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*Reserve Studies for Community Associations*

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## Update “With Site-Visit” Reserve Study



## HMC Management Lakebay, WA

Report #: 24901-3  
For Period Beginning: October 1, 2016  
Expires: September 30, 2017

Date Prepared: June 2, 2016



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## Hello, and welcome to your Reserve Study!

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

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

### More Questions?

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

253/661-5437

Relax, it's from



# Table of Contents

<b>3- Minute Executive Summary .....</b>	<b>i</b>
Reserve Study Summary .....	i
Reserve Component List – Table 1 .....	iii
<b>Introduction, Objectives, and Methodology .....</b>	<b>1</b>
Which Physical Assets are Funded by Reserves? .....	2
How do we establish Useful Life and Remaining Useful Life estimates? .....	2
How do we establish Current Repair/Replacement Cost Estimates? .....	2
How much Reserves are enough? .....	3
How much should we contribute? .....	4
What is our Recommended Funding Goal? .....	4
<b>Projected Expenses .....</b>	<b>7</b>
Expense Graph – Figure 1 .....	7
<b>Reserve Fund Status &amp; Recommended Funding Plan .....</b>	<b>8</b>
Funding Plan Graph – Figure 2 .....	8
Cash Flow Graph – Figure 3 .....	9
% Funded Graph – Figure 4 .....	9
<b>Table Descriptions .....</b>	<b>10</b>
Reserve Component List Detail – Table 2 .....	11
Contribution & Fund Breakdown – Table 3 .....	13
Component Significance – Table 4 .....	15
30 Year Reserve Plan Summary – Table 5 .....	17
30 Year Reserve Plan Year by Year Detail – Table 6 .....	18
<b>Accuracy, Limitations, and Disclosures .....</b>	<b>30</b>
<b>Terms and Definitions .....</b>	<b>31</b>
<b>Component Details .....</b>	<b>Appendix</b>

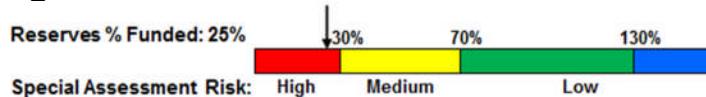
## 3- Minute Executive Summary

Association: HMC Management #: 24901-3  
Location: Lakebay, WA # of Units: 382  
Report Period: October 1, 2016 through September 30, 2017

### *Findings/Recommendations as-of 10/1/2016:*

Projected Starting Reserve Balance: .....	\$527,479
Current Fully Funded Reserve Balance: .....	\$2,134,535
Average Reserve Deficit (Surplus) Per Unit:.....	\$4,207
100% 2016/2017 Annual "Full Funding" Contributions:.....	\$346,000
70% 2016/2017 Annual "Threshold Funding" Contributions .....	\$274,800
Baseline contributions (minimum to keep Reserves above \$0):...\$108,983	
Recommended 2016/2017 Special Assessment for Reserves:.....	\$0

Most Recent Budgeted Reserve Contribution Rate: .....\$54,800



### *Economic Assumptions:*

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

- This is an "Update With-Site-Visit" Reserve Study, based on our on-site inspection on April 14, 2016 and meets or exceeds all requirements of the RCW. This study was prepared by, or under the supervision of a credentialed Reserve Specialist (RS 153).
- Advanced deterioration for existing wood dolphins was noted. Recent comprehensive expert evaluations were indicated; BOD representative and Management confirmed current plans for FY 2016/2017 replacement. Total projected expense is reportedly ~\$1,700,000 (including construction, design, oversight, etc...) with apparent intention to procure long term USDA loan for sum of ~\$1,500,000 to finance vast majority of project (\$200,000 monies are already committed/earmarked). Current projection is that total of annual P&I payments will likely be somewhere near \$69,000 with a 40 year term. No future impact upon HMC maintenance reserves is factored since collections and payments will reportedly be handled in a separate account for this debt obligation (similar to separate Water System indebtedness).
- Assuming the preceding understanding, your Reserve Fund is therefore 25% Funded. This means the association's risk of special assessment and/or deferred maintenance is currently high. The objective of your multi-year Funding Plan is to fund your Reserves to a level where you will enjoy a low risk of such Reserve cash flow problems.

- Based on this starting point and your anticipated future expenses, our recommendation is to substantially increase your Reserve contributions to within the 70% to 100% level as noted above. Going forward, collection of reserve monies to provide for fair distribution of expense burden to offset ongoing deterioration of reserve category projects and improve reserve fund status should be undertaken. In other words, current owners should contribute “their fair share” to maintenance reserves. The reader should note that the FY 2016/2017 “Annual Deterioration” of reserve components is \$224,816.
- 100% “Full” and 70% contribution rates are designed to achieve these funding objectives *by the end* of our 30-year report scope.
- No assets appropriate for Reserve designation were knowingly excluded. The reader is directed to the attached and detailed Photographic Inventory Appendix (Photo Pages) to gain a comprehensive understanding of the basis of our recommendations for this year’s report.

Table 1: Executive Summary

24901-3

#	Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Cost Estimate
<b><i>Site/Grounds/Recreation</i></b>				
200	Asphalt Roads - Repair/Resurface	25	2	\$42,000
204	Gravel Roads/Lots - Maintain/Repair	5	3	\$45,000
350	Play Equipment - Replace	10	1	\$10,000
356	Basketball Court - Repair/Replace	30	27	\$18,550
370	Pavilion - Replace Roof	25	12	\$7,620
<b><i>Small Boat Marina</i></b>				
302	Small Boat Docks/Floats-Replace	30	15	\$123,600
306	Small Boat Dock Pilings - Replace	50	45	\$206,000
320	Small Boat Trestle/Ramp - Replace	30	15	\$85,000
336	Small Boat Gangway - Replace	30	15	\$7,475
<b><i>Community Building</i></b>				
410	Community Building Siding-Replace	50	39	\$22,150
430	Community Building Roof - Replace	40	26	\$17,500
460	Community Blding Septic - Replace	50	16	\$10,000
<b><i>Equipment</i></b>				
540	Dust/Water Truck - Replace	12	1	\$15,500
<b><i>Ferry System</i></b>				
700	Ferry Terminals - Inspect/Repair	2	0	\$18,550
702	Ferry Terminals - Paint	12	11	\$175,000
704	Ferry Terminal Cables - Replace	6	4	\$28,350
706	Ferry Terminal Wood Decks - Replace	24	23	\$172,000
707	Ferry Terminal Structures - Replace	60	35	\$2,317,500
708	Ferry Ramp Dolphins-Future Replace	50	50	\$1,700,000
712	Ferry Ramp Generators - Replace	20	11	\$37,600
740	Ferry Vessel - Shipyard	2	0	\$95,300
744	Ferry Vessel - Overhaul Engines	5	2	\$37,650
746	Ferry Vessel - Replace Engines	50	47	\$162,250
755	Ferry Vessel-Overhaul Transmissions	5	2	\$13,950
757	Ferry Vessel-Replace Transmissions	25	22	\$32,450
760	Ferry Vessel - Replace	60	33	\$1,545,000
<b><i>Professional/Special Projects</i></b>				
940	Legal Contingency Fund	N/A	0	\$35,000

Table 1: Executive Summary

24901-3

# Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Cost Estimate
<b>27 Total Funded Components</b>			

Note:

A Useful Life of “N/A” means a one-time expense, not expected to repeat.

**Yellow highlighted** line items are expected to require attention in the initial year

**Green highlighted** items are expected to occur within the first five years.

Cross reference component numbers with photographic inventory appendix.

A reserve-funding threshold of \$6,000 is established for your association (expenses below this level expected to be factored within operating budget)

## Introduction



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

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

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



## Methodology

### LEVELS OF SERVICE



For this Update With-Site-Visit Reserve Study, we started with a review of your prior Reserve Study, then looked into recent Reserve expenditures, evaluated how expenditures are handled (ongoing maintenance vs Reserves), and

researched any well-established association precedents. We performed an on-site inspection to evaluate your common areas, *updating and adjusting* your Reserve Component List as appropriate.

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

There is a national-standard four-part test to determine which expenses should appear in your Reserve Component List. First, it must be a common area maintenance responsibility. Second, the component must have a limited life. Third, the remaining life must be predictable (or it by definition is a *surprise* which cannot be accurately anticipated). Fourth, the component must be above a minimum threshold cost (often between .5% and 1% of an association's total budget). This limits Reserve Components to major, predictable expenses. Within this framework, it is inappropriate to include *lifetime* components, unpredictable expenses (such as damage due to fire, flood, or earthquake), and expenses more appropriately handled from the Operational Budget or as an insured loss.

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

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



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

In this order...

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

### *How much Reserves are enough?*

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

Adequacy is measured in a two-step process:

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



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

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

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

## *How much should we contribute?*



### **RESERVE FUNDING PRINCIPLES**

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

## *What is our Recommended Funding Goal?*

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



### **FUNDING OBJECTIVES**

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

## Site Inspection Notes

Our site inspection was conducted to update information that appeared in our prior reserve studies, most recently an NSV report prepared for the association's 2015/2016 fiscal year. The component inventory was analyzed for completeness and accuracy. All components were re-inspected and checked for appropriateness for reserve funding using the standard four-part test.

During our site visit on April 14, 2016, we noted current condition, materials, apparent levels of care and maintenance as well as exposure to weather elements.

During our site inspection and subsequent research we were informed which components were being handled from the operational maintenance budget, not reserves.

HMC Management provides management of the common area assets of your unique community located upon Herron Island and the mainland. Building began in 1958 and current assessable units are factored at 382 for this report.

Advanced deterioration for existing wood dolphins was noted. Recent comprehensive expert evaluations were indicated; BOD representative and Management confirmed current plans for FY 2016/2017 replacement. Total projected expense is reportedly ~\$1,700,000 (including construction, design, oversight, etc...) with apparent intention to procure long term USDA loan for sum of ~\$1,500,000 to finance vast majority of project (\$200,000 monies are already committed/earmarked). Current projection is that total of annual P&I payments will likely be somewhere near \$69,000 with a 40 year term. No future impact upon HMC maintenance reserves is factored since collections and payments will reportedly be handled in a separate account for this debt obligation (similar to separate Water System indebtedness).

Reserve expenses to anticipate in the near term (next five years) include cyclical ferry terminal inspections and minor repair, routine overhaul of recently replaced engines and transmissions for the ferry vessel (Charlie Wells), asphalt road resurface and replacement dust/water truck, among others.

Herron Island has an extensive water system, which is a separate entity with segregated budget/reserves. Previous 2012 renovation at an expense of \$1,738,000 was indicated. Any assets needed to sustain that operation are not included within the scope of this analysis; no impact upon HMC Management maintenance reserves is factored herein.

Please refer to the detailed photographic inventory appendix (photo pages) to gain a comprehensive understanding for component information and the basis of our assumptions.



## Projected Expenses

While this Reserve Study looks forward 30 years, we have no expectation that all these expenses will all take place as anticipated. This Reserve Study needs to be updated annually because we expect the timing of these expenses to shift and the size of these expenses to change. We do feel more certain of the timing and cost of near-term expenses than expenses many years away. Your *first five years* of projected Reserve expenses total \$604,419. Adding the next five years, your *first ten years* of projected Reserve expenses are \$1,005,050. Please be aware of your near-term expenses, which we are able to project more accurately than the more distant projections.

The figure below summarizes the projected future expenses at your association as defined by your Reserve Component List. A summary of these expenses are shown in Table 5, while details of the projects that make up these expenses are shown in Table 6.

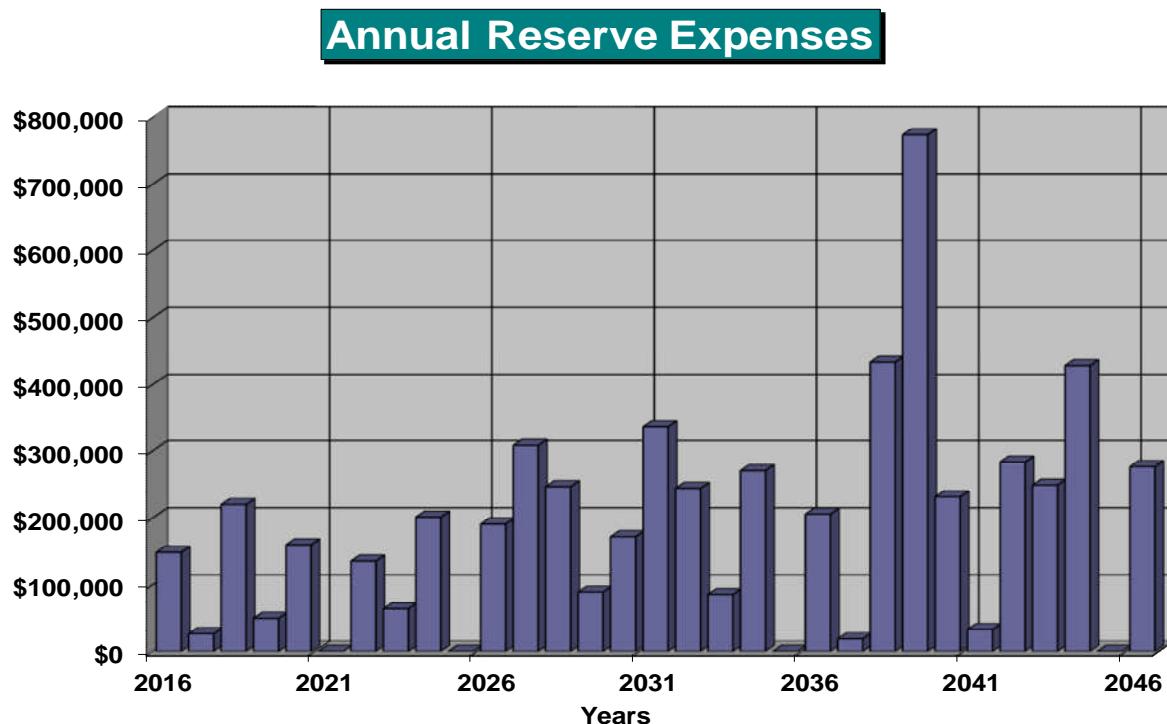


Figure 1

## Reserve Fund Status

The starting point for our financial analysis is your Reserve Fund balance, projected to be \$527,479 as-of the start of your Fiscal Year on October 1, 2016. As of October 1, 2016, your Fully Funded Balance is computed to be \$2,134,535 (see Table 3). This figure represents the deteriorated value of your common area components. Comparing your Reserve Balance to your Fully Funded Balance indicates your Reserves are therefore **25% Funded**. Across the country approx 35% of associations in this range experience special assessments or deferred maintenance.

## Recommended Funding Plan

Based on your current Percent Funded and your near-term and long-term Reserve needs, we are recommending budgeted contributions of \$346,000 this Fiscal Year. The overall 30-yr plan, in perspective, is shown below. This same information is shown numerically in both Table 5 and Table 6.

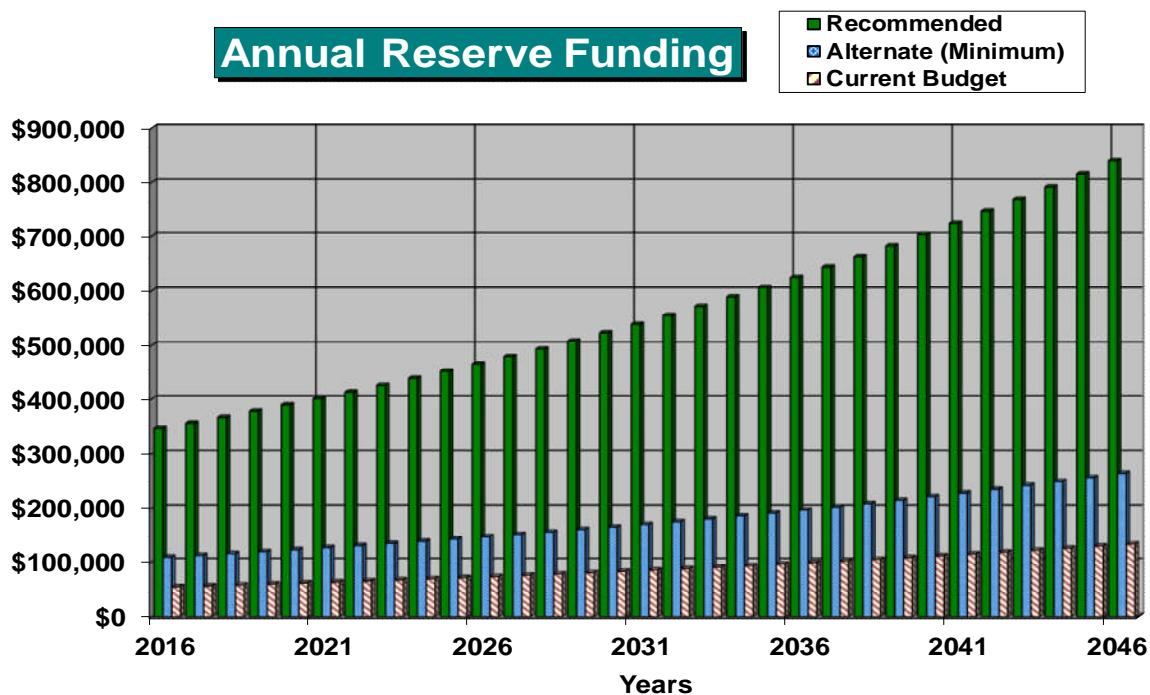


Figure 2

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

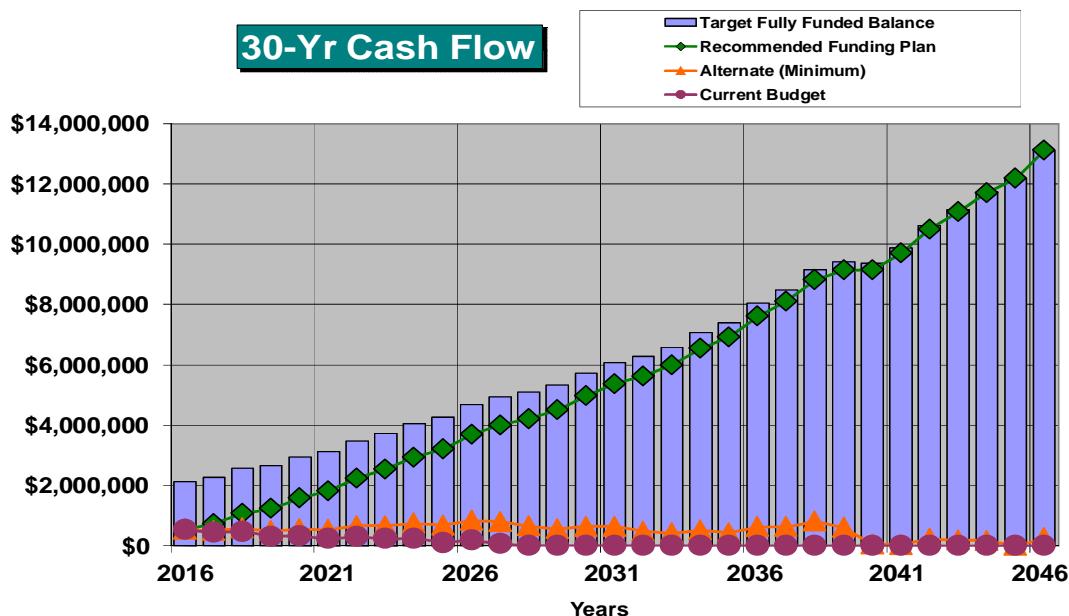


Figure 3

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

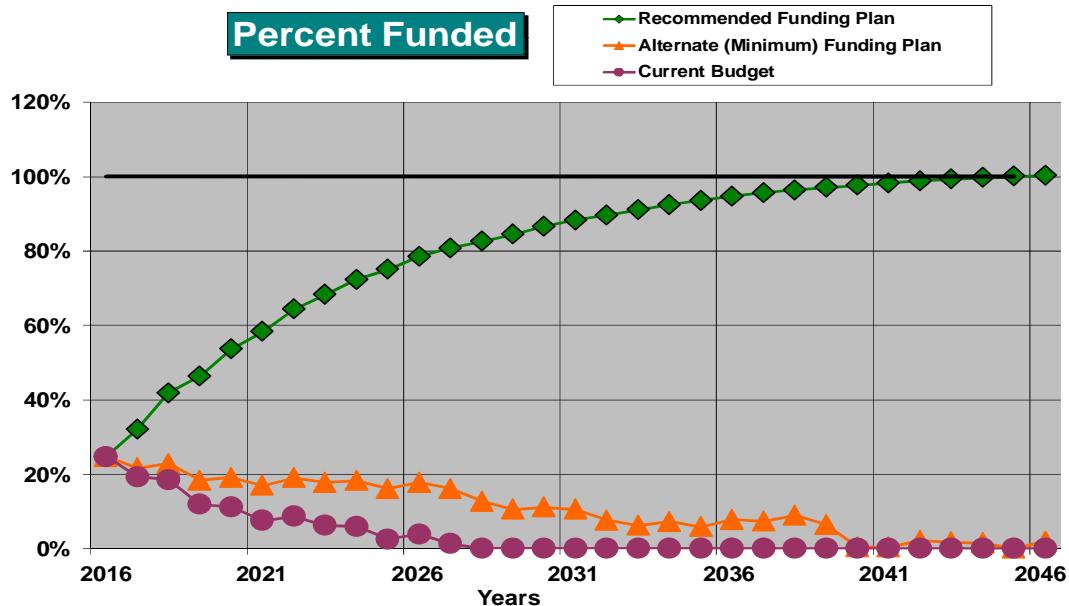


Figure 4

## Table Descriptions

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

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

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

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

Table 4 shows the significance of each component to Reserve needs of the association, helping you see which components have more (or less) influence than others on your total Reserve contribution rate. The deterioration cost/yr of each component is calculated by dividing the estimated Current Replacement Cost by Useful Life, then that component's percentage of the total is displayed.

Table 5: This table provides a one-page 30-year summary of the cash flowing into and out of the Reserve Fund, with a display of the Fully Funded Balance, Percent Funded, and special assessment risk for each year.

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

**Table 2: Reserve Component List Detail****24901-3**

#	Component	Quantity	Useful Life	Rem. Useful Life	[ --- Current Cost Estimate --- ]	
					Best Case	Worst Case
<b><i>Site/Grounds/Recreation</i></b>						
200	Asphalt Roads - Repair/Resurface	Approx 10,500 square feet	25	2	\$39,900	\$44,100
204	Gravel Roads/Lots - Maintain/Repair	Approx 500,000 surface SF	5	3	\$40,000	\$50,000
350	Play Equipment - Replace	(6) assorted	10	1	\$8,000	\$12,000
356	Basketball Court - Repair/Replace	Approx 1,100 SF, total	30	27	\$17,500	\$19,600
370	Pavilion - Replace Roof	Approx 2,200 SF	25	12	\$7,000	\$8,240
<b><i>Small Boat Marina</i></b>						
302	Small Boat Docks/Floats-Replace	Approx 2,600 square feet	30	15	\$113,300	\$133,900
306	Small Boat Dock Pilings - Replace	(15) steel	50	45	\$195,700	\$216,300
320	Small Boat Trestle/Ramp - Replace	Approx 630 square feet	30	15	\$68,000	\$102,000
336	Small Boat Gangway - Replace	(1) aluminum, ~4'x20'	30	15	\$6,400	\$8,550
<b><i>Community Building</i></b>						
410	Community Building Siding-Replace	Approx 1,400 GSF	50	39	\$17,500	\$26,800
430	Community Building Roof - Replace	Approx 2,700 GSF	40	26	\$14,400	\$20,600
460	Community Bldng Septic - Replace	(1) system	50	16	\$8,000	\$12,000
<b><i>Equipment</i></b>						
540	Dust/Water Truck - Replace	(1) 1991 Chevy Kodiak	12	1	\$12,400	\$18,600
<b><i>Ferry System</i></b>						
700	Ferry Terminals - Inspect/Repair	Approx 6,100 square feet	2	0	\$16,500	\$20,600
702	Ferry Terminals - Paint	Approx 6,100 square feet	12	11	\$150,000	\$200,000
704	Ferry Terminal Cables - Replace	Extensive linear feet	6	4	\$25,800	\$30,900
706	Ferry Terminal Wood Decks - Replace	Approx 2,940 square feet	24	23	\$161,700	\$182,300
707	Ferry Terminal Structures - Replace	Approx 6,100 square feet	60	35	\$2,060,000	\$2,575,000
708	Ferry Ramp Dolphins-Future Replace	(8) assemblies	50	50	\$1,500,000	\$1,900,000
712	Ferry Ramp Generators - Replace	(2) Generac 35kw	20	11	\$34,000	\$41,200
740	Ferry Vessel - Shipyard	65' LOA	2	0	\$87,600	\$103,000
744	Ferry Vessel - Overhaul Engines	(2) GM 300 HP, diesel	5	2	\$32,000	\$43,300
746	Ferry Vessel - Replace Engines	(2) GM 300 HP, diesel	50	47	\$154,500	\$170,000
755	Ferry Vessel-Overhaul Transmissions	(2) Twin Disc MG 5091 SC	5	2	\$12,400	\$15,500
757	Ferry Vessel-Replace Transmissions	(2) Twin Disc MG 5091 SC	25	22	\$30,400	\$34,500
760	Ferry Vessel - Replace	65' LOA	60	33	\$1,339,000	\$1,751,000
<b><i>Professional/Special Projects</i></b>						

**Table 2: Reserve Component List Detail****24901-3**

#	Component	Quantity	Rem.			
			Useful Life	Useful Life	[ --- Current Cost Estimate --- ]	
					Best Case	Worst Case
940	Legal Contingency Fund	35000	N/A	0	\$34,000	\$36,000
27	Total Funded Components					

**Table 3: Fully Funded Balance****24901-3**

#	Component	Current Cost Estimate	X	Effective Age /	Useful Life =	Fully Funded Balance
<b><i>Site/Grounds/Recreation</i></b>						
200	Asphalt Roads - Repair/Resurface	\$42,000	X	23 /	25 =	\$38,640
204	Gravel Roads/Lots - Maintain/Repair	\$45,000	X	2 /	5 =	\$18,000
350	Play Equipment - Replace	\$10,000	X	9 /	10 =	\$9,000
356	Basketball Court - Repair/Replace	\$18,550	X	3 /	30 =	\$1,855
370	Pavilion - Replace Roof	\$7,620	X	13 /	25 =	\$3,962
<b><i>Small Boat Marina</i></b>						
302	Small Boat Docks/Floats-Replace	\$123,600	X	15 /	30 =	\$61,800
306	Small Boat Dock Pilings - Replace	\$206,000	X	5 /	50 =	\$20,600
320	Small Boat Trestle/Ramp - Replace	\$85,000	X	15 /	30 =	\$42,500
336	Small Boat Gangway - Replace	\$7,475	X	15 /	30 =	\$3,738
<b><i>Community Building</i></b>						
410	Community Building Siding-Replace	\$22,150	X	11 /	50 =	\$4,873
430	Community Building Roof - Replace	\$17,500	X	14 /	40 =	\$6,125
460	Community Blding Septic - Replace	\$10,000	X	34 /	50 =	\$6,800
<b><i>Equipment</i></b>						
540	Dust/Water Truck - Replace	\$15,500	X	11 /	12 =	\$14,208
<b><i>Ferry System</i></b>						
700	Ferry Terminals - Inspect/Repair	\$18,550	X	2 /	2 =	\$18,550
702	Ferry Terminals - Paint	\$175,000	X	1 /	12 =	\$14,583
704	Ferry Terminal Cables - Replace	\$28,350	X	2 /	6 =	\$9,450
706	Ferry Terminal Wood Decks - Replace	\$172,000	X	1 /	24 =	\$7,167
707	Ferry Terminal Structures - Replace	\$2,317,500	X	25 /	60 =	\$965,625
708	Ferry Ramp Dolphins-Future Replace	\$1,700,000	X	0 /	50 =	\$0
712	Ferry Ramp Generators - Replace	\$37,600	X	9 /	20 =	\$16,920
740	Ferry Vessel - Shipyard	\$95,300	X	2 /	2 =	\$95,300
744	Ferry Vessel - Overhaul Engines	\$37,650	X	3 /	5 =	\$22,590
746	Ferry Vessel - Replace Engines	\$162,250	X	3 /	50 =	\$9,735
755	Ferry Vessel-Overhaul Transmissions	\$13,950	X	3 /	5 =	\$8,370
757	Ferry Vessel-Replace Transmissions	\$32,450	X	3 /	25 =	\$3,894
760	Ferry Vessel - Replace	\$1,545,000	X	27 /	60 =	\$695,250
<b><i>Professional/Special Projects</i></b>						

**Table 3: Fully Funded Balance****24901-3**

#	Component	Current				Fully Funded		
		Cost Estimate	X	Effective Age	/	Useful Life	=	Balance
940	Legal Contingency Fund	\$35,000	X	0	/	0	=	\$35,000
								\$2,134,535

**Table 4: Component Significance****24901-3**

#	Component	Useful Life	Current Cost Estimate	Deterioration Cost/yr	Deterioration Significance
<b><i>Site/Grounds/Recreation</i></b>					
200	Asphalt Roads - Repair/Resurface	25	\$42,000	\$1,680	0.7%
204	Gravel Roads/Lots - Maintain/Repair	5	\$45,000	\$9,000	4.0%
350	Play Equipment - Replace	10	\$10,000	\$1,000	0.4%
356	Basketball Court - Repair/Replace	30	\$18,550	\$618	0.3%
370	Pavilion - Replace Roof	25	\$7,620	\$305	0.1%
<b><i>Small Boat Marina</i></b>					
302	Small Boat Docks/Floats-Replace	30	\$123,600	\$4,120	1.8%
306	Small Boat Dock Pilings - Replace	50	\$206,000	\$4,120	1.8%
320	Small Boat Trestle/Ramp - Replace	30	\$85,000	\$2,833	1.3%
336	Small Boat Gangway - Replace	30	\$7,475	\$249	0.1%
<b><i>Community Building</i></b>					
410	Community Building Siding-Replace	50	\$22,150	\$443	0.2%
430	Community Building Roof - Replace	40	\$17,500	\$438	0.2%
460	Community Bldng Septic - Replace	50	\$10,000	\$200	0.1%
<b><i>Equipment</i></b>					
540	Dust/Water Truck - Replace	12	\$15,500	\$1,292	0.6%
<b><i>Ferry System</i></b>					
700	Ferry Terminals - Inspect/Repair	2	\$18,550	\$9,275	4.1%
702	Ferry Terminals - Paint	12	\$175,000	\$14,583	6.5%
704	Ferry Terminal Cables - Replace	6	\$28,350	\$4,725	2.1%
706	Ferry Terminal Wood Decks - Replace	24	\$172,000	\$7,167	3.2%
707	Ferry Terminal Structures - Replace	60	\$2,317,500	\$38,625	17.2%
708	Ferry Ramp Dolphins-Future Replace	50	\$1,700,000	\$34,000	15.1%
712	Ferry Ramp Generators - Replace	20	\$37,600	\$1,880	0.8%
740	Ferry Vessel - Shipyard	2	\$95,300	\$47,650	21.2%
744	Ferry Vessel - Overhaul Engines	5	\$37,650	\$7,530	3.3%
746	Ferry Vessel - Replace Engines	50	\$162,250	\$3,245	1.4%
755	Ferry Vessel-Overhaul Transmissions	5	\$13,950	\$2,790	1.2%
757	Ferry Vessel-Replace Transmissions	25	\$32,450	\$1,298	0.6%
760	Ferry Vessel - Replace	60	\$1,545,000	\$25,750	11.5%
<b><i>Professional/Special Projects</i></b>					

**Table 4: Component Significance****24901-3**

#	Component	Current			Deterioration Significance
		Useful Life	Cost Estimate	Deterioration Cost/yr	
940	Legal Contingency Fund	N/A	\$35,000	\$0	0.0%
27	Total Funded Components			\$224,816	100.0%

Table 5: 30-Year Reserve Plan Summary

24901-3

Fiscal Year Start: 10/01/16				Interest: 1.0%	Inflation: 3.0%			
Reserve Fund Strength Calculations  (All values as of Fiscal Year Start Date)				Projected Reserve Balance Changes				
Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded	Special Assmt Risk	Reserve Contribs.	Loans or Special Assmts	Interest Income	Reserve Expenses
2016	\$527,479	\$2,134,535	24.7%	High	\$346,000	\$0	\$6,289	\$148,850
2017	\$730,918	\$2,276,816	32.1%	Med	\$356,380	\$0	\$9,001	\$26,265
2018	\$1,070,034	\$2,556,575	41.9%	Med	\$367,071	\$0	\$11,488	\$220,084
2019	\$1,228,510	\$2,652,248	46.3%	Med	\$378,084	\$0	\$13,994	\$49,173
2020	\$1,571,414	\$2,934,200	53.6%	Med	\$389,426	\$0	\$16,939	\$160,047
2021	\$1,817,732	\$3,118,000	58.3%	Med	\$401,109	\$0	\$20,276	\$0
2022	\$2,239,116	\$3,479,982	64.3%	Med	\$413,142	\$0	\$23,886	\$135,943
2023	\$2,540,202	\$3,720,855	68.3%	Med	\$425,536	\$0	\$27,337	\$63,461
2024	\$2,929,614	\$4,051,906	72.3%	Low	\$438,302	\$0	\$30,622	\$201,226
2025	\$3,197,312	\$4,259,533	75.1%	Low	\$451,452	\$0	\$34,388	\$0
2026	\$3,683,151	\$4,689,453	78.5%	Low	\$464,995	\$0	\$38,377	\$191,105
2027	\$3,995,418	\$4,944,496	80.8%	Low	\$478,945	\$0	\$40,996	\$308,130
2028	\$4,207,228	\$5,095,990	82.6%	Low	\$493,313	\$0	\$43,504	\$246,756
2029	\$4,497,289	\$5,324,860	84.5%	Low	\$508,113	\$0	\$47,286	\$88,846
2030	\$4,963,841	\$5,733,148	86.6%	Low	\$523,356	\$0	\$51,630	\$172,208
2031	\$5,366,619	\$6,078,024	88.3%	Low	\$539,057	\$0	\$54,930	\$336,638
2032	\$5,623,967	\$6,274,391	89.6%	Low	\$555,228	\$0	\$58,060	\$244,236
2033	\$5,993,020	\$6,582,646	91.0%	Low	\$571,885	\$0	\$62,650	\$85,287
2034	\$6,542,268	\$7,075,013	92.5%	Low	\$589,042	\$0	\$67,324	\$270,431
2035	\$6,928,202	\$7,402,935	93.6%	Low	\$606,713	\$0	\$72,648	\$0
2036	\$7,607,563	\$8,031,065	94.7%	Low	\$624,914	\$0	\$78,531	\$205,626
2037	\$8,105,383	\$8,478,427	95.6%	Low	\$643,662	\$0	\$84,566	\$18,603
2038	\$8,815,008	\$9,144,389	96.4%	Low	\$662,972	\$0	\$89,708	\$433,518
2039	\$9,134,169	\$9,415,890	97.0%	Low	\$682,861	\$0	\$91,305	\$773,646
2040	\$9,134,690	\$9,358,515	97.6%	Low	\$703,347	\$0	\$94,137	\$231,434
2041	\$9,700,740	\$9,871,609	98.3%	Low	\$724,447	\$0	\$100,929	\$32,454
2042	\$10,493,66	\$10,619,16	98.8%	Low	\$746,181	\$0	\$107,744	\$283,268
	3	5						
2043	\$11,064,31	\$11,145,35	99.3%	Low	\$768,566	\$0	\$113,761	\$249,118
	9	5						
2044	\$11,697,52	\$11,737,48	99.7%	Low	\$791,623	\$0	\$119,338	\$428,300
	8	7						
2045	\$12,180,18	\$12,178,25	100.0%	Low	\$815,372	\$0	\$126,457	\$0
	9	6						

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

24901-3

Fiscal Year	2016	2017	2018	2019	2020
Starting Reserve Balance	\$527,479	\$730,918	\$1,070,034	\$1,228,510	\$1,571,414
Annual Reserve Contribution	\$346,000	\$356,380	\$367,071	\$378,084	\$389,426
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$6,289	\$9,001	\$11,488	\$13,994	\$16,939
Total Income	\$879,768	\$1,096,299	\$1,448,593	\$1,620,587	\$1,977,779
# Component					
<b>Site/Grounds/Recreation</b>					
200 Asphalt Roads - Repair/Resurface	\$0	\$0	\$44,558	\$0	\$0
204 Gravel Roads/Lots - Maintain/Repair	\$0	\$0	\$0	\$49,173	\$0
350 Play Equipment - Replace	\$0	\$10,300	\$0	\$0	\$0
356 Basketball Court - Repair/Replace	\$0	\$0	\$0	\$0	\$0
370 Pavilion - Replace Roof	\$0	\$0	\$0	\$0	\$0
<b>Small Boat Marina</b>					
302 Small Boat Docks/Floats-Replace	\$0	\$0	\$0	\$0	\$0
306 Small Boat Dock Pilings - Replace	\$0	\$0	\$0	\$0	\$0
320 Small Boat Trestle/Ramp - Replace	\$0	\$0	\$0	\$0	\$0
336 Small Boat Gangway - Replace	\$0	\$0	\$0	\$0	\$0
<b>Community Building</b>					
410 Community Building Siding-Replace	\$0	\$0	\$0	\$0	\$0
430 Community Building Roof - Replace	\$0	\$0	\$0	\$0	\$0
460 Community Blding Septic - Replace	\$0	\$0	\$0	\$0	\$0
<b>Equipment</b>					
540 Dust/Water Truck - Replace	\$0	\$15,965	\$0	\$0	\$0
<b>Ferry System</b>					
700 Ferry Terminals - Inspect/Repair	\$18,550	\$0	\$19,680	\$0	\$20,878
702 Ferry Terminals - Paint	\$0	\$0	\$0	\$0	\$0
704 Ferry Terminal Cables - Replace	\$0	\$0	\$0	\$0	\$31,908
706 Ferry Terminal Wood Decks - Replace	\$0	\$0	\$0	\$0	\$0
707 Ferry Terminal Structures - Replace	\$0	\$0	\$0	\$0	\$0
708 Ferry Ramp Dolphins-Future Replace	\$0	\$0	\$0	\$0	\$0
712 Ferry Ramp Generators - Replace	\$0	\$0	\$0	\$0	\$0
740 Ferry Vessel - Shipyard	\$95,300	\$0	\$101,104	\$0	\$107,261
744 Ferry Vessel - Overhaul Engines	\$0	\$0	\$39,943	\$0	\$0
746 Ferry Vessel - Replace Engines	\$0	\$0	\$0	\$0	\$0
755 Ferry Vessel-Overhaul Transmissions	\$0	\$0	\$14,800	\$0	\$0

**Table 6: 30-Year Income/Expense Detail (yrs 0 through 4)****24901-3**

Fiscal Year	2016	2017	2018	2019	2020
757 Ferry Vessel-Replace Transmissions	\$0	\$0	\$0	\$0	\$0
760 Ferry Vessel - Replace	\$0	\$0	\$0	\$0	\$0
<b><i>Professional/Special Projects</i></b>					
940 Legal Contingency Fund	\$35,000	\$0	\$0	\$0	\$0
Total Expenses	\$148,850	\$26,265	\$220,084	\$49,173	\$160,047
Ending Reserve Balance:	\$730,918	\$1,070,034	\$1,228,510	\$1,571,414	\$1,817,732

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

24901-3

Fiscal Year	2021	2022	2023	2024	2025
Starting Reserve Balance	\$1,817,732	\$2,239,116	\$2,540,202	\$2,929,614	\$3,197,312
Annual Reserve Contribution	\$401,109	\$413,142	\$425,536	\$438,302	\$451,452
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$20,276	\$23,886	\$27,337	\$30,622	\$34,388
Total Income	\$2,239,116	\$2,676,144	\$2,993,075	\$3,398,538	\$3,683,151
# Component					
<b>Site/Grounds/Recreation</b>					
200 Asphalt Roads - Repair/Resurface	\$0	\$0	\$0	\$0	\$0
204 Gravel Roads/Lots - Maintain/Repair	\$0	\$0	\$0	\$57,005	\$0
350 Play Equipment - Replace	\$0	\$0	\$0	\$0	\$0
356 Basketball Court - Repair/Replace	\$0	\$0	\$0	\$0	\$0
370 Pavilion - Replace Roof	\$0	\$0	\$0	\$0	\$0
<b>Small Boat Marina</b>					
302 Small Boat Docks/Floats-Replace	\$0	\$0	\$0	\$0	\$0
306 Small Boat Dock Pilings - Replace	\$0	\$0	\$0	\$0	\$0
320 Small Boat Trestle/Ramp - Replace	\$0	\$0	\$0	\$0	\$0
336 Small Boat Gangway - Replace	\$0	\$0	\$0	\$0	\$0
<b>Community Building</b>					
410 Community Building Siding-Replace	\$0	\$0	\$0	\$0	\$0
430 Community Building Roof - Replace	\$0	\$0	\$0	\$0	\$0
460 Community Bldng Septic - Replace	\$0	\$0	\$0	\$0	\$0
<b>Equipment</b>					
540 Dust/Water Truck - Replace	\$0	\$0	\$0	\$0	\$0
<b>Ferry System</b>					
700 Ferry Terminals - Inspect/Repair	\$0	\$22,150	\$0	\$23,499	\$0
702 Ferry Terminals - Paint	\$0	\$0	\$0	\$0	\$0
704 Ferry Terminal Cables - Replace	\$0	\$0	\$0	\$0	\$0
706 Ferry Terminal Wood Decks - Replace	\$0	\$0	\$0	\$0	\$0
707 Ferry Terminal Structures - Replace	\$0	\$0	\$0	\$0	\$0
708 Ferry Ramp Dolphins-Future Replace	\$0	\$0	\$0	\$0	\$0
712 Ferry Ramp Generators - Replace	\$0	\$0	\$0	\$0	\$0
740 Ferry Vessel - Shipyard	\$0	\$113,793	\$0	\$120,723	\$0
744 Ferry Vessel - Overhaul Engines	\$0	\$0	\$46,305	\$0	\$0
746 Ferry Vessel - Replace Engines	\$0	\$0	\$0	\$0	\$0
755 Ferry Vessel-Overhaul Transmissions	\$0	\$0	\$17,157	\$0	\$0

**Table 6: 30-Year Income/Expense Detail (yrs 5 through 9)****24901-3**

Fiscal Year	2021	2022	2023	2024	2025
757 Ferry Vessel-Replace Transmissions	\$0	\$0	\$0	\$0	\$0
760 Ferry Vessel - Replace	\$0	\$0	\$0	\$0	\$0
<b><i>Professional/Special Projects</i></b>					
940 Legal Contingency Fund	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$0	\$135,943	\$63,461	\$201,226	\$0
Ending Reserve Balance:	\$2,239,116	\$2,540,202	\$2,929,614	\$3,197,312	\$3,683,151

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

24901-3

Fiscal Year	2026	2027	2028	2029	2030
Starting Reserve Balance	\$3,683,151	\$3,995,418	\$4,207,228	\$4,497,289	\$4,963,841
Annual Reserve Contribution	\$464,995	\$478,945	\$493,313	\$508,113	\$523,356
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$38,377	\$40,996	\$43,504	\$47,286	\$51,630
Total Income	\$4,186,522	\$4,515,358	\$4,744,045	\$5,052,687	\$5,538,827
# Component					
<b>Site/Grounds/Recreation</b>					
200 Asphalt Roads - Repair/Resurface	\$0	\$0	\$0	\$0	\$0
204 Gravel Roads/Lots - Maintain/Repair	\$0	\$0	\$0	\$66,084	\$0
350 Play Equipment - Replace	\$0	\$13,842	\$0	\$0	\$0
356 Basketball Court - Repair/Replace	\$0	\$0	\$0	\$0	\$0
370 Pavilion - Replace Roof	\$0	\$0	\$10,864	\$0	\$0
<b>Small Boat Marina</b>					
302 Small Boat Docks/Floats-Replace	\$0	\$0	\$0	\$0	\$0
306 Small Boat Dock Pilings - Replace	\$0	\$0	\$0	\$0	\$0
320 Small Boat Trestle/Ramp - Replace	\$0	\$0	\$0	\$0	\$0
336 Small Boat Gangway - Replace	\$0	\$0	\$0	\$0	\$0
<b>Community Building</b>					
410 Community Building Siding-Replace	\$0	\$0	\$0	\$0	\$0
430 Community Building Roof - Replace	\$0	\$0	\$0	\$0	\$0
460 Community Bldng Septic - Replace	\$0	\$0	\$0	\$0	\$0
<b>Equipment</b>					
540 Dust/Water Truck - Replace	\$0	\$0	\$0	\$22,762	\$0
<b>Ferry System</b>					
700 Ferry Terminals - Inspect/Repair	\$24,930	\$0	\$26,448	\$0	\$28,059
702 Ferry Terminals - Paint	\$0	\$242,241	\$0	\$0	\$0
704 Ferry Terminal Cables - Replace	\$38,100	\$0	\$0	\$0	\$0
706 Ferry Terminal Wood Decks - Replace	\$0	\$0	\$0	\$0	\$0
707 Ferry Terminal Structures - Replace	\$0	\$0	\$0	\$0	\$0
708 Ferry Ramp Dolphins-Future Replace	\$0	\$0	\$0	\$0	\$0
712 Ferry Ramp Generators - Replace	\$0	\$52,047	\$0	\$0	\$0
740 Ferry Vessel - Shipyard	\$128,075	\$0	\$135,875	\$0	\$144,150
744 Ferry Vessel - Overhaul Engines	\$0	\$0	\$53,680	\$0	\$0
746 Ferry Vessel - Replace Engines	\$0	\$0	\$0	\$0	\$0
755 Ferry Vessel-Overhaul Transmissions	\$0	\$0	\$19,889	\$0	\$0

**Table 6: 30-Year Income/Expense Detail (yrs 10 through 14)****24901-3**

Fiscal Year	2026	2027	2028	2029	2030
757 Ferry Vessel-Replace Transmissions	\$0	\$0	\$0	\$0	\$0
760 Ferry Vessel - Replace	\$0	\$0	\$0	\$0	\$0
<b>Professional/Special Projects</b>					
940 Legal Contingency Fund	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$191,105	\$308,130	\$246,756	\$88,846	\$172,208
Ending Reserve Balance:	\$3,995,418	\$4,207,228	\$4,497,289	\$4,963,841	\$5,366,619

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

24901-3

Fiscal Year	2031	2032	2033	2034	2035
Starting Reserve Balance	\$5,366,619	\$5,623,967	\$5,993,020	\$6,542,268	\$6,928,202
Annual Reserve Contribution	\$539,057	\$555,228	\$571,885	\$589,042	\$606,713
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$54,930	\$58,060	\$62,650	\$67,324	\$72,648
Total Income	\$5,960,605	\$6,237,256	\$6,627,555	\$7,198,633	\$7,607,563
# Component					
<b>Site/Grounds/Recreation</b>					
200 Asphalt Roads - Repair/Resurface	\$0	\$0	\$0	\$0	\$0
204 Gravel Roads/Lots - Maintain/Repair	\$0	\$0	\$0	\$76,609	\$0
350 Play Equipment - Replace	\$0	\$0	\$0	\$0	\$0
356 Basketball Court - Repair/Replace	\$0	\$0	\$0	\$0	\$0
370 Pavilion - Replace Roof	\$0	\$0	\$0	\$0	\$0
<b>Small Boat Marina</b>					
302 Small Boat Docks/Floats-Replace	\$192,565	\$0	\$0	\$0	\$0
306 Small Boat Dock Pilings - Replace	\$0	\$0	\$0	\$0	\$0
320 Small Boat Trestle/Ramp - Replace	\$132,427	\$0	\$0	\$0	\$0
336 Small Boat Gangway - Replace	\$11,646	\$0	\$0	\$0	\$0
<b>Community Building</b>					
410 Community Building Siding-Replace	\$0	\$0	\$0	\$0	\$0
430 Community Building Roof - Replace	\$0	\$0	\$0	\$0	\$0
460 Community Bldng Septic - Replace	\$0	\$16,047	\$0	\$0	\$0
<b>Equipment</b>					
540 Dust/Water Truck - Replace	\$0	\$0	\$0	\$0	\$0
<b>Ferry System</b>					
700 Ferry Terminals - Inspect/Repair	\$0	\$29,767	\$0	\$31,580	\$0
702 Ferry Terminals - Paint	\$0	\$0	\$0	\$0	\$0
704 Ferry Terminal Cables - Replace	\$0	\$45,493	\$0	\$0	\$0
706 Ferry Terminal Wood Decks - Replace	\$0	\$0	\$0	\$0	\$0
707 Ferry Terminal Structures - Replace	\$0	\$0	\$0	\$0	\$0
708 Ferry Ramp Dolphins-Future Replace	\$0	\$0	\$0	\$0	\$0
712 Ferry Ramp Generators - Replace	\$0	\$0	\$0	\$0	\$0
740 Ferry Vessel - Shipyard	\$0	\$152,929	\$0	\$162,242	\$0
744 Ferry Vessel - Overhaul Engines	\$0	\$0	\$62,230	\$0	\$0
746 Ferry Vessel - Replace Engines	\$0	\$0	\$0	\$0	\$0
755 Ferry Vessel-Overhaul Transmissions	\$0	\$0	\$23,057	\$0	\$0

**Table 6: 30-Year Income/Expense Detail (yrs 15 through 19)****24901-3**

Fiscal Year	2031	2032	2033	2034	2035
757 Ferry Vessel-Replace Transmissions	\$0	\$0	\$0	\$0	\$0
760 Ferry Vessel - Replace	\$0	\$0	\$0	\$0	\$0
<b><i>Professional/Special Projects</i></b>					
940 Legal Contingency Fund	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$336,638	\$244,236	\$85,287	\$270,431	\$0
Ending Reserve Balance:	\$5,623,967	\$5,993,020	\$6,542,268	\$6,928,202	\$7,607,563

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

24901-3

Fiscal Year	2036	2037	2038	2039	2040
Starting Reserve Balance	\$7,607,563	\$8,105,383	\$8,815,008	\$9,134,169	\$9,134,690
Annual Reserve Contribution	\$624,914	\$643,662	\$662,972	\$682,861	\$703,347
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$78,531	\$84,566	\$89,708	\$91,305	\$94,137
Total Income	\$8,311,009	\$8,833,611	\$9,567,687	\$9,908,336	\$9,932,174
# Component					
<b>Site/Grounds/Recreation</b>					
200 Asphalt Roads - Repair/Resurface	\$0	\$0	\$0	\$0	\$0
204 Gravel Roads/Lots - Maintain/Repair	\$0	\$0	\$0	\$88,811	\$0
350 Play Equipment - Replace	\$0	\$18,603	\$0	\$0	\$0
356 Basketball Court - Repair/Replace	\$0	\$0	\$0	\$0	\$0
370 Pavilion - Replace Roof	\$0	\$0	\$0	\$0	\$0
<b>Small Boat Marina</b>					
302 Small Boat Docks/Floats-Replace	\$0	\$0	\$0	\$0	\$0
306 Small Boat Dock Pilings - Replace	\$0	\$0	\$0	\$0	\$0
320 Small Boat Trestle/Ramp - Replace	\$0	\$0	\$0	\$0	\$0
336 Small Boat Gangway - Replace	\$0	\$0	\$0	\$0	\$0
<b>Community Building</b>					
410 Community Building Siding-Replace	\$0	\$0	\$0	\$0	\$0
430 Community Building Roof - Replace	\$0	\$0	\$0	\$0	\$0
460 Community Bldng Septic - Replace	\$0	\$0	\$0	\$0	\$0
<b>Equipment</b>					
540 Dust/Water Truck - Replace	\$0	\$0	\$0	\$0	\$0
<b>Ferry System</b>					
700 Ferry Terminals - Inspect/Repair	\$33,503	\$0	\$35,544	\$0	\$37,708
702 Ferry Terminals - Paint	\$0	\$0	\$0	\$345,378	\$0
704 Ferry Terminal Cables - Replace	\$0	\$0	\$54,322	\$0	\$0
706 Ferry Terminal Wood Decks - Replace	\$0	\$0	\$0	\$339,457	\$0
707 Ferry Terminal Structures - Replace	\$0	\$0	\$0	\$0	\$0
708 Ferry Ramp Dolphins-Future Replace	\$0	\$0	\$0	\$0	\$0
712 Ferry Ramp Generators - Replace	\$0	\$0	\$0	\$0	\$0
740 Ferry Vessel - Shipyard	\$172,122	\$0	\$182,605	\$0	\$193,725
744 Ferry Vessel - Overhaul Engines	\$0	\$0	\$72,141	\$0	\$0
746 Ferry Vessel - Replace Engines	\$0	\$0	\$0	\$0	\$0
755 Ferry Vessel-Overhaul Transmissions	\$0	\$0	\$26,730	\$0	\$0

**Table 6: 30-Year Income/Expense Detail (yrs 20 through 24)****24901-3**

Fiscal Year	2036	2037	2038	2039	2040
757 Ferry Vessel-Replace Transmissions	\$0	\$0	\$62,178	\$0	\$0
760 Ferry Vessel - Replace	\$0	\$0	\$0	\$0	\$0
<b>Professional/Special Projects</b>					
940 Legal Contingency Fund	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$205,626	\$18,603	\$433,518	\$773,646	\$231,434
Ending Reserve Balance:	\$8,105,383	\$8,815,008	\$9,134,169	\$9,134,690	\$9,700,740

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

24901-3

Fiscal Year	2041	2042	2043	2044	2045
Starting Reserve Balance	\$9,700,740	\$10,493,663	\$11,064,319	\$11,697,528	\$12,180,189
Annual Reserve Contribution	\$724,447	\$746,181	\$768,566	\$791,623	\$815,372
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$100,929	\$107,744	\$113,761	\$119,338	\$126,457
Total Income	\$10,526,116	\$11,347,587	\$11,946,646	\$12,608,489	\$13,122,018
# Component					
<b>Site/Grounds/Recreation</b>					
200 Asphalt Roads - Repair/Resurface	\$0	\$0	\$93,294	\$0	\$0
204 Gravel Roads/Lots - Maintain/Repair	\$0	\$0	\$0	\$102,957	\$0
350 Play Equipment - Replace	\$0	\$0	\$0	\$0	\$0
356 Basketball Court - Repair/Replace	\$0	\$0	\$41,205	\$0	\$0
370 Pavilion - Replace Roof	\$0	\$0	\$0	\$0	\$0
<b>Small Boat Marina</b>					
302 Small Boat Docks/Floats-Replace	\$0	\$0	\$0	\$0	\$0
306 Small Boat Dock Pilings - Replace	\$0	\$0	\$0	\$0	\$0
320 Small Boat Trestle/Ramp - Replace	\$0	\$0	\$0	\$0	\$0
336 Small Boat Gangway - Replace	\$0	\$0	\$0	\$0	\$0
<b>Community Building</b>					
410 Community Building Siding-Replace	\$0	\$0	\$0	\$0	\$0
430 Community Building Roof - Replace	\$0	\$37,740	\$0	\$0	\$0
460 Community Bldng Septic - Replace	\$0	\$0	\$0	\$0	\$0
<b>Equipment</b>					
540 Dust/Water Truck - Replace	\$32,454	\$0	\$0	\$0	\$0
<b>Ferry System</b>					
700 Ferry Terminals - Inspect/Repair	\$0	\$40,005	\$0	\$42,441	\$0
702 Ferry Terminals - Paint	\$0	\$0	\$0	\$0	\$0
704 Ferry Terminal Cables - Replace	\$0	\$0	\$0	\$64,863	\$0
706 Ferry Terminal Wood Decks - Replace	\$0	\$0	\$0	\$0	\$0
707 Ferry Terminal Structures - Replace	\$0	\$0	\$0	\$0	\$0
708 Ferry Ramp Dolphins-Future Replace	\$0	\$0	\$0	\$0	\$0
712 Ferry Ramp Generators - Replace	\$0	\$0	\$0	\$0	\$0
740 Ferry Vessel - Shipyard	\$0	\$205,523	\$0	\$218,040	\$0
744 Ferry Vessel - Overhaul Engines	\$0	\$0	\$83,632	\$0	\$0
746 Ferry Vessel - Replace Engines	\$0	\$0	\$0	\$0	\$0
755 Ferry Vessel-Overhaul Transmissions	\$0	\$0	\$30,987	\$0	\$0

**Table 6: 30-Year Income/Expense Detail (yrs 25 through 29)****24901-3**

Fiscal Year	2041	2042	2043	2044	2045
757 Ferry Vessel-Replace Transmissions	\$0	\$0	\$0	\$0	\$0
760 Ferry Vessel - Replace	\$0	\$0	\$0	\$0	\$0
<b><i>Professional/Special Projects</i></b>					
940 Legal Contingency Fund	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$32,454	\$283,268	\$249,118	\$428,300	\$0
Ending Reserve Balance:	\$10,493,663	\$11,064,319	\$11,697,528	\$12,180,189	\$13,122,018

## Accuracy, Limitations, and Disclosures

### Washington disclosures, per RCW:

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.

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

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

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

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

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

## Terms and Definitions

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

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

**Fully Funded Balance (FFB):** The value of the deterioration of the Reserve Components. This is the fraction of life “used up” of each component multiplied by its estimated Current Replacement. While calculated for each component, it is summed together for an association total.

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

**Inflation:** Cost factors are adjusted for inflation at the rate defined in the Executive Summary and compounded annually. These increasing costs can be seen as you follow the recurring cycles of a component on Table 6.

**Interest:** Interest earnings on Reserve Funds are calculated using the average balance for the year (taking into account income and expenses through the year) and compounded Annually using the rate defined in the Executive Summary. Annual interest earning assumption appears in the Executive Summary.

**Percent Funded:** The ratio, at a particular point in time (the first day of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage.

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

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

## Component Details

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

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

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

Client: 24901 HMC Management

## Inventory Appendix

**Comp #:** 100 Water System - Maintain/Repair      **Quantity:** Extensive systems

Funded?: No. Separate entity with a segregated budget/reserves

History:

Location: Throughout community

Evaluation: Herron Island has an extensive water system, which is a separate entity with a segregated budget/reserves. Extensive 2012 renovation at expense of \$1,738,000 was indicated. Any assets needed to sustain that operation are not included within the scope of this analysis; no impact upon HMC maintenance reserves is factored.

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

# Association Reserves

# Component Details

Client: 24901 HMC Management

**Comp #:** 200 Asphalt Roads - Repair/Resurface      **Quantity:** Approx 10,500 square feet

Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History:

Location: Partial East Herron Boulevard and Ferry Street

Evaluation: Note; an access easement was observed at the Mainland Terminal but assumption is that the asphalt road (Isted) is maintained by Pierce County, so no impact upon reserves needs to be factored for that location. Otherwise, the only area of HMC asphalt exhibited general deterioration and wear along with local alligatoring (cracking) and damage. Anticipate renovation, resurface project in the near future. Expect some full depth repairs and underlying improvements will be needed. After resurface, provide timely cycles of inspection, cleaning and spot repair when needed for maximum design life; fund from the operating budget.

Useful Life:  
25 years



Remaining Life:  
2 years

Best Case: \$39,900  
Lower allowance

Worst Case: \$44,100  
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 24901 HMC Management

<b>Comp #:</b>	<b>204 Gravel Roads/Lots - Maintain/Repair</b>	<b>Quantity:</b>	<b>Approx 500,000 surface SF</b>
Funded?:	Yes. Meets National Reserve Study Standards criteria for Reserve Funding		
History:	Delivery of barge loads of gravel occurred last in FY 2014/2015 at an expense of ~\$42,300		
Location:	Common areas, Island and Mainland		
Evaluation:	Majority of surfaces are without significant damage or instability but local repair needs were indicated. Gravel-topped access and parking areas have historically received annual maintenance from the operating budget. Delivery of barge loads of gravel occurred last in FY 2014/2015 at an expense of ~\$42,300 to facilitate such. Reserve funding is factored for gravel delivery roughly every 5 years going forward. We assume provision for other significant expenses for surface grading, application of gravel, vegetation control, dust control, local road and drainage repairs will continue as annual maintenance items. Update in future reserve study updates as conditions merit.		

Useful Life:  
5 years



Remaining Life:  
3 years

Best Case: \$40,000  
Lower allowance

Worst Case: \$50,000  
Higher allowance

Cost Source: Client Cost History

Client: 24901 HMC Management

**Comp #:** 210 Site Lighting - Replace

Funded?: No. Cost projected to be too small

History:

Location: North Beach, Mainland Terminal, etc...

Evaluation: Small quantity of assorted fixtures of varying types were noted. Schedule includes large sodium lamps atop two wood poles at North Beach and Mainland Terminal, along with several small assemblies at other exterior common areas. Research indicated that Utility (Peninsula Light) is responsible to maintain, repair and replace all street lights. Replace any HMC lighting when needed from operating budget; small expenses don't merit reserve designation

**Quantity:** Small quantity

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

---

Client: 24901 HMC Management

**Comp #:** 212 Small Structures -  
**Maintain/Replace**

**Quantity:** (5) assorted

**Funded?:** No. Annual cost best handled as operating expense

**History:**

**Location:** Community Building, North Beach and Ferry Terminals

**Evaluation:** Schedule of small free-standing structures includes the Mainland Terminal Bus Stop and Waiting Shed, Island Terminal vinyl Storage Shed plus Waiting Shed and also the Storage Shed behind the Community Building. Metal roofing project was previously donated by contractor at both Waiting Sheds. We assume ongoing maintenance, repair and/or individual replacements will likely continue to be provided from a combination of volunteer efforts and operating monies. No basis for reserve funding at this time.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

## Association Reserves

## Component Details

Client: 24901 HMC Management

**Comp #:** 214 Community Signage - Replace

**Quantity:** Extensive quantity

Funded?: No. Annual cost best handled as operating expense

History:

Location: Common areas, Island and Mainland

Evaluation: Assorted ages/types of signs in varying condition. Majority are fair and legible; some local repair needs and appearance of the small "Welcome To Herron Island" sign would benefit from refurbishing. Evaluate all regularly, repair and replace individually or in small groupings from the operating budget.

Useful Life:



Best Case:

Worst Case:

Cost Source:

---

**Comp #:** 216 Community Kiosks/Readers - Replace

**Quantity:** (2) wood

Funded?: No. Cost projected to be too small

History:

Location: Common areas, Island and Mainland

Evaluation: Stable condition continues. Ongoing maintenance should include considerations for uniform aesthetics to ensure quality appearance. Individual replacement expense is too small for reserve designation.

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

Client: 24901 HMC Management

**Comp #:** 217 Chain Link Fence - Replace

**Quantity:** Approx 500 linear feet

Funded?: No. Cost projected to be too small

History: Addition by basketball court, playground, etc. in FY 2014/2015, mainland generator fencing in 2007

Location: Mainland Generator, Goodpastor Park Backstop

Evaluation: Assorted ages and condition for small quantity of chain link fencing. Addition by basketball court, playground and also replacement where former locations with old telephone poles were used as border in FY 2014/2015 at reported expense of only \$2,800 (materials only). Mainland generator fencing was installed in 2007 and is fair condition. Older fencing at Goodpastor Park backstop is without instability but exhibits general deterioration and some surface corrosion. Inspect, repair and replace individual locations as needed from operating funds. No reserve funding suggested. Note; fencing near Ferry access road is excluded since it belongs to Pugh family (easement over HMC property) .

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

# Association Reserves

# Component Details

Client: 24901 HMC Management

**Comp #:** 220 Wood Fence - Replace

Funded?: No. Research suggests association not responsible

History:

Location: Mainland Parking Lot

Evaluation: It is our understanding that wood fencing contiguous with your parking lot belongs to the adjacent property owner. No plans for additional HMC security fencing/gates were expressed.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

**Comp #:** 226 Landscape - Maintain/Refurbish

**Quantity:** Extensive square feet

Funded?: No. Annual cost best handled as operating expense

History: Tree removal events of \$8,000 in FY 2014/2015 and \$5,400 FY 2015/2016 YTD

Location: Common areas

Evaluation: Provided expense history includes tree removal events of \$8,000 in FY 2014/2015 and \$5,400 FY 2015/2016 YTD. Although typically funded as ongoing maintenance item, this component may be utilized for setting aside funds for larger expenses that do not occur on an annual basis, such as significant tree removal or delimiting projects, large scale landscape plantings or improvement projects, trail or bluff renovations, etc... As before, no stated desire for supplementary reserve funding at this time. Carefully track needs, expense patterns and update in future reserve updates as conditions merit.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

# Association Reserves

# Component Details

Client: 24901 HMC Management

**Comp #:** 230 Site Electrical - Repair/Replace

Funded?: No. Useful life not predictable or extended

History:

Location: North Beach, Ferry Terminals, etc...

Evaluation: Assessing electrical systems is beyond the scope of a reserve study. No reported problems at this time. Continue to treat electrical repairs as ongoing maintenance expense. If significant needs emerge, funding may be incorporated into future reserve study updates. No reserve funding suggested at this time.

**Quantity:** Extensive systems

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #:** 250 Mailboxes - Replace

**Quantity:** (4) clusters, assorted

Funded?: No. Board suggests owner responsibility, not association

History:

Location: Mainland Parking Lot

Evaluation: Age and condition varies somewhat. Research informed us that individual lot owners that are benefited are responsible to maintain, repair and replace these mailbox clusters. In our experience, typical installed cost for each cluster is ~\$1,400 but no HMC reserve funding is required with present assignment of expense.

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

Client: 24901 HMC Management

<b>Comp #:</b>	<b>300 Beach Armor/Bulkhead - Add</b>	<b>Quantity:</b>	<b>Extensive square feet</b>
Funded?:	No. Annual cost best handled as operating expense		
History:			
Location:	North Beach		
Evaluation:	Some concern with erosion were indicated for North Beach area. No anticipation for large scale project to add significant additional structures for beach armor or bulkheads at the moment. Current plan is to improve drainage measure and rehabilitate landscaping as operating budget items in the near term. Carefully track needs, expense patterns and update in future reserve updates as conditions merit. Note; image is only representative of general area; not necessarily indicative of project needs.		

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

---

Client: 24901 HMC Management

**Comp #:** 302 Small Boat Docks/Floats-Replace

**Quantity:** Approx 2,600 square feet

Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History: Replacement occurred last in 1997 along with another project in 2006 for finger expansion

Location: North Beach

Evaluation: Varying levels of general aging and deterioration were observed; overall fair condition. Historical maintenance includes prudent measure of annual removal for storm season, cleaning and minor repair utilizing volunteers and operating budget. Retaining collars were replaced in 2012. It is our understanding that substantial replacement occurred last in 1997 along with another project in 2006 for finger expansion indicated. Going forward, continue to provide ongoing maintenance as operating budget item but anticipate eventual significant replacement (structural members, floats, deck boards, etc...) intervals at roughly the 20-30 time frame indicated below to ensure safety and quality appearance.

Useful Life:  
30 years



Remaining Life:  
15 years

Best Case: \$113,300  
Lower allowance  
Cost Source: Client Cost History Inflated/Research with Local Contractor

Worst Case: \$133,900  
Higher allowance

Client: 24901 HMC Management

Comp #:	306 Small Boat Dock Pilings - Replace	Quantity:	(15) steel
Funded?:	Yes. Meets National Reserve Study Standards criteria for Reserve Funding		
History:	Metal pilings installed in FY 2011/2012 at expense of \$188,000		
Location:	North Beach		
Evaluation:	Previous (27) wood pilings were replaced with new metal pilings installed in FY 2011/2012 at a project expense of ~\$188,000. Inspect regularly, clean for appearance and provide spot repair promptly as needed from operating budget. For purposes of long term budgeting anticipate eventual replacement intervals of between 40-50 years as projected below.		

Useful Life:  
50 years

Remaining Life:  
45 years



Best Case: \$195,700  
Lower allowance

Worst Case: \$216,300  
Higher allowance

Cost Source: Client Cost History, Inflation Adjusted

---

Client: 24901 HMC Management

**Comp #:** 320 Small Boat Trestle/Ramp - Replace      **Quantity:** Approx 630 square feet

Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History: Significant replacement reportedly occurred last in 1997

Location: North Beach

Evaluation: Fair condition without apparent instability. Significant replacement reportedly occurred last in 1997. Wood support pilings are either encased in concrete, in concrete pipe or directly on grade. Two have previously been shored up/repaired. 2010 KPFF condition report cited verbal information that all pilings are not embedded into ground but rather on grade. In addition to ongoing spot repair, we recommend planning for intervals of significant replacement at roughly the time frame indicated below. Compliance with any and all governmental regulations regarding construction, maintenance or repair is assumed.

Useful Life:  
30 years

Remaining Life:  
15 years



Best Case: \$68,000  
Lower allowance

Worst Case: \$102,000  
Higher allowance

Cost Source: Research with Local Contractors

Client: 24901 HMC Management

<b>Comp #:</b>	<b>336 Small Boat Gangway - Replace</b>	<b>Quantity:</b>	(1) aluminum, ~4'x20'
Funded?:	Yes. Meets National Reserve Study Standards criteria for Reserve Funding		
History:			
Location:	North Beach		
Evaluation:	Generally fair condition was apparent. Maintenance regimen should include safety inspections, cleaning and minor repair. We recommend planning for intervals of eventual replacement at roughly the time frame indicated below.		

Useful Life:  
30 years

Remaining Life:  
15 years



Best Case: \$6,400  
Lower allowance  
Cost Source: ARI Cost Database: Similar Project Cost History

Worst Case: \$8,550  
Higher allowance

<b>Comp #:</b>	<b>340 Small Boat Launch - Repair/Replace</b>	<b>Quantity:</b>	<b>Approx 1,400 square feet</b>
Funded?:	No. Annual cost best handled as operating expense		
History:			
Location:	North Beach		
Evaluation:	Launch ramp utilizes concrete slab and block; general aging and deterioration with local surface cracking and damage but no widespread instability noted. No plans for complete renovation or replacement were expressed. We assume operating budget will be utilized for repairs to sustain for the foreseeable future.		

Useful Life:

Remaining Life:



Best Case:  
Cost Source:

Worst Case:  
Cost Source:

Client: 24901 HMC Management

**Comp #:** 350 Play Equipment - Replace

**Quantity:** (6) assorted

Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History:

Location: Goodpastor Park and North Beach

Evaluation: Majority of the larger play equipment with general deterioration, minor corrosion and outdated appearance. In FY 2014/2015 both swings were vandalized and then one new was installed at \$2,000 material expense and volunteer labor. Present schedule includes (1) metal slide, (1) swing set, (1) roundabout, (1) metal climbing toy and (1) wood/metal monkey bars at Goodpastor Park. We also noted a residential quality big toy at North Beach (that we previously thought belonged to private home owner). As routine maintenance, inspect all play equipment regularly, tighten connections and repair as needed promptly from operating budget. Periodically clean by pressure washing to prevent build up of mold and mildew; seal or paint structure where appropriate to prolong life and for best appearance. Replenish material in fall zones and replace wood borders as needed. Best to plan for regular replacement, selecting appropriate level of commercial quality play equipment for your large community, to provide for safety, aesthetics and marketability. As before, no specific bids, plans or specifications for near term/future replacement. Wide range of equipment/expense are possible; some communities expend \$20,000-\$50,000 or more. Modest general funding allowance factored below with input from Management.

Useful Life:

10 years

Remaining Life:

1 years



Best Case: \$8,000

Worst Case: \$12,000

Lower allowance

Higher allowance

Cost Source: Estimate Provided by Client

Client: 24901 HMC Management

**Comp #:** 356 Basketball Court - Repair/Replace      **Quantity:** Approx 1,100 SF, total

Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History: Concrete replacement in FY 2013/2014 at expense of \$17,500

Location: Goodpastor Park

Evaluation: Concrete replacement in FY 2013/2014 at expense of \$17,500. We noted simple striping and also one area where water ponds. Basketball assemblies/ equipment are older with marginal appliance; clean, paint, repair and eventually replace when needed from operating funds. Reserve funding for intervals of larger expense to replace concrete surface are factored below.

Useful Life:  
30 years

Remaining Life:  
27 years



Best Case: \$17,500  
Lower allowance

Worst Case: \$19,600  
Higher allowance

Cost Source: Estimate Provided by Client

---

Client: 24901 HMC Management

**Comp #:** 360 Picnic Assets - Replace

**Quantity:** Extensive quantity

Funded?: No. Annual cost best handled as operating expense

History:

Location: Community Building, Goodpastor Park, North Beach, etc...

Evaluation: Age, condition and type of picnic assets vary; most are still in fair condition. No large scale additions/replacements reported since our previous 2.19.2013 site inspection. It is our understanding that some picnic assets have been donated and that volunteer labor has historically occurred as well. No other specific cost or project history was provided. No anticipation for reserve expenditure; timely replacements (under \$6,000 threshold) should occur as annual operating item to maintain a quality, uniform aesthetic.

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

---

Client: 24901 HMC Management

**Comp #:** 370 Pavilion - Replace Roof

**Quantity:** Approx 2,200 SF

Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History: Roof was replaced last in FY 2003/2004

Location: North Beach

Evaluation: Pavilion structure is in stable condition without significant deterioration. Regular inspections, painting and minor repair from volunteers and/or general funds are assumed to help sustain structure. Roof was replaced last in FY 2003/2004 and was without significant granular loss or edge lifting noted when we inspected on 4.15.2016. Marine environment, so anticipate professional roof replacement at roughly the 20-25 year time frame below.

Useful Life:

25 years

Remaining Life:

12 years



Best Case: \$7,000

Worst Case: \$8,240

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

---

Client: 24901 HMC Management

<b>Comp #:</b>	<b>410 Community Building Siding-Replace</b>	<b>Quantity:</b>	<b>Approx 1,400 GSF</b>
Funded?:	Yes. Meets National Reserve Study Standards criteria for Reserve Funding		
History:	Cement-fiber siding was reportedly installed in FY 2005/2006		
Location:	901 West Yew Blvd KPN		
Evaluation:	It is our understanding that building was completed in 1982 and carport was added at some point in the past. Cement-fiber siding was reportedly installed in FY 2005/2006; no further project specifications were provided. Working assumption is proper installation with adequate moisture barrier below. Cement-fiber is typically a durable, long lived product if properly installed without defect and assuming ordinary care and maintenance is utilized. Note that currently the leading manufacturer of cement-fiber siding (Hardie) carries either a 30-year non-prorated or 50-year prorated limited warranty on their products. Local James Hardie representative suggests planning for 50-year total service life of siding. Evaluate the siding and the critical underlying waterproofing (typically building paper or house-wrap) more frequently as the remaining useful life approaches zero years. Adjust remaining useful life as dictated by the evaluation. Project cost may vary significantly dependent upon any underlying structural repair needs.		

Useful Life:  
50 years

Remaining Life:  
39 years



Best Case: \$17,500  
Lower allowance

Worst Case: \$26,800  
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 24901 HMC Management

**Comp #:** 420 Community Building Exterior-Paint

**Quantity:** Approx 1,400 GSF

Funded?: No. Cost projected to be too small

History: Painting reportedly occurred last in FY 2015/2016 at expense of \$2,000; previous project in FY 2005/2006

Location: 901 West Yew Blvd KPN

Evaluation: Surface finishes upon building were in good condition; painting reportedly occurred last in FY 2015/2016 at expense of \$2,000. Adjacent shed appears to still need painting. Prior building exterior painting projects in FY 2005/2006 with installation of new siding and prior to that paint project was donated in 2000. In event, expense is too small to merit reserve funding even when professional contractor is selected. Treat as operating item as needed.

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

---

Client: 24901 HMC Management

<b>Comp #:</b>	<b>430 Community Building Roof - Replace</b>	<b>Quantity:</b>	<b>Approx 2,700 GSF</b>
Funded?:	Yes. Meets National Reserve Study Standards criteria for Reserve Funding		
History:			
Location:	901 West Yew Blvd KPN		
Evaluation:	No apparent or reported problems. Metal roofing is a long lived product but eventual replacement near the 40 year mark of life due to typical material deterioration of roofing and underlayment is predictable. Also, replace gutter/downspouts along with this project. Long term budgeting dictates assumption for professional installations for this type of project.		

Useful Life:  
40 years



Remaining Life:  
26 years

Best Case:	\$14,400	Worst Case:	\$20,600
	Lower allowance		Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

<b>Comp #:</b>	<b>450 Community Bldng Interior-Refinish</b>	<b>Quantity:</b>	<b>Moderate GSF</b>
Funded?:	No. Cost projected to be too small		
History:			
Location:	901 West Yew Blvd KPN		
Evaluation:	Utility appearance. Assumption regarding interior maintenance utilizing volunteers and/or operating funds will apply for individual projects such as repainting, furniture, lighting, assorted flooring, etc.... No reserve funding recommended under current pattern of care and level of interior finishing.		

Useful Life:



Remaining Life:

Best Case:	Worst Case:
	Cost Source:

Client: 24901 HMC Management

**Comp #:** 454 Community Bldng Kitchen-  
**Refurbish**

**Funded?:** No. Annual cost best handled as operating expense

**History:**

**Location:** 901 West Yew Blvd KPN

**Evaluation:** No signification changes apparent since our previous 2012 site inspection. Simple layout was clean and without noteworthy deterioration. Appliances of varying age and brand were apparent. The Maytag microwaves and the Whirlpool refrigerator were likely installed in 2005 or 2006 and the Crosley electric ranges appear to be older units. Large stainless steel work station was in fair condition; kitchen cabinets appeared to likewise. No desire for large scale refurbishing was expressed. Individual replacements of appliances, cabinetry, etc... are likely to continue as operating budget items.

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

## Association Reserves

## Component Details

Client: 24901 HMC Management

**Comp #:** 456 Community Bldng Bathrooms-Maintain

**Quantity:** (2) small, two-piece

Funded?: No. Cost projected to be too small

History:

Location: 901 West Yew Blvd KPN

Evaluation: Small bathrooms are functional; previous improvements for ADA compliance noted. No basis for setting aside reserve funds for large scale refurbishing.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

---

Client: 24901 HMC Management

**Comp #:** 460 Community Bldng Septic - Replace      **Quantity:** (1) system

Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History: Likely installed in 1982

Location: 901 West Yew Blvd KPN

Evaluation: Septic system serving Community Building was likely installed in 1982. No known evaluation by expert to help establish specifications and timelines for system renovations. Minimal usage indicated with no reported problems at this time. Maintenance, repair or pump-out history was not provided. Components within these systems (tanks, drain fields, piping, etc...) are generally considered long lived but eventual system renovations are predictable. For purposes of long term planning, general budgeting "place holder" for refurbishing every 40-50 years is established below. Going forward, ongoing evaluation by expert to help establish specifications and timelines for system renovations are recommended, include such analysis in future reserve study updates.

Useful Life:  
50 years

Remaining Life:  
16 years



Best Case: \$8,000  
Lower allowance

Worst Case: \$12,000  
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 24901 HMC Management

<b>Comp #:</b>	<b>464 CB Windows/Doors-Replace</b>	<b>Quantity:</b>	<b>Moderate quantity</b>
Funded?:	No. Annual cost best handled as operating expense		
History:			
Location:	901 West Yew Blvd KPN		
Evaluation:	Insulated garage doors replaced older units in 2012; volunteer (Booster Club) funds paid expense of \$3,100. Also, FY 2014/2015 improvement project to add another garage door at back of building (again with volunteer/Booster Club donations). Lastly, front door was replaced in FY 2014/2015 from operating monies. Otherwise, fair condition for small quantity of assorted windows and doors. Going forward, no anticipation of large scale expenses requiring reserve designation.		

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

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Client: 24901 HMC Management

**Comp #:** 466 CB Electrical/Plumbing-Replace

Funded?: No. Useful life not predictable or extended

History:

Location: 901 West Yew Blvd KPN

Evaluation: Assessing both electrical and plumbing systems is beyond the scope of a reserve study. No reported problems at this time; systems are typically very long lived if properly installed. Treat electrical or plumbing repairs as ongoing maintenance expense. If significant needs emerge, funding may be incorporated into future reserve study updates. No reserve funding suggested at this time.

**Quantity:** Extensive systems

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Client: 24901 HMC Management

<b>Comp #:</b>	<b>510 Office Equipment/Furniture-Replace</b>	<b>Quantity:</b>	<b>Minor equipment</b>
Funded?:	No. Annual cost best handled as operating expense		
History:			
Location:	Community Building		
Evaluation:	Assorted ages and conditions apparent. Small quantity of office equipment includes a few desktop computers with monitors, some small all-in-ones and (1) large Canon C3380i printer. Schedule appears largely the same as our 2012 site inspection but research with Management confirmed community needs will likely continue to be met with individual equipment purchases treated as an operating expense. Note; surveillance system was added for Community Building in FY 2015/2016 at modest expense; treat future replacements as annual budget item.		

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

Client: 24901 HMC Management

<b>Comp #:</b>	<b>520 Small Equipment/Tools - Replace</b>	<b>Quantity:</b>	<b>Minor equipment</b>
Funded?:	No. Annual cost best handled as operating expense		
History:			
Location:	Community and Pavilion Buildings		
Evaluation:	Small tools/equipment such as portable generator don't merit reserve designation. Evaluate such minor replacement needs as ongoing maintenance and provide from annual operating funds.		

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

<b>Comp #:</b>	<b>530 Utility Tractor/Mower - Replace</b>	<b>Quantity:</b>	<b>(1) small riding mower</b>
Funded?:	No. Cost projected to be too small		
History:	2014/2015 replacement at only \$3,260 expense		
Location:	Community Building Shed		
Evaluation:	Storage shed was locked on date of scheduled site inspection; no image of equipment available. Small riding mower was reportedly purchased new in FY 2014/2015 at expense of \$3,260; prior mower replacement in 2005. Previous consideration was given for larger utility tractor (used equipment in the \$12,000-\$15,000) but apparent election to continue using small riding mower instead. Treat small expense under \$6,000 as operating expense. Adjust in future reserve update as conditions merit.		

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

Client: 24901 HMC Management

**Comp #:** 540 Dust/Water Truck - Replace      **Quantity:** (1) 1991 Chevy Kodiak  
**Funded?:** Yes. Meets National Reserve Study Standards criteria for Reserve Funding  
**History:**  
**Location:** Community Building  
**Evaluation:** Older vehicle provides current method of dust control for roadways. General deterioration and local corrosion was apparent. Truck is near end of service life with 159,478 miles showing on odometer on 4.15.2016. This vehicle was reportedly purchased (used) last in 2003; prudent planning suggests intervals of replacement will continue to be needed going forward. Previous plans to replace truck with another used vehicle in FY 2014/2015 have apparently been deferred. Note; water tank appears to be in fair condition at this time and should be replaced as needed from operating funds.

Useful Life:  
12 years

Remaining Life:  
1 years



Best Case: \$12,400  
Lower allowance  
Cost Source: ARI Cost Database: Similar Project Cost History

Worst Case: \$18,600  
Higher allowance

## Client: 24901 HMC Management

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<b>Comp #:</b>	<b>700 Ferry Terminals - Inspect/Repair</b>	<b>Quantity:</b>	<b>Approx 6,100 square feet</b>
Funded?:	Yes. Meets National Reserve Study Standards criteria for Reserve Funding		
History:			
Location:	Island and Mainland Terminals		
Evaluation:	Ferry terminal ramps consist of concrete fixed approach structure supported by concrete piles and also utilize articulating steel ramps hung from steel support towers. Wood decking is traffic surface atop the steel ramps. Four sets of cluster pile dolphins are located near each terminal and used as vessel positioning aides. Mainland Terminal inspection is required at every two year interval; research with Management confirmed next event in FY 2016/2017. We recommend reserve funding for regular inspection and minor repair for both Ferry Terminals to ensure cost efficiency, functionality and safety at the interval below. Minor repair may include projects such as spot replacements of local concrete repairs, steel hardware, individual winch motors, future local wood decking, etc... As the structures continue to age, track expenses for consideration of further segregation of individual maintenance events in future reserve updates.		

Useful Life:  
2 years

Remaining Life:



Best Case: \$16,500  
Lower allowance

Worst Case: \$20,600  
Higher allowance

Cost Source: Client Cost History/Estimate Provided by Client

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Client: 24901 HMC Management

**Comp #:** 702 Ferry Terminals - Paint

**Quantity:** Approx 6,100 square feet

Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History: FY 2015/2016 segregated construction cost was reportedly \$155,000 plus portion of \$46,000 for other costs

Location: Island and Mainland Terminals

Evaluation: Good condition where recently painted at steel lift spans. Project occurred in FY 2015/2016; segregated construction cost was reportedly \$155,000 plus a portion of \$46,000 for other costs such as engineering and oversight. Going forward, we recommend planning for timely intervals of cleaning/painting at the interval indicated below. The reader should note that recent project included needed spot stripping of material, if entire steel spans would have needed paint removed the cost would have increased substantially. Update in future reserve study updates as conditions warrant.

Useful Life:  
12 years

Remaining Life:  
11 years



Best Case: \$150,000  
Lower allowance

Worst Case: \$200,000  
Higher allowance

Cost Source: Client Cost History

Client: 24901 HMC Management

Comp #:	704 Ferry Terminal Cables - Replace	Quantity:	Extensive linear feet
Funded?:	Yes. Meets National Reserve Study Standards criteria for Reserve Funding		
History:	FY 2014/2015 replacement at \$27,200 expense		
Location:	Island and Mainland Terminals		
Evaluation:	Previous history includes FY 2014/2015 replacement at \$27,200 expense. Also, all counterweight and lift cables were replaced in 2007 and then lift cables at the Mainland Terminal only in FY 2011/2012. For purposes of long term budgeting, best to plan for proactive and simultaneous replacement of all cables every 5-7 years (utilize galvanized product) to ensure smooth, safe operation and cost efficiency.		

Useful Life:  
6 years

Remaining Life:  
4 years



Best Case: \$25,800  
Lower allowance

Worst Case: \$30,900  
Higher allowance

Cost Source: Client Cost History/Estimate Provided by Client

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Client: 24901 HMC Management

<b>Comp #:</b>	<b>706 Ferry Terminal Wood Decks - Replace</b>	<b>Quantity:</b>	<b>Approx 2,940 square feet</b>
Funded?:	Yes. Meets National Reserve Study Standards criteria for Reserve Funding		
History:	FY 2014/2015 replacement at \$144,000 plus portion of \$46,000 "soft" costs		
Location:	Island and Mainland Terminals		
Evaluation:	As new condition. FY 2014/2015 replacement at \$144,000 plus portion of \$46,000 "soft" costs. Previous discussion regarding possible transition to steel planking with apparent decision to replace again with wood timbers instead. We understand that removal of wood decking is required when each painting project occurs but assume decking will only be recommended for similar large scale replacement as indicated below. Spot replacements to sustain in between are already factored within Component # 700, Ferry Terminals - Inspect/Repair.		

Useful Life:  
24 years



Remaining Life:  
23 years

Best Case: \$161,700  
Lower allowance

Worst Case: \$182,300  
Higher allowance

Cost Source: Client Cost History

## Client: 24901 HMC Management

**Comp #:** 707 Ferry Terminal Structures - Replace**Quantity:** Approx 6,100 square feet

Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History: Terminals were built in 1994

Location: Island and Mainland Terminals

Evaluation: It is our understanding that terminals were built in 1994; no unexpected deterioration was apparent. Previously provided 2012 condition report (for Mainland Terminal only) indicated that concrete approach structure and pilings were in good condition. Likewise good condition for galvanized steel lift tower and bridge rails. Presently fair condition for painted steel structure (stringers, girders, floor beams, etc...) of lift spans. If properly maintained, working assumption is that terminal structures will achieve full design life of between 50-75 years as projected below. Note; distant replacement assumption is timed to coincide with a future paint project for cost efficiency.

Useful Life:  
60 yearsRemaining Life:  
35 yearsBest Case: \$2,060,000  
Lower allowance  
Cost Source: Previous Research with Local Contractor, Inflation AdjustedWorst Case: \$2,575,000  
Higher allowance

Client: 24901 HMC Management

**Comp #:** 708 Ferry Ramp Dolphins - FY  
2016/2017

**Quantity:** (8) assemblies

Funded?: No. Loan/monies other than further maintenance reserves

History: FY 2016/2017 ~\$1,700,000 project; USDA loan for sum of ~\$1,500,000 (\$200,000 monies earmarked)

Location: Island and Mainland Terminals

Evaluation: Advanced deterioration for existing wood dolphins. Recent comprehensive expert evaluations were indicated; BOD representative and Management confirmed current plans for FY 2016/2017 replacement. Total projected expense is reportedly ~\$1,700,000 (including construction, design, oversight, etc...) with apparent intention to procure long term USDA loan for sum of ~\$1,500,000 to finance vast majority of project (\$200,000 monies are already committed/earmarked). Current projection is that total of annual P&I payments will likely be somewhere near \$69,000 with a 40 year term. No future impact upon HMC maintenance reserves is factored since collections and payments will reportedly be handled in a separate account for this debt obligation (similar to separate Water System indebtedness).

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

Client: 24901 HMC Management

<b>Comp #:</b>	<b>708 Ferry Ramp Dolphins-Future Replace</b>	<b>Quantity:</b>	<b>(8) assemblies</b>
Funded?:	Yes. Meets National Reserve Study Standards criteria for Reserve Funding		
History:	Assumes planned FY 2016/2017 project/USDA financing occurs		
Location:	Island and Mainland Terminals		
Evaluation:	Assuming planned FY 2016/2017 project and USDA financing occurs, future replacement intervals of new steel dolphins are projected below. The reader should note that one of the key concepts of adequate reserve funding is to collect appropriate contributions from membership to offset deterioration as it occurs (in this particular instance, over many years) and fairly distribute the burden of expense between current and future owners. That is, members pay only their fair share as individual reserve components are "used up" during their individual ownership period. Additionally, note that HMC reserve monies accrued for future projects should continue to earn interest and grow as opposed to paying out interest and loan fees.		

Useful Life:  
50 years

Remaining Life:  
50 years



Best Case: \$1,500,000  
Lower allowance

Worst Case: \$1,900,000  
Higher allowance

Cost Source: Estimate Provided by Client

Client: 24901 HMC Management

<b>Comp #:</b>	<b>710 Ferry Ramp Bulkhead - Repair</b>	<b>Quantity:</b>	<b>Moderate square feet</b>
Funded?:	No. Useful life not predictable or extended		
History:	Some repair occurred in 2006; no further project history was provided		
Location:	Island Terminal		
Evaluation:	No apparent instability, sloughing, deterioration of rip-rap, etc... Some repair occurred in 2006; no further project history was provided. Geo-technical evaluation is beyond the scope of our service and extent / timing of future event is difficult to predict. Consult with appropriate engineering firm as conditions warrant.		

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

<b>Comp #:</b>	<b>712 Ferry Ramp Generators - Replace</b>	<b>Quantity:</b>	<b>(2) Generac 35kw</b>
Funded?:	Yes. Meets National Reserve Study Standards criteria for Reserve Funding		
History:	Installed in FY 2007/2008 at an expense of \$33,000		
Location:	Island and Mainland Terminals		
Evaluation:	No reported problems. Installed in 2007/2008 at an expense of \$33,000, equipment is utilized for emergency back up power for Ferry Ramps. Regular inspections, confidence testing and maintenance is assumed. Typical useful life is somewhat dependent upon usage; average life of 15-20 years is factored below.		

Useful Life:  
20 years



Remaining Life:  
11 years

Best Case: \$34,000  
Lower allowance  
Cost Source: Client Cost History Inflated/Similar Project Cost History

Worst Case: \$41,200  
Higher allowance  
Cost Source: Client Cost History Inflated/Similar Project Cost History

Client: 24901 HMC Management

<b>Comp #:</b>	<b>718 Ferry Ramp Surveillance - Replace</b>	<b>Quantity:</b>	(2) camera, DVR
Funded?:	No. Cost projected to be too small		
History:	Modest system installed at Mainland Terminal in 2012 at an expense of \$2,300		
Location:	Select common areas		
Evaluation:	Modest system installed at Mainland Terminal in 2012 at an expense of \$2,300. Research indicated no plans to substantially increase system that would merit reserve designation. Treat minor replacements as an operating expense.		

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source:

<b>Comp #:</b>	<b>740 Ferry Vessel - Shipyard</b>	<b>Quantity:</b>	<b>65' LOA</b>
Funded?:	Yes. Meets National Reserve Study Standards criteria for Reserve Funding		
History:	FY 2014/2015 expense was \$84,600		
Location:	M/V Charlie Wells		
Evaluation:	Welded steel hull and framed vessel was built in 1989. Our research informed us that dry dock and significant maintenance occurs every two years on the even year, so next event in FY 2016/2017 is factored below. Comprehensive inspections and projects including such as paint, zinxs, seals, prop and shaft repairs, etc....are indicated. FY 2014/2015 expense was \$84,600 and included significant painting among other maintenance. Carefully track needs and expenses for consideration of possible segregation of individual maintenance events in future reserve updates. Note; image below provided from HMC archive.		

Useful Life:

2 years



Remaining Life:

Best Case: \$87,600

Worst Case: \$103,000

Lower allowance

Higher allowance

Cost Source: Client Cost History/Estimate Provided by Client

Client: 24901 HMC Management

**Comp #:** 744 Ferry Vessel - Overhaul Engines      **Quantity:** (2) GM 300 HP, diesel

Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History: New four-cycle John Deere units in FY 2013/2014; overhaul anticipated next in FY 2018/2019

Location: M/V Charlie Wells

Evaluation: Replacement of previous two-cycle GM diesel engine with new four-cycle John Deere units in FY 2013/2014. Research informed us that likely overhaul schedule will improve to every four year to six year interval (from previous historical average of every three years). Future overhaul anticipated next in FY 2018/2019; monitor and update assumption in future reserve updates as conditions warrant. Note; image below provided from HMC archive.

Useful Life:  
5 years

Remaining Life:  
2 years



Best Case: \$32,000  
Lower allowance

Worst Case: \$43,300  
Higher allowance

Cost Source: Client Cost History/Estimate Provided by Client

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Client: 24901 HMC Management

**Comp #:** 746 Ferry Vessel - Replace Engines      **Quantity:** (2) GM 300 HP, diesel  
Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding  
History: New four-cycle John Deere units in FY 2013/2014 at \$152,000 expense  
Location: M/V Charlie Wells  
Evaluation: As already mentioned, engine replacement in FY 2013/2014 at \$152,000 expense. Benefits of last transition were assumed to include fuel efficiency, reduced operational expense and noise levels. Notwithstanding proactive maintenance and durable equipment, prudent planning dictates replacement assumption due to eventual parts and technological obsolesces.

Useful Life:  
50 years

Remaining Life:  
47 years



Best Case: \$154,500  
Lower allowance

Worst Case: \$170,000  
Higher allowance

Cost Source: Client Cost History

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Client: 24901 HMC Management

**Comp #:** 755 Ferry Vessel-Overhaul  
**Transmissions**

**Quantity:** (2) Twin Disc MG 5091  
**SC**

Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History: FY 2013/2014 new transmissions; overhaul anticipated next in FY 2018/2019

Location: M/V Charlie Wells

Evaluation: New transmissions were also included during FY 2013/2014 re-power. Anticipate significant transmission overhaul every four to five year interval. Future overhaul anticipated next in FY 2018/2019; monitor and update assumption in future reserve updates as conditions warrant. Note; image below provided from HMC archive.

Useful Life:  
 5 years



Remaining Life:  
 2 years

Best Case: \$12,400  
 Lower allowance

Worst Case: \$15,500  
 Higher allowance

Cost Source: Client Cost History/Research with Local Contractor

**Comp #:** 757 Ferry Vessel-Replace  
**Transmissions**

**Quantity:** (2) Twin Disc MG 5091  
**SC**

Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History: FY 2013/2014 new transmissions at \$31,500 expense

Location: M/V Charlie Wells

Evaluation: Expense for new transmissions is factored below; expect roughly 25 years of useful life going forward. Note; image below provided from HMC archive.

Useful Life:  
 25 years



Remaining Life:  
 22 years

Best Case: \$30,400  
 Lower allowance

Worst Case: \$34,500  
 Higher allowance

Cost Source: Client Cost History/Research with Local Contractor

Client: 24901 HMC Management

**Comp #:** 760 Ferry Vessel - Replace

**Quantity:** 65' LOA

Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History: 1989 replacement with new

Location: M/V Charlie Wells

Evaluation: Previous research with Marine Surveyor familiar with your vessel indicated to anticipate eventual vessel replacement cycles of between 50-60 years as projected below (assuming proactive maintenance and current usage schedule continues). As occurred last in 1989, replacement with new is factored for purposes of long term budgeting

Useful Life:  
60 years

Remaining Life:  
33 years



Best Case: \$1,339,000

Worst Case: \$1,751,000

Lower allowance

Higher allowance

Cost Source: Estimate Provided by Client, Inflation Adjusted

**Comp #:** 940 Legal Contingency Fund

**Quantity:** \$35,000

Funded?: Yes. Board directed assumption

History:

Location: Reserve funds

Evaluation: Per direction of BOD and Management, a contingency fund is maintained for unanticipated legal expenses. Update in future reserve study updates as conditions merit.

Useful Life:

Remaining Life:



Best Case: \$34,000

Worst Case: \$36,000

Lower legal contingency

Higher legal contingency

Cost Source: Estimate Provided by Client

Client: 24901 HMC Management

**Comp #:** 999 Reserve Study Update

**Quantity:** Annual Update

Funded?: No. Annual cost best handled as operating expense

History:

Location: Common areas

Evaluation: Per Washington law, chapter 64.38 RCW, reserve study updates with site inspections are required every three years to assess changes in condition (i.e., physical, economic, governmental, etc...) and the resulting effect on the community's long-term reserve plan. Most appropriately factored through operating budget, not as reserve component.

Useful Life:



Remaining Life:

Best Case:

Worst Case:

Cost Source: