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Update "With-Site-Visit" Reserve Study



HMC Management Lakebay, WA

Report #: 24901-6
For Period Beginning: October 1, 2019
Expires: September 30, 2020

Date Prepared: April 18, 2019



Hello, and welcome to your Reserve Study!

This Report is a valuable budget planning tool, for with it you control the future of your association. It contains all the fundamental information needed to understand your current and future Reserve obligations, the most significant expenditures your association will face.

With respect to Reserves, this Report will tell you "where you are," and "where to go from here."

In this Report, you will find...

- 1) A List of What you're Reserving For**
- 2) An Evaluation of your Reserve Fund Size and Strength**
- 3) A Recommended Multi-Year Reserve Funding Plan**

More Questions?

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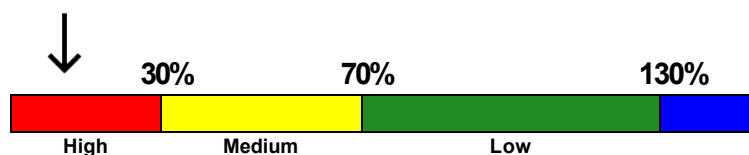
3- Minute Executive Summary

Association: HMC Management **Assoc. #: 24901-6**
Location: Lakebay, WA **# of Units: 379**
Report Period: October 1, 2019 through September 30, 2020

Findings/Recommendations as-of: October 1, 2019

Starting Reserve Balance	\$274,996
Current Fully Funded Reserve Balance	\$2,630,070
Percent Funded	10.5 %
Average Reserve Deficit or (Surplus) Per Unit	\$6,214
2019/2020 100% Annual "Full Funding" Contributions	\$397,000
2019/2020 70% Annual "Threshold Funding" Contributions	\$316,700
2019/2020 "Alternate/Baseline Funding" to keep Reserves above \$0	\$137,846
Recommended 2019/2020 Special Assessment	\$0
Most Recent Budgeted Contribution Rate	\$80,100

Reserves % Funded: 10.5%



Special Assessment Risk:

Economic Assumptions:

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

- This is a Update "With-Site-Visit" Reserve Study, meeting or exceeding all requirements of the RCW. This study was prepared by, or under the supervision of a credentialed Reserve Specialist (RS 153).

- The reader should note that project to replace dolphins for ferry system was recently completed in FY 2017/2018. Long term USDA loan to finance vast majority of that project is now in place. No future impact upon HMC maintenance reserves is factored for this significant indebtedness since collections and payments will reportedly continue to be handled in a separate account for this debt obligation (similar to separate Water System indebtedness).

- Assuming the preceding understanding, your Reserve Fund is currently 10.5 % Funded. This means the association's special assessment and/or deferred maintenance risk 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, we continue to recommend substantially increasing Reserve Contributions to within the 70% to 100% range 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 2019/2020 “Annual Deterioration” of reserve components is \$246,574.

- No assets appropriate for Reserve designation known to be excluded. See appendix for component information and the basis of our assumptions. "Alternate Funding" in this report is synonymous with Baseline Funding, as defined within the RCW "to maintain the reserve account balance above zero throughout the thirty-year study period, without special assessments." Funding plan contribution rates are presented as an aggregate total, assuming average percentage of ownership. The actual ownership allocation may vary - refer to your governing documents.

#	Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Average Cost
Site/Grounds/Recreation				
200	Asphalt Roads - Repair/Resurface	25	23	\$30,000
204	Gravel Roads/Lots - Maintain/Repair	5	4	\$58,000
350	Play Equip,North Beach 2007-Replace	20	8	\$6,000
352	Play Equip,North Beach 2017-Replace	20	18	\$6,000
354	Play Eq,Goodpastor-Partial Replace	5	4	\$8,000
356	Basketball Court - Repair/Replace	30	24	\$20,000
370	Pavilion - Replace Roof	25	9	\$9,900
Small Boat Marina				
302	Small Boat Docks/Floats-Replace	30	12	\$135,200
306	Small Boat Dock Pilings - Replace	50	42	\$225,000
320	Small Boat Trestle/Ramp - Replace	30	12	\$94,500
336	Small Boat Gangway - Replace	30	12	\$8,500
Community Building				
410	Community Building Siding-Replace	50	36	\$28,000
430	Community Building Roof - Replace	40	23	\$21,600
460	Community Blding Septic - Replace	50	13	\$11,000
Equipment				
540	Dust/Water Truck - Replace	12	10	\$19,000
Ferry System				
700	Ferry Terminals - Inspect/Repair	4	3	\$22,500
702	Ferry Terminals - Paint	12	8	\$195,000
704	Ferry Terminal Cables - Replace	5	0	\$42,500
706	Ferry Terminal Wood Decks - Replace	24	20	\$190,000
707	Ferry Terminal Structures - Replace	60	32	\$2,530,000
708	Ferry Ramp Dolphins - Replace	50	48	\$1,275,000
712	Ferry Ramp Generators - Replace	20	8	\$39,900
740	Ferry Vessel - Shipyard	2	1	\$130,000
744	Ferry Vessel - Overhaul Engines	5	4	\$35,000
746	Ferry Vessel - Replace Engines	50	44	\$178,000
755	Ferry Vessel-Overhaul Transmissions	7	1	\$16,000
757	Ferry Vessel-Replace Transmissions	28	22	\$36,000
760	Ferry Vessel - Replace	60	30	\$1,685,000
Professional/Special Projects				
940	Legal Contingency Fund	0	0	\$35,000

29 Total Funded Components

Note 1: Yellow highlighted line items are expected to require attention in this initial year, green highlighted items are expected to occur within the first-five years.

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



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

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

How much should we contribute?



According to National Reserve Study Standards, there are four Funding Principles to balance in developing your Reserve Funding Plan. Our first objective is to design a plan that provides you with sufficient cash to perform your Reserve projects on time. Second, a stable contribution is desirable because it keeps these naturally irregular expenses from unsettling the budget.

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

What is our Recommended Funding Goal?

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



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 2018/2019 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 3/20/2019, 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 379 for this report.

Reserve expenses to anticipate in the near term (next five years) include cyclical ferry terminal cable replacements, routine overhaul of engines and transmissions, shipyard expenses for the ferry vessel (Charlie Wells), 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.

Also, the reader should note that project to replace dolphins for ferry system was recently completed in FY 2017/2018. Long term USDA loan to finance vast majority of that project is now in place. No future impact upon HMC maintenance reserves is factored for this significant indebtedness since collections and payments will reportedly continue to be handled in a separate account for this debt obligation (similar to separate Water System indebtedness).

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.

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 the 30-yr Summary Table, while details of the projects that make up these expenses are shown in the Cash Flow Detail Table.

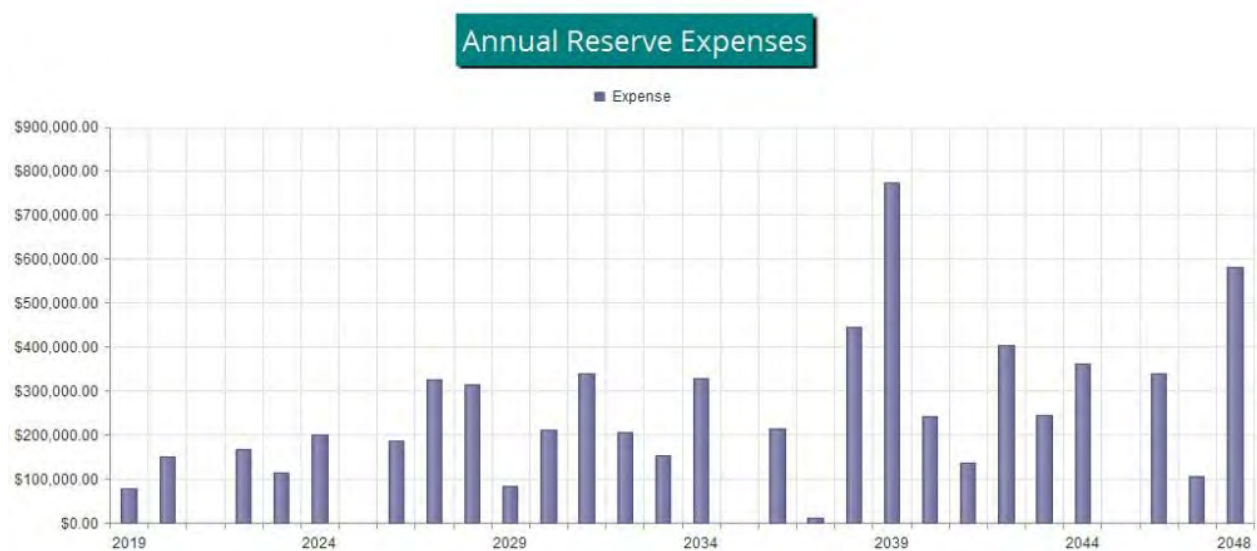


Figure 1

Reserve Fund Status

The starting point for our financial analysis is your Reserve Fund balance, projected to be \$274,996 as-of the start of your Fiscal Year on 10/1/2019. As of that date, your Fully Funded Balance is computed to be \$2,630,070 (see Fully Funded Balance Table). This figure represents the deteriorated value of your common area components.

Recommended Funding Plan

Based on your current Percent Funded and your near-term and long-term Reserve needs, we are recommending budgeted contributions of \$397,000 this Fiscal Year. The overall 30-yr plan, in perspective, is shown below. This same information is shown numerically in both the 30-yr Summary Table and the Cash Flow Detail Table.

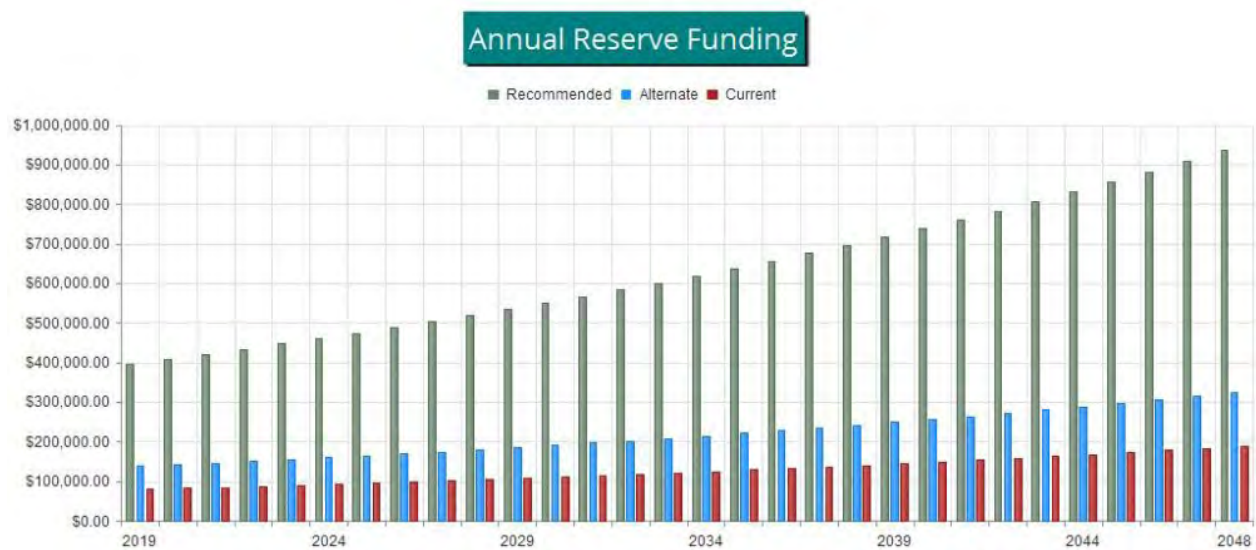


Figure 2

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 (assumes future increases), compared to your always-changing Fully Funded Balance target.

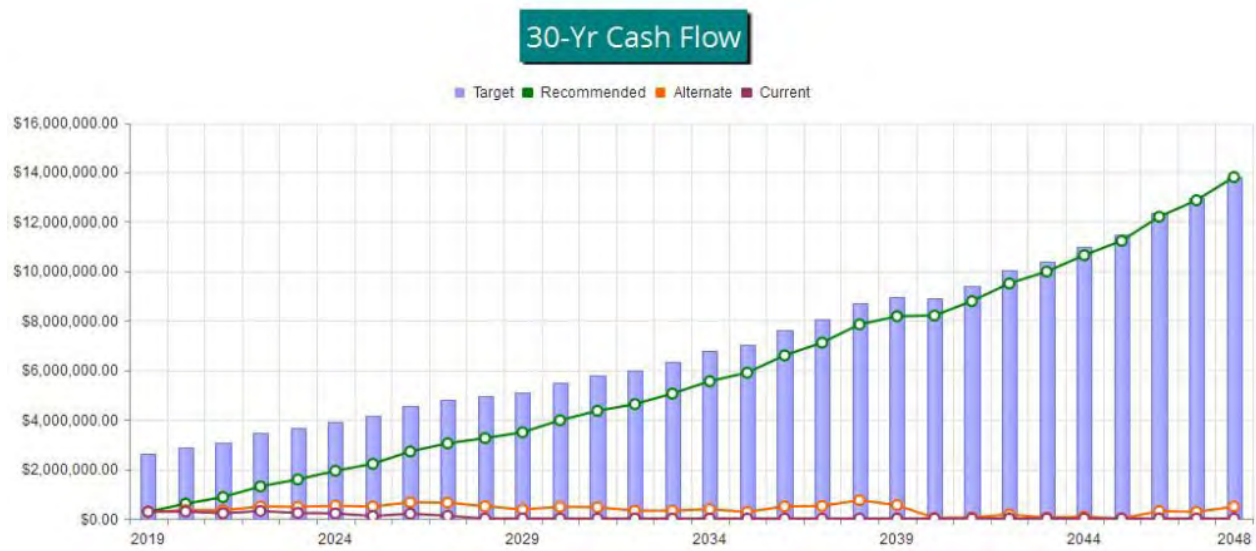


Figure 3

This figure shows the same information plotted on a Percent Funded scale. It is clear here to see how your Reserve Fund strength approaches the 100% Funded level under our recommended multi-yr Funding Plan.

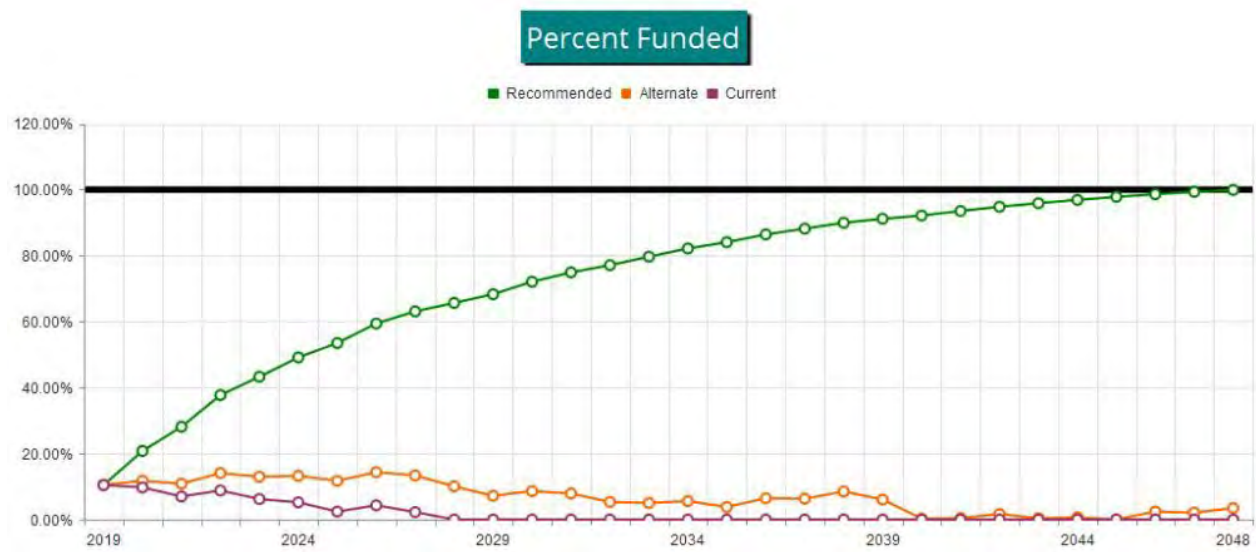


Figure 4

Table Descriptions

Executive Summary is a summary of your Reserve Components

Reserve Component List Detail discloses key Component information, providing the foundation upon which the financial analysis is performed.

Fully Funded Balance shows the calculation of the Fully Funded Balance for each of your components, and their contributions to the association total. For each component, the Fully Funded Balance is the fraction of life used up multiplied by its estimated Current Replacement Cost.

Component Significance shows the relative significance of each component to Reserve funding 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 its Useful Life, then that component's percentage of the total is displayed.

Accounting-Tax Summary provides information on each Component's proportionate portion of key totals, valuable to accounting professionals primarily during tax preparation time of year.

30-Yr Reserve Plan Summary 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 at the beginning of each year.

30-Year Income/Expense Detail shows the detailed income and expenses for each of the next 30 years. This table makes it possible to see which components are projected to require repair or replacement in a particular year, and the size of those individual expenses.

Reserve Component List Detail

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#	Component	Quantity	Useful Life	Rem. Useful Life	Current Cost Estimate	
					Best Case	Worst Case
Site/Grounds/Recreation						
200	Asphalt Roads - Repair/Resurface	Approx 10,500 square feet	25	23	\$25,000	\$35,000
204	Gravel Roads/Lots - Maintain/Repair	Approx 500,000 surface SF	5	4	\$54,000	\$62,000
350	Play Equip,North Beach 2007-Replace	(1) big toy	20	8	\$5,000	\$7,000
352	Play Equip,North Beach 2017-Replace	(1) climbing toy	20	18	\$5,000	\$7,000
354	Play Eq,Goodpastor-Partial Replace	(5) assorted	5	4	\$6,000	\$10,000
356	Basketball Court - Repair/Replace	Approx 2,000 SF, total	30	24	\$18,000	\$22,000
370	Pavilion - Replace Roof	Approx 2,200 SF	25	9	\$8,800	\$11,000
Small Boat Marina						
302	Small Boat Docks/Floats-Replace	Approx 2,600 square feet	30	12	\$122,200	\$148,200
306	Small Boat Dock Pilings - Replace	(15) steel	50	42	\$210,000	\$240,000
320	Small Boat Trestle/Ramp - Replace	Approx 630 square feet	30	12	\$75,600	\$113,400
336	Small Boat Gangway - Replace	(1) aluminum, ~4'x20'	30	12	\$7,000	\$10,000
Community Building						
410	Community Building Siding-Replace	Approx 1,400 GSF	50	36	\$22,400	\$33,600
430	Community Building Roof - Replace	Approx 2,700 GSF	40	23	\$16,200	\$27,000
460	Community Blding Septic - Replace	(1) system	50	13	\$9,000	\$13,000
Equipment						
540	Dust/Water Truck - Replace	(1) 1997 F800	12	10	\$17,000	\$21,000
Ferry System						
700	Ferry Terminals - Inspect/Repair	Approx 6,100 square feet	4	3	\$20,000	\$25,000
702	Ferry Terminals - Paint	Approx 6,100 square feet	12	8	\$165,000	\$225,000
704	Ferry Terminal Cables - Replace	Extensive linear feet	5	0	\$40,000	\$45,000
706	Ferry Terminal Wood Decks - Replace	Approx 2,940 square feet	24	20	\$178,000	\$202,000
707	Ferry Terminal Structures - Replace	Approx 6,100 square feet	60	32	\$2,240,000	\$2,820,000
708	Ferry Ramp Dolphins - Replace	(8) assemblies	50	48	\$1,060,000	\$1,490,000
712	Ferry Ramp Generators - Replace	(2) Generac 35kw	20	8	\$36,100	\$43,700
740	Ferry Vessel - Shipyard	65' LOA	2	1	\$110,000	\$150,000
744	Ferry Vessel - Overhaul Engines	(2) John Deere, diesel	5	4	\$31,000	\$39,000
746	Ferry Vessel - Replace Engines	(2) John Deere, diesel	50	44	\$168,000	\$188,000
755	Ferry Vessel-Overhaul Transmissions	(2) Twin Disc MG 5091 SC	7	1	\$14,000	\$18,000
757	Ferry Vessel-Replace Transmissions	(2) Twin Disc MG 5091 SC	28	22	\$34,000	\$38,000
760	Ferry Vessel - Replace	65' LOA	60	30	\$1,465,000	\$1,905,000
Professional/Special Projects						
940	Legal Contingency Fund	\$35,000	0	0	\$34,000	\$36,000
29 Total Funded Components						

#	Component	Current Cost Estimate	X	Effective Age	/	Useful Life	=	Fully Funded Balance
Site/Grounds/Recreation								
200	Asphalt Roads - Repair/Resurface	\$30,000	X	2	/	25	=	\$2,400
204	Gravel Roads/Lots - Maintain/Repair	\$58,000	X	1	/	5	=	\$11,600
350	Play Equip,North Beach 2007-Replace	\$6,000	X	12	/	20	=	\$3,600
352	Play Equip,North Beach 2017-Replace	\$6,000	X	2	/	20	=	\$600
354	Play Eq,Goodpastor-Partial Replace	\$8,000	X	1	/	5	=	\$1,600
356	Basketball Court - Repair/Replace	\$20,000	X	6	/	30	=	\$4,000
370	Pavilion - Replace Roof	\$9,900	X	16	/	25	=	\$6,336
Small Boat Marina								
302	Small Boat Docks/Floats-Replace	\$135,200	X	18	/	30	=	\$81,120
306	Small Boat Dock Pilings - Replace	\$225,000	X	8	/	50	=	\$36,000
320	Small Boat Trestle/Ramp - Replace	\$94,500	X	18	/	30	=	\$56,700
336	Small Boat Gangway - Replace	\$8,500	X	18	/	30	=	\$5,100
Community Building								
410	Community Building Siding-Replace	\$28,000	X	14	/	50	=	\$7,840
430	Community Building Roof - Replace	\$21,600	X	17	/	40	=	\$9,180
460	Community Blding Septic - Replace	\$11,000	X	37	/	50	=	\$8,140
Equipment								
540	Dust/Water Truck - Replace	\$19,000	X	2	/	12	=	\$3,167
Ferry System								
700	Ferry Terminals - Inspect/Repair	\$22,500	X	1	/	4	=	\$5,625
702	Ferry Terminals - Paint	\$195,000	X	4	/	12	=	\$65,000
704	Ferry Terminal Cables - Replace	\$42,500	X	5	/	5	=	\$42,500
706	Ferry Terminal Wood Decks - Replace	\$190,000	X	4	/	24	=	\$31,667
707	Ferry Terminal Structures - Replace	\$2,530,000	X	28	/	60	=	\$1,180,667
708	Ferry Ramp Dolphins - Replace	\$1,275,000	X	2	/	50	=	\$51,000
712	Ferry Ramp Generators - Replace	\$39,900	X	12	/	20	=	\$23,940
740	Ferry Vessel - Shipyard	\$130,000	X	1	/	2	=	\$65,000
744	Ferry Vessel - Overhaul Engines	\$35,000	X	1	/	5	=	\$7,000
746	Ferry Vessel - Replace Engines	\$178,000	X	6	/	50	=	\$21,360
755	Ferry Vessel-Overhaul Transmissions	\$16,000	X	6	/	7	=	\$13,714
757	Ferry Vessel-Replace Transmissions	\$36,000	X	6	/	28	=	\$7,714
760	Ferry Vessel - Replace	\$1,685,000	X	30	/	60	=	\$842,500
Professional/Special Projects								
940	Legal Contingency Fund	\$35,000	X	0	/	0	=	\$35,000
								\$2,630,070

Component Significance

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#	Component	Useful Life (yrs)	Current Cost Estimate	Deterioration Cost/Yr	Deterioration Significance
Site/Grounds/Recreation					
200	Asphalt Roads - Repair/Resurface	25	\$30,000	\$1,200	0.49 %
204	Gravel Roads/Lots - Maintain/Repair	5	\$58,000	\$11,600	4.70 %
350	Play Equip,North Beach 2007-Replace	20	\$6,000	\$300	0.12 %
352	Play Equip,North Beach 2017-Replace	20	\$6,000	\$300	0.12 %
354	Play Eq,Goodpastor-Partial Replace	5	\$8,000	\$1,600	0.65 %
356	Basketball Court - Repair/Replace	30	\$20,000	\$667	0.27 %
370	Pavilion - Replace Roof	25	\$9,900	\$396	0.16 %
Small Boat Marina					
302	Small Boat Docks/Floats-Replace	30	\$135,200	\$4,507	1.83 %
306	Small Boat Dock Pilings - Replace	50	\$225,000	\$4,500	1.83 %
320	Small Boat Trestle/Ramp - Replace	30	\$94,500	\$3,150	1.28 %
336	Small Boat Gangway - Replace	30	\$8,500	\$283	0.11 %
Community Building					
410	Community Building Siding-Replace	50	\$28,000	\$560	0.23 %
430	Community Building Roof - Replace	40	\$21,600	\$540	0.22 %
460	Community Bldg Septic - Replace	50	\$11,000	\$220	0.09 %
Equipment					
540	Dust/Water Truck - Replace	12	\$19,000	\$1,583	0.64 %
Ferry System					
700	Ferry Terminals - Inspect/Repair	4	\$22,500	\$5,625	2.28 %
702	Ferry Terminals - Paint	12	\$195,000	\$16,250	6.59 %
704	Ferry Terminal Cables - Replace	5	\$42,500	\$8,500	3.45 %
706	Ferry Terminal Wood Decks - Replace	24	\$190,000	\$7,917	3.21 %
707	Ferry Terminal Structures - Replace	60	\$2,530,000	\$42,167	17.10 %
708	Ferry Ramp Dolphins - Replace	50	\$1,275,000	\$25,500	10.34 %
712	Ferry Ramp Generators - Replace	20	\$39,900	\$1,995	0.81 %
740	Ferry Vessel - Shipyard	2	\$130,000	\$65,000	26.36 %
744	Ferry Vessel - Overhaul Engines	5	\$35,000	\$7,000	2.84 %
746	Ferry Vessel - Replace Engines	50	\$178,000	\$3,560	1.44 %
755	Ferry Vessel-Overhaul Transmissions	7	\$16,000	\$2,286	0.93 %
757	Ferry Vessel-Replace Transmissions	28	\$36,000	\$1,286	0.52 %
760	Ferry Vessel - Replace	60	\$1,685,000	\$28,083	11.39 %
Professional/Special Projects					
940	Legal Contingency Fund	0	\$35,000	\$0	0.00 %
29	Total Funded Components			\$246,574	100.00 %

#	Component	UL	RUL	Current Cost Estimate	Fully Funded Balance	Current Fund Balance	Proportional Reserve Contribs
Site/Grounds/Recreation							
200	Asphalt Roads - Repair/Resurface	25	23	\$30,000	\$2,400	\$2,400	\$1932.08
204	Gravel Roads/Lots - Maintain/Repair	5	4	\$58,000	\$11,600	\$11,600	\$18676.74
350	Play Equip,North Beach 2007-Replace	20	8	\$6,000	\$3,600	\$3,600	\$483.02
352	Play Equip,North Beach 2017-Replace	20	18	\$6,000	\$600	\$600	\$483.02
354	Play Eq,Goodpastor-Partial Replace	5	4	\$8,000	\$1,600	\$1,600	\$2576.10
356	Basketball Court - Repair/Replace	30	24	\$20,000	\$4,000	\$4,000	\$1073.38
370	Pavilion - Replace Roof	25	9	\$9,900	\$6,336	\$6,336	\$637.59
Small Boat Marina							
302	Small Boat Docks/Floats-Replace	30	12	\$135,200	\$81,120	\$81,120	\$7256.02
306	Small Boat Dock Pilings - Replace	50	42	\$225,000	\$36,000	\$36,000	\$7245.29
320	Small Boat Trestle/Ramp - Replace	30	12	\$94,500	\$56,700	\$56,700	\$5071.70
336	Small Boat Gangway - Replace	30	12	\$8,500	\$5,100	\$5,100	\$456.18
Community Building							
410	Community Building Siding-Replace	50	36	\$28,000	\$7,840	\$7,840	\$901.64
430	Community Building Roof - Replace	40	23	\$21,600	\$9,180	\$9,180	\$869.43
460	Community Bldg Septic - Replace	50	13	\$11,000	\$8,140	\$8,140	\$354.21
Equipment							
540	Dust/Water Truck - Replace	12	10	\$19,000	\$3,167	\$3,167	\$2549.27
Ferry System							
700	Ferry Terminals - Inspect/Repair	4	3	\$22,500	\$5,625	\$5,625	\$9056.61
702	Ferry Terminals - Paint	12	8	\$195,000	\$65,000	\$31,988	\$26163.54
704	Ferry Terminal Cables - Replace	5	0	\$42,500	\$42,500	\$0	\$13685.54
706	Ferry Terminal Wood Decks - Replace	24	20	\$190,000	\$31,667	\$0	\$12746.34
707	Ferry Terminal Structures - Replace	60	32	\$2,530,000	\$1,180,667	\$0	\$67891.02
708	Ferry Ramp Dolphins - Replace	50	48	\$1,275,000	\$51,000	\$0	\$41056.62
712	Ferry Ramp Generators - Replace	20	8	\$39,900	\$23,940	\$0	\$3212.08
740	Ferry Vessel - Shipyard	2	1	\$130,000	\$65,000	\$0	\$104654.14
744	Ferry Vessel - Overhaul Engines	5	4	\$35,000	\$7,000	\$0	\$11270.45
746	Ferry Vessel - Replace Engines	50	44	\$178,000	\$21,360	\$0	\$5731.83
755	Ferry Vessel-Overhaul Transmissions	7	1	\$16,000	\$13,714	\$0	\$3680.15
757	Ferry Vessel-Replace Transmissions	28	22	\$36,000	\$7,714	\$0	\$2070.08
760	Ferry Vessel - Replace	60	30	\$1,685,000	\$842,500	\$0	\$45215.96
Professional/Special Projects							
940	Legal Contingency Fund	0	0	\$35,000	\$35,000	\$0	\$0.00
29 Total Funded Components					\$2,630,070	\$274,996	\$397,000

30-Year Reserve Plan Summary

24901-6
WSV

Fiscal Year Start: 2019

Interest:

1.00 %

Inflation:

3.00 %

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

Projected Reserve Balance Changes

Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded	Special Assmt Risk	Reserve Contribs.	Loan or Special Assmts	Interest Income	Reserve Expenses
2019	\$274,996	\$2,630,070	10.5 %	High	\$397,000	\$0	\$4,367	\$77,500
2020	\$598,863	\$2,883,118	20.8 %	High	\$408,910	\$0	\$7,315	\$150,380
2021	\$864,708	\$3,076,311	28.1 %	High	\$421,177	\$0	\$10,802	\$0
2022	\$1,296,688	\$3,438,038	37.7 %	Medium	\$433,813	\$0	\$14,368	\$166,641
2023	\$1,578,228	\$3,647,060	43.3 %	Medium	\$446,827	\$0	\$17,528	\$113,676
2024	\$1,928,907	\$3,925,233	49.1 %	Medium	\$460,232	\$0	\$20,685	\$199,975
2025	\$2,209,849	\$4,131,438	53.5 %	Medium	\$474,039	\$0	\$24,581	\$0
2026	\$2,708,469	\$4,558,636	59.4 %	Medium	\$488,260	\$0	\$28,720	\$187,556
2027	\$3,037,893	\$4,814,565	63.1 %	Medium	\$502,908	\$0	\$31,410	\$325,433
2028	\$3,246,777	\$4,945,529	65.7 %	Medium	\$517,995	\$0	\$33,640	\$314,320
2029	\$3,484,092	\$5,101,521	68.3 %	Medium	\$533,535	\$0	\$37,266	\$82,651
2030	\$3,972,242	\$5,510,752	72.1 %	Low	\$549,541	\$0	\$41,605	\$211,096
2031	\$4,352,292	\$5,810,202	74.9 %	Low	\$566,027	\$0	\$44,860	\$339,616
2032	\$4,623,563	\$5,996,806	77.1 %	Low	\$583,008	\$0	\$48,336	\$207,063
2033	\$5,047,844	\$6,336,400	79.7 %	Low	\$600,498	\$0	\$52,959	\$152,772
2034	\$5,548,530	\$6,753,292	82.2 %	Low	\$618,513	\$0	\$57,196	\$328,731
2035	\$5,895,508	\$7,012,976	84.1 %	Low	\$637,068	\$0	\$62,426	\$0
2036	\$6,595,003	\$7,630,915	86.4 %	Low	\$656,181	\$0	\$68,470	\$214,870
2037	\$7,104,783	\$8,058,302	88.2 %	Low	\$675,866	\$0	\$74,718	\$10,215
2038	\$7,845,152	\$8,721,899	89.9 %	Low	\$696,142	\$0	\$80,076	\$444,514
2039	\$8,176,856	\$8,971,047	91.1 %	Low	\$717,026	\$0	\$81,868	\$772,113
2040	\$8,203,637	\$8,903,603	92.1 %	Low	\$738,537	\$0	\$84,908	\$241,838
2041	\$8,785,244	\$9,394,080	93.5 %	Low	\$760,693	\$0	\$91,394	\$136,043
2042	\$9,501,288	\$10,022,413	94.8 %	Low	\$783,514	\$0	\$97,362	\$402,809
2043	\$9,979,355	\$10,409,426	95.9 %	Low	\$807,019	\$0	\$103,070	\$245,968
2044	\$10,643,476	\$10,984,633	96.9 %	Low	\$831,230	\$0	\$109,285	\$361,177
2045	\$11,222,814	\$11,473,920	97.8 %	Low	\$856,167	\$0	\$117,044	\$0
2046	\$12,196,026	\$12,365,850	98.6 %	Low	\$881,852	\$0	\$125,249	\$338,747
2047	\$12,864,379	\$12,952,060	99.3 %	Low	\$908,307	\$0	\$133,270	\$105,016
2048	\$13,800,941	\$13,813,523	99.9 %	Low	\$935,557	\$0	\$140,419	\$582,072

30-Year Reserve Plan Summary (Alternate Funding Plan)

24901-6
WSV

Fiscal Year Start: 2019

Interest:

1.00 %

Inflation:

3.00 %

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

Projected Reserve Balance Changes

Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded		Special Assmt Risk	Reserve Contribs.	Loan or Special Assmts	Interest Income	Reserve Expenses
2019	\$274,996	\$2,630,070	10.5 %		High	\$137,846	\$0	\$3,066	\$77,500
2020	\$338,408	\$2,883,118	11.7 %		High	\$141,981	\$0	\$3,357	\$150,380
2021	\$333,367	\$3,076,311	10.8 %		High	\$146,241	\$0	\$4,084	\$0
2022	\$483,691	\$3,438,038	14.1 %		High	\$150,628	\$0	\$4,779	\$166,641
2023	\$472,457	\$3,647,060	13.0 %		High	\$155,147	\$0	\$4,955	\$113,676
2024	\$518,882	\$3,925,233	13.2 %		High	\$159,801	\$0	\$5,011	\$199,975
2025	\$483,719	\$4,131,438	11.7 %		High	\$164,595	\$0	\$5,686	\$0
2026	\$654,001	\$4,558,636	14.3 %		High	\$169,533	\$0	\$6,480	\$187,556
2027	\$642,458	\$4,814,565	13.3 %		High	\$174,619	\$0	\$5,697	\$325,433
2028	\$497,340	\$4,945,529	10.1 %		High	\$179,858	\$0	\$4,321	\$314,320
2029	\$367,199	\$5,101,521	7.2 %		High	\$185,253	\$0	\$4,204	\$82,651
2030	\$474,006	\$5,510,752	8.6 %		High	\$190,811	\$0	\$4,660	\$211,096
2031	\$458,381	\$5,810,202	7.9 %		High	\$196,535	\$0	\$3,886	\$339,616
2032	\$319,187	\$5,996,806	5.3 %		High	\$202,431	\$0	\$3,183	\$207,063
2033	\$317,738	\$6,336,400	5.0 %		High	\$208,504	\$0	\$3,472	\$152,772
2034	\$376,943	\$6,753,292	5.6 %		High	\$214,760	\$0	\$3,214	\$328,731
2035	\$266,186	\$7,012,976	3.8 %		High	\$221,202	\$0	\$3,785	\$0
2036	\$491,173	\$7,630,915	6.4 %		High	\$227,838	\$0	\$4,999	\$214,870
2037	\$509,141	\$8,058,302	6.3 %		High	\$234,674	\$0	\$6,242	\$10,215
2038	\$739,842	\$8,721,899	8.5 %		High	\$241,714	\$0	\$6,414	\$444,514
2039	\$543,456	\$8,971,047	6.1 %		High	\$248,965	\$0	\$2,832	\$772,113
2040	\$23,140	\$8,903,603	0.3 %		High	\$256,434	\$0	\$306	\$241,838
2041	\$38,042	\$9,394,080	0.4 %		High	\$264,127	\$0	\$1,026	\$136,043
2042	\$167,152	\$10,022,413	1.7 %		High	\$272,051	\$0	\$1,022	\$402,809
2043	\$37,416	\$10,409,426	0.4 %		High	\$280,213	\$0	\$548	\$245,968
2044	\$72,208	\$10,984,633	0.7 %		High	\$288,619	\$0	\$361	\$361,177
2045	\$11	\$11,473,920	0.0 %		High	\$297,277	\$0	\$1,493	\$0
2046	\$298,782	\$12,365,850	2.4 %		High	\$306,196	\$0	\$2,838	\$338,747
2047	\$269,070	\$12,952,060	2.1 %		High	\$315,382	\$0	\$3,760	\$105,016
2048	\$483,195	\$13,813,523	3.5 %		High	\$324,843	\$0	\$3,562	\$582,072

30-Year Income/Expense Detail

24901-6
WSV

Fiscal Year	2019	2020	2021	2022	2023
Starting Reserve Balance	\$274,996	\$598,863	\$864,708	\$1,296,688	\$1,578,228
Annual Reserve Contribution	\$397,000	\$408,910	\$421,177	\$433,813	\$446,827
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$4,367	\$7,315	\$10,802	\$14,368	\$17,528
Total Income	\$676,363	\$1,015,088	\$1,296,688	\$1,744,869	\$2,042,583
# Component					
Site/Grounds/Recreation					
200 Asphalt Roads - Repair/Resurface	\$0	\$0	\$0	\$0	\$0
204 Gravel Roads/Lots - Maintain/Repair	\$0	\$0	\$0	\$0	\$65,280
350 Play Equip,North Beach 2007-Replace	\$0	\$0	\$0	\$0	\$0
352 Play Equip,North Beach 2017-Replace	\$0	\$0	\$0	\$0	\$0
354 Play Eq,Goodpastor-Partial Replace	\$0	\$0	\$0	\$0	\$9,004
356 Basketball Court - Repair/Replace	\$0	\$0	\$0	\$0	\$0
370 Pavilion - Replace Roof	\$0	\$0	\$0	\$0	\$0
Small Boat Marina					
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
Community Building					
410 Community Building Siding-Replace	\$0	\$0	\$0	\$0	\$0
430 Community Building Roof - Replace	\$0	\$0	\$0	\$0	\$0
460 Community Bldg Septic - Replace	\$0	\$0	\$0	\$0	\$0
Equipment					
540 Dust/Water Truck - Replace	\$0	\$0	\$0	\$0	\$0
Ferry System					
700 Ferry Terminals - Inspect/Repair	\$0	\$0	\$0	\$24,586	\$0
702 Ferry Terminals - Paint	\$0	\$0	\$0	\$0	\$0
704 Ferry Terminal Cables - Replace	\$42,500	\$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 - Replace	\$0	\$0	\$0	\$0	\$0
712 Ferry Ramp Generators - Replace	\$0	\$0	\$0	\$0	\$0
740 Ferry Vessel - Shipyard	\$0	\$133,900	\$0	\$142,055	\$0
744 Ferry Vessel - Overhaul Engines	\$0	\$0	\$0	\$0	\$39,393
746 Ferry Vessel - Replace Engines	\$0	\$0	\$0	\$0	\$0
755 Ferry Vessel-Overhaul Transmissions	\$0	\$16,480	\$0	\$0	\$0
757 Ferry Vessel-Replace Transmissions	\$0	\$0	\$0	\$0	\$0
760 Ferry Vessel - Replace	\$0	\$0	\$0	\$0	\$0
Professional/Special Projects					
940 Legal Contingency Fund	\$35,000	\$0	\$0	\$0	\$0
Total Expenses	\$77,500	\$150,380	\$0	\$166,641	\$113,676
Ending Reserve Balance	\$598,863	\$864,708	\$1,296,688	\$1,578,228	\$1,928,907

Fiscal Year	2024	2025	2026	2027	2028
Starting Reserve Balance	\$1,928,907	\$2,209,849	\$2,708,469	\$3,037,893	\$3,246,777
Annual Reserve Contribution	\$460,232	\$474,039	\$488,260	\$502,908	\$517,995
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$20,685	\$24,581	\$28,720	\$31,410	\$33,640
Total Income	\$2,409,824	\$2,708,469	\$3,225,448	\$3,572,210	\$3,798,412
# Component					
Site/Grounds/Recreation					
200 Asphalt Roads - Repair/Resurface	\$0	\$0	\$0	\$0	\$0
204 Gravel Roads/Lots - Maintain/Repair	\$0	\$0	\$0	\$0	\$75,677
350 Play Equip,North Beach 2007-Replace	\$0	\$0	\$0	\$7,601	\$0
352 Play Equip,North Beach 2017-Replace	\$0	\$0	\$0	\$0	\$0
354 Play Eq,Goodpastor-Partial Replace	\$0	\$0	\$0	\$0	\$10,438
356 Basketball Court - Repair/Replace	\$0	\$0	\$0	\$0	\$0
370 Pavilion - Replace Roof	\$0	\$0	\$0	\$0	\$12,917
Small Boat Marina					
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
Community Building					
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
Equipment					
540 Dust/Water Truck - Replace	\$0	\$0	\$0	\$0	\$0
Ferry System					
700 Ferry Terminals - Inspect/Repair	\$0	\$0	\$27,672	\$0	\$0
702 Ferry Terminals - Paint	\$0	\$0	\$0	\$247,020	\$0
704 Ferry Terminal Cables - Replace	\$49,269	\$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 - Replace	\$0	\$0	\$0	\$0	\$0
712 Ferry Ramp Generators - Replace	\$0	\$0	\$0	\$50,544	\$0
740 Ferry Vessel - Shipyard	\$150,706	\$0	\$159,884	\$0	\$169,621
744 Ferry Vessel - Overhaul Engines	\$0	\$0	\$0	\$0	\$45,667
746 Ferry Vessel - Replace Engines	\$0	\$0	\$0	\$0	\$0
755 Ferry Vessel-Overhaul Transmissions	\$0	\$0	\$0	\$20,268	\$0
757 Ferry Vessel-Replace Transmissions	\$0	\$0	\$0	\$0	\$0
760 Ferry Vessel - Replace	\$0	\$0	\$0	\$0	\$0
Professional/Special Projects					
940 Legal Contingency Fund	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$199,975	\$0	\$187,556	\$325,433	\$314,320
Ending Reserve Balance	\$2,209,849	\$2,708,469	\$3,037,893	\$3,246,777	\$3,484,092

Fiscal Year	2029	2030	2031	2032	2033
Starting Reserve Balance	\$3,484,092	\$3,972,242	\$4,352,292	\$4,623,563	\$5,047,844
Annual Reserve Contribution	\$533,535	\$549,541	\$566,027	\$583,008	\$600,498
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$37,266	\$41,605	\$44,860	\$48,336	\$52,959
Total Income	\$4,054,893	\$4,563,388	\$4,963,180	\$5,254,908	\$5,701,302
# Component					
Site/Grounds/Recreation					
200 Asphalt Roads - Repair/Resurface	\$0	\$0	\$0	\$0	\$0
204 Gravel Roads/Lots - Maintain/Repair	\$0	\$0	\$0	\$0	\$87,730
350 Play Equip,North Beach 2007-Replace	\$0	\$0	\$0	\$0	\$0
352 Play Equip,North Beach 2017-Replace	\$0	\$0	\$0	\$0	\$0
354 Play Eq,Goodpastor-Partial Replace	\$0	\$0	\$0	\$0	\$12,101
356 Basketball Court - Repair/Replace	\$0	\$0	\$0	\$0	\$0
370 Pavilion - Replace Roof	\$0	\$0	\$0	\$0	\$0
Small Boat Marina					
302 Small Boat Docks/Floats-Replace	\$0	\$0	\$192,763	\$0	\$0
306 Small Boat Dock Pilings - Replace	\$0	\$0	\$0	\$0	\$0
320 Small Boat Trestle/Ramp - Replace	\$0	\$0	\$134,734	\$0	\$0
336 Small Boat Gangway - Replace	\$0	\$0	\$12,119	\$0	\$0
Community Building					
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	\$16,154	\$0
Equipment					
540 Dust/Water Truck - Replace	\$25,534	\$0	\$0	\$0	\$0
Ferry System					
700 Ferry Terminals - Inspect/Repair	\$0	\$31,145	\$0	\$0	\$0
702 Ferry Terminals - Paint	\$0	\$0	\$0	\$0	\$0
704 Ferry Terminal Cables - Replace	\$57,116	\$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 - Replace	\$0	\$0	\$0	\$0	\$0
712 Ferry Ramp Generators - Replace	\$0	\$0	\$0	\$0	\$0
740 Ferry Vessel - Shipyard	\$0	\$179,950	\$0	\$190,909	\$0
744 Ferry Vessel - Overhaul Engines	\$0	\$0	\$0	\$0	\$52,941
746 Ferry Vessel - Replace Engines	\$0	\$0	\$0	\$0	\$0
755 Ferry Vessel-Overhaul Transmissions	\$0	\$0	\$0	\$0	\$0
757 Ferry Vessel-Replace Transmissions	\$0	\$0	\$0	\$0	\$0
760 Ferry Vessel - Replace	\$0	\$0	\$0	\$0	\$0
Professional/Special Projects					
940 Legal Contingency Fund	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$82,651	\$211,096	\$339,616	\$207,063	\$152,772
Ending Reserve Balance	\$3,972,242	\$4,352,292	\$4,623,563	\$5,047,844	\$5,548,530

Fiscal Year	2034	2035	2036	2037	2038
Starting Reserve Balance	\$5,548,530	\$5,895,508	\$6,595,003	\$7,104,783	\$7,845,152
Annual Reserve Contribution	\$618,513	\$637,068	\$656,181	\$675,866	\$696,142
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$57,196	\$62,426	\$68,470	\$74,718	\$80,076
Total Income	\$6,224,239	\$6,595,003	\$7,319,653	\$7,855,367	\$8,621,370
# Component					
Site/Grounds/Recreation					
200 Asphalt Roads - Repair/Resurface	\$0	\$0	\$0	\$0	\$0
204 Gravel Roads/Lots - Maintain/Repair	\$0	\$0	\$0	\$0	\$101,703
350 Play Equip,North Beach 2007-Replace	\$0	\$0	\$0	\$0	\$0
352 Play Equip,North Beach 2017-Replace	\$0	\$0	\$0	\$10,215	\$0
354 Play Eq,Goodpastor-Partial Replace	\$0	\$0	\$0	\$0	\$14,028
356 Basketball Court - Repair/Replace	\$0	\$0	\$0	\$0	\$0
370 Pavilion - Replace Roof	\$0	\$0	\$0	\$0	\$0
Small Boat Marina					
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
Community Building					
410 Community Building Siding-Replace	\$0	\$0	\$0	\$0	\$0
430 Community Building Roof - Replace	\$0	\$0	\$0	\$0	\$0
460 Community Bldg Septic - Replace	\$0	\$0	\$0	\$0	\$0
Equipment					
540 Dust/Water Truck - Replace	\$0	\$0	\$0	\$0	\$0
Ferry System					
700 Ferry Terminals - Inspect/Repair	\$35,054	\$0	\$0	\$0	\$39,454
702 Ferry Terminals - Paint	\$0	\$0	\$0	\$0	\$0
704 Ferry Terminal Cables - Replace	\$66,214	\$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 - Replace	\$0	\$0	\$0	\$0	\$0
712 Ferry Ramp Generators - Replace	\$0	\$0	\$0	\$0	\$0
740 Ferry Vessel - Shipyard	\$202,536	\$0	\$214,870	\$0	\$227,956
744 Ferry Vessel - Overhaul Engines	\$0	\$0	\$0	\$0	\$61,373
746 Ferry Vessel - Replace Engines	\$0	\$0	\$0	\$0	\$0
755 Ferry Vessel-Overhaul Transmissions	\$24,927	\$0	\$0	\$0	\$0
757 Ferry Vessel-Replace Transmissions	\$0	\$0	\$0	\$0	\$0
760 Ferry Vessel - Replace	\$0	\$0	\$0	\$0	\$0
Professional/Special Projects					
940 Legal Contingency Fund	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$328,731	\$0	\$214,870	\$10,215	\$444,514
Ending Reserve Balance	\$5,895,508	\$6,595,003	\$7,104,783	\$7,845,152	\$8,176,856

Fiscal Year	2039	2040	2041	2042	2043
Starting Reserve Balance	\$8,176,856	\$8,203,637	\$8,785,244	\$9,501,288	\$9,979,355
Annual Reserve Contribution	\$717,026	\$738,537	\$760,693	\$783,514	\$807,019
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$81,868	\$84,908	\$91,394	\$97,362	\$103,070
Total Income	\$8,975,750	\$9,027,083	\$9,637,331	\$10,382,164	\$10,889,444
# Component					
Site/Grounds/Recreation					
200 Asphalt Roads - Repair/Resurface	\$0	\$0	\$0	\$59,208	\$0
204 Gravel Roads/Lots - Maintain/Repair	\$0	\$0	\$0	\$0	\$117,902
350 Play Equip,North Beach 2007-Replace	\$0	\$0	\$0	\$0	\$0
352 Play Equip,North Beach 2017-Replace	\$0	\$0	\$0	\$0	\$0
354 Play Eq,Goodpastor-Partial Replace	\$0	\$0	\$0	\$0	\$16,262
356 Basketball Court - Repair/Replace	\$0	\$0	\$0	\$0	\$40,656
370 Pavilion - Replace Roof	\$0	\$0	\$0	\$0	\$0
Small Boat Marina					
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
Community Building					
410 Community Building Siding-Replace	\$0	\$0	\$0	\$0	\$0
430 Community Building Roof - Replace	\$0	\$0	\$0	\$42,629	\$0
460 Community Blding Septic - Replace	\$0	\$0	\$0	\$0	\$0
Equipment					
540 Dust/Water Truck - Replace	\$0	\$0	\$36,406	\$0	\$0
Ferry System					
700 Ferry Terminals - Inspect/Repair	\$0	\$0	\$0	\$44,406	\$0
702 Ferry Terminals - Paint	\$352,192	\$0	\$0	\$0	\$0
704 Ferry Terminal Cables - Replace	\$76,760	\$0	\$0	\$0	\$0
706 Ferry Terminal Wood Decks - Replace	\$343,161	\$0	\$0	\$0	\$0
707 Ferry Terminal Structures - Replace	\$0	\$0	\$0	\$0	\$0
708 Ferry Ramp Dolphins - Replace	\$0	\$0	\$0	\$0	\$0
712 Ferry Ramp Generators - Replace	\$0	\$0	\$0	\$0	\$0
740 Ferry Vessel - Shipyard	\$0	\$241,838	\$0	\$256,566	\$0
744 Ferry Vessel - Overhaul Engines	\$0	\$0	\$0	\$0	\$71,148
746 Ferry Vessel - Replace Engines	\$0	\$0	\$0	\$0	\$0
755 Ferry Vessel-Overhaul Transmissions	\$0	\$0	\$30,658	\$0	\$0
757 Ferry Vessel-Replace Transmissions	\$0	\$0	\$68,980	\$0	\$0
760 Ferry Vessel - Replace	\$0	\$0	\$0	\$0	\$0
Professional/Special Projects					
940 Legal Contingency Fund	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$772,113	\$241,838	\$136,043	\$402,809	\$245,968
Ending Reserve Balance	\$8,203,637	\$8,785,244	\$9,501,288	\$9,979,355	\$10,643,476

Fiscal Year	2044	2045	2046	2047	2048
Starting Reserve Balance	\$10,643,476	\$11,222,814	\$12,196,026	\$12,864,379	\$13,800,941
Annual Reserve Contribution	\$831,230	\$856,167	\$881,852	\$908,307	\$935,557
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$109,285	\$117,044	\$125,249	\$133,270	\$140,419
Total Income	\$11,583,991	\$12,196,026	\$13,203,126	\$13,905,957	\$14,876,917
# Component					
Site/Grounds/Recreation					
200 Asphalt Roads - Repair/Resurface	\$0	\$0	\$0	\$0	\$0
204 Gravel Roads/Lots - Maintain/Repair	\$0	\$0	\$0	\$0	\$136,681
350 Play Equip,North Beach 2007-Replace	\$0	\$0	\$0	\$13,728	\$0
352 Play Equip,North Beach 2017-Replace	\$0	\$0	\$0	\$0	\$0
354 Play Eq,Goodpastor-Partial Replace	\$0	\$0	\$0	\$0	\$18,853
356 Basketball Court - Repair/Replace	\$0	\$0	\$0	\$0	\$0
370 Pavilion - Replace Roof	\$0	\$0	\$0	\$0	\$0
Small Boat Marina					
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
Community Building					
410 Community Building Siding-Replace	\$0	\$0	\$0	\$0	\$0
430 Community Building Roof - Replace	\$0	\$0	\$0	\$0	\$0
460 Community Bldg Septic - Replace	\$0	\$0	\$0	\$0	\$0
Equipment					
540 Dust/Water Truck - Replace	\$0	\$0	\$0	\$0	\$0
Ferry System					
700 Ferry Terminals - Inspect/Repair	\$0	\$0	\$49,979	\$0	\$0
702 Ferry Terminals - Paint	\$0	\$0	\$0	\$0	\$0
704 Ferry Terminal Cables - Replace	\$88,986	\$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 - Replace	\$0	\$0	\$0	\$0	\$0
712 Ferry Ramp Generators - Replace	\$0	\$0	\$0	\$91,288	\$0
740 Ferry Vessel - Shipyard	\$272,191	\$0	\$288,768	\$0	\$306,354
744 Ferry Vessel - Overhaul Engines	\$0	\$0	\$0	\$0	\$82,480
746 Ferry Vessel - Replace Engines	\$0	\$0	\$0	\$0	\$0
755 Ferry Vessel-Overhaul Transmissions	\$0	\$0	\$0	\$0	\$37,705
757 Ferry Vessel-Replace Transmissions	\$0	\$0	\$0	\$0	\$0
760 Ferry Vessel - Replace	\$0	\$0	\$0	\$0	\$0
Professional/Special Projects					
940 Legal Contingency Fund	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$361,177	\$0	\$338,747	\$105,016	\$582,072
Ending Reserve Balance	\$11,222,814	\$12,196,026	\$12,864,379	\$13,800,941	\$14,294,845

Accuracy, Limitations, and Disclosures

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

Association Reserves and its employees have no ownership, management, or other business relationships with the client other than this Reserve Study engagement. James Talaga, company President, is a credentialed Reserve Specialist (#066). All work done by Association Reserves WA, LLC is performed under his responsible charge and is performed in accordance with National Reserve Study Standards (NRSS). There are no material issues to our knowledge that have not been disclosed to the client that would cause a distortion of the client's situation.

Per NRSS, information provided by official representative(s) of the client, vendors, and suppliers regarding financial details, component physical details and/or quantities, or historical issues/conditions will be deemed reliable, and is not intended to be used for the purpose of any type of audit, quality/forensic analysis, or background checks of historical records. As such, information provided to us has not been audited or independently verified.

Estimates for interest and inflation have been included, because including such estimates are more accurate than ignoring them completely. When we are hired to prepare Update reports, the client is considered to have deemed those previously developed component quantities as accurate and reliable, whether established by our firm or other individuals/firms (unless specifically mentioned in our Site Inspection Notes). During inspections our company standard is to establish measurements within 5% accuracy, and our scope includes visual inspection of accessible areas and components and does not include any destructive or other testing. Our work is done only for budget purposes. Uses or expectations outside our expertise and scope of work include, but are not limited to: project audit, quality inspection, and the identification of construction defects, hazardous materials, or dangerous conditions. Identifying hidden issues such as but not limited to, plumbing or electrical problems are also outside our scope of work. Our estimates assume proper original installation & construction, adherence to recommended preventive maintenance, a stable economic environment, and do not consider frequency or severity of natural disasters. Our opinions of component Useful Life, Remaining Useful Life, and current or future cost estimates are not a warranty or guarantee of actual costs or timing.

Because the physical and financial status of the property, legislation, the economy, weather, owner expectations, and usage are all in a continual state of change over which we have no control, we do not expect that the events projected in this document will all occur exactly as planned. This Reserve Study is by nature a "one-year" document in need of being updated annually so that more accurate estimates can be incorporated. It is only because a long-term perspective improves the accuracy of near-term planning that this Report projects expenses into the future. We fully expect a number of adjustments will be necessary through the interim years to the cost and timing of expense projections and the funding necessary to prepare for those estimated expenses.

In this engagement our compensation is not contingent upon our conclusions, and our liability in any matter involving this Reserve Study is limited to our fee for services rendered.

Terms and Definitions

BTU	British Thermal Unit (a standard unit of energy)
DIA	Diameter
GSF	Gross Square Feet (area). Equivalent to Square Feet
GSY	Gross Square Yards (area). Equivalent to Square Yards
HP	Horsepower
LF	Linear Feet (length)
Effective Age	The difference between Useful Life and Remaining Useful Life. Note that this is not necessarily equivalent to the chronological age of the component.
Fully Funded Balance (FFB)	The value of the deterioration of the Reserve Components. This is the fraction of life "used up" of each component multiplied by its estimated Current Replacement. While calculated for each component, it is summed together for an association total.
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 the "30-yr Income/Expense Detail" table.
Interest	Interest earnings on Reserve Funds are calculated using the average balance for the year (taking into account income and expenses through the year) and compounded monthly using the rate defined in the Executive Summary. Annual interest earning assumption appears in the Executive Summary.
Percent Funded	The ratio, at a particular point in time (the first day of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage.
Remaining Useful Life (RUL)	The estimated time, in years, that a common area component can be expected to continue to serve its intended function.
Useful Life (UL)	The estimated time, in years, that a common area component can be expected to serve its intended function.

Component Details

The primary purpose of the Component Details appendix is to provide the reader with the basis of our funding assumptions resulting from our research and analysis. The information presented here represents a wide range of components that were observed and measured against National Reserve Study Standards to determine if they meet the criteria for reserve funding.

- 1) Common area repair & replacement responsibility
- 2) Component must have a limited useful life
- 3) Life limit must be predictable
- 4) Above a minimum threshold cost (board's discretion – typically ½ to 1% of Annual operating expenses).

Not all your components may have been found appropriate for reserve funding. In our judgment, the components meeting the above four criteria are shown with the Useful Life (how often the project is expected to occur), Remaining Useful Life (when the next instance of the expense will be) and representative market cost range termed “Best Cost” and “Worst Cost”. There are many factors that can result in a wide variety of potential costs, and we have attempted to present the cost range in which your actual expense will occur.

Where no Useful Life, Remaining Useful Life, or pricing exists, the component was deemed inappropriate for Reserve Funding.

Site/Grounds/Recreation

Comp #: 100 Water System - Maintain/Repair

Quantity: Extensive systems

Location: Throughout community

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

History:

Comments: 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:

Comp #: 200 Asphalt Roads - Repair/Resurface

Quantity: Approx 10,500 square feet

Location: Partial East Herron Boulevard and Ferry Street

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

History: Resurfaced last in FY 2017/2018 at reported expense of \$28,000

Comments: Roadway on island near Ferry Terminal is the only area of HMC asphalt; we observed much improved condition since our previous 2016 site inspection. Resurfaced last in FY 2017/2018 at reported expense of \$28,000. Going forward, provide timely cycles of inspection, cleaning and spot repair when needed for maximum design life; fund from the operating budget. Assume intervals of future resurface at the 20-25 year interval below. Note; an access easement was observed at the Mainland Terminal but previous assumption confirmed that the asphalt road (Isted) is maintained by Pierce County, so no impact upon reserves needs to be factored for that location. We noted one section of one side of that road was recently resurfaced.

Useful Life:
25 years

Remaining Life:
23 years



Best Case: \$ 25,000

Worst Case: \$ 35,000

Lower allowance

Higher allowance

Cost Source: Client Cost History Inflation Adjusted

Comp #: 204 Gravel Roads/Lots - Maintain/Repair**Quantity: Approx 500,000 surface SF**

Location: Common areas, Island and Mainland

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

History: Barge delivery of gravel in FY 2018/2019 at reported expense of \$56,000; prior FY 2014/2015 at an expense of ~\$42,300

Comments: 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. Barge delivery of gravel to facilitate such in FY 2018/2019 after our 3.21.2019 site inspection at reported expense of \$56,000. Previous event reportedly occurred in FY 2014/2015 at an expense of ~\$42,300. Reserve funding is factored for gravel delivery roughly every 5 years going forward. We assume provision for other signification 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 yearsRemaining Life:
4 years

Best Case: \$ 54,000

Worst Case: \$ 62,000

Lower allowance

Higher allowance

Cost Source: Client Cost History Inflation Adjusted

Comp #: 210 Site Lighting - Replace**Quantity: Small quantity**

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

Funded?: No. Cost projected to be too small

History:

Comments: Small quantity of assorted fixtures of varying types were noted. Schedule includes large lamps atop two wood poles at North Beach and Mainland Terminal, along with several smaller 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 form operating budget; small expenses under \$6,000 don't merit reserve designation for your community.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 212 Small Structures - Maintain/Replace

Quantity: (5) assorted

Location: Community Building, North Beach and Ferry Terminals

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

History:

Comments: 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 apparently installed at Bus Stop since our last 2016 site inspection; other metal roof projects 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:

Comp #: 214 Community Signage - Replace

Quantity: Extensive quantity

Location: Common areas, Island and Mainland

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

History:

Comments: Assorted ages/types of signs in varying condition. Majority are fair and legible; some local repair needs. Appearance of the small "Welcome To Herron Island" sign is improved by recent painting, however, structural decay at top, left border still evident. Evaluate all regularly, repair and replace individually or in small groupings from the operating budget.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 216 Community Kiosks/Readers - Replace

Quantity: (2) wood

Location: Common areas, Island and Mainland

Funded?: No. Cost projected to be too small

History:

Comments: 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:

Comp #: 217 Chain Link Fence - Replace

Quantity: Approx 500 linear feet

Location: Mainland Generator, Goodpastor Park Backstop

Funded?: No. Cost projected to be too small

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

Comments: Mainland Generator fencing was installed in 2007 and is good 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 recommended.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 220 Wood Fence - Replace

Quantity: Moderate linear feet

Location: Mainland Parking Lot

Funded?: No. Research suggests association not responsible

History:

Comments: It is our understanding that wood fencing contiguous with your Mainland Parking Lot belongs to the adjacent property owner. As before, 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

Location: Common areas

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

History:

Comments: Previously provided expense history includes tree removal events of \$8,000 in FY 2014/2015 and \$5,400 FY 2015/2016 YTD; Management indicating in more recent years annual allowance of \$9,000 for professional services. Community volunteer efforts for storm clean up, tree trimming were evident during our 2019 site inspection. 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 delimbing 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:

Comp #: 230 Site Electrical - Repair/Replace

Quantity: Extensive systems

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

Funded?: No. Useful life not predictable or extended

History:

Comments: 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.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 250 Mailboxes - Replace

Quantity: (6) clusters, assorted

Location: Mainland Parking Lot

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

History:

Comments: Age and condition varies somewhat; all are good to fair. Two more CBU's (DOM 11/2017), new concrete pad added since our previous 2016 site inspection. Research informed us that individual lot owners that are benefited are still considered responsible to maintain, repair and replace these mailbox clusters. In our experience, typical installed cost for each cluster is ~\$1,500 but no HMC reserve funding is required with present assignment of expense.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 260 Beach Armor/Bulkhead - Add**Quantity: Extensive square feet**

Location: North Beach

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

History:

Comments: Some previous concern with erosion were indicated for North Beach area. Your previous plans were to improve drainage measure and rehabilitate landscaping as operating budget items in the near term. During our 2019 site inspection we noted recent local addition of gabion basket (reportedly by volunteers). Research for this FY 2019/2020 WSV informed us regarding only current, further plans to add "heavy grass" as operating budget item with no anticipation for large scale project to add signification additional structures for beach armor or bulkheads at the moment. 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:

Comp #: 350 Play Equip,North Beach 2007-Replace**Quantity: (1) big toy**

Location: North Beach

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

History: Assumed install in 2007/2008

Comments: Locations with community play equipment include an older, residential quality big toy at North Beach (previously donated). As routine maintenance, inspect play equipment at all locations 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. 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. No current plans, specifications for next replacement; general allowance for eventuality factored below.

Useful Life:

20 years

Remaining Life:

8 years



Best Case: \$ 5,000

Worst Case: \$ 7,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 352 Play Equip,North Beach 2017-Replace**Quantity: (1) climbing toy**

Location: North Beach

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

History: Added in FY 2017/2018 at reported expense of \$6,000

Comments: New play area with climbing toy added in FY 2017/2018 at reported expense of \$6,000. Anticipate similar future projects at interval below. Replenish material in fall zones and replace wood borders as operating budget items at this location.

Useful Life:
20 yearsRemaining Life:
18 years

Best Case: \$ 5,000

Worst Case: \$ 7,000

Lower allowance

Higher allowance

Cost Source: Client Cost History

Comp #: 354 Play Eq,Goodpastor-Partial Replace**Quantity: (5) assorted**

Location: Goodpastor Park

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

History: Your plans to replace existing rubber chip material in fall zones, transition to wood material in FY 2018/2019 at reported expense of \$8,000.

Comments: As before, majority of the larger play equipment here with general deterioration, minor corrosion and outdated appearance. In FY 2014/2015, two previous swings were vandalized and then only one new replacement 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. Wide range of equipment/expense are possible; some communities expend \$20,000-\$50,000 or more for integrated replacements in locations like these. Research for this update informed us that you have no current plans for such type of all-at-once projects but will replace existing rubber chip material in fall zones, transition to wood material in FY 2018/2019 at reported expense of \$8,000. General funding allowance for partial replacements going forward factored below with input from Management. Update in future reserve study updates as desires, conditions merit.

Useful Life:
5 yearsRemaining Life:
4 years

Best Case: \$ 6,000

Worst Case: \$ 10,000

Lower allowance

Higher allowance

Cost Source: Estimate Provided by Client

Comp #: 356 Basketball Court - Repair/Replace**Quantity: Approx 2,000 SF, total**

Location: Goodpastor Park

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

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

Comments: Concrete replacement here in FY 2013/2014 at expense of \$17,500. We noted simple striping and also one area with evidence of water ponding. Basketball assemblies/equipment are older with poor appearance; clean, paint, repair and 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:
24 years



Best Case: \$ 18,000

Worst Case: \$ 22,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 360 Picnic Assets - Replace**Quantity: Extensive quantity**

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

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

History:

Comments: Age, condition and type of picnic assets vary. Some local additions, improvements and replacements since our previous site inspection. Definitive expense history was not provided; apparent use of operating funds and/or denotations and likely volunteer labor as well. 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:

Comp #: 370 Pavilion - Replace Roof

Quantity: Approx 2,200 SF

Location: North Beach

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

History: Roof was replaced last in FY 2003/2004

Comments: Pavilion structure appeared to be in stable condition. 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 with some general deterioration and wear as expected. Clean and treat for moss as operating budget items. Marine environment; appropriate assumption for long term budgeting to anticipate professional roof replacement at roughly the 20-25 year time frame below.

Useful Life:
25 years

Remaining Life:
9 years



Best Case: \$ 8,800

Worst Case: \$ 11,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Small Boat Marina

Comp #: 302 Small Boat Docks/Floats-Replace

Quantity: Approx 2,600 square feet

Location: North Beach

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

Comments: Varying levels of general aging, corrosion and deterioration were observed but overall fair condition. Historical maintenance includes prudent measure of annual removal for storm season, cleaning and minor repair utilizing volunteers and operating budget. It is our understanding that substantial replacement occurred last in 1997 along with another project in 2006 for finger expansion indicated. Retaining collars were replaced in 2012; some subsequent local wood replacement but not large scale. 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:
12 years



Best Case: \$ 122,200

Worst Case: \$ 148,200

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 306 Small Boat Dock Pilings - Replace**Quantity: (15) steel**

Location: North Beach

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

History: Metal pilings installed in FY 2011/2012 at expense of \$188,000

Comments: Fair condition where observed; previously (27) wood pilings were replaced with these new metal pilings in FY 2011/2012 at 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:
42 years



Best Case: \$ 210,000

Worst Case: \$ 240,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

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

Location: North Beach

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

History: Significant replacement reportedly occurred last in 1997

Comments: Fair condition without reported instability at present; staining of wood evident since our previous 2016 site inspection. 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/repared. 2010 KPFF condition report cited verbal information that all pilings are not embedded into ground but rather on grade. No recent expert evaluations, updates were provided for our review. 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:
12 years



Best Case: \$ 75,600

Worst Case: \$ 113,400

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 336 Small Boat Gangway - Replace

Quantity: (1) aluminum, ~4'x20'

Location: North Beach

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

History:

Comments: 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:
12 years



Best Case: \$ 7,000

Worst Case: \$ 10,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 340 Small Boat Launch - Repair/Replace

Quantity: Approx 1,400 square feet

Location: North Beach

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

History:

Comments: Launch ramp utilizes concrete slab and block with no widespread instability apparent but seawater level covering some of structure during 2019 visit. No significant changes assumed since our 2016 site inspection when we noted general aging and deterioration with local surface cracking and damage. We assume operating budget will be utilized for repairs to sustain for the foreseeable future.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Community Building

Comp #: 410 Community Building Siding-Replace

Quantity: Approx 1,400 GSF

Location: 901 West Yew Blvd KPN

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

History: Cement-fiber siding was reportedly installed in FY 2005/2006

Comments: 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. Some minor separation of butt joints noted, presumably from material contraction. At minimum, maintenance caulking is needed now. 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 manufacture 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:
36 years



Best Case: \$ 22,400

Worst Case: \$ 33,600

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 420 Community Building Exterior-Paint**Quantity: Approx 1,400 GSF**

Location: 901 West Yew Blvd KPN

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

Comments: Surface finishes upon building were in mostly fair condition; painting reportedly occurred last in FY 2015/2016 at expense of \$2,000. 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:

Comp #: 430 Community Building Roof - Replace**Quantity: Approx 2,700 GSF**

Location: 901 West Yew Blvd KPN

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

History:

Comments: 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:

23 years



Best Case: \$ 16,200

Worst Case: \$ 27,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 450 Community Bldg Interior-Refinish**Quantity: Moderate GSF**

Location: 901 West Yew Blvd KPN

Funded?: No. Cost projected to be too small

History:

Comments: Mostly utility appearance continues. Newer laminate flooring has apparently replaced previous utility carpet in office locations since our 2016 site visit; project cost was not provided but likely well below \$6,000 reserve funding threshold. In any event, assumption regarding interior maintenance utilizing volunteers and/or operating funds will continue to 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:

Comp #: 454 Community Bldg Kitchen-Refurbish**Quantity: Moderate square feet**

Location: 901 West Yew Blvd KPN

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

History:

Comments: No signification changes apparent since our previous 2016 site inspection. Simple layout was clean and without noteworthy deterioration. Appliances of varying age and brand were apparent; most are nearing end of typical 10-20 year life cycle. The Maytag microwaves and the Whirlpool refrigerator were likely installed in 2005 or 2006 and the Crosley electric ranges appear to be even older units. Large stainless steel work station was in fair condition; kitchen cabinets appeared to be likewise. No desire for large scale refurbishing was expressed for the foreseeable future. Individual replacements of appliances, cabinetry, etc... are likely to continue as operating budget items.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 456 Community Blding Bathrooms-Maintain

Quantity: (2) small, two-piece

Location: 901 West Yew Blvd KPN

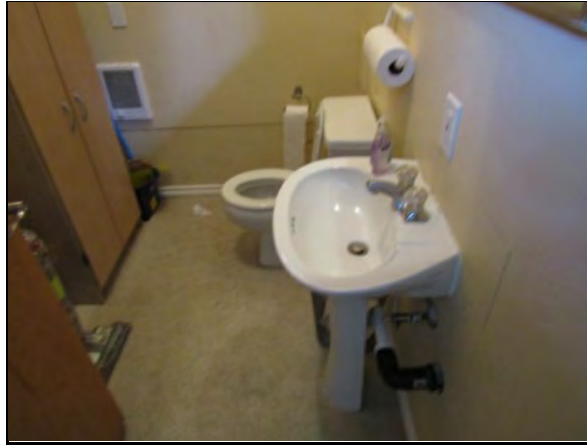
Funded?: No. Cost projected to be too small

History:

Comments: 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:

Comp #: 460 Community Blding Septic - Replace

Quantity: (1) system

Location: 901 West Yew Blvd KPN

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

History: Likely installed in 1982

Comments: Septic system serving Community Building was likely installed in 1982. Minimal usage indicated with no reported problems at this time. As before, no known evaluation by expert to help establish specifications and timelines for system renovations. 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 utilized below. We continue to advise 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:
13 years



Best Case: \$ 9,000

Worst Case: \$ 13,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 464 CB Windows/Doors-Replace

Quantity: Moderate quantity

Location: 901 West Yew Blvd KPN

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

History:

Comments: New insulated garage doors replaced older units in 2012; volunteer (Booster Club) funds paid expense of \$3,100.

One garage door at back of building was apparently added sometime between our 2013 and 2016 site inspections. Mostly fair condition for small quantity of assorted windows and doors; one window needs glass replaced since evidently cracked by rock or other projectile. Going forward, no anticipation of large scale expenses requiring reserve designation.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 466 CB Electrical/Plumbing-Replace

Quantity: Extensive systems

Location: 901 West Yew Blvd KPN

Funded?: No. Useful life not predictable or extended

History:

Comments: Assessing both electrical and plumbing systems is beyond the scope of a reserve study. No reported problems at this time; system infrastructure is typically very long lived if properly installed. Treat minor 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.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Equipment

Comp #: 510 Office Equipment/Furniture-Replace**Quantity: Minor equipment**

Location: Community Building

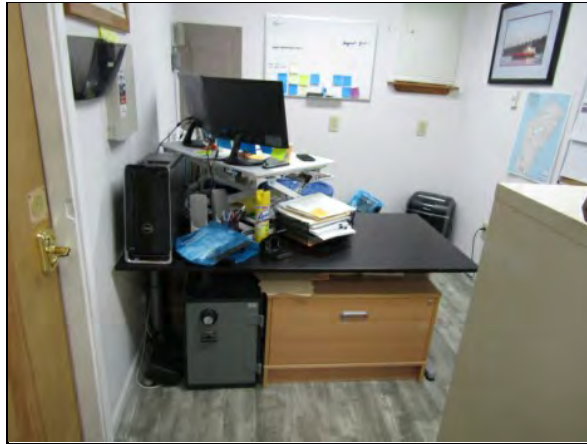
Funded?: No. Annual cost best handled as operating expense

History:

Comments: Assorted ages and conditions apparent. Small quantity of office equipment includes at least (2) desktop computers with monitors, a few small all-in-ones and (1) large printer. Large printer appears to have been replaced in recent years; definitive equipment expense history was not provided. Typically, large printers are leased and not purchased but this was not confirmed for HMC. Also, surveillance system was added for Community Building in FY 2015/2016 at modest expense; treat replacements as annual budget item. As previously established, community needs will likely continue to be met with individual equipment purchases treated as an operating expense.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 520 Small Equipment/Tools - Replace**Quantity: Minor equipment**

Location: Community and Pavilion Buildings

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

History:

Comments: Small tools/equipment 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:

Comp #: 530 Utility Tractor/Mower - Replace**Quantity: (1) small riding mower**

Location: Community Building Shed

Funded?: No. Cost projected to be too small

History:

Comments: Small riding mower, Cub Cadet LGTX 1054 appearing newer with only 10.6 hours on meter when we inspected on 3.21.2019. Likely purchased since our previous 2016 site inspection but no information of such provided to this writer; expense unknown. Previous purchase events in FY 2014/2015 at expense of \$3,260 for John Deere unit; prior mower replacement in 2005. Also, 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. Lastly, some discussion regarding possible purchase of another piece of equipment, ditch mower in FY 2019/2020 at expense of \$5,000. Continue to treat small expenses under \$6,000 as operating expense. Adjust in future reserve update as conditions merit

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 540 Dust/Water Truck - Replace**Quantity: (1) 1997 F800**

Location: Community Building

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

History: Truck (but not water tank) replaced with used in FY 2017/2018 at expense of \$17,200

Comments: Recently replaced but older vehicle provides method of dust control for roadways. Current truck is 1997 Ford F800 but only 43,477 showing on odometer on 3.21.2019. This vehicle was reportedly purchased (used) in FY 2017/2018 at expense of \$18,000; prudent planning suggests intervals of replacement will continue to be needed going forward. Note; water tank appears to be in fair condition at this time and should be replaced as needed from operating funds.

Useful Life:
12 yearsRemaining Life:
10 years

Best Case: \$ 17,000

Worst Case: \$ 21,000

Lower allowance

Higher allowance

Cost Source: Client Cost History Inflated

Ferry System

Comp #: 700 Ferry Terminals - Inspect/Repair**Quantity: Approx 6,100 square feet**

Location: Island and Mainland Terminals

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

History: Both planned for inspection, repair allowance in FY 2018/2019

Comments: Ferry terminal ramps consist of concrete fixed approach structures 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 recently replaced cluster pile dolphins are located near each terminal and used as vessel positioning aides. Mainland Terminal inspection is required at every two year and Island Terminal every four year interval. Research with Management confirmed both planned for inspection, repair allowance in FY 2018/2019 (Spring 2019); monies earmarked. 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. Local repair may include projects such as spot replacements of local concrete repairs, steel hardware, individual winch motors, future spot 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:
4 years

Remaining Life:
3 years



Best Case: \$ 20,000

Worst Case: \$ 25,000

Lower allowance

Higher allowance

Cost Source: Estimate Provided by Client

Comp #: 702 Ferry Terminals - Paint**Quantity: Approx 6,100 square feet**

Location: Island and Mainland Terminals

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

Comments: Mostly fair condition but some local corrosion noted. Last large scale paint 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, inspect regularly and provide timely spot treatment, local painting as operating budget item to sustain in between cycles of reserve funding for large scale cleaning/painting at the interval indicated below. The reader should note that last project included needed spot stripping of material, if entire steel spans would have needed paint removed the cost would have increased substantially. Consult experts in advance of next project, update in future reserve study updates as conditions warrant.

Useful Life:
12 years

Remaining Life:
8 years



Best Case: \$ 165,000

Worst Case: \$ 225,000

Lower allowance

Higher allowance

Cost Source: Client Cost History Inflation Adjusted

Comp #: 704 Ferry Terminal Cables - Replace**Quantity: Extensive linear feet**

Location: Island and Mainland Terminals

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

History: FY 2014/2015 replacement at \$27,200 expense

Comments: 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:
5 years

Remaining Life:
0 years



Best Case: \$ 40,000

Worst Case: \$ 45,000

Lower allowance

Higher allowance

Cost Source: Estimate Provided by Client

Comp #: 706 Ferry Terminal Wood Decks - Replace

Quantity: Approx 2,940 square feet

Location: Island and Mainland Terminals
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
Comments: Fair condition. FY 2014/2015 replacement at \$144,000 plus portion of \$46,000 "soft" costs. 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. Previous discussion regarding possible transition to steel planking may be revisited again for distant future replacement; update in reserve study updates as conditions merit.

Useful Life:
24 years

Remaining Life:
20 years



Best Case: \$ 178,000	Worst Case: \$ 202,000
Lower allowance	Higher allowance
Cost Source: Client Cost History Inflation Adjusted	

Comp #: 707 Ferry Terminal Structures - Replace

Quantity: Approx 6,100 square feet

Location: Island and Mainland Terminals

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

History: Terminals were built in 1994

Comments: It is our understanding that terminals were built in 1994. No unexpected deterioration was apparent during our limited scope visual inspection for purposes of long term budgeting. Previously provided 2012 condition report (for Mainland Terminal only) by expert indicated that concrete approach structure and pilings were in "good condition" at that time. Likewise "good condition" for galvanized steel lift tower and bridge rails noted. No more recent, expert written evaluations were provided for our review although we note expert evaluations of both mainland and island sides are still planned for FY 2018/2019. 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 years

Remaining Life:
32 years



Best Case: \$ 2,240,000

Worst Case: \$ 2,820,000

Lower allowance

Higher allowance

Cost Source: Previous Research with Local Contractor, Inflation Adjusted

Comp #: 708 Ferry Ramp Dolphins - Replace**Quantity: (8) assemblies**

Location: Island and Mainland Terminals

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

History: FY 2017/2018 final project completion at total expense of \$1,200,000

Comments: New steel dolphins replaced previous wood clusters in FY 2017/2018; final project completion at total expense of \$1,200,000. Some reserves monies were utilized but vast majority of project cost financed with long term USDA debt/loan. 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). 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 therefore 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 yearsRemaining Life:
48 years

Best Case: \$ 1,060,000

Worst Case: \$ 1,490,000

Lower allowance

Higher allowance

Cost Source: Client Cost History Inflation Adjusted

Comp #: 710 Ferry Ramp Bulkhead - Repair**Quantity: Moderate square feet**

Location: Island Terminal

Funded?: No. Useful life not predictable or extended

History: Some repair occurred in 2006; no further project history was provided

Comments: 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:

Comp #: 712 Ferry Ramp Generators - Replace**Quantity: (2) Generac 35kw**

Location: Island and Mainland Terminals

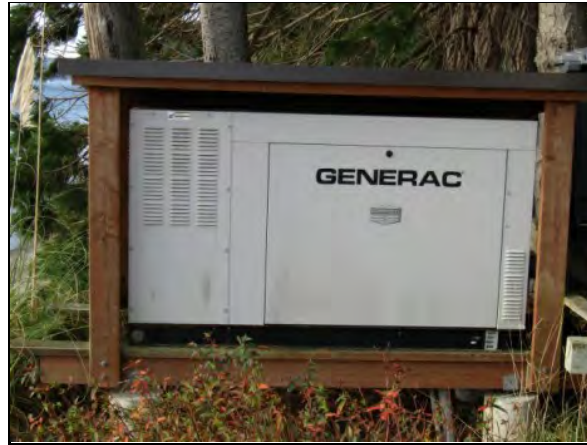
Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History: Installed in FY 2007/2008 at an expense of \$33,000

Comments: No reported problems at present. 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:
8 years



Best Case: \$ 36,100

Worst Case: \$ 43,700

Lower allowance

Higher allowance

Cost Source: Client Cost History Inflated/Similar Project Cost History

Comp #: 718 Ferry Ramp Surveillance - Replace**Quantity: (2) camera, DVR**

Location: Select common areas

Funded?: No. Cost projected to be too small

History: Modest system installed at Mainland Terminal in 2012 at an expense of \$2,300

Comments: Modest system installed at Mainland Terminal in 2012 at an expense of \$2,300. No reported change in status since previous 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:

Comp #: 740 Ferry Vessel - Shipyard**Quantity: 65' LOA**

Location: M/V Charlie Wells

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

History: FY 2018/2019 expense was reportedly \$118,000, FY 2016/2017 \$90,000, FY 2014/2015 \$84,600

Comments: Welded steel hull and framed vessel was built in 1989. Where observed, paint was in good condition overall. Our previous research informed us that dry dock and significant maintenance occurs every two years on the even year, so next event in FY 2020/2021 is factored below. Comprehensive inspections and projects including such as paint, zincs, seals, prop and shaft repairs, etc....are indicated. FY 2018/2019 expense was \$118,000 and included significant painting among other maintenance. Your 11/12 2018 newsletter indicated "freshly painted inside and out" and "Charlie's electrical, mechanical, and engine systems are refreshed, repaired". Separate \$30,600 expense to overhaul engines in FY 2018/2019 - see Component #744. Prior events include FY 2016/2017 at reported expense of \$90,000, FY 2014/2015 cost indicated was \$84,600. Carefully track needs and expenses for consideration of possible segregation of individual maintenance events in future reserve updates.

Useful Life:
2 years

Remaining Life:
1 years



Best Case: \$ 110,000

Worst Case: \$ 150,000

Lower allowance

Higher allowance

Cost Source: Extrapolated Estimate Provided by Client

Comp #: 744 Ferry Vessel - Overhaul Engines**Quantity: (2) John Deere, diesel**

Location: M/V Charlie Wells

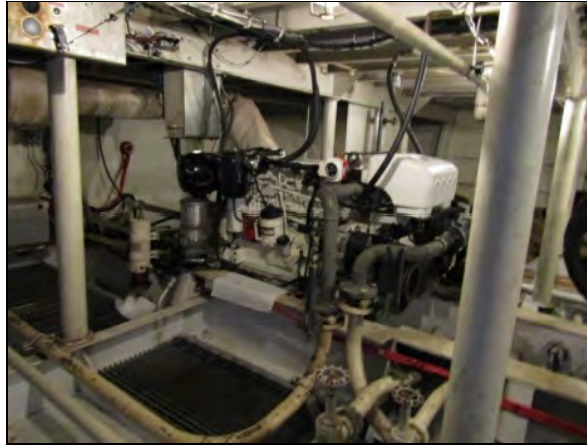
Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History: New four-cycle John Deere units in FY 2013/2014; overhaul in FY 2018/2019 at reported expense of \$30,600

Comments: Replacement of previous two-cycle GM diesel engine with new four-cycle John Deere units in FY 2013/2014. Our previous research informed us that likely overhaul schedule will need to every four year to six year interval (improved from previous historical average of every three years). Overhaul in FY 2018/2019 at reported expense of \$30,600; monitor and update assumption in future reserve updates as conditions warrant.

Useful Life:
5 years

Remaining Life:
4 years



Best Case: \$ 31,000

Worst Case: \$ 39,000

Lower allowance

Higher allowance

Cost Source: Client Cost History

Comp #: 746 Ferry Vessel - Replace Engines**Quantity: (2) John Deere, diesel**

Location: M/V Charlie Wells

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

Comments: 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:
44 years



Best Case: \$ 168,000

Worst Case: \$ 188,000

Lower allowance

Higher allowance

Cost Source: Client Cost History

Comp #: 755 Ferry Vessel-Overhaul Transmissions**Quantity: (2) Twin Disc MG 5091 SC**

Location: M/V Charlie Wells

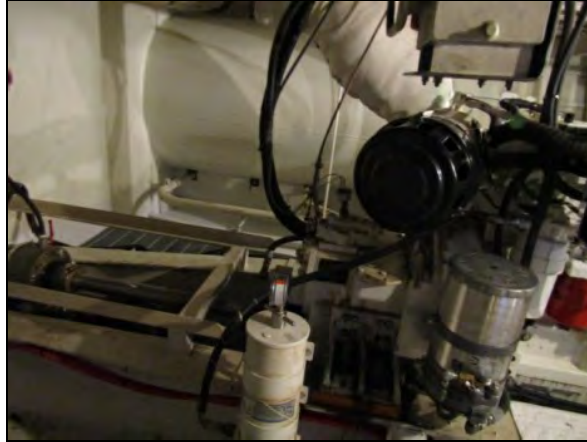
Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

History: FY 2013/2014 new transmissions; overhaul anticipated next in FY 2020/2021

Comments: New transmissions were also included during FY 2013/2014 re-power. Our previous research indicated significant transmission overhaul anticipated every four to five year interval. No such overhaul was apparently needed in FY 2018/2019. Now assumed to occur next in FY 2020/2021: monitor and update assumption in future reserve updates as conditions warrant.

Useful Life:
7 years

Remaining Life:
1 years



Best Case: \$ 14,000

Worst Case: \$ 18,000

Lower allowance

Higher allowance

Cost Source: Client Cost History

Comp #: 757 Ferry Vessel-Replace Transmissions**Quantity: (2) Twin Disc MG 5091 SC**

Location: M/V Charlie Wells

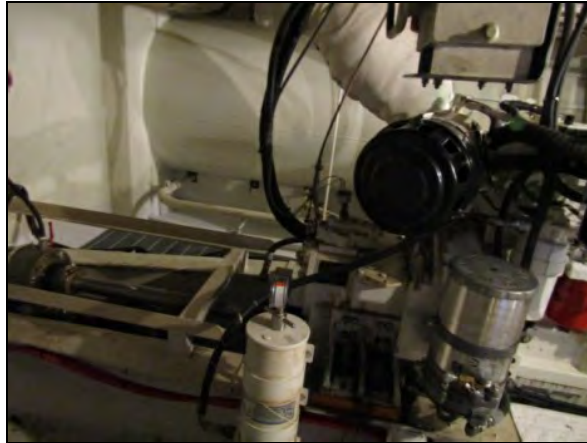
Funded?: Yes. Meets National Reserve Study Standards criteria for Reserve Funding

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

Comments: Expense for new transmissions is factored below; expect roughly 25-30 years of useful life going forward.

Useful Life:
28 years

Remaining Life:
22 years



Best Case: \$ 34,000

Worst Case: \$ 38,000

Lower allowance

Higher allowance

Cost Source: Client Cost History

Comp #: 760 Ferry Vessel - Replace

Quantity: 65' LOA

Location: M/V Charlie Wells

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

History: 1989 replacement with new

Comments: 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:
30 years



Best Case: \$ 1,465,000

Worst Case: \$ 1,905,000

Lower allowance

Higher allowance

Cost Source: Estimate Provided by Client, Inflation Adjusted

Professional/Special Projects

Comp #: 940 Legal Contingency Fund**Quantity: \$35,000**

Location: Reserve funds

Funded?: Yes. Board directed assumption

History:

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

Useful Life:
0 years

Remaining Life:
0 years



Best Case: \$ 34,000

Worst Case: \$ 36,000

Lower legal contingency

Higher legal contingency

Cost Source: Estimate Provided by Client

Comp #: 999 Reserve Study Update**Quantity: Annual Update**

Location: Common areas

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

History:

Comments: 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: