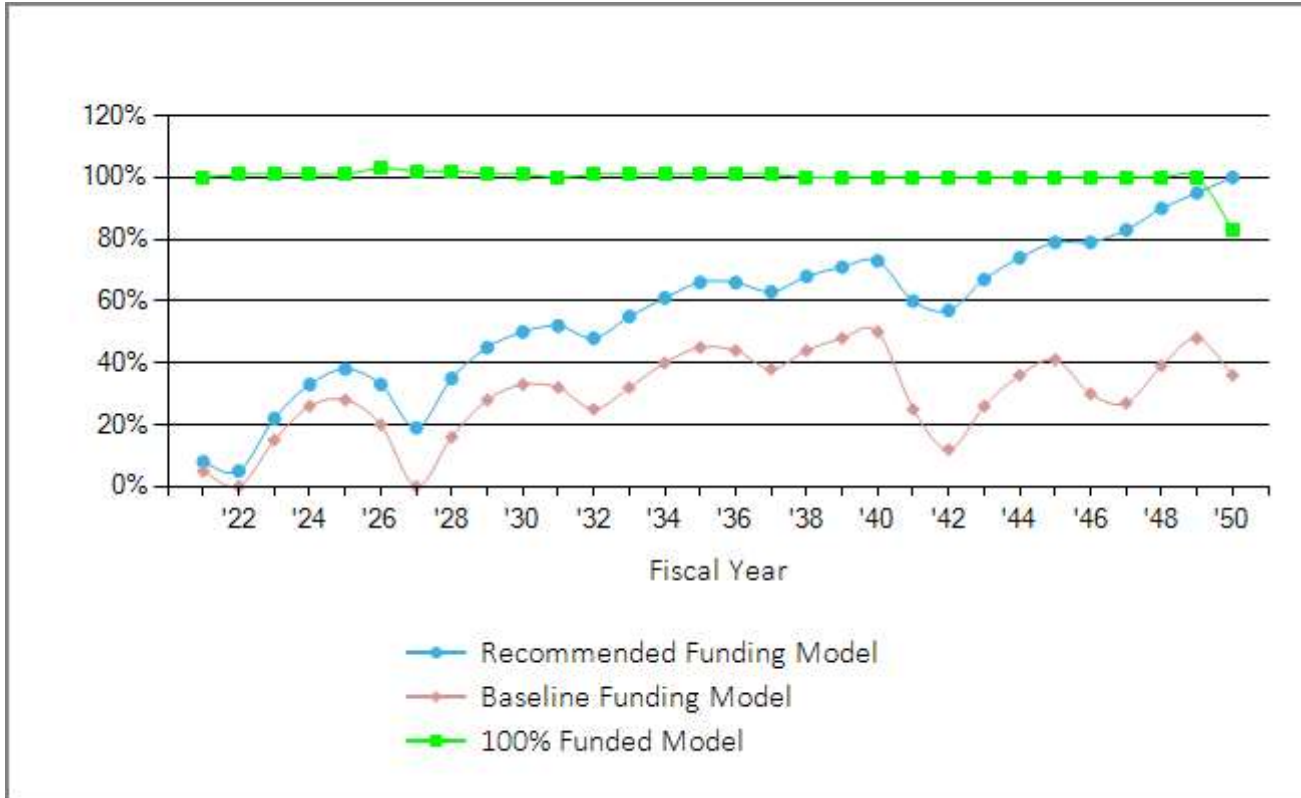
Component Description	Approx. Date In Service	Replacement Year	Useful Life	Adjustment	Remaining Ul	Units	Unit Cost & % Funded	Current Cost
Asphalt - Overlay	1997	2022	25	0	1	4,113 sf	2.22	9,131
Asphalt - Sealcoat	2015	2022	5	2	1	4,113 sf	0.31	1,275
Baseball Backstop (chain link) - Replace	1997	2042	45	0	21	1 ea	8,080.00	8,080
Baseball Infield Fence (chain link) - Replace	1997	2042	45	0	21	152 lf	41.41	6,294
Concrete Curb - 20% Repair	1997	2021	5	15	0	227 lf	37.37 @ 20%	1,697
Fence (chn link - NE Pond) - Replace	2010	2050	40	0	29	760 lf	36.86	28,017
Fence (chn link - NW Pond) - Replace	2016	2056	40	0	35	430 lf	36.86	15,852
Fence (chn link baseball 3.5') - Replace	1997	2037	40	0	16	345 lf	25.25	8,711
Fence (sno-cascade drive) - Paint/Stain	2016	2021	5	0	0	3,821 lf	8.58	32,803
Fence (sno-cascade drive) - Replace	2016	2041	25	0	20	3,821 lf	32.32	123,495
Fence (wood - NW Pond) - Paint/Stain	2017	2022	5	0	1	203 lf	8.58	1,743
Fence (wood - NW Pond) - Replace	1997	2022	25	0	1	203 lf	32.32	6,561
Irrigation Backflow Valve - Replace	1997	2022	25	0	1	1 ea	1,515.00	1,515
Irrigation Controller Panels - Replace	1997	2032	35	0	11	4 ea	757.50	3,030
Irrigation Controllers - Replace	2015	2030	15	0	9	4 ea	757.50	3,030
Irrigation Piping - 25% Replace	1997	2027	5	25	6	105,307 sf	1.51 @ 25%	39,885
Irrigation Valves (in-ground) - 10% Replace	2019	2021	1	0	0	52 ea	252.50 @ 10%	1,313
Landscape Drainage (boat park) - Refurbish	2020	2040	20	0	19	1 ls	15,000.00	15,000
Landscaping (gravel) - Replenish	2017	2022	5	0	1	2,451 sf	1.26	3,088
Landscaping - 25% Tree Care	1997	2022	5	20	1	111 ea	353.50 @ 25%	9,810
Lights (pole) - Replace	1997	2027	30	0	6	1 ea	2,323.00	2,323
Mailbox Cluster (2009) - Replace	2009	2033	24	0	12	3 ea	1,603.33	4,810
Mailbox Cluster (2013) - Replace	2013	2037	24	0	16	1 ea	1,603.33	1,603
Mailbox Cluster (2015) - Replace	2015	2039	24	0	18	1 ea	1,603.33	1,603
Mailbox Cluster (2017) - Replace	2017	2041	24	0	20	2 ea	1,603.33	3,207
Mailbox Clusters (2020) - Replace	2002	2026	24	0	5	18 ea	1,603.33	28,860
Parking Bollards (boat park) - Replace	1997	2032	35	0	11	3 ea	1,010.00	3,030
Pavers (sand set) - Replace	1997	2022	25	0	1	145 sf	15.15	2,197
Playground Structure (boat park) - Replace	1997	2021	25	-2	0	1 ea	42,000.00	42,000
Playground Structure (small park) - Replace	1997	2025	25	3	4	1 ea	28,000.00	28,000
Playground Surface (boat park) - Replenish	2018	2021	3	0	0	1,600 sf	0.96	1,536
Playground Surface (small park) - Replenish	2018	2021	3	0	0	1,271 sf	0.96	1,220
Playground Timber Edging (boat park) - Repl..	2020	2044	24	0	23	160 lf	8.08	1,293
Playground Timber Edging (small park) - Repl..	1997	2021	24	0	0	144 lf	8.08	1,164
Recreation - Benches (wood) - Replace	1997	2022	25	0	1	11 ea	757.50	8,332
Recreation - Picnic Table (wood) - Replace	1997	2022	25	0	1	3 ea	858.50	2,575
Retaining Walls (masonry) - Replace	2014	2054	40	0	33	67 sf	30.30	2,030
Retaining Walls (wood) - Replace	1997	2022	25	0	1	33 sf	20.20	667
Stormwater Pond (NE pond) - Refurbish	1997	2027	30	0	6	1 ea	20,200.00	20,200
Stormwater Pond (NW pond) - Refurbish	2015	2030	15	0	9	1 ea	11,615.00	11,615
Total Asset Summary								\$488,595

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



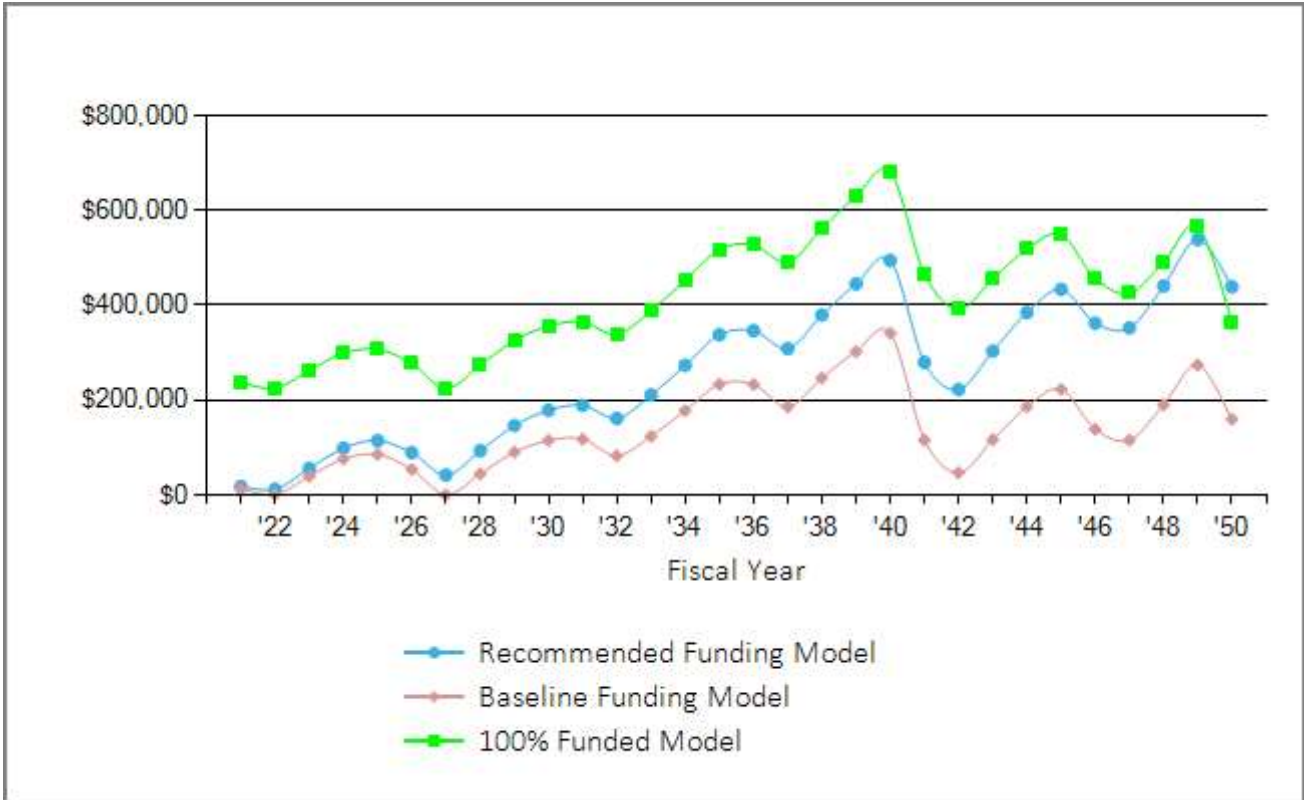
The above chart compares the funding models by the percentage funded levels over the 30-year timeframe of this reserve study, as calculated at the end of each fiscal year.

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	September 23, 2020
Account Number	16388
Version	Final
Budget Year Beginning	January 1, 2021
Budget Year Ending	December 31, 2021
Total Units	247

<i>Report Parameters</i>	
Inflation	3.00%
Annual Contribution Increase	3.00%
Interest Rate on Reserve Deposit	0.70%
Tax Rate Included in Interest Rate	
2021 Beginning Balance	\$56,929

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	\$260,242.63
Average Net Annual Interest Earned	<u>\$1,648.07</u>
Total Annual Allocation to Reserves	\$261,890.70

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

Beginning Balance: \$56,929

Year	Replacement Cost	Reserve Contribution	Net Interest Earned	Reserve Expenditures	Year End Account Balance	Year End Fully Fund Balance	Year End % Funded
2021	488,595	260,243	1,648	81,733	237,087	237,087	100%
2022	503,253	36,132	1,565	49,653	225,131	223,410	101%
2023	518,351	37,215	1,827	1,393	262,780	259,941	101%
2024	533,901	38,332	2,077	4,446	298,742	295,361	101%
2025	549,918	39,482	2,137	32,992	307,368	303,547	101%
2026	566,416	42,707	1,926	74,974	277,027	269,737	103%
2027	583,408	43,988	1,558	98,381	224,192	220,007	102%
2028	600,910	49,586	1,905	1,615	274,068	269,760	102%
2029	618,938	51,073	2,264	1,663	325,742	322,300	101%
2030	637,506	52,606	2,478	24,418	356,408	354,364	101%
2031	656,631	54,184	2,537	48,130	364,999	364,393	100%
2032	676,330	58,569	2,353	87,447	338,474	335,695	101%
2033	696,620	60,326	2,703	12,660	388,843	384,680	101%
2034	717,519	62,135	3,143	1,928	452,193	447,747	101%
2035	739,044	64,000	3,599	1,986	517,806	514,252	101%
2036	761,215	65,920	3,665	60,089	527,302	524,559	101%
2037	784,052	67,897	3,409	108,203	490,406	487,322	101%
2038	807,573	69,934	3,907	2,170	562,077	559,936	100%
2039	831,801	73,489	4,381	9,657	630,290	628,823	100%
2040	856,755	75,694	4,742	28,605	682,121	682,121	100%
2041	882,457	74,232	3,240	293,519	466,074	466,074	100%
2042	908,931	61,091	2,723	138,116	391,773	390,301	100%
2043	859,775	62,924	3,165	2,516	455,346	453,497	100%
2044	885,568	64,812	3,605	5,143	518,620	517,506	100%
2045	912,135	66,756	3,815	40,407	548,783	548,783	100%
2046	939,499	67,634	3,174	162,923	456,669	456,529	100%
2047	967,684	69,663	2,957	103,962	425,326	424,010	100%
2048	996,715	71,753	3,416	9,039	491,456	490,112	100%
2049	1,026,616	73,905	3,937	3,004	566,294	566,294	100%
2050	1,057,415		2,542	203,113	365,723	440,586	83%

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

Report Date	September 23, 2020
Account Number	16388
Version	Final
Budget Year Beginning	January 1, 2021
Budget Year Ending	December 31, 2021
Total Units	247

<i>Report Parameters</i>	
Inflation	3.00%
Annual Contribution Increase	3.00%
Interest Rate on Reserve Deposit	0.70%
Tax Rate Included in Interest Rate	
2021 Beginning Balance	\$56,929

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.

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	\$42,500.00
Average Net Annual Interest Earned	\$123.88
Total Annual Allocation to Reserves	\$42,623.87

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

Beginning Balance: \$56,929

Year	Replacement Cost	Reserve Contribution	Net Interest Earned	Reserve Expenditures	Year End Account Balance	Year End Fully Fund Balance	Year End % Funded
2021	488,595	42,500	124	81,733	17,820	237,087	8%
2022	503,253	43,775	84	49,653	12,026	223,410	5%
2023	518,351	45,088	390	1,393	56,111	259,941	22%
2024	533,901	46,441	687	4,446	98,792	295,361	33%
2025	549,918	47,834	795	32,992	114,430	303,547	38%
2026	566,416	49,269	621	74,974	89,347	269,737	33%
2027	583,408	50,747	292	98,381	42,004	220,007	19%
2028	600,910	52,270	649	1,615	93,308	269,760	35%
2029	618,938	53,838	1,018	1,663	146,501	322,300	45%
2030	637,506	55,453	1,243	24,418	178,779	354,364	50%
2031	656,631	57,116	1,314	48,130	189,080	364,393	52%
2032	676,330	58,830	1,123	87,447	161,586	335,695	48%
2033	696,620	60,595	1,467	12,660	210,988	384,680	55%
2034	717,519	62,413	1,900	1,928	273,373	447,747	61%
2035	739,044	64,285	2,350	1,986	338,021	514,252	66%
2036	761,215	66,214	2,409	60,089	346,555	524,559	66%
2037	784,052	68,200	2,146	108,203	308,698	487,322	63%
2038	807,573	70,246	2,637	2,170	379,411	559,936	68%
2039	831,801	72,353	3,095	9,657	445,202	628,823	71%
2040	856,755	74,524	3,438	28,605	494,559	682,121	73%
2041	882,457	76,760	1,945	293,519	279,745	466,074	60%
2042	908,931	79,063	1,545	138,116	222,236	390,301	57%
2043	859,775	81,434	2,108	2,516	303,263	453,497	67%
2044	885,568	83,877	2,674	5,143	384,671	517,506	74%
2045	912,135	86,394	3,015	40,407	433,672	548,783	79%
2046	939,499	88,986	2,518	162,923	362,253	456,529	79%
2047	967,684	91,655	2,450	103,962	352,396	424,010	83%
2048	996,715	94,405	3,064	9,039	440,826	490,112	90%
2049	1,026,616	97,237	3,745	3,004	538,804	566,294	95%
2050	1,057,415	100,154	3,051	203,113	438,896	440,586	100%

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

Report Date	September 23, 2020
Account Number	16388
Version	Final
Budget Year Beginning	January 1, 2021
Budget Year Ending	December 31, 2021
Total Units	247

Report Parameters	
Inflation	3.00%
Annual Contribution Increase	3.00%
Interest Rate on Reserve Deposit	0.70%
Tax Rate Included in Interest Rate	
2021 Beginning Balance	\$56,929

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.

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

Baseline Threshold Funding Model Summary of Calculations	
Required Annual Contribution	\$37,165.26
Average Net Annual Interest Earned	\$86.53
Total Annual Allocation to Reserves	\$37,251.79

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

Beginning Balance: \$56,929

Year	Replacement Cost	Reserve Contribution	Net Interest Earned	Reserve Expenditures	Year End Account Balance	Year End Fully Fund Balance	Year End % Funded
2021	488,595	37,165	87	81,733	12,448	237,087	5%
2022	503,253	38,280	8	49,653	1,083	223,410	0%
2023	518,351	39,429	274	1,393	39,392	259,941	15%
2024	533,901	40,611	529	4,446	76,086	295,361	26%
2025	549,918	41,830	594	32,992	85,519	303,547	28%
2026	566,416	43,085	375	74,974	54,005	269,737	20%
2027	583,408	44,377		98,381	1	220,007	0%
2028	600,910	45,709	309	1,615	44,404	269,760	16%
2029	618,938	47,080	629	1,663	90,449	322,300	28%
2030	637,506	48,492	802	24,418	115,325	354,364	33%
2031	656,631	49,947	820	48,130	117,962	364,393	32%
2032	676,330	51,445	574	87,447	82,534	335,695	25%
2033	696,620	52,989	860	12,660	123,724	384,680	32%
2034	717,519	54,578	1,235	1,928	177,609	447,747	40%
2035	739,044	56,216	1,623	1,986	233,461	514,252	45%
2036	761,215	57,902	1,619	60,089	232,893	524,559	44%
2037	784,052	59,639	1,290	108,203	185,620	487,322	38%
2038	807,573	61,429	1,714	2,170	246,593	559,936	44%
2039	831,801	63,271	2,101	9,657	302,308	628,823	48%
2040	856,755	65,170	2,372	28,605	341,245	682,121	50%
2041	882,457	67,125	804	293,519	115,655	466,074	25%
2042	908,931	69,138	327	138,116	47,004	390,301	12%
2043	859,775	71,212	810	2,516	116,510	453,497	26%
2044	885,568	73,349	1,293	5,143	186,009	517,506	36%
2045	912,135	75,549	1,548	40,407	222,700	548,783	41%
2046	939,499	77,816	963	162,923	138,556	456,529	30%
2047	967,684	80,150	803	103,962	115,547	424,010	27%
2048	996,715	82,555	1,323	9,039	190,386	490,112	39%
2049	1,026,616	85,031	1,907	3,004	274,320	566,294	48%
2050	1,057,415	87,582	1,112	203,113	159,901	440,586	36%

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

Report Date	September 23, 2020
Account Number	16388
Version	Final
Budget Year Beginning	January 1, 2021
Budget Year Ending	December 31, 2021
Total Units	247

Report Parameters	
Inflation	3.00%
Annual Contribution Increase	3.00%
Interest Rate on Reserve Deposit	0.70%
Tax Rate Included in Interest Rate	
2021 Beginning Balance	\$56,929

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.

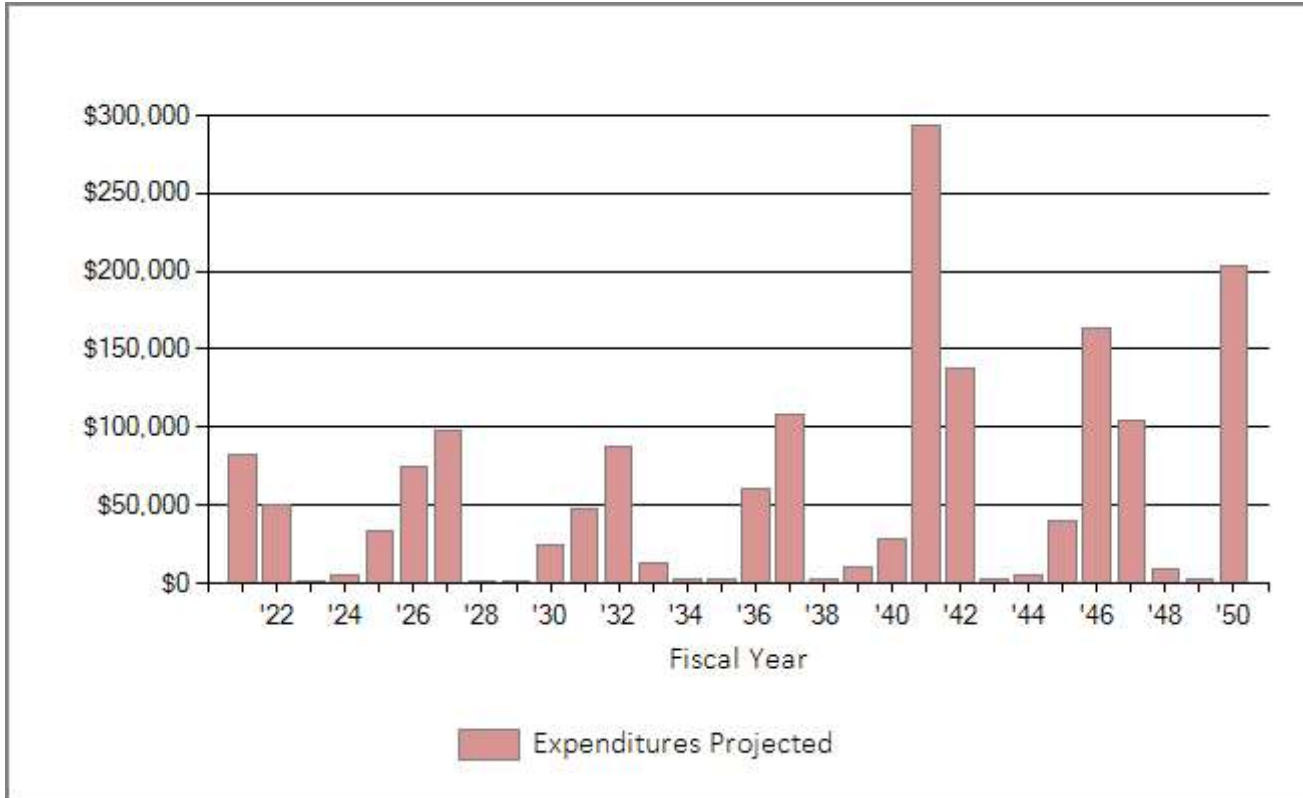
Current Assessment Funding Model Summary of Calculations	
Required Annual Contribution	\$30,875.00
Average Net Annual Interest Earned	<u> \$42.50</u>
Total Annual Allocation to Reserves	\$30,917.50

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

Beginning Balance: \$56,929

Year	Replacement Cost	Reserve Contribution	Net Interest Earned	Reserve Expenditures	Year End Account Balance	Year End Fully Fund Balance	Year End % Funded
2021	488,595	30,875	42	81,733	6,114	237,087	3%
2022	503,253	31,801		49,653	-11,738	223,410	
2023	518,351	32,755	137	1,393	19,762	259,941	8%
2024	533,901	33,738	343	4,446	49,397	295,361	17%
2025	549,918	34,750	358	32,992	51,513	303,547	17%
2026	566,416	35,793	86	74,974	12,418	269,737	5%
2027	583,408	36,866		98,381	-49,097	220,007	
2028	600,910	37,972		1,615	-12,739	269,760	
2029	618,938	39,112	173	1,663	24,882	322,300	8%
2030	637,506	40,285	285	24,418	41,034	354,364	12%
2031	656,631	41,493	241	48,130	34,639	364,393	10%
2032	676,330	42,738		87,447	-10,070	335,695	
2033	696,620	44,020	149	12,660	21,440	384,680	6%
2034	717,519	45,341	454	1,928	65,307	447,747	15%
2035	739,044	46,701	770	1,986	110,792	514,252	22%
2036	761,215	48,102	692	60,089	99,497	524,559	19%
2037	784,052	49,545	286	108,203	41,125	487,322	8%
2038	807,573	51,032	630	2,170	90,617	559,936	16%
2039	831,801	52,563	935	9,657	134,457	628,823	21%
2040	856,755	54,139	1,120	28,605	161,111	682,121	24%
2041	882,457	55,764		293,519	-76,644	466,074	
2042	908,931	57,437		138,116	-157,323	390,301	
2043	859,775	59,160		2,516	-100,679	453,497	
2044	885,568	60,934		5,143	-44,888	517,506	
2045	912,135	62,763		40,407	-22,532	548,783	
2046	939,499	64,645		162,923	-120,810	456,529	
2047	967,684	66,585		103,962	-158,188	424,010	
2048	996,715	68,582		9,039	-98,644	490,112	
2049	1,026,616	70,640		3,004	-31,008	566,294	
2050	1,057,415	72,759		203,113	-161,363	440,586	

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 2021	
1005 Concrete Curb - 20% Repair	1,697
1009 Fence (sno-cascade drive) - Paint/Stain	32,803
1017 Irrigation Valves (in-ground) - 10% Replace	1,313
1029 Playground Structure (boat park) - Replace	42,000
1031 Playground Surface (boat park) - Replenish	1,536
1032 Playground Surface (small park) - Replenish	1,220
1034 Playground Timber Edging (small park) - Replace	1,164
Total for 2021	\$81,733
Replacement Year 2022	
1001 Asphalt - Overlay	9,405
1002 Asphalt - Sealcoat	1,313
1011 Fence (wood - NW Pond) - Paint/Stain	1,795
1012 Fence (wood - NW Pond) - Replace	6,758
1013 Irrigation Backflow Valve - Replace	1,560
1017 Irrigation Valves (in-ground) - 10% Replace	1,352
1019 Landscaping (gravel) - Replenish	3,181
1020 Landscaping - 25% Tree Care	10,104
1028 Pavers (sand set) - Replace	2,263
1035 Recreation - Benches (wood) - Replace	8,582
1036 Recreation - Picnic Table (wood) - Replace	2,653
1038 Retaining Walls (wood) - Replace	687
Total for 2022	\$49,653
Replacement Year 2023	
1017 Irrigation Valves (in-ground) - 10% Replace	1,393
Total for 2023	\$1,393
Replacement Year 2024	
1017 Irrigation Valves (in-ground) - 10% Replace	1,435
1031 Playground Surface (boat park) - Replenish	1,678
1032 Playground Surface (small park) - Replenish	1,333
Total for 2024	\$4,446
Replacement Year 2025	
1017 Irrigation Valves (in-ground) - 10% Replace	1,478

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

Description	Expenditures
<i>Replacement Year 2025 continued...</i>	
1030 Playground Structure (small park) - Replace	31,514
Total for 2025	<u>\$32,992</u>
Replacement Year 2026	
1005 Concrete Curb - 20% Repair	1,967
1009 Fence (sno-cascade drive) - Paint/Stain	38,028
1017 Irrigation Valves (in-ground) - 10% Replace	1,522
1026 Mailbox Clusters (2020) - Replace	33,457
Total for 2026	<u>\$74,974</u>
Replacement Year 2027	
1002 Asphalt - Sealcoat	1,522
1011 Fence (wood - NW Pond) - Paint/Stain	2,081
1016 Irrigation Piping - 25% Replace	47,625
1017 Irrigation Valves (in-ground) - 10% Replace	1,568
1019 Landscaping (gravel) - Replenish	3,688
1020 Landscaping - 25% Tree Care	11,713
1021 Lights (pole) - Replace	2,774
1031 Playground Surface (boat park) - Replenish	1,834
1032 Playground Surface (small park) - Replenish	1,457
1039 Stormwater Pond (NE pond) - Refurbish	24,120
Total for 2027	<u>\$98,381</u>
Replacement Year 2028	
1017 Irrigation Valves (in-ground) - 10% Replace	1,615
Total for 2028	<u>\$1,615</u>
Replacement Year 2029	
1017 Irrigation Valves (in-ground) - 10% Replace	1,663
Total for 2029	<u>\$1,663</u>
Replacement Year 2030	
1015 Irrigation Controllers - Replace	3,953
1017 Irrigation Valves (in-ground) - 10% Replace	1,713

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

Description	Expenditures
<i>Replacement Year 2030 continued...</i>	
1031 Playground Surface (boat park) - Replenish	2,004
1032 Playground Surface (small park) - Replenish	1,592
1040 Stormwater Pond (NW pond) - Refurbish	15,155
Total for 2030	<u>\$24,418</u>
Replacement Year 2031	
1005 Concrete Curb - 20% Repair	2,280
1009 Fence (sno-cascade drive) - Paint/Stain	44,085
1017 Irrigation Valves (in-ground) - 10% Replace	1,765
Total for 2031	<u>\$48,130</u>
Replacement Year 2032	
1002 Asphalt - Sealcoat	1,765
1011 Fence (wood - NW Pond) - Paint/Stain	2,412
1014 Irrigation Controller Panels - Replace	4,194
1016 Irrigation Piping - 25% Replace	55,210
1017 Irrigation Valves (in-ground) - 10% Replace	1,817
1019 Landscaping (gravel) - Replenish	4,275
1020 Landscaping - 25% Tree Care	13,579
1027 Parking Bollards (boat park) - Replace	4,194
Total for 2032	<u>\$87,447</u>
Replacement Year 2033	
1017 Irrigation Valves (in-ground) - 10% Replace	1,872
1022 Mailbox Cluster (2009) - Replace	6,858
1031 Playground Surface (boat park) - Replenish	2,190
1032 Playground Surface (small park) - Replenish	1,740
Total for 2033	<u>\$12,660</u>
Replacement Year 2034	
1017 Irrigation Valves (in-ground) - 10% Replace	1,928
Total for 2034	<u>\$1,928</u>
Replacement Year 2035	
1017 Irrigation Valves (in-ground) - 10% Replace	1,986
Total for 2035	<u>\$1,986</u>

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

Description	Expenditures
Replacement Year 2036	
1005 Concrete Curb - 20% Repair	2,643
1009 Fence (sno-cascade drive) - Paint/Stain	51,106
1017 Irrigation Valves (in-ground) - 10% Replace	2,046
1031 Playground Surface (boat park) - Replenish	2,393
1032 Playground Surface (small park) - Replenish	1,901
Total for 2036	\$60,089
Replacement Year 2037	
1002 Asphalt - Sealcoat	2,046
1008 Fence (chn link baseball 3.5') - Replace	13,979
1011 Fence (wood - NW Pond) - Paint/Stain	2,797
1016 Irrigation Piping - 25% Replace	64,004
1017 Irrigation Valves (in-ground) - 10% Replace	2,107
1019 Landscaping (gravel) - Replenish	4,956
1020 Landscaping - 25% Tree Care	15,742
1023 Mailbox Cluster (2013) - Replace	2,573
Total for 2037	\$108,203
Replacement Year 2038	
1017 Irrigation Valves (in-ground) - 10% Replace	2,170
Total for 2038	\$2,170
Replacement Year 2039	
1017 Irrigation Valves (in-ground) - 10% Replace	2,235
1024 Mailbox Cluster (2015) - Replace	2,730
1031 Playground Surface (boat park) - Replenish	2,615
1032 Playground Surface (small park) - Replenish	2,077
Total for 2039	\$9,657
Replacement Year 2040	
1017 Irrigation Valves (in-ground) - 10% Replace	2,302
1018 Landscape Drainage (boat park) - Refurbish	26,303
Total for 2040	\$28,605

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

Description	Expenditures
Replacement Year 2041	
1005 Concrete Curb - 20% Repair	3,064
1009 Fence (sno-cascade drive) - Paint/Stain	59,246
1010 Fence (sno-cascade drive) - Replace	223,045
1017 Irrigation Valves (in-ground) - 10% Replace	2,371
1025 Mailbox Cluster (2017) - Replace	5,792
Total for 2041	\$293,519
Replacement Year 2042	
1002 Asphalt - Sealcoat	2,372
1003 Baseball Backstop (chain link) - Replace	15,031
1004 Baseball Infield Fence (chain link) - Replace	11,709
1011 Fence (wood - NW Pond) - Paint/Stain	3,242
1016 Irrigation Piping - 25% Replace	74,198
1017 Irrigation Valves (in-ground) - 10% Replace	2,443
1019 Landscaping (gravel) - Replenish	5,745
1020 Landscaping - 25% Tree Care	18,249
1031 Playground Surface (boat park) - Replenish	2,857
1032 Playground Surface (small park) - Replenish	2,270
Total for 2042	\$138,116
Replacement Year 2043	
1017 Irrigation Valves (in-ground) - 10% Replace	2,516
Total for 2043	\$2,516
Replacement Year 2044	
1017 Irrigation Valves (in-ground) - 10% Replace	2,591
1033 Playground Timber Edging (boat park) - Replace	2,551
Total for 2044	\$5,143
Replacement Year 2045	
1015 Irrigation Controllers - Replace	6,159
1017 Irrigation Valves (in-ground) - 10% Replace	2,669
1031 Playground Surface (boat park) - Replenish	3,122
1032 Playground Surface (small park) - Replenish	2,480
1034 Playground Timber Edging (small park) - Replace	2,365

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

Description	Expenditures
<i>Replacement Year 2045 continued...</i>	
1040 Stormwater Pond (NW pond) - Refurbish	23,611
Total for 2045	<u>\$40,407</u>
Replacement Year 2046	
1005 Concrete Curb - 20% Repair	3,552
1009 Fence (sno-cascade drive) - Paint/Stain	68,683
1017 Irrigation Valves (in-ground) - 10% Replace	2,749
1029 Playground Structure (boat park) - Replace	87,939
Total for 2046	<u>\$162,923</u>
Replacement Year 2047	
1001 Asphalt - Overlay	19,692
1002 Asphalt - Sealcoat	2,750
1011 Fence (wood - NW Pond) - Paint/Stain	3,758
1012 Fence (wood - NW Pond) - Replace	14,149
1013 Irrigation Backflow Valve - Replace	3,267
1017 Irrigation Valves (in-ground) - 10% Replace	2,832
1019 Landscaping (gravel) - Replenish	6,660
1020 Landscaping - 25% Tree Care	21,155
1028 Pavers (sand set) - Replace	4,737
1035 Recreation - Benches (wood) - Replace	17,970
1036 Recreation - Picnic Table (wood) - Replace	5,554
1038 Retaining Walls (wood) - Replace	1,438
Total for 2047	<u>\$103,962</u>
Replacement Year 2048	
1017 Irrigation Valves (in-ground) - 10% Replace	2,917
1031 Playground Surface (boat park) - Replenish	3,412
1032 Playground Surface (small park) - Replenish	2,710
Total for 2048	<u>\$9,039</u>
Replacement Year 2049	
1017 Irrigation Valves (in-ground) - 10% Replace	3,004
Total for 2049	<u>\$3,004</u>

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

Description	Expenditures
Replacement Year 2050	
1006 Fence (chn link - NE Pond) - Replace	66,025
1017 Irrigation Valves (in-ground) - 10% Replace	3,094
1026 Mailbox Clusters (2020) - Replace	68,010
1030 Playground Structure (small park) - Replace	65,984
Total for 2050	<u>\$203,113</u>

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

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Beginning Balance	56,929	17,820	12,026	56,111	98,792	114,430	89,347	42,004	93,308	146,501
Annual Reserve Account Contribution	42,500	43,775	45,088	46,441	47,834	49,269	50,747	52,270	53,838	55,453
Interest Earned	124	84	390	687	795	621	292	649	1,018	1,243
Expenditures	81,733	49,653	1,393	4,446	32,992	74,974	98,381	1,615	1,663	24,418
Fully Funded Balance	237,087	223,410	259,941	295,361	303,547	269,737	220,007	269,760	322,300	354,364
Percent Funded	8%	5%	22%	33%	38%	33%	19%	35%	45%	50%
Ending Reserve Account Balance	17,820	12,026	56,111	98,792	114,430	89,347	42,004	93,308	146,501	178,779

ID	Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1001	Asphalt - Overlay		9,405								
1002	Asphalt - Sealcoat		1,313					1,522			
1003	Baseball Backstop (chain link) - Replace										
1004	Baseball Infield Fence (chain link) - Replace										
1005	Concrete Curb - 20% Repair	1,697					1,967				
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	32,803					38,028				
1010	Fence (sno-cascade drive) - Replace										
1011	Fence (wood - NW Pond) - Paint/Stain		1,795					2,081			
1012	Fence (wood - NW Pond) - Replace		6,758								
1013	Irrigation Backflow Valve - Replace		1,560								
1014	Irrigation Controller Panels - Replace										
1015	Irrigation Controllers - Replace										3,953
1016	Irrigation Piping - 25% Replace							47,625			
1017	Irrigation Valves (in-ground) - 10% Replace	1,313	1,352	1,393	1,435	1,478	1,522	1,568	1,615	1,663	1,713
1018	Landscape Drainage (boat park) - Refurbish										
1019	Landscaping (gravel) - Replenish		3,181					3,688			
1020	Landscaping - 25% Tree Care		10,104					11,713			
1021	Lights (pole) - Replace							2,774			
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	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1025 Mailbox Cluster (2017) - Replace										
1026 Mailbox Clusters (2020) - Replace						33,457				
1027 Parking Bollards (boat park) - Replace										
1028 Pavers (sand set) - Replace		2,263								
1029 Playground Structure (boat park) - Replace	42,000									
1030 Playground Structure (small park) - Replace					31,514					
1031 Playground Surface (boat park) - Replenish	1,536			1,678			1,834			2,004
1032 Playground Surface (small park) - Replenish	1,220			1,333			1,457			1,592
1033 Playground Timber Edging (boat park) - Re..										
1034 Playground Timber Edging (small park) - R..	1,164									
1035 Recreation - Benches (wood) - Replace		8,582								
1036 Recreation - Picnic Table (wood) - Replace		2,653								
1037 Retaining Walls (masonry) - Replace										
1038 Retaining Walls (wood) - Replace		687								
1039 Stormwater Pond (NE pond) - Refurbish							24,120			
1040 Stormwater Pond (NW pond) - Refurbish										15,155
Year Total:	81,733	49,653	1,393	4,446	32,992	74,974	98,381	1,615	1,663	24,418

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

	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Beginning Balance	178,779	189,080	161,586	210,988	273,373	338,021	346,555	308,698	379,411	445,202
Annual Reserve Account Contribution	57,116	58,830	60,595	62,413	64,285	66,214	68,200	70,246	72,353	74,524
Interest Earned	1,314	1,123	1,467	1,900	2,350	2,409	2,146	2,637	3,095	3,438
Expenditures	48,130	87,447	12,660	1,928	1,986	60,089	108,203	2,170	9,657	28,605
Fully Funded Balance	364,393	335,695	384,680	447,747	514,252	524,559	487,322	559,936	628,823	682,121
Percent Funded	52%	48%	55%	61%	66%	66%	63%	68%	71%	73%
Ending Reserve Account Balance	189,080	161,586	210,988	273,373	338,021	346,555	308,698	379,411	445,202	494,559

ID Description

1001 Asphalt - Overlay										
1002 Asphalt - Sealcoat		1,765					2,046			
1003 Baseball Backstop (chain link) - Replace										
1004 Baseball Infield Fence (chain link) - Replace										
1005 Concrete Curb - 20% Repair	2,280					2,643				
1006 Fence (chn link - NE Pond) - Replace										
1007 Fence (chn link - NW Pond) - Replace										
1008 Fence (chn link baseball 3.5') - Replace							13,979			
1009 Fence (sno-cascade drive) - Paint/Stain	44,085					51,106				
1010 Fence (sno-cascade drive) - Replace										
1011 Fence (wood - NW Pond) - Paint/Stain		2,412					2,797			
1012 Fence (wood - NW Pond) - Replace										
1013 Irrigation Backflow Valve - Replace										
1014 Irrigation Controller Panels - Replace		4,194								
1015 Irrigation Controllers - Replace										
1016 Irrigation Piping - 25% Replace		55,210					64,004			
1017 Irrigation Valves (in-ground) - 10% Replace	1,765	1,817	1,872	1,928	1,986	2,046	2,107	2,170	2,235	2,302
1018 Landscape Drainage (boat park) - Refurbish										26,303
1019 Landscaping (gravel) - Replenish		4,275					4,956			
1020 Landscaping - 25% Tree Care		13,579					15,742			
1021 Lights (pole) - Replace										
1022 Mailbox Cluster (2009) - Replace			6,858							
1023 Mailbox Cluster (2013) - Replace							2,573			
1024 Mailbox Cluster (2015) - Replace									2,730	

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

ID Description	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
1025 Mailbox Cluster (2017) - Replace										
1026 Mailbox Clusters (2020) - Replace										
1027 Parking Bollards (boat park) - Replace		4,194								
1028 Pavers (sand set) - Replace										
1029 Playground Structure (boat park) - Replace										
1030 Playground Structure (small park) - Replace										
1031 Playground Surface (boat park) - Replenish			2,190			2,393			2,615	
1032 Playground Surface (small park) - Replenish			1,740			1,901			2,077	
1033 Playground Timber Edging (boat park) - Re..										
1034 Playground Timber Edging (small park) - R..										
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:	48,130	87,447	12,660	1,928	1,986	60,089	108,203	2,170	9,657	28,605

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

	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Beginning Balance	494,559	279,745	222,236	303,263	384,671	433,672	362,253	352,396	440,826	538,804
Annual Reserve Account Contribution	76,760	79,063	81,434	83,877	86,394	88,986	91,655	94,405	97,237	100,154
Interest Earned	1,945	1,545	2,108	2,674	3,015	2,518	2,450	3,064	3,745	3,051
Expenditures	293,519	138,116	2,516	5,143	40,407	162,923	103,962	9,039	3,004	203,113
Fully Funded Balance	466,074	390,301	453,497	517,506	548,783	456,529	424,010	490,112	566,294	440,586
Percent Funded	60%	57%	67%	74%	79%	79%	83%	90%	95%	100%
Ending Reserve Account Balance	279,745	222,236	303,263	384,671	433,672	362,253	352,396	440,826	538,804	438,896

ID Description

1001 Asphalt - Overlay							19,692			
1002 Asphalt - Sealcoat		2,372					2,750			
1003 Baseball Backstop (chain link) - Replace		15,031								
1004 Baseball Infield Fence (chain link) - Replace		11,709								
1005 Concrete Curb - 20% Repair	3,064					3,552				
1006 Fence (chn link - NE Pond) - Replace										66,025
1007 Fence (chn link - NW Pond) - Replace										
1008 Fence (chn link baseball 3.5') - Replace										
1009 Fence (sno-cascade drive) - Paint/Stain	59,246					68,683				
1010 Fence (sno-cascade drive) - Replace	223,045									
1011 Fence (wood - NW Pond) - Paint/Stain		3,242					3,758			
1012 Fence (wood - NW Pond) - Replace							14,149			
1013 Irrigation Backflow Valve - Replace							3,267			
1014 Irrigation Controller Panels - Replace										
1015 Irrigation Controllers - Replace					6,159					
1016 Irrigation Piping - 25% Replace		74,198								
1017 Irrigation Valves (in-ground) - 10% Replace	2,371	2,443	2,516	2,591	2,669	2,749	2,832	2,917	3,004	3,094
1018 Landscape Drainage (boat park) - Refurbish										
1019 Landscaping (gravel) - Replenish		5,745					6,660			
1020 Landscaping - 25% Tree Care		18,249					21,155			
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	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
1025 Mailbox Cluster (2017) - Replace	5,792									
1026 Mailbox Clusters (2020) - Replace										68,010
1027 Parking Bollards (boat park) - Replace										
1028 Pavers (sand set) - Replace							4,737			
1029 Playground Structure (boat park) - Replace						87,939				
1030 Playground Structure (small park) - Replace										65,984
1031 Playground Surface (boat park) - Replenish		2,857			3,122			3,412		
1032 Playground Surface (small park) - Replenish		2,270			2,480			2,710		
1033 Playground Timber Edging (boat park) - Re..				2,551						
1034 Playground Timber Edging (small park) - R..					2,365					
1035 Recreation - Benches (wood) - Replace							17,970			
1036 Recreation - Picnic Table (wood) - Replace							5,554			
1037 Retaining Walls (masonry) - Replace										
1038 Retaining Walls (wood) - Replace							1,438			
1039 Stormwater Pond (NE pond) - Refurbish										
1040 Stormwater Pond (NW pond) - Refurbish					23,611					
Year Total:	293,519	138,116	2,516	5,143	40,407	162,923	103,962	9,039	3,004	203,113

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	\$9,131	x	24	/	25	=	\$8,766
1002	Asphalt - Sealcoat	\$1,275	x	6	/	7	=	\$1,093
1003	Baseball Backstop (chain link...	\$8,080	x	24	/	45	=	\$4,309
1004	Baseball Infield Fence (chain ...	\$6,294	x	24	/	45	=	\$3,357
1005	Concrete Curb - 20% Repair	\$1,697	x	20	/	20	=	\$1,697
1006	Fence (chn link - NE Pond) - ...	\$28,017	x	11	/	40	=	\$7,705
1007	Fence (chn link - NW Pond) - ...	\$15,852	x	5	/	40	=	\$1,981
1008	Fence (chn link baseball 3.5')...	\$8,711	x	24	/	40	=	\$5,227
1009	Fence (sno-cascade drive) - P...	\$32,803	x	5	/	5	=	\$32,803
1010	Fence (sno-cascade drive) - R...	\$123,495	x	5	/	25	=	\$24,699
1011	Fence (wood - NW Pond) - P...	\$1,743	x	4	/	5	=	\$1,394
1012	Fence (wood - NW Pond) - R...	\$6,561	x	24	/	25	=	\$6,299
1013	Irrigation Backflow Valve - R...	\$1,515	x	24	/	25	=	\$1,454
1014	Irrigation Controller Panels - ...	\$3,030	x	24	/	35	=	\$2,078
1015	Irrigation Controllers - Replace	\$3,030	x	6	/	15	=	\$1,212
1016	Irrigation Piping - 25% Replace	\$39,885	x	24	/	30	=	\$31,908
1017	Irrigation Valves (in-ground) ...	\$1,313	x	1	/	1	=	\$1,313
1018	Landscape Drainage (boat pa...	\$15,000	x	1	/	20	=	\$750
1019	Landscaping (gravel) - Reple...	\$3,088	x	4	/	5	=	\$2,471
1020	Landscaping - 25% Tree Care	\$9,810	x	24	/	25	=	\$9,417
1021	Lights (pole) - Replace	\$2,323	x	24	/	30	=	\$1,858
1022	Mailbox Cluster (2009) - Repl...	\$4,810	x	12	/	24	=	\$2,405
1023	Mailbox Cluster (2013) - Repl...	\$1,603	x	8	/	24	=	\$534
1024	Mailbox Cluster (2015) - Repl...	\$1,603	x	6	/	24	=	\$401
1025	Mailbox Cluster (2017) - Repl...	\$3,207	x	4	/	24	=	\$534
1026	Mailbox Clusters (2020) - Re...	\$28,860	x	19	/	24	=	\$22,847
1027	Parking Bollards (boat park) -...	\$3,030	x	24	/	35	=	\$2,078
1028	Pavers (sand set) - Replace	\$2,197	x	24	/	25	=	\$2,109
1029	Playground Structure (boat p...	\$42,000	x	23	/	23	=	\$42,000
1030	Playground Structure (small ...	\$28,000	x	24	/	28	=	\$24,000
1031	Playground Surface (boat pa...	\$1,536	x	3	/	3	=	\$1,536
1032	Playground Surface (small pa...	\$1,220	x	3	/	3	=	\$1,220
1033	Playground Timber Edging (b...	\$1,293	x	1	/	24	=	\$54
1034	Playground Timber Edging (s...	\$1,164	x	24	/	24	=	\$1,164
1035	Recreation - Benches (wood)...	\$8,333	x	24	/	25	=	\$7,999
1036	Recreation - Picnic Table (wo...	\$2,576	x	24	/	25	=	\$2,472

**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) - ...	\$2,030	x	7	/	40	=	\$355
1038	Retaining Walls (wood) - Rep...	\$667	x	24	/	25	=	\$640
1039	Stormwater Pond (NE pond) ...	\$20,200	x	24	/	30	=	\$16,160
1040	Stormwater Pond (NW pond...	\$11,615	x	6	/	15	=	\$4,646

Total Asset Summary:

\$284,946

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



Sample Component

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.

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

Asphalt - Overlay - 2022

		4,113 sf	@ \$2.22
Asset ID	1001	Asset Actual Cost	\$9,130.86
		Percent Replacement	100%
Category	Asphalt Surfaces	Future Cost	\$9,404.79
Placed in Service	June 1997		
Useful Life	25		
Replacement Year	2022		
Remaining Life	1		

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	@ \$0.31
Asset ID	1002	Asset Actual Cost	\$1,275.03
		Percent Replacement	100%
Category	Asphalt Surfaces	Future Cost	\$1,313.28
Placed in Service	June 2015		
Useful Life	5		
Adjustment	2		
Replacement Year	2022		
Remaining Life	1		

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	@ \$8,080.00
Asset ID	1003	Asset Actual Cost	\$8,080.00
		Percent Replacement	100%
Category	Recreation	Future Cost	\$15,031.18
Placed in Service	June 1997		
Useful Life	45		
Replacement Year	2042		
Remaining Life	21		

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	@ \$41.41
Asset ID	1004	Asset Actual Cost	\$6,294.32
		Percent Replacement	100%
Category	Fencing	Future Cost	\$11,709.29
Placed in Service	June 1997		
Useful Life	45		
Replacement Year	2042		
Remaining Life	21		

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 - 2021		227 lf	@ \$37.37
Asset ID	1005	Asset Actual Cost	\$1,696.60
Category	Concrete Surfaces	Percent Replacement	20%
Placed in Service	June 1997	Future Cost	\$1,696.60
Useful Life	5		
Adjustment	15		
Replacement Year	2021		
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	@ \$36.86
Asset ID	1006	Asset Actual Cost	\$28,017.40
Category	Fencing	Percent Replacement	100%
Placed in Service	June 2010	Future Cost	\$66,024.84
Useful Life	40		
Replacement Year	2050		
Remaining Life	29		

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	@ \$36.86
Asset ID	1007	Asset Actual Cost	\$15,851.95
		Percent Replacement	100%
Category	Fencing	Future Cost	\$44,605.20
Placed in Service	June 2016		
Useful Life	40		
Replacement Year	2056		
Remaining Life	35		

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	@ \$25.25
Asset ID	1008	Asset Actual Cost	\$8,711.25
		Percent Replacement	100%
Category	Fencing	Future Cost	\$13,979.00
Placed in Service	June 1997		
Useful Life	40		
Replacement Year	2037		
Remaining Life	16		

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 - 2021

		3,821 lf	@ \$8.58
Asset ID	1009	Asset Actual Cost	\$32,803.28
		Percent Replacement	100%
Category	Fencing	Future Cost	\$32,803.28
Placed in Service	January 2016		
Useful Life	5		
Replacement Year	2021		
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

		3,821 lf	@ \$32.32
Asset ID	1010	Asset Actual Cost	\$123,494.72
		Percent Replacement	100%
Category	Fencing	Future Cost	\$223,045.20
Placed in Service	January 2016		
Useful Life	25		
Replacement Year	2041		
Remaining Life	20		

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	@ \$8.58
Category	Fencing	Asset Actual Cost	\$1,742.75
Placed in Service	January 2017	Percent Replacement	100%
Useful Life	5	Future Cost	\$1,795.04
Replacement Year	2022		
Remaining Life	1		

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	@ \$32.32
Category	Fencing	Asset Actual Cost	\$6,560.96
Placed in Service	June 1997	Percent Replacement	100%
Useful Life	25	Future Cost	\$6,757.79
Replacement Year	2022		
Remaining Life	1		

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	@ \$1,515.00
Asset ID	1013	Asset Actual Cost	\$1,515.00
		Percent Replacement	100%
Category	Plumbing	Future Cost	\$1,560.45
Placed in Service	June 1997		
Useful Life	25		
Replacement Year	2022		
Remaining Life	1		

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	@ \$757.50
Asset ID	1014	Asset Actual Cost	\$3,030.00
		Percent Replacement	100%
Category	Irrigation Systems	Future Cost	\$4,194.23
Placed in Service	June 1997		
Useful Life	35		
Replacement Year	2032		
Remaining Life	11		

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	@ \$757.50
Asset ID	1015	Asset Actual Cost	\$3,030.00
		Percent Replacement	100%
Category	Irrigation Systems	Future Cost	\$3,953.46
Placed in Service	June 2015		
Useful Life	15		
Replacement Year	2030		
Remaining Life	9		

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	@ \$1.51
Asset ID	1016	Asset Actual Cost	\$39,885.03
		Percent Replacement	25%
Category	Irrigation Systems	Future Cost	\$47,624.81
Placed in Service	June 1997		
Useful Life	5		
Adjustment	25		
Replacement Year	2027		
Remaining Life	6		

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 - 2021

Asset ID	1017	52 ea	@ \$252.50
		Asset Actual Cost	\$1,313.00
		Percent Replacement	10%
Category	Landscaping	Future Cost	\$1,313.00
Placed in Service	June 2019		
Useful Life	1		
Replacement Year	2021		
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

Asset ID	1018	1 ls	@ \$15,000.00
		Asset Actual Cost	\$15,000.00
		Percent Replacement	100%
Category	Landscaping	Future Cost	\$26,302.59
Placed in Service	June 2020		
Useful Life	20		
Replacement Year	2040		
Remaining Life	19		

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	@ \$1.26
Asset ID	1019	Asset Actual Cost	\$3,088.26
		Percent Replacement	100%
Category	Landscaping	Future Cost	\$3,180.91
Placed in Service	June 2017		
Useful Life	5		
Replacement Year	2022		
Remaining Life	1		

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	@ \$353.50
Asset ID	1020	Asset Actual Cost	\$9,809.62
		Percent Replacement	25%
Category	Landscaping	Future Cost	\$10,103.91
Placed in Service	June 1997		
Useful Life	5		
Adjustment	20		
Replacement Year	2022		
Remaining Life	1		

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	@ \$2,323.00
Asset ID	1021	Asset Actual Cost	\$2,323.00
		Percent Replacement	100%
Category	Lighting	Future Cost	\$2,773.78
Placed in Service	June 1997		
Useful Life	30		
Replacement Year	2027		
Remaining Life	6		

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	@ \$1,603.33
Asset ID	1022	Asset Actual Cost	\$4,809.99
		Percent Replacement	100%
Category	Mailboxes	Future Cost	\$6,857.89
Placed in Service	January 2009		
Useful Life	24		
Replacement Year	2033		
Remaining Life	12		

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	@ \$1,603.33
Category	Mailboxes	Asset Actual Cost	\$1,603.33
Placed in Service	January 2013	Percent Replacement	100%
Useful Life	24	Future Cost	\$2,572.87
Replacement Year	2037		
Remaining Life	16		

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	@ \$1,603.33
Category	Mailboxes	Asset Actual Cost	\$1,603.33
Placed in Service	January 2015	Percent Replacement	100%
Useful Life	24	Future Cost	\$2,729.56
Replacement Year	2039		
Remaining Life	18		

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	@ \$1,603.33
Asset ID	1025	Asset Actual Cost	\$3,206.66
		Percent Replacement	100%
Category	Mailboxes	Future Cost	\$5,791.58
Placed in Service	September 2017		
Useful Life	24		
Replacement Year	2041		
Remaining Life	20		

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	@ \$1,603.33
Asset ID	1026	Asset Actual Cost	\$28,859.94
		Percent Replacement	100%
Category	Mailboxes	Future Cost	\$33,456.58
Placed in Service	June 2002		
Useful Life	24		
Replacement Year	2026		
Remaining Life	5		

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	@ \$1,010.00
Asset ID	1027	Asset Actual Cost	\$3,030.00
Category	Fencing	Percent Replacement	100%
Placed in Service	June 1997	Future Cost	\$4,194.23
Useful Life	35		
Replacement Year	2032		
Remaining Life	11		

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	@ \$15.15
Asset ID	1028	Asset Actual Cost	\$2,196.75
Category	Landscaping	Percent Replacement	100%
Placed in Service	June 1997	Future Cost	\$2,262.65
Useful Life	25		
Replacement Year	2022		
Remaining Life	1		

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 - 2021

			1 ea	@ \$42,000.00
Asset ID	1029	Asset Actual Cost		\$42,000.00
		Percent Replacement		100%
Category	Recreation	Future Cost		\$42,000.00
Placed in Service	June 1997			
Useful Life	25			
Adjustment	-2			
Replacement Year	2021			
Remaining Life	0			

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	@ \$28,000.00
Asset ID	1030	Asset Actual Cost		\$28,000.00
		Percent Replacement		100%
Category	Recreation	Future Cost		\$31,514.25
Placed in Service	June 1997			
Useful Life	25			
Adjustment	3			
Replacement Year	2025			
Remaining Life	4			

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 - 2021

		1,600 sf	@ \$0.96
Asset ID	1031	Asset Actual Cost	\$1,536.00
		Percent Replacement	100%
Category	Recreation	Future Cost	\$1,536.00
Placed in Service	June 2018		
Useful Life	3		
Replacement Year	2021		
Remaining Life	0		

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 - 2021

		1,271 sf	@ \$0.96
Asset ID	1032	Asset Actual Cost	\$1,220.16
		Percent Replacement	100%
Category	Recreation	Future Cost	\$1,220.16
Placed in Service	March 2018		
Useful Life	3		
Replacement Year	2021		
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 - 2044

Asset ID	1033	160 lf	@ \$8.08
		Asset Actual Cost	\$1,292.80
		Percent Replacement	100%
Category	Landscaping	Future Cost	\$2,551.45
Placed in Service	June 2020		
Useful Life	24		
Replacement Year	2044		
Remaining Life	23		

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 - 2021

Asset ID	1034	144 lf	@ \$8.08
		Asset Actual Cost	\$1,163.52
		Percent Replacement	100%
Category	Landscaping	Future Cost	\$1,163.52
Placed in Service	June 1997		
Useful Life	24		
Replacement Year	2021		
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	@ \$757.50
		Asset Actual Cost	\$8,332.50
		Percent Replacement	100%
Category	Recreation	Future Cost	\$8,582.47
Placed in Service	June 1997		
Useful Life	25		
Replacement Year	2022		
Remaining Life	1		

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	@ \$858.50
		Asset Actual Cost	\$2,575.50
		Percent Replacement	100%
Category	Recreation	Future Cost	\$2,652.76
Placed in Service	June 1997		
Useful Life	25		
Replacement Year	2022		
Remaining Life	1		

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	@ \$30.30
Asset ID	1037	Asset Actual Cost	\$2,030.10
		Percent Replacement	100%
Category	Landscaping	Future Cost	\$5,384.50
Placed in Service	June 2014		
Useful Life	40		
Replacement Year	2054		
Remaining Life	33		

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	@ \$20.20
Asset ID	1038	Asset Actual Cost	\$666.60
		Percent Replacement	100%
Category	Landscaping	Future Cost	\$686.60
Placed in Service	June 1997		
Useful Life	25		
Replacement Year	2022		
Remaining Life	1		

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	@ \$20,200.00
Asset ID	1039	Asset Actual Cost		\$20,200.00
		Percent Replacement		100%
Category	Stormwater Facilities	Future Cost		\$24,119.86
Placed in Service	June 1997			
Useful Life	30			
Replacement Year	2027			
Remaining Life	6			

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	@ \$11,615.00
Asset ID	1040	Asset Actual Cost		\$11,615.00
		Percent Replacement		100%
Category	Stormwater Facilities	Future Cost		\$15,154.94
Placed in Service	June 2015			
Useful Life	15			
Replacement Year	2030			
Remaining Life	9			

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	lf 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	2021	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	2021	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	2021	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	2021	56
1030	Playground Structure (small park) - Replace	2025	56
1031	Playground Surface (boat park) - Replenish	2021	57
1032	Playground Surface (small park) - Replenish	2021	57
1033	Playground Timber Edging (boat park) - Replace	2044	58
1034	Playground Timber Edging (small park) - Replace	2021	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	

**Sector 2A Snohomish Cascade Association
Assessment & Disclosure Request Form**

RDA Report #: 16388

Association Name: Sector 2A Snohomish Cascade Association

1. The below information is based on the approved budget for the Association's upcoming fiscal year with a starting date of: **January 1, 2021**

2. Total **approved annual** regular Assessment Income (total annual HOA dues collected): \$ _____

3. Total **approved annual** budgeted Reserve Contribution: \$ _____

4. Description of any Special Assessments that are approved or in effect (if applicable):

a. Total Assessment: _____ 1st Payment Due Date: _____

Expiration Date: _____

Average Amount per member: _____ per: month or year (circle one)

Purpose _____

b. Total Assessment: _____ 1st Payment Due Date: _____

Expiration Date: _____

Average Amount per member: _____ per: month or year (circle one)

Purpose _____

5. Are the budgeted reserve contribution and any special assessments identical to the **Recommended** Funding Plan contained in your Reserve Study? Yes No (circle one)

**Sector 2A Snohomish Cascade Association
Assessment & Disclosure Request Form**

6. The projected starting reserve account cash balance based on the approved funding plan:

Estimated Beginning Fiscal Year Reserve Account Starting Balance: \$_____

Representative Certification

As a representative of the Association, I certify that the information provided above is accurate and valid to the best of my knowledge and is based on a finalized and approved (e.g. the Board has voted and approved) version of the Budget and completed Reserve Study, both according to the Fiscal Year indicated above.

Signature_____

Date_____

Printed Name:_____

Association/Company:_____

Title:_____

Phone:_____

Email:_____

*Note that for Reserve Data Analyst, Inc. to provide an Assessment & Disclosure Form based on the above data the budget must first be approved by a vote of the Board. Email signed & completed form to: **proposal@reservedataanalyst.com**