

5116 Heather Drive  
Anacortes, WA 98221  
360.588.9956

**Funding Reserve Analysis**  
*for*  
**Birch Bay Village Community - Marina Level 2 Study 2025**

August 23, 2024



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5116 Heather Drive  
Anacortes, WA 9822  
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August 23, 2024

Mr. Dave Franklin  
Birch Bay Village Community  
8055 Cowichan Road  
Blaine WA 98230

Dear Mr. Dave Franklin,

### **Introduction**

First, we would like to thank you for utilizing our services. Our approach is to provide the members, the board and management with understandable information to make informed decisions needed to best manage your reserve fund and annual contributions. We strive to understand the association's needs and design a funding strategy for meeting those needs based on a realistic approach to finances available and real-world workings of most associations. We live and work in the local area and work hard to keep up to date with costs in your association's neighborhood.

### **Included within the following pages you will find:**

Three funding models which detail how your association finances will look during the 30-year forecast window.

- Current Level of Contributions
- Baseline Funded
- Fully Funded (per the State of Washington RCW 64.34.380)

A list of the community components that the association is responsible for maintaining.

- Estimated current cost of replacement of each component.
- Timeline of estimated remaining life and estimated cost at replacement date per component.

Annual expenditure detail.

Expenses by item and by calendar year.

Average deficit or surplus from a Fully Funded Balance for the association and per member in dollar amount and percentage (based on equal percentage ownership for all units). This amount is calculated by subtracting the association's reserve account balance as of the date of the study (*Budget Year Beginning Date*) from the Fully Funded Balance. Also included is the same calculated amounts as projected at the end of the each study year (*Budget Year Ending Date*).

**What is our Recommended Funding Goal?** Maintaining the Reserve Fund at a level equal to the value of deterioration is called "Full Funding" (100% Funded). As each asset ages and becomes "used up", the Reserve Fund grows proportionally. This is simple, responsible, and our recommendation.

Evidence shows that associations in the:

- 0-50% range are considered in **Poor** condition and at a high risk of special assessments or deferred maintenance.
- 60-80% range are considered in **Good** condition and should strive to gradually increase reserves.
- 90-130% range are considered in **Excellent** condition and enjoy a low risk of special assessments or deferred maintenance.

The attached funding study is limited in scope to those expense items listed in the attached Expense Detail Report. Expense items which have an expected life of more than 30 Years are not included in this reserve study unless payment for these long-lived items overlaps the 30 Years reserve study envelope.

# Birch Bay Village Community - Marina Level 2 Study 2025

## Executive Summary

Name	Birch Bay Village Community - Marina Level 2 Study 2025
Location	Blaine, WA
Contributing Members	1128
Year Built	1966
Fiscal Year Ends	2025
Depth of Study	Level 2 Study ( <i>With Site Visit</i> )
Date of Study	August 23, 2024
Last On-Site Inspection Date	June 25, 2024
Inflation Rate for Projections	5%

## Reserve Account Summary

Reported Current Annual Reserve Contribution	\$425,236 per year
Estimated Fiscal Year Starting Balance	-\$128,331
Fiscal Year Beginning Balance If Fully Funded	\$3,615,550 ( <i>ideal amount in reserves</i> )
Average Deficit/Surplus Per Member ( <i>As of Budget Year Beginning Date</i> )	-\$3,319 Percent Funded -4%



## 5 - Year Summary - Current vs. Baseline vs. Fully Funded (*As of Budget Year Ending Date*)

	<b>Current Funding Model</b> <i>Contribution amount supplied by Client</i>		<b>Baseline Funded Model</b> <i>Reserve account above \$0 within study timeframe</i>		<b>Fully Funded Model Recommended</b> <i>Achieve 100% funded within the 30 year study timeframe</i>	
2025	\$133,657	3%	\$590,707	15%	\$2,416,821	62%
2026	\$496,607	12%	\$1,445,557	35%	\$2,920,267	72%
2027	\$764,484	18%	\$2,242,241	54%	\$3,336,356	80%
2028	\$1,028,374	24%	\$3,074,015	72%	\$3,756,579	88%
2029	-\$1,528,764	-105%	\$342,893	23%	\$951,912	65%
	<i>Contribution increases vary</i>		<i>Contribution set for minimum to maintain positive balance</i>		<i>Model goal is to achieve 100% funded by year 30</i>	

The percentage figures above represent the percentage each model is above or below fully funded for the noted time period

## Project Description

Birch Bay Village is located along the northern shore of Birch Bay in Washington State. Originally developed in the mid 1960's, the Community assets include a 250 boat marina, fuel dock and assorted items to support the facility.

This year's report is a Level 2 Reserve Study which includes a field evaluation of the Association's physical assets, a review of current financial, other information provided by the client and prior reserve reports.

The association reported several projects planned for the coming year. Please refer to the detailed report pages in the following sections of the report.

*(Report Note - material and labor costs appear to be continuing to increase in all construction categories. Many associations have reported dramatic cost differences in recent contractor bids on the same projects. We highly recommend associations request contractor bids on upcoming projects early in the process. Until such time as cost increases moderate all models will include an inflation factor of 5%.*

**Reserve Fund Status and Funding Plan Recommendation** - Based on our findings the current level of funding of the reserve account **is not adequate to fund projected expenses for the first several years**. We recommend the association gradually adopt a reserve funding plan based on the Fully Funding Model in order to ensure that adequate funding is available throughout the 30-year study period.

**Current Assessment Projection** - The initial reserve assessment is the association's reported current fiscal year funding level and projected out 30 years to illustrate the adequacy of the current funding over time.

Current Total Reported Annual Reserve Contribution - \$425,236

**Baseline Funded Model** - The goal of this funding method is to keep the reserve cash balance above zero. This means that while each individual component may not be fully funded, the reserve balance overall does not drop below zero during the projected period. A facility using this funding method must understand that even a minor reduction in a component's remaining useful life **or unplanned expenses** can result in a deficit in the reserve cash balance **and may require additional funding**.

Recommended Total Annual Reserve Contribution - \$870,595

**Fully Funded Model** - This is a straight-line funding model. It distributes the cash reserves to individual reserve components and then calculates what the reserve assessment and interest contribution (minus taxes) should be, again by each reserve component. The current annual assessment is then determined by summing all the individual component assessments. This is the most conservative funding model. It leads to or maintains a fully funded reserve position. (Please note that the Fully Funded Model incorporates funding parameters that seek to reach 100% funded at year 30 reserve study limit. The recommended contribution amount may be unusually high or low for the first few years depending on the current reserve account balance and upcoming expenses).

Recommended Total Annual Reserve Contribution - \$2,650,000

### **In this Reserve Study the following components are excluded:**

Power Lines – Generally utility companies.

Utility Main Lines – Generally utility companies or City.

### **Depth of Study**

We have completed a full-service Level 2 Reserve Study for your association. A field inspection was made to verify the current status of the various reserve study components, their physical condition, and to verify component quantities. In place testing, laboratory testing, and non-destructive testing of the reserve study components were not performed. Field measurements of component quantities were made to either verify improvement plan take offs or determine directly the quantities of various components. Photographs were taken of the site improvements.

**Understanding the Budget Year**

Your study is based on the standard calendar year January 1 through December 31<sup>st</sup>. January is the “*budget year beginning*”. This account balance is the starting point for determining the distribution of available funds for the year. Reserve contributions plus any addition income or deposits and interest for the 12-month period are calculated then projected expenses for the year are deducted. The result is the *budget year ending* balance estimated for December 31<sup>st</sup>.

**Initial Reserves**

Initial reserves for this reserve study are estimated to be -\$128,331 as of December 31, 2024. We have relied upon the client to provide the current (or projected) reserve balance, the estimated net-after-tax current rate of interest earnings, and to indicate if those earnings accrue to the reserve fund.

**Keeping Your Reserve Study Current**

We recommend that your reserve analysis study be updated on an annual basis due to fluctuating interest rates, inflationary changes, and the unpredictable nature of the lives of many of the assets under consideration. All of the information collected during our inspection of the facilities site and computations made subsequently in preparing this reserve analysis study are retained in our computer files.

**Conflict of Interest**

As the preparer of this reserve study, Pacific Crest Reserves 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.

**Date of Physical Inspection**

The property was physically inspected by Pacific Crest Reserves on June 25, 2024.

Pacific Crest Reserves would like to thank the members and management for the opportunity to be of service in the preparation of the attached funding study. Again, please feel free to contact us if you have any questions.

Prepared by:

*Charlie Barefield*

Charlie Barefield  
Reserve Analyst Principal

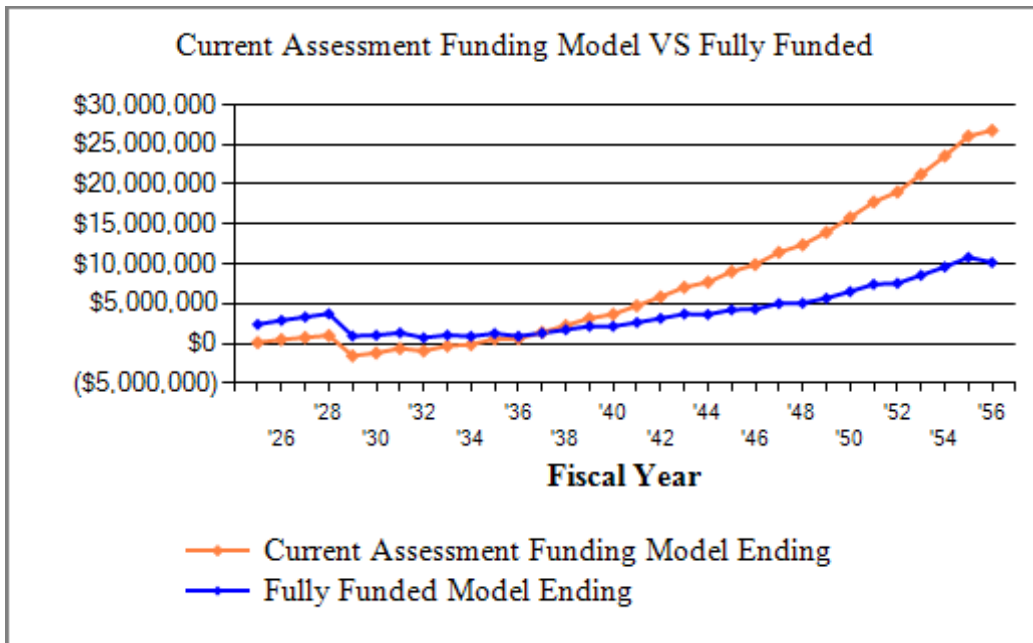
**Birch Bay Village Community - Marina Level 2 Study 2025**

Blaine, WA

**Current Assessment Projection Summary**

Report Date	August 23, 2024
Budget Year Beginning	January 1, 2025
Budget Year Ending	December 31, 2025
Total Units	1128

<b>Report Parameters</b>	
Inflation	5.00%
Interest Rate on Reserve Deposit	3.75%
Tax Rate on Interest	30.00%
2025 Beginning Balance	-\$128,331



**The Current Assessment Funding Model** is based on the current annual assessment, parameters, and reserve fund balance. Because it is calculated using the current annual assessment, it will give the accurate projection of how well the association is funded for the next 30 years of planned reserve expenditures. The monthly contribution noted is the Average Amount per lot.

**Current Assessment Funding Model Summary of Calculations**

Required Annual Contribution	\$425,236.00
<i>\$376.98 per unit annually</i>	
Average Net Annual Interest Earned	<u>\$3,418.75</u>
Total Annual Allocation to Reserves	\$428,654.75
<i>\$380.01 per unit annually</i>	

**Birch Bay Village Community - Marina Level 2 Study 2025  
Current Assessment Projection**

Beginning Balance: -\$128,331

Year	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2025	425,236	3,419	166,667	133,657	3,910,162	3%
2026	446,498	12,702	96,250	496,607	4,075,440	12%
2027	468,823	19,554	220,500	764,484	4,172,794	18%
2028	492,264	26,304	254,677	1,028,374	4,283,875	24%
2029	516,877		3,074,015	-1,528,764	1,460,001	
2030	542,721		188,252	-1,174,295	1,536,122	
2031	569,857			-604,438	1,823,752	
2032	598,350		910,394	-916,482	1,180,876	
2033	628,267			-288,215	1,472,863	
2034	659,681		488,668	-117,202	1,278,690	
2035	692,665	15,106		590,568	1,600,175	37%
2036	727,298	15,737	718,343	615,261	1,202,338	51%
2037	763,663	36,197		1,415,120	1,552,689	91%
2038	801,846	58,195		2,275,162	1,935,070	118%
2039	841,938	81,148	25,739	3,172,509	2,324,781	136%
2040	884,035	94,478	457,364	3,693,658	2,296,771	161%
2041	928,237	121,325		4,743,220	2,764,391	172%
2042	974,649	150,094		5,867,963	3,273,032	179%
2043	1,023,381	180,898		7,072,242	3,825,626	185%
2044	1,074,550	197,204	634,264	7,709,731	3,759,319	205%
2045	1,128,278	231,301	26,533	9,042,777	4,348,094	208%
2046	1,184,692	253,845	557,193	9,924,121	4,430,550	224%
2047	1,243,926	293,161		11,461,208	5,124,685	224%
2048	1,306,122	317,404	675,735	12,409,000	5,167,636	240%
2049	1,371,429	357,503	161,255	13,976,677	5,777,750	242%
2050	1,440,000	404,688		15,821,365	6,613,741	239%
2051	1,512,000	455,001		17,788,366	7,518,886	237%
2052	1,587,600	487,058	821,360	19,041,664	7,635,583	249%
2053	1,666,980	543,602		21,252,246	8,650,702	246%
2054	1,750,329	602,413	53,510	23,551,478	9,692,059	243%
2055	1,837,845	666,470		26,055,793	10,874,919	240%
2056	1,929,738	684,588	1,905,977	26,764,143	10,150,560	264%



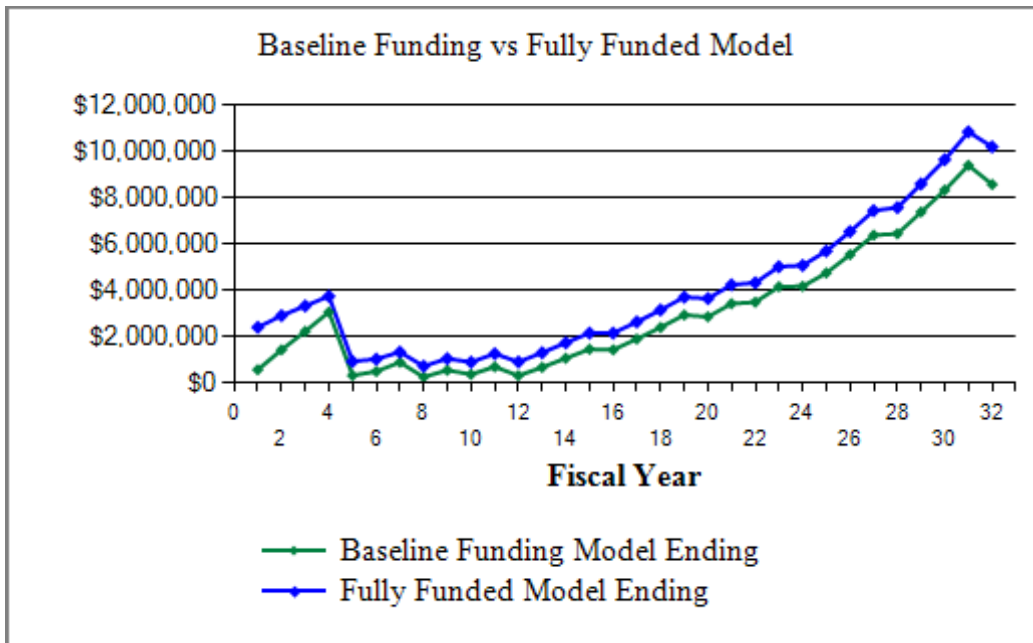
# Birch Bay Village Community - Marina Level 2 Study 2025

Blaine, WA

## Baseline Funding Model Summary

Report Date	August 23, 2024
Budget Year Beginning	January 1, 2025
Budget Year Ending	December 31, 2025
Total Units	1128

<b>Report Parameters</b>	
Inflation	5.00%
Annual Assessment Increase	5.00%
Interest Rate on Reserve Deposit	3.75%
Tax Rate on Interest	30.00%
2025 Beginning Balance	-\$128,331



The **Threshold Funding Model** calculates the minimum reserve assessments, with the restriction that the reserve balance is not allowed to go below \$0 or other predetermined threshold, during the period of time examined. All funds for planned reserve expenditures will be available on the first day of each fiscal year. The **Threshold Funding Model** allows the client to choose the level of conservative funding they desire by choosing the threshold dollar amount. The monthly contribution noted is the Average Amount per lot.

<b>Baseline Funding Model Summary of Calculations</b>	
Required Annual Contribution	\$870,595.24
<i>\$771.80 per unit annually</i>	
Average Net Annual Interest Earned	<u>\$15,109.43</u>
Total Annual Allocation to Reserves	\$885,704.67
<i>\$785.20 per unit annually</i>	

**Birch Bay Village Community - Marina Level 2 Study 2025  
Baseline Funding Model Projection**

Beginning Balance: -\$128,331

Year	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2025	870,595	15,109	166,667	590,707	3,910,162	15%
2026	914,125	36,975	96,250	1,445,557	4,075,440	35%
2027	959,831	57,353	220,500	2,242,241	4,172,794	54%
2028	1,007,823	78,629	254,677	3,074,015	4,283,875	72%
2029	334,122	8,771	3,074,015	342,893	1,460,001	23%
2030	350,828	13,269	188,252	518,738	1,536,122	34%
2031	368,370	23,287		910,394	1,823,752	50%
2032	268,439	7,047	910,394	275,485	1,180,876	23%
2033	281,861	14,630		571,976	1,472,863	39%
2034	295,954	9,956	488,668	389,217	1,278,690	30%
2035	310,751	18,374		718,343	1,600,175	45%
2036	326,289	8,565	718,343	334,854	1,202,338	28%
2037	342,603	17,783		695,241	1,552,689	45%
2038	359,733	27,693		1,082,667	1,935,070	56%
2039	377,720	37,660	25,739	1,472,308	2,324,781	63%
2040	396,606	37,053	457,364	1,448,603	2,296,771	63%
2041	416,436	48,957		1,913,997	2,764,391	69%
2042	437,258	61,720		2,412,975	3,273,032	74%
2043	459,121	75,393		2,947,489	3,825,626	77%
2044	482,077	73,377	634,264	2,868,679	3,759,319	76%
2045	506,181	87,894	26,533	3,436,220	4,348,094	79%
2046	531,490	89,526	557,193	3,500,044	4,430,550	79%
2047	558,065	106,525		4,164,634	5,124,685	81%
2048	585,968	106,965	675,735	4,181,832	5,167,636	81%
2049	615,266	121,691	161,255	4,757,535	5,777,750	82%
2050	646,030	141,844		5,545,408	6,613,741	84%
2051	678,331	163,373		6,387,112	7,518,886	85%
2052	712,248	164,797	821,360	6,442,797	7,635,583	84%
2053	747,860	188,755		7,379,412	8,650,702	85%
2054	785,253	212,918	53,510	8,324,073	9,692,059	86%
2055	824,516	240,150		9,388,739	10,874,919	86%
2056	865,742	219,148	1,905,977	8,567,652	10,150,560	84%

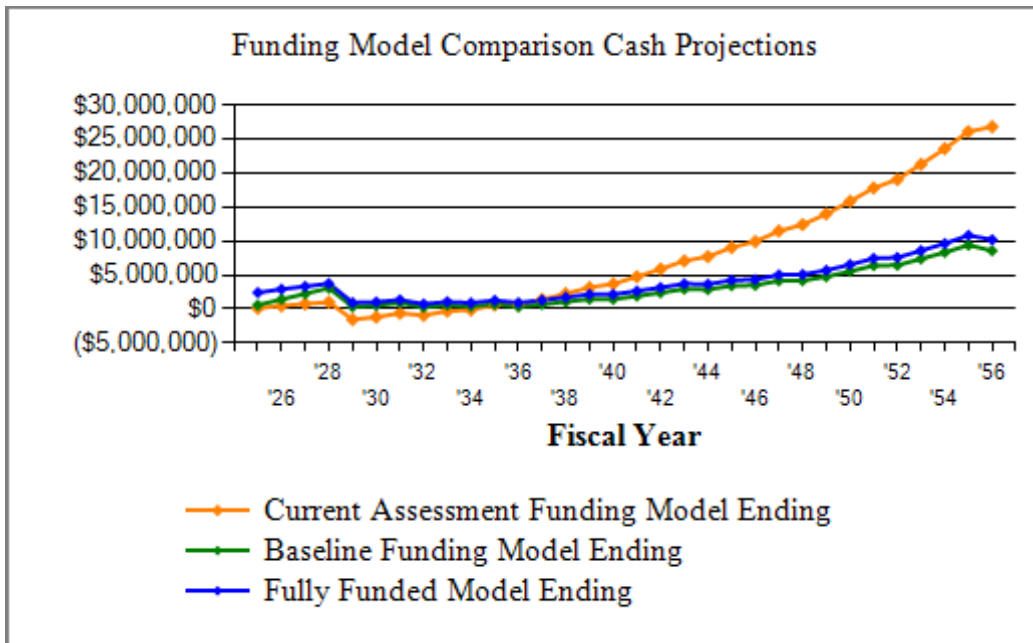
# Birch Bay Village Community - Marina Level 2 Study 2025

Blaine, WA

## Fully Funded Model Summary

Report Date	August 23, 2024
Budget Year Beginning	January 1, 2025
Budget Year Ending	December 31, 2025
Total Units	1128

<b>Report Parameters</b>	
Inflation	5.00%
Interest Rate on Reserve Deposit	3.75%
Tax Rate on Interest	30.00%
2025 Beginning Balance	-\$128,331



The **Component Funding Model's** long-term objective is to provide a plan to a fully funded reserve position over the longest period of time practical. This is the most conservative funding model. The monthly contribution noted is the Average Amount per lot.

### **Fully Funded Model Summary of Calculations**

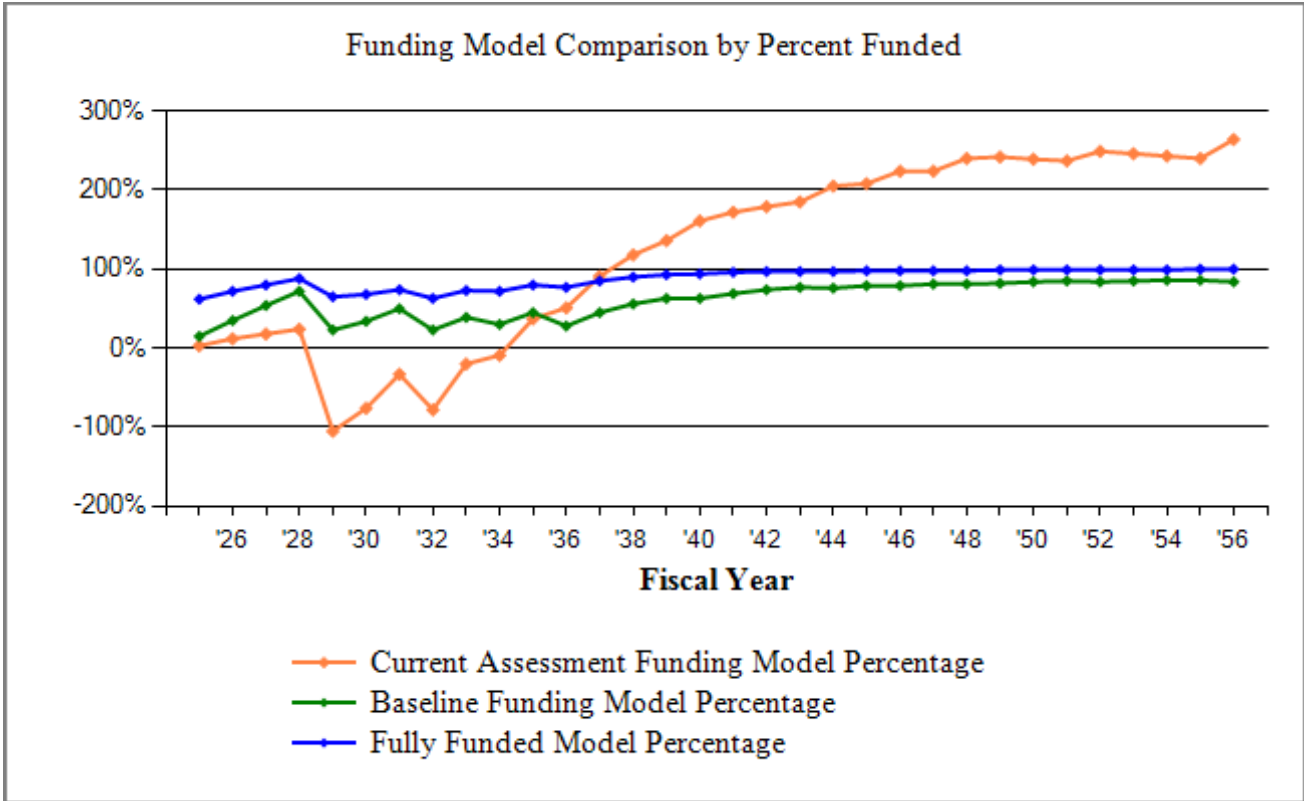
Required Annual Contribution	\$2,650,000.00
<i>\$2,349.29 per unit annually</i>	
Average Net Annual Interest Earned	\$61,818.80
Total Annual Allocation to Reserves	\$2,711,818.80
<i>\$2,404.09 per unit annually</i>	

**Birch Bay Village Community - Marina Level 2 Study 2025  
Fully Funded Model Projection**

Beginning Balance: -\$128,331

Year	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2025	2,650,000	61,819	166,667	2,416,821	3,910,162	62%
2026	525,000	74,696	96,250	2,920,267	4,075,440	72%
2027	551,250	85,339	220,500	3,336,356	4,172,794	80%
2028	578,812	96,088	254,677	3,756,579	4,283,875	88%
2029	245,000	24,349	3,074,015	951,912	1,460,001	65%
2030	257,250	26,799	188,252	1,047,709	1,536,122	68%
2031	270,112	34,593		1,352,415	1,823,752	74%
2032	283,618	19,048	910,394	744,687	1,180,876	63%
2033	297,799	27,365		1,069,851	1,472,863	73%
2034	312,689	23,464	488,668	917,336	1,278,690	72%
2035	328,323	32,699		1,278,358	1,600,175	80%
2036	344,740	23,750	718,343	928,505	1,202,338	77%
2037	361,977	33,875		1,324,356	1,552,689	85%
2038	380,075	44,741		1,749,173	1,935,070	90%
2039	390,337	55,487	25,739	2,169,258	2,324,781	93%
2040	400,877	55,460	457,364	2,168,231	2,296,771	94%
2041	411,700	67,723		2,647,654	2,764,391	96%
2042	433,932	80,892		3,162,478	3,273,032	97%
2043	457,364	95,021		3,714,863	3,825,626	97%
2044	482,062	93,520	634,264	3,656,180	3,759,319	97%
2045	508,093	108,616	26,533	4,246,356	4,348,094	98%
2046	535,530	110,898	557,193	4,335,593	4,430,550	98%
2047	564,449	128,626		5,028,668	5,124,685	98%
2048	598,316	129,970	675,735	5,081,219	5,167,636	98%
2049	634,215	145,797	161,255	5,699,976	5,777,750	99%
2050	672,268	167,271		6,539,515	6,613,741	99%
2051	712,604	190,368		7,442,487	7,518,886	99%
2052	755,360	193,633	821,360	7,570,120	7,635,583	99%
2053	800,682	219,734		8,590,535	8,650,702	99%
2054	848,723	246,376	53,510	9,632,124	9,692,059	99%
2055	920,864	277,016		10,830,004	10,874,919	100%
2056	999,138	260,483	1,905,977	10,183,648	10,150,560	100%

**Birch Bay Village Community - Marina Level 2 Study 2025  
Funding Model Comparison by Percent Funded**



The chart above compares the projected Reserve Percentage Funded of the three funding models (Current Assessment Funding Model, Baseline Funding Model and Fully Funded Model) over 30 years.

**Birch Bay Village Community - Marina Level 2 Study 2025  
Annual Expenditure Detail**

Description	Expenditures
<b>Replacement Year 2025</b>	
Marina Engineering Project - 2025	100,000
Permits All Marina Projects - 2025	66,667
<b>Total for 2025</b>	<b><u>\$166,667</u></b>
<b>Replacement Year 2026</b>	
Marina Engineering Project - 2026	26,250
Permits All Marina Projects - 2026	70,000
<b>Total for 2026</b>	<b><u>\$96,250</u></b>
<b>Replacement Year 2027</b>	
Piling Replacement - End Piling A, B, C, D Docks	220,500
<b>Total for 2027</b>	<b><u>\$220,500</u></b>
<b>Replacement Year 2028</b>	
Dredging - Entrance	254,677
<b>Total for 2028</b>	<b><u>\$254,677</u></b>
<b>Replacement Year 2029</b>	
Fuel Dock Replacement	182,326
Harbor Bank Reinforcement	2,431,012
Launch Concrete Ramp	60,775
Piling Replacement - A & B Dock	340,342
Piling Replacement - E, Gas & Guest Docks	59,560
<b>Total for 2029</b>	<b><u>\$3,074,015</u></b>
<b>Replacement Year 2030</b>	
Dock Gates, Fencing & Fob Controllers	31,907
Fuel Dock Underground Tank Replacement	156,344
<b>Total for 2030</b>	<b><u>\$188,252</u></b>
<i>No Replacement in 2031</i>	
<b>Replacement Year 2032</b>	
Dredging - Entrance	309,562
Piling Replacement - C & D Dock	571,283
Piling Replacement - Launch Ramp Dock	29,549
<b>Total for 2032</b>	<b><u>\$910,394</u></b>

**Birch Bay Village Community - Marina Level 2 Study 2025  
Annual Expenditure Detail**

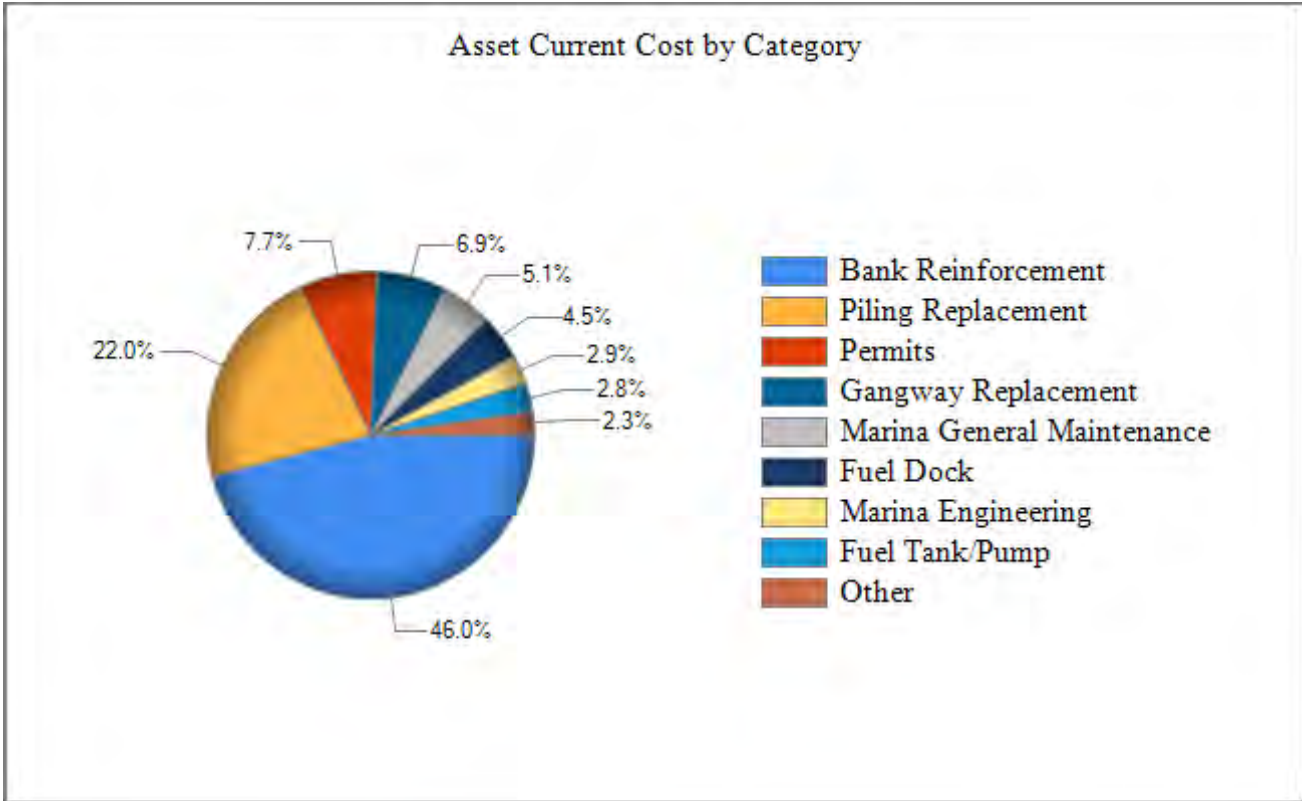
Description	Expenditures
<i>No Replacement in 2033</i>	
<b>Replacement Year 2034</b>	
Gangway Replacement - B, C, D, Fuel/Guest/E Dock	465,398
Pump Out Station Dock Replacement	23,270
<b>Total for 2034</b>	<b>\$488,668</b>
<i>No Replacement in 2035</i>	
<b>Replacement Year 2036</b>	
Dredging - Entrance	376,275
Marina Project Permits - Ongoing	342,068
<b>Total for 2036</b>	<b>\$718,343</b>
<i>No Replacement in 2037</i>	
<i>No Replacement in 2038</i>	
<b>Replacement Year 2039</b>	
Fuel Dock - Fuel Card Reader Replacement	25,739
<b>Total for 2039</b>	<b>\$25,739</b>
<b>Replacement Year 2040</b>	
Dredging - Entrance	457,364
<b>Total for 2040</b>	<b>\$457,364</b>
<i>No Replacement in 2041</i>	
<i>No Replacement in 2042</i>	
<i>No Replacement in 2043</i>	
<b>Replacement Year 2044</b>	
Dredging - Entrance	555,929
Fuel Dock - Fuel Dispenser Replacement	78,335
<b>Total for 2044</b>	<b>\$634,264</b>
<b>Replacement Year 2045</b>	
Pump Out Station Pump/Plumbing Replacement	26,533
<b>Total for 2045</b>	<b>\$26,533</b>
<b>Replacement Year 2046</b>	
Marina Project Permits - Ongoing	557,193
<b>Total for 2046</b>	<b>\$557,193</b>

**Birch Bay Village Community - Marina Level 2 Study 2025  
Annual Expenditure Detail**

Description	Expenditures
<i>No Replacement in 2047</i>	
<b>Replacement Year 2048</b>	
Dredging - Entrance	675,735
<b>Total for 2048</b>	<b>\$675,735</b>
<b>Replacement Year 2049</b>	
Launch Concrete Ramp	161,255
<b>Total for 2049</b>	<b>\$161,255</b>
<i>No Replacement in 2050</i>	
<i>No Replacement in 2051</i>	
<b>Replacement Year 2052</b>	
Dredging - Entrance	821,360
<b>Total for 2052</b>	<b>\$821,360</b>
<i>No Replacement in 2053</i>	
<b>Replacement Year 2054</b>	
Fuel Dock - Fuel Card Reader Replacement	53,510
<b>Total for 2054</b>	<b>\$53,510</b>
<i>No Replacement in 2055</i>	
<b>Replacement Year 2056</b>	
Dredging - Entrance	998,369
Marina Project Permits - Ongoing	907,608
<b>Total for 2056</b>	<b>\$1,905,977</b>



**Birch Bay Village Community - Marina Level 2 Study 2025  
Asset Current Cost by Category**



The above chart illustrates the current cost breakdown percentage of the Component Categories in this reserve study (highest percentage components listed at top, items less than 2% are listed as "Other"). 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. Refer to the Cash Flow Projections and the Annual Expenditure Report for the projected timeline of expected expenditures.

**Birch Bay Village Community - Marina Level 2 Study 2025  
Detail Report by Category**

**Marina Engineering Project - 2025 - 2025**

Asset ID	1001	1 Allowance @ \$100,000.00
Category	Marina Engineering	Asset Actual Cost \$100,000.00
Placed in Service	June 2024	Percent Replacement 100%
Useful Life	1	Future Cost \$100,000.00
Replacement Year	2025	
Remaining Life	0	

The marina engineering begins in 2024 with \$75,000 allocated and continues in 2025 at \$100,000 and 2026 \$25,000.

**Marina Engineering Project - 2026 - 2026**

Asset ID	1002	1 Allowance @ \$25,000.00
Category	Marina Engineering	Asset Actual Cost \$25,000.00
Placed in Service	June 2024	Percent Replacement 100%
Useful Life	1	Future Cost \$26,250.00
Adjustment	1	
Replacement Year	2026	
Remaining Life	1	

**Marina Project Permits - Ongoing - 2036**

Asset ID	1003	1 Allowance @ \$200,000.00
Category	Permits	Asset Actual Cost \$200,000.00
Placed in Service	January 2024	Percent Replacement 100%
Useful Life	10	Future Cost \$342,067.87
Adjustment	2	
Replacement Year	2036	
Remaining Life	11	

Permitting related costs for anticipated marina projects during next 10-year period. Entrance and basin dredging, bank reinforcement, piling replacement, etc. Funds will have to be replenished by 2036 for another 10-year permit cycle.

**Birch Bay Village Community - Marina Level 2 Study 2025  
Detail Report by Category**

**Permits All Marina Projects - 2025 - 2025**

Asset ID	1004	1 Allowance @ \$66,667.00
Category	Permits	Asset Actual Cost \$66,667.00
Placed in Service	January 2022	Percent Replacement 100%
Useful Life	10	Future Cost \$66,667.00
Adjustment	-7	
Replacement Year	2025	
Remaining Life	0	

**Permits All Marina Projects - 2026 - 2026**

Asset ID	1005	1 Allowance @ \$66,667.00
Category	Permits	Asset Actual Cost \$66,667.00
Placed in Service	January 2022	Percent Replacement 100%
Useful Life	10	Future Cost \$70,000.35
Adjustment	-6	
Replacement Year	2026	
Remaining Life	1	

**Dredging - Entrance - 2028**

Asset ID	1006	1 Allowance @ \$220,000.00
Category	Dredging	Asset Actual Cost \$220,000.00
Placed in Service	June 2024	Percent Replacement 100%
Useful Life	4	Future Cost \$254,677.50
Adjustment	-1	
Replacement Year	2028	
Remaining Life	3	

Management plans to research the clam shell process with at sea disposal for future dredging to determine if it's a lower cost option. Plan to request for 10-year permits. Will also need to get permit approvals to dredge inside the marina basin, around the fuel dock and near gangways at A, B, C, D docks.

**Birch Bay Village Community - Marina Level 2 Study 2025  
Detail Report by Category**

**Harbor Bank Reinforcement - 2029**

Asset ID	1008	1 Allowance @	\$2,000,000.00
		Asset Actual Cost	\$2,000,000.00
		Percent Replacement	100%
		Future Cost	\$2,431,012.50
Category	Bank Reinforcement		
Placed in Service	June 1966		
Useful Life	50		
Adjustment	13		
Replacement Year	2029		
Remaining Life	4		

Our understanding is bank reinforcement of the interior of most if not all of the area in the marina will be required at the time of the inner harbor dredging.

**Fuel Dock Replacement - 2029**

Asset ID	1009	1 Allowance @	\$150,000.00
		Asset Actual Cost	\$150,000.00
		Percent Replacement	100%
		Future Cost	\$182,325.94
Category	Fuel Dock		
Placed in Service	June 1981		
Useful Life	45		
Adjustment	3		
Replacement Year	2029		
Remaining Life	4		

Funds for replacement of the fuel dock which is 54'-9" long and approximately 12' wide.

**Fuel Dock - Fuel Dispenser Replacement - 2044**

Asset ID	1010	1 Allowance @	\$31,000.00
		Asset Actual Cost	\$31,000.00
		Percent Replacement	100%
		Future Cost	\$78,335.45
Category	Fuel Dock		
Placed in Service	June 2024		
Useful Life	20		
Replacement Year	2044		
Remaining Life	19		

It was reported the fuel dispenser was replaced in the 2024.

**Birch Bay Village Community - Marina Level 2 Study 2025  
Detail Report by Category**

**Fuel Dock - Fuel Card Reader Replacement - 2039**

Asset ID	1011	1 Allowance @ \$13,000.00
		Asset Actual Cost \$13,000.00
		Percent Replacement 100%
Category	Fuel Dock	Future Cost \$25,739.11
Placed in Service	June 2024	
Useful Life	15	
Replacement Year	2039	
Remaining Life	14	

It was reported the fuel dispenser card reader was replaced in the 2024.

**Pump Out Station Dock Replacement - 2034**

Asset ID	1012	1 Allowance @ \$15,000.00
		Asset Actual Cost \$15,000.00
		Percent Replacement 100%
Category	Pump Out Facility	Future Cost \$23,269.92
Placed in Service	June 2005	
Useful Life	30	
Adjustment	-1	
Replacement Year	2034	
Remaining Life	9	

**Pump Out Station Pump/Plumbing Replacement - 2045**

Asset ID	1013	1 Allowance @ \$10,000.00
		Asset Actual Cost \$10,000.00
		Percent Replacement 100%
Category	Pump Out Facility	Future Cost \$26,532.98
Placed in Service	June 2005	
Useful Life	50	
Adjustment	-10	
Replacement Year	2045	
Remaining Life	20	

**Birch Bay Village Community - Marina Level 2 Study 2025  
Detail Report by Category**

**Fuel Dock Underground Tank Replacement - 2030**

Asset ID	1014	1 Allowance @	\$122,500.00
Category	Fuel Tank/Pump	Asset Actual Cost	\$122,500.00
Placed in Service	June 1987	Percent Replacement	100%
Useful Life	30	Future Cost	\$156,344.49
Adjustment	13		
Replacement Year	2030		
Remaining Life	5		

The fuel tank is an underground double walled unit. Based on information provided we understand the tank has been tested per prescribed requirements and appears to be in serviceable condition with no concerns noted at this time.

**Gangway Replacement - B, C, D, Fuel/Guest/E Dock - 2034**

Asset ID	1015	4 Allowance @	\$75,000.00
Category	Gangway Replacement	Asset Actual Cost	\$300,000.00
Placed in Service	June 1980	Percent Replacement	100%
Useful Life	50	Future Cost	\$465,398.46
Adjustment	4		
Replacement Year	2034		
Remaining Life	9		

Our understanding is the A dock gangway was replaced in 2020. B, C, D, Fuel/Guest/E dock gangways planned for 2034 replacement.

**Piling Replacement - End Piling A, B, C, D Docks - 2027**

Asset ID	1016	1 Allowance @	\$200,000.00
Category	Piling Replacement	Asset Actual Cost	\$200,000.00
Placed in Service	June 1970	Percent Replacement	100%
Useful Life	50	Future Cost	\$220,500.00
Adjustment	7		
Replacement Year	2027		
Remaining Life	2		

**Birch Bay Village Community - Marina Level 2 Study 2025  
Detail Report by Category**

**Piling Replacement - A & B Dock - 2029**

Asset ID	1017	1 Allowance @	\$280,000.00
	Pilings	Asset Actual Cost	\$280,000.00
Category	Piling Replacement	Percent Replacement	100%
Placed in Service	June 1970	Future Cost	\$340,341.75
Useful Life	50		
Adjustment	9		
Replacement Year	2029		
Remaining Life	4		

B dock piling replacement included in A piling replacement.

**Piling Replacement - C & D Dock - 2032**

Asset ID	1018	1 Allowance @	\$406,000.00
	Pilings	Asset Actual Cost	\$406,000.00
Category	Piling Replacement	Percent Replacement	100%
Placed in Service	June 1980	Future Cost	\$571,282.77
Useful Life	50		
Adjustment	2		
Replacement Year	2032		
Remaining Life	7		

**Piling Replacement - E, Gas & Guest Docks - 2029**

Asset ID	1019	1 Allowance @	\$49,000.00
	Pilings	Asset Actual Cost	\$49,000.00
Category	Piling Replacement	Percent Replacement	100%
Placed in Service	June 1980	Future Cost	\$59,559.81
Useful Life	50		
Adjustment	-1		
Replacement Year	2029		
Remaining Life	4		

**Birch Bay Village Community - Marina Level 2 Study 2025  
Detail Report by Category**

**Piling Replacement - Launch Ramp Dock - 2032**

Asset ID	1020	1 Allowance @ \$21,000.00
	Pilings	Asset Actual Cost \$21,000.00
Category	Piling Replacement	Percent Replacement 100%
Placed in Service	June 1980	Future Cost \$29,549.11
Useful Life	50	
Adjustment	2	
Replacement Year	2032	
Remaining Life	7	

**Launch Concrete Ramp - 2029**

Asset ID	1022	1 Allowance @ \$50,000.00
		Asset Actual Cost \$50,000.00
Category	Launch Concrete Ramp	Percent Replacement 100%
Placed in Service	June 2012	Future Cost \$60,775.31
Useful Life	20	
Adjustment	-3	
Replacement Year	2029	
Remaining Life	4	

Funds are included for replacement of the concrete ramp at the launch area.

**Dock Gates, Fencing & Fob Controllers - 2030**

Asset ID	1023	1 Allowance @ \$25,000.00
		Asset Actual Cost \$25,000.00
Category	Equipment	Percent Replacement 100%
Placed in Service	June 1995	Future Cost \$31,907.04
Useful Life	35	
Replacement Year	2030	
Remaining Life	5	



**Birch Bay Village Community - Marina Level 2 Study 2025  
Expenses by Item and by Calender Year**

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Dock Gates, Fencing & Fob Controllers						31,907				
Dredging - Entrance				254,677				309,562		
Fuel Dock - Fuel Card Reader Replacement										
Fuel Dock - Fuel Dispenser Replacement										
Fuel Dock Replacement					182,326					
Fuel Dock Underground Tank Replacement						156,344				
Gangway Replacement - B, C, D, Fuel/Guest/E..										465,398
Harbor Bank Reinforcement					2,431,012					
Launch Concrete Ramp					60,775					
Marina Engineering Project - 2025	100,000									
Marina Engineering Project - 2026		26,250								
Marina Project Permits - Ongoing										
Permits All Marina Projects - 2026		70,000								
Permits All Marina Projects - 2025	66,667									
Piling Replacement - A & B Dock					340,342					
Piling Replacement - C & D Dock								571,283		
Piling Replacement - E, Gas & Guest Docks					59,560					
Piling Replacement - End Piling A, B, C, D Doc..			220,500							
Piling Replacement - Launch Ramp Dock								29,549		
Pump Out Station Dock Replacement										23,270
Pump Out Station Pump/Plumbing Replacement										
<b>Year Total:</b>	<b>166,667</b>	<b>96,250</b>	<b>220,500</b>	<b>254,677</b>	<b>3,074,015</b>	<b>188,252</b>		<b>910,394</b>		<b>488,668</b>

**Birch Bay Village Community - Marina Level 2 Study 2025  
Expenses by Item and by Calender Year**

Description	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
Dock Gates, Fencing & Fob Controllers										
Dredging - Entrance		376,275				457,364				555,929
Fuel Dock - Fuel Card Reader Replacement					25,739					
Fuel Dock - Fuel Dispenser Replacement										78,335
Fuel Dock Replacement										
Fuel Dock Underground Tank Replacement										
Gangway Replacement - B, C, D, Fuel/Guest/E..										
Harbor Bank Reinforcement										
Launch Concrete Ramp										
Marina Engineering Project - 2025										
Marina Engineering Project - 2026										
Marina Project Permits - Ongoing		342,068								
Permits All Marina Projects - 2026										
Permits All Marina Projects - 2025										
Piling Replacement - A & B Dock										
Piling Replacement - C & D Dock										
Piling Replacement - E, Gas & Guest Docks										
Piling Replacement - End Piling A, B, C, D Doc..										
Piling Replacement - Launch Ramp Dock										
Pump Out Station Dock Replacement										
Pump Out Station Pump/Plumbing Replacement										
<b>Year Total:</b>		<b>718,343</b>			<b>25,739</b>	<b>457,364</b>				<b>634,264</b>

**Birch Bay Village Community - Marina Level 2 Study 2025  
Expenses by Item and by Calender Year**

Description	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054
Dock Gates, Fencing & Fob Controllers										
Dredging - Entrance				675,735				821,360		
Fuel Dock - Fuel Card Reader Replacement										53,510
Fuel Dock - Fuel Dispenser Replacement										
Fuel Dock Replacement										
Fuel Dock Underground Tank Replacement										
Gangway Replacement - B, C, D, Fuel/Guest/E..										
Harbor Bank Reinforcement										
Launch Concrete Ramp					161,255					
Marina Engineering Project - 2025										
Marina Engineering Project - 2026										
Marina Project Permits - Ongoing		557,193								
Permits All Marina Projects - 2026										
Permits All Marina Projects - 2025										
Piling Replacement - A & B Dock										
Piling Replacement - C & D Dock										
Piling Replacement - E, Gas & Guest Docks										
Piling Replacement - End Piling A, B, C, D Doc..										
Piling Replacement - Launch Ramp Dock										
Pump Out Station Dock Replacement										
Pump Out Station Pump/Plumbing Replacement	26,533									
<b>Year Total:</b>	<b>26,533</b>	<b>557,193</b>		<b>675,735</b>	<b>161,255</b>			<b>821,360</b>		<b>53,510</b>

**Birch Bay Village Community - Marina Level 2 Study 2025  
Expenses by Item and by Calender Year**

<b>Description</b>	<b>2055</b>	<b>2056</b>
Dock Gates, Fencing & Fob Controllers		
Dredging - Entrance		998,369
Fuel Dock - Fuel Card Reader Replacement		
Fuel Dock - Fuel Dispenser Replacement		
Fuel Dock Replacement		
Fuel Dock Underground Tank Replacement		
Gangway Replacement - B, C, D, Fuel/Guest/E..		
Harbor Bank Reinforcement		
Launch Concrete Ramp		
Marina Engineering Project - 2025		
Marina Engineering Project - 2026		
Marina Project Permits - Ongoing		907,608
Permits All Marina Projects - 2026		
Permits All Marina Projects - 2025		
Piling Replacement - A & B Dock		
Piling Replacement - C & D Dock		
Piling Replacement - E, Gas & Guest Docks		
Piling Replacement - End Piling A, B, C, D Doc..		
Piling Replacement - Launch Ramp Dock		
Pump Out Station Dock Replacement		
Pump Out Station Pump/Plumbing Replacement		
<b>Year Total:</b>		<b>1,905,977</b>



## Reserve Study Disclosure Form

In Compliance with RCW 64.34.308 and RCW 64.38.025 (2019)

Name of Association: Birch Bay Village Community - Marina

Current Year Reported Budget Contribution to Reserves: \$425,236

Recommended 2025 Contribution to Reserves, per study: \$2,650,000

Funding Plan Used for Recommendations: Full Funding

Projected Year End Reserve Balance at Current Funding Level: \$133,657  
**(Percentages below indicate the projected year end percentage level of the Reserve Fund vs Fully Funded at the Current Contribution Amount)**

Projected Year End Balance If the account was Fully Funded: \$3,910,162

5 Year Balances

Estimates Per Study:	2025	2026	2027	2028	2029
Projected Year End Reserve Balances at Current Contribution Level	\$133,657	\$496,607	\$764,484	\$1,028,374	-\$1,528,764
<i>Average Deficit/Surplus Per Member: \$-\$3,319 Percent Funded -4%</i>					
Projected Year End Reserve Balances at Recommended Funding Contribution Level:	\$2,416,821	\$2,920,267	\$3,336,356	\$3,756,579	\$951,912
Projected Year End Fully Funded Reserves If Fully Funded:	\$3,910,162	\$4,075,440	\$4,172,794	\$4,283,875	\$1,460,001
<b>Percent Reserve is Fully Funded at Current Funding Level:</b>	3%	12%	18%	24%	-105%

Based upon the most recent reserve study, will the association have funds to meet obligations for the next 30 years at the current contribution rate? Yes, Except for the first several years.

\_\_\_\_\_  
To be Completed by Management

Proposed 2025 Budget's Contribution to Reserves: \_\_\_\_\_

Is Additional Funding (Regular or Special Assessment) Planned? Yes/No

When is it due? (Month/Year) \_\_\_\_\_

What is the Purpose?	Description of Project(s):
_____	
_____	

Duration of Assessment: Start Date \_\_\_\_\_ End Date \_\_\_\_\_

Assessment Amount per Unit on Average: Per Month \_\_\_\_\_ Per Year \_\_\_\_\_

Author Name \_\_\_\_\_

# **Birch Bay Village Community - Marina Level 2 Study 2025**

## **Appendix - Disclosure, Definitions & Calculations**

### **Percent Funded**

Many reserve studies use the concept of "Percent Funded" to measure the reserve account balance against a theoretically perfect value. Percent Funded is often used as a measure of the "Financial Health" of an association. The assumption is, the higher the percentage, the greater the "Financial Health". The question of substance is simply: How much is enough? To answer the question, some understanding of Percent Funded is required. Percent Funded is the ratio of current cash reserves divided by the Fully Funded value at any instant in time. Fully Funded is defined as the present value of the sum of all Reserve Items divided by the expected life of each item. In essence, Fully Funded is simply the total of the average net present value of the association improvements. Reserve Items with a remaining life greater than the study life are not included in the calculation. For example; building framing, foundations, water lines, and other long-lived items that fall outside the envelope of the reserve study are excluded from the calculation. Percent Funded is then, the current reserve balance divided by the Fully Funded value multiplied by 100 (to give a percentage). The concept of percent funded is useful when the reserve study is comprehensive, but misleading when the reserve study is superficial or constrained. As a result, we recommend that the statement "Percent Funded" be used with caution.

### **Washington State Homeowners and Condominium Act Compliance with RCW 64.38 and RCW 64.34 (2019)**

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. A reserve component list (as applicable), including roofing, painting, paving, decks, siding, plumbing, windows, and any other reserve component that would cost more than one percent of the annual budget for major maintenance, repair, or replacement. If one of these reserve components is not included in the reserve study, the study should provide commentary explaining the basis for its exclusion. The study must also include quantities and estimates for the useful life of each reserve component, remaining useful life of each reserve component, and current repair and replacement cost for each component.

### **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 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.

### **Reserve Study Assumptions**

The below listed assumptions are implicit in this reserve study:

- Cost estimates and financial information are accurate and current.
- No unforeseen circumstances will cause a significant reduction of reserves.
- Sufficient comprehensive property insurance exists to protect from insurable risks.
- The association plans to continue to maintain the existing common areas and amenities.
- Reserve payments occur at the end of every calendar month.
- Expenses occur at the end of the expense year.

### **Inflation Estimate**

Inflation for the last year has been reviewed and a best fit regression analysis of the last 12 months has been used to determine future expense estimates. Based on the current economic conditions, the inflation rate will need to be closely monitored as this is a critical factor in reserve planning for future fund needs.

### **Impact of Component Life**

The projected life expectancy of the major components and the reserve funding needs of the association are closely tied. Performing the appropriate routine maintenance for each major component generally increases the components' useful life,

# **Birch Bay Village Community - Marina Level 2 Study 2025**

## **Appendix - Disclosure, Definitions & Calculations**

effectively moving the component expense into the future which reduces the reserve funding payments of the association. Failure to perform such maintenance can shorten the remaining useful lives of the major components, bringing the replacement expense closer to the present which increases the reserve funding payments of the association.

### **Study Method**

This reserve analysis study and the parameters under which it has been completed are based upon information provided to us in part by representatives of the association, its contractors, assorted vendors, specialist and independent contractors, the Community Association Institute, and various construction pricing and scheduling manuals including, but not limited to: Marshall & Swift Valuation Service, RS Means Facilities Maintenance & Repair Cost Data, RS Means Repair & Remodeling Cost Data, National Construction Estimator, National Repair & Remodel Estimator, Dodge Cost Manual and McGraw-Hill Professional. Additionally, costs are obtained from numerous vendor catalogues, actual quotations or historical costs, and our own experience in the field of property management and reserve study preparation.

It has been assumed, unless otherwise noted in this report, that all assets have been designed and constructed properly and that each estimated useful life will approximate that of the norm per industry standards and/or manufacturer's specifications. In some cases, estimates may have been used on assets, which have an indeterminable but potential liability to the association. The decision for the inclusion of these as well as all assets considered is left to the client.

We recommend that your reserve analysis study be updated on an annual basis due to fluctuating interest rates, inflationary changes, and the unpredictable nature of the lives of many of the assets under consideration. All of the information collected during our inspection of the association and computations made subsequently in preparing this reserve analysis study are retained in our computer files. Therefore, annual updates may be completed quickly and inexpensively each year.

### **Items Beyond the Scope of this Report**

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, radon, water quality or other environmental hazards.

Invasions by pests, termites and any or all other destroying organisms, insects, birds, bats or animals to buildings or site. This study is not a pest inspection.

Adequacy or efficiency of any system or component on site.

### **Specifically excluded reserve items:**

Septic systems and septic tanks.

Buried or concealed portions of swimming pools, pool liners, Jacuzzis and spas or similar items.

Items concealed by signs.

Missing or omitted information supplied by the Client for the purposes of reserve study preparation.

Hidden improvements such as sewer lines, water lines, irrigation lines or other buried or concealed items.

### **Definitions:**

#### **Purpose of Distribution**

Distribution will have no real meaning for a cash flow model. But the nature of the Fully Funded Model requires it. Annuity payments are based on an accumulation of reserves for each component in the study. Because a study will rarely start with 'perfect' funding for each component, a starting point for each year must be established.

At the start of the study (The beginning fiscal date)

The beginning balance is used for distribution

Going through the components ordered by remaining life and starting with the least remaining life, the balance is assigned to the components by the value of fully funded for each component. Fully funded for components with no life left is the replacement value of the component.

## Birch Bay Village Community - Marina Level 2 Study 2025 Appendix - Disclosure, Definitions & Calculations

If after the last component there is still a balance remaining, the list of components is iterated again and the moneys are assigned at the replacement cost of each component.

If after the second pass on there are remaining funds then just the components being replaced are iterated and distribution is set to twice the replacement value.

If there are still funds after the above, they are considered excess funds.

In each following year of the projection

Money is accumulated from contributions and interest on deposit. Expenditures for replacement/repair of components is subtracted. This becomes the ending balance of the year. This money is distributed in the same manner as described above.

### Calculations:

#### Fully Funded Methods

#### Basic Fully Funded

There are two published methods of calculating Fully Funded. The first only considers the present value of a component. Present value in each period will change according to the inflation applied.

$$FullyFunded = ( Age / Useful Life ) * Present Value$$

#### Community Association Press Fully Funded

To account for inflation and interest earned on deposit the writers of '**RESERVE FUNDS: How & Why community Associations Invest Assets**' came up with:

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

$$CAI\_FF = Basic\_FF \\ + Basic\_FF / (1 + interest)^{Remaining Life} \\ - Basic\_FF / (1 + inflation)^{Remaining Life}$$