



CAPE GEORGE COLONY CLUB MARINA RESERVES

Port Townsend, Washington



STANDARD
LEVEL 2 RESERVE STUDY UPDATE WITH A SITE VISIT
With funding recommendations for the fiscal year ending 2018

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EXECUTIVE SUMMARY

Cape George Colony Club Marina is a 130-user marina located at Cape George Drive in Port Townsend, Washington. This Reserve Study meets the requirements of the Washington Homeowners' Association Act for a Level 2 Reserve Study update with a site visit, and was prepared by a Reserve Study Professional.

Background

Cape George Colony Club owns and maintains its private marina as well as its water facilities, roads, numerous buildings, swimming pool and other improvements on common property. The other common assets are addressed in separate reserve funds distinct from the marina facilities. The marina includes moorage slips for nearly 80 boats of various sizes, parking for boats and trailers, racks for storage of kayaks and other small craft as well as cleaning and cooking stations for marine catch. The marina basin and channel were put into service in 1967 and underwent major expansion in 1997.

Financial Information

Reserve Account Balance on April 30, 2017	\$77,788
Annual Operating Budget	\$66,805
Association Defined Component Inclusion Threshold	\$ 3,000
Annual Budgeted Contribution Rate (2017)	\$17,538
Remaining Contribution for the Year	\$22,600
Planned or Implemented Special Assessment	None
Fully Funded Balance	\$376,349
Percent Funded at Time of Study	21%
Funding Status at Time of Study	At High Risk for Special Assessment

Recommendations

Recommended 2018 Contribution	\$46,000*
Recommended Contribution per Month	\$3,833
Average Contribution per Unit per Year	\$ 354
Average Contribution per Unit Per Month	\$ 29
Recommended Special Assessment	None
2018 Baseline Funding Plan Contribution Rate	\$37,100
2018 Full Funding Plan Contribution Rate	\$38,300

*Note: We expect that the contribution to reserves can be adjusted in 2030 to \$26,000 in constant dollars and still cover the anticipated expenses for the duration of the study.

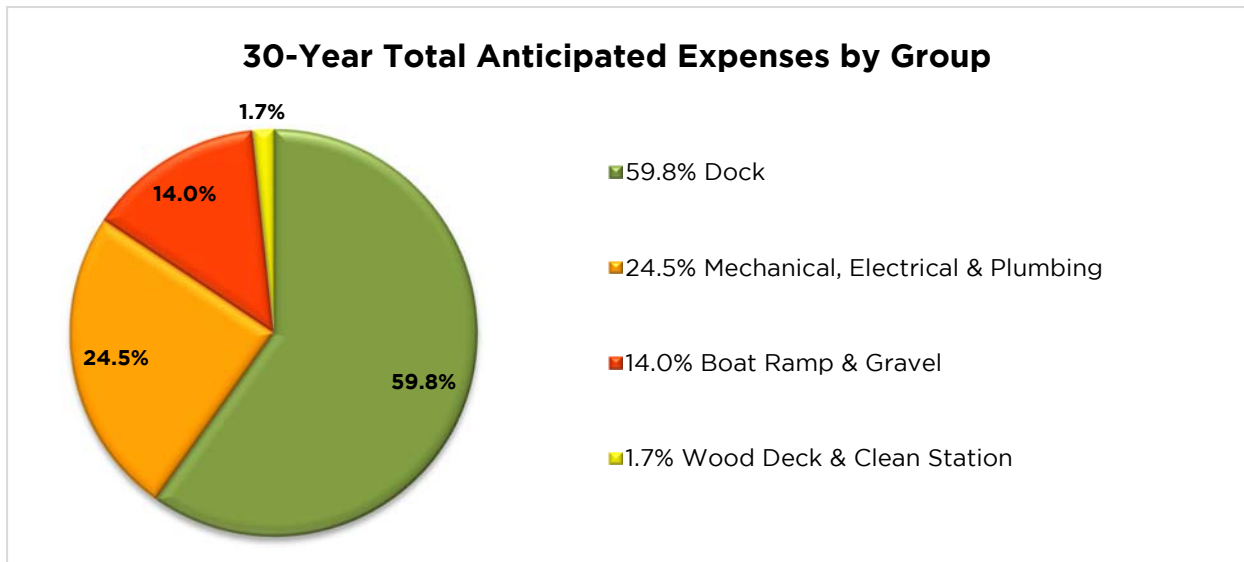
The recommended reserve contribution represents a Threshold Funding Plan to prevent special assessments over the course of the 30-year study **while maintaining a minimum reserve account balance of at least \$30,000**. The fiscal year for the Reserve Study is a calendar year. Cost projection accuracy decreases into the distant future. Assumptions should be reconsidered and updated with each revision of the study.

There is no legal requirement to fund reserves. There is a requirement to have a current Reserve Study to know the recommended reserve contribution rate. Reserve Studies must be updated annually to reflect recent financial information, repairs or replacements, and to adjust for future repair costs. Every three years, the update must be based on a visual on-site inspection conducted by a Reserve Study Professional.

Estimated Major Repair or Replacement Summary

Projected Major Repair or Replacement Expenses Over the Next 30 Years

The following illustrates anticipated major repair or replacement expenses over the next 30 years. Changing the timing or costs of these items may result in changes to the recommended contribution. Independent design specifications and oversight are suggested for repairs to the building envelope. We further recommend that the planning stages for these repairs start at least one year before the estimated repair to obtain a scope of repair, select and schedule a contractor, and secure financing for the project.



The following chart illustrates which groups the component numbers are assigned to:

Number	Component Description	Group Name
2.0.0	Boat Ramp & Gravel	Boat Ramp & Gravel
3.0.0	Dock	Dock
5.0.0	Railing	Railing
6.0.0	Wood Deck & Clean Station	Wood Deck & Clean Station
7.0.0	Roofing, Gutters & Downspouts	Roofing, Gutters & Downspouts
8.0.0	Windows	Windows
9.0.0	Exterior & Interior Finishes	Exterior & Interior Finishes
10.0.0	Miscellaneous	Roof Vents, Signage & Mailboxes
11.0.0	Equipment	Equipment
12.0.0	Furnishings	Exterior & Interior Finishes
13.0.0	Pool Systems	Pool/Spa Systems
14.0.0	Elevator Equipment	Elevator Maintenance
15.0.0	Plumbing & Mechanical Systems	Mechanical, Electrical & Plumbing
16.0.0	Electrical Systems	Mechanical, Electrical & Plumbing
18.0.0	Security Systems	Mechanical, Electrical & Plumbing
20.0.0	Reserve Studies	Reserve Studies



Five Year Major Repair or Replacement Summary from 2018 Through 2022

The following reserve funded expenses are expected to occur in the next five years at Cape George Colony Club.

Year	Component Major Repair or Replacement	Estimated Cost
1 (2018)	2.6.2 Gravel - Replace	\$13,600
1 (2018)	16.3.1 Electrical System - Contingency	\$101,000
2 (2019)	15.5.1 Marina Water Supply System - Contingency	\$4,050
3 (2020)	3.11.2 Basin - Partial Dredging	\$12,000
4 (2021)	3.10.4 Helix Mooring Buoys - Replace	\$3,820
5 (2022)	2.6.1 Concrete Boat Ramp - Replace	\$38,310
5 (2022)	3.10.5 Helix Mooring Buoys - Replace	\$3,820
5 (2022)	3.11.1 Basin - Complete Dredging	\$60,000



INTRODUCTION

Purpose of a Reserve Study

The purpose of a Reserve Study is to recommend a reasonable annual reserve Contribution Rate made by an association to its reserve account. Reserve accounts are established to fund major maintenance, repair, and replacement of common elements, including limited common elements, expected to be necessary within the next thirty years. A Reserve Study is intended to project adequate funds for the replacement or major repair of any significant component of the property as it becomes necessary without relying on special assessments. It is a budget planning tool which identifies the current status of the reserve account and a stable and equitable Funding Plan to offset the anticipated future major shared expenditures.

Each reserve component is evaluated to determine the current condition, the remaining useful life, and the estimated replacement cost. This information is combined into a spreadsheet to determine funding requirements and establish the annual contribution rate needed to minimize special assessments. All costs and annual reserve fund balances are shown in constant dollars, and with adjustments for annual inflation and interest earned. Ideally, an even level of contributions is established that maintains a positive balance in the reserve account over the timeline the study examines.

A Reserve Study also calculates a “Fully Funded Balance”. Fully Funded Balance is the sum total of the reserve components’ depreciated value using a straight line depreciation method. To calculate each component’s depreciated value:

$$\text{Depreciated Value} = \text{Current Replacement Cost} \times \frac{\text{Effective Age}}{\text{Expected Useful Life}}$$

When assessed with the current reserve fund balance, the Fully Funded Balance yields a Percent Fully Funded. This acts as a measuring tool to assess an association’s ability to absorb unplanned expenses. These expenses could be emergency repairs not covered by insurance, or expenses that differ from the existing Reserve Study in terms of timing or cost.

The Fully Funded Balance is neither the present replacement cost of all of the Association’s reserve components, nor does it have a mathematical relationship to the recommended reserve contribution funding plans.



Three levels of Reserve Studies:

The first level, an initial Reserve Study, must be based upon a visual site inspection conducted by a Reserve Study Professional. This is also known as a full **Level 1** Reserve Study with a site visit.

At least every three years, an updated Reserve Study must be prepared and based upon a visual site inspection conducted by a Reserve Study Professional. This is also known as a **Level 2** update with a site visit.

Every year, the Association must update the Reserve Study. Except as noted above, the annual updates do not require a site visit. This is also known as a **Level 3** update without a site visit.

This study is a **Level 2** – Reserve Study update with a site visit.

Government Requirements for a Reserve Study

The content of a Reserve Study for a homeowners' association is regulated by the Washington State government (RCW 64.38.070 §2). The required content is:

- (a) A reserve component list, including any reserve component that would cost more than one percent of the annual budget of the association, not including the reserve account, for major maintenance, repair, or replacement. If one of these reserve components is not included in the Reserve Study, the study should provide commentary explaining the basis for its exclusion. The study must also include quantities and estimates for useful life of each reserve component, remaining useful life of each reserve component, and current repair and replacement cost for each component;
- (b) The date of the study, and a statement that the study meets the requirements of this section;
- (c) The following level of reserve study performed (i) Level I Full reserve study funding analysis and plan; (ii) Level II Update with visual site inspection; or (iii) Level III Update with no visual site inspection;
- (d) The association's reserve account balance;
- (e) The percentage of the fully funded balance that the reserve account is funded;
- (f) Special assessments already implemented or planned;
- (g) Interest and inflation assumptions;
- (h) Current reserve account contribution rates for a full funding plan and baseline funding plan;
- (i) A recommended reserve account contribution rate; a contribution rate for a full funding plan to achieve one hundred percent fully funded reserves by the end of the thirty-year study period, a baseline funding plan to maintain the reserve (fund) balance above zero throughout the thirty-year study period without special assessments, and a contribution rate recommended by the reserve study professional;



- (a) A projected reserve account balance for thirty years and a funding plan to pay for projected costs from those reserves without reliance on future unplanned special assessments; and
- (b) A statement on whether the reserve study was prepared with the assistance of a reserve study professional.

The Washington State government further requires the following disclosure in every Reserve Study (RCW 64.38.070 §3):

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

The full Washington Homeowners' Association Act may be reviewed on the Washington State Legislature's website at: <http://apps.leg.wa.gov/rcw/default.aspx?cite=64.38> and parts of 64.38.065 to 64.38.090 for the Reserve Study Amendment's portions. In April 2011, the Act was amended to change the required content within the Reserve Studies, add reporting of the Reserve Study results as part of the budget summary to owners, and extend the Reserve Study requirement to homeowners' associations with significant assets. For questions regarding the Act, we recommend contacting an attorney familiar with homeowners' associations' legal requirements.



Limitations and Assumptions of a Reserve Study

This Reserve Study is not a report on the condition of the assets maintained by the Association, or a detailed report of repairs necessary to the assets. It is also not an investigation into or comment on the quality of construction of the reserve components, or whether the construction complies with the building code or the requirements of the Washington Homeowners' Association Act.

The observations made by Reserve Consultants LLC are limited to a visual inspection of a sample of the reserve components. Unless informed otherwise, our assumption is that the components are constructed in substantial compliance with the building code and to industry standards, and that it will receive ordinary and reasonable repair and repair by the Association. These assumptions include that most reserve components will achieve their normal useful lives for similar components in the Pacific Northwest, and that they will be replaced when necessary to prevent damage to other reserve components.

This Reserve Study assumes that the assets will be maintained to keep a good level of appearance, with a special emphasis on retaining the original appearance of the assets to the greatest possible extent. The analysis also assumes that the Association will replace materials as they are required with good quality materials, installed by qualified, licensed, contractors. We further assume that the assets will experience the full typical useful life for the new materials installed.

The long term nature of this study requires that certain assumptions and predictions be made about future events. Since there can be no guarantee that these future events will occur as assumed, this analysis must be viewed in light of the circumstances under which it was conducted. Reasonable effort has been made to ensure that the conclusions of this report are based on reliable information and sound reasoning.

This report should be updated annually with actual major repair costs, reserve fund balances, etc. Every three years it should be updated with a site inspection and professional review. Regular updating will allow changes based on actual occurrences and adjustments for the cost of repairs to be incorporated into the annual reserve contributions. This will allow any savings or additional costs to be properly allocated among homeowners.



Our Approach to a Reserve Study

Reserve Consultants LLC employs a “Reasonable Approach” when evaluating reserve components in order to draft a study that is of greatest value to our clients. This means we attempt to predict, based on the costs involved and the client’s objectives, what a reasonable person will decide to have done when maintenance, repairs, or replacement become necessary. For example, a reasonable person will not replace a fence when it only needs to be repainted. The benefit of this is that reserve contributions are minimized to allow for what is most likely to occur. Our studies are not based on a worst case scenario, but rather on what we expect is most likely to occur. Our approach assumes minor problems will be corrected as they occur, before they become major problems.

Many sources were used in drafting this report. These include:

- Site visit and visual inspection of a sampling of the components;
- Input provided by association representatives;
- Review of a list of components the Association is responsible for;
- Generally accepted construction, maintenance, and repair guidelines.

The costs estimated for this Reserve Study are based on several sources

- Costs experienced by Cape George Colony Club;
- Costs experienced by other associations in the area;
- RS Means Building Construction Cost Data 2017.

Several factors may influence the actual costs that the Association will experience. The quality of replacement materials of items can significantly impact cost, as well as the timing between replacements. The use of Architects or independent construction managers to specify and oversee work may also cause additional expenses. Condominium associations typically experience higher costs than other comparable multifamily projects, in part due to the difficulty contractors have obtaining insurance to work on condominium buildings.



Inflation and Interest Rate Projections

When making estimates on the future inflation and interest rates, we use a staggered approach to more accurately reflect future economic projections.

For inflation, we use the construction industry inflation rates published by RS Means, which differ from the consumer inflation index. The average annual construction inflation increase since 1966 is 4.20%. We do not apply inflation to the annual reserve contribution in Year 0. Likewise, we do not apply inflation to the recommended reserve contribution in Year 1 since this is the first year at the recommended contribution rate. Inflation applied to the components on the inflated spreadsheet is compounded annually; the values are listed for each year at the bottom of the inflated spreadsheet.

For interest rates, we analyze the historical data provided by the Board of Governors of the Federal Reserve. The average annual interest rate since 1986 is 3.63%. The interest for associations is typically lower than average due to conservative investing options that are usually employed by associations. Interest is applied to Year 0 only in the constant spreadsheet so that the starting reserve fund balance in Year 1 is the same for both the constant and inflated spreadsheets, as illustrated on the following page.

Below is a chart of values applied for inflation and interest over the next 30 years for Cape George Colony Club.

Inflation and Interest Rate Projections

Years Applied	Contribution Inflation	Inflation	Interest
Year 0 (2017) through Year 1 (2018)	0%	2%	1%
Year 2 (2019) through Year 10 (2027)	3%	3%	2%
Year 11 (2028) through Year 30 (2047)	4%	4%	3%



Starting Reserve Fund Balance for Year 1 (2018)

The starting reserve fund balance for 2018 has been estimated by combining the following figures that were provided by an association representative:

\$77,788	reserve fund balance as of April 30, 2017
-\$ 0	anticipated remaining major repair expenses in 2017
+\$ 0	planned special assessment in 2017
+\$22,600*	minimum anticipated reserve contribution for 2017
+\$ 40	<u>projected interest on the 2017 reserve fund balance</u>
\$100,428	estimated balance for the fiscal year beginning in 2018

*Note: The minimum anticipated reserve contribution includes:

- \$5,100 from the anticipated year-end excess cash transfer
- \$17,500 from the year-end reserve assessment allocation

There are no anticipated remaining maintenance expenses for 2017.

The actual or projected total reserve fund balance presented in the Reserve Study is based upon information provided to RCL and was not audited.



ASSOCIATION OVERVIEW

Cape George Colony Club Marina is a 130-user marina located in Port Townsend, Washington. The marina is situated next to the Cape George Colony Clubhouse and is protected by north and south marina steel sheet-pile seawalls. The marina includes moorage slips for nearly 80 boats of various sizes, parking for boats and trailers, racks for storage of kayaks and other small craft as well as cleaning and cooking stations for marine catch. The marina basin and channel were put into service in 1967 and underwent major expansion in 1997.

The marina has north and south access points. Potable water and electricity are provided throughout the marina. A concrete boat ramp runs along the side of the station to provide water access.

Since the marina basin is man-made, the basin requires some major periodic dredging. Funds for periodic dredging of the basin are included in the reserve. The entrance channel is also man-made and generally requires annual maintenance which is paid for with funds from the operating budget.

The major repair or replacement of the water facilities and common areas of the Association are accomplished through separate reserve funds.

REVIEW OF GENERAL CONDITIONS

The overall appearance of the marina was good. We noted a dock anchor had broken free on the walkway next to the boat ramp. We understand that this is an operating expense. We also noted that the retaining wall running along the boat ramp shows signs of deterioration and will need to be addressed. This may need to be added to the reserve budget in the future if the cost for repairs are above the \$3,000 threshold set by Cape George Colony Club.

A program for replacing the dock floats has been initiated and funds for future replacements are budgeted. It was clear that the dock decking has been regularly maintained and repaired as needed.

A project to replace the electrical outlets and pedestals throughout the marina has been postponed to 2018 because the actual cost to complete the project came in higher than anticipated. No problems were reported with the plumbing system. We understand that minor and major repair or replacement is regularly performed on all components of the marina.



COMPONENTS INCLUDED IN THE RESERVE STUDY

A note from the Cape George Colony Club Association:

RCW 64.383.70 requires “inclusion of a reserve component that would cost more than one percent of the annual budget of the association, not including the reserve account for major maintenance, repair or replacement.” One percent of the Cape George Colony Club’s, or the Association’s, budget would be \$5,660. The Association has elected to include any reserve component that would cost more than \$3,000. The marina is not a legal association but rather an operating department within the Association. If the marina were by definition an association, RCW 64.338.010(11), the component inclusion threshold would be \$668.

Component Funding Excluded from the Reserve Study

The following components may qualify for inclusion within the Reserve Study, but have been excluded from the budget because they are maintained with funds from the operating budget:

- Barrier Arm - Replace
- Dock Carts - Replace
- Storage Boxes - Replace
- Security Wall Chain Link Fence - Replace
- Cleaning Station - Replace
- Marina Signs - Replace
- Wood Deck Railing - Replace

Adjustments to Component Reserve Recommendations

This reserve study provides updated information on the components from prior reserve studies and is intended to be used with the component sheets from those studies. All cost estimates were adjusted to reflect the actual inflation rate for construction work in the Pacific Northwest, and costs actually experienced by Cape George Colony Club or others in the area.

To complete the report, we were provided with a record of recent expenditures on reserve components. We use those figures, where applicable, for updating component cost projections, applying an appropriate inflation factor. Where updated figures from actual work performed are not available, cost projections from the previous reserve study are updated for inflation and rounded to the nearest \$10, using the RS Means 2016 to 2017 inflation figure of 1.25% for construction work.



RESERVE COMPONENT SUMMARY SHEETS

**2.6.1 Concrete Boat Ramp - Replace**

Repair Cycle:	30 years	Next Major Repair:	Year	5 (2022)
Quantity:	1,900 Square Feet	Unit Cost:	\$18.50	/ SF
Estimate:	1,900 SF X 100% X \$18.50/SF = \$35,150 + tax = \$38,310			
Notes:	The Association plans on replacing the boat ramp by 2022. Due to environmental restrictions the ramp cannot be poured and cured in the marina. Costs have been adjusted accordingly. The original ramp was installed in 1992			

2.6.2 Gravel - Replace

Repair Cycle:	5 years	Next Major Repair:	Year	1 (2018)
Quantity:	177 Cy	Unit Cost:	\$70.50	/ CY
Estimate:	177 CY X 100% X \$70.50/CY = \$12,479 + tax = \$13,600			
Notes:	This component budgets for grading, ripping and replacing a 1" deep layer of 3/4" gravel rock at the boat storage area, marina drive and workshop area.			

3.9.1 Dock Float - Replace Phase 1

Repair Cycle:	20 years	Next Major Repair:	Year	14 (2031)
Quantity:	62 Pr	Unit Cost:	\$250.00	/ PR
Estimate:	62 PR X 100% X \$250.00/PR = \$15,500 + tax = \$16,900			
Notes:	The Association began an in-house replacement of dock floats in 2010. We continue to budget for dock float replacement in four phases until all 258 pairs of dock floats have been replaced. The dock float replacement permit (NWS-213-108-a) expires 03/18/2018 with the potential of renewal through 2024.			

3.9.2 Dock Float - Replace Phase 2

Repair Cycle:	20 years	Next Major Repair:	Year	15 (2032)
Quantity:	62 Pr	Unit Cost:	\$250.00	/ PR
Estimate:	62 PR X 100% X \$250.00/PR = \$15,500 + tax = \$16,900			
Notes:	The Association began an in-house replacement of dock floats in 2010. We continue to budget for dock float replacement in four phases until all 258 pairs of dock floats have been replaced. The dock float replacement permit (NWS-213-108-a) expires 03/18/2018 with the potential of renewal through 2024.			

3.9.3 Dock Float - Replace Phase 3

Repair Cycle:	20 years	Next Major Repair:	Year	16 (2033)
Quantity:	62 Pr	Unit Cost:	\$250.00	/ PR
Estimate:	62 PR X 100% X \$250.00/PR = \$15,500 + tax = \$16,900			
Notes:	The Association began an in-house replacement of dock floats in 2010. We continue to budget for dock float replacement in four phases until all 258 pairs of dock floats have been replaced. The dock float replacement permit (NWS-213-108-a) expires 03/18/2018 with the potential of renewal through 2024.			



3.9.4 Dock Float - Replace Phase 4

Repair Cycle:	20 years	Next Major Repair:	Year	17 (2034)
Quantity:	62 Pr	Unit Cost:	\$250.00	/ PR
Estimate:	62 PR X 100% X \$250.00/PR = \$15,500 + tax = \$16,900			
Notes:	The Association began an in-house replacement of dock floats in 2010. We continue to budget for dock float replacement in four phases until all 258 pairs of dock floats have been replaced. The dock float replacement permit (NWS-213-108-a) expires 03/18/2018 with the potential of renewal through 2024.			

3.9.5 Decking - Replace Phase 1

Repair Cycle:	20 years	Next Major Repair:	Year	10 (2027)
Quantity:	11,466 Square Feet	Unit Cost:	\$1.44	/ SF
Estimate:	11,466 SF X 100% X \$1.44/SF = \$16,511 + tax = \$18,000			
Notes:	The deck was last maintained in approximately 2007. The association has requested that we budget 20% of \$68,000 for decking replacement over a 5 year period beginning in 2027. This figures is for lumber and hardware only as labor is to be provided by the Association. This component budgets funds in Phase 1.			

3.9.6 Decking - Replace Phase 2

Repair Cycle:	20 years	Next Major Repair:	Year	11 (2028)
Quantity:	11,466 Square Feet	Unit Cost:	\$1.44	/ SF
Estimate:	11,466 SF X 100% X \$1.44/SF = \$16,511 + tax = \$18,000			
Notes:	The deck was last maintained in approximately 2007. The association has requested that we budget 20% of \$68,000 for decking replacement over a 5 year period beginning in 2027. This figures is for lumber and hardware only as labor is to be provided by the Association. This component budgets funds in Phase 2.			

3.9.7 Decking - Replace Phase 3

Repair Cycle:	20 years	Next Major Repair:	Year	12 (2029)
Quantity:	11,466 Square Feet	Unit Cost:	\$1.44	/ SF
Estimate:	11,466 SF X 100% X \$1.44/SF = \$16,511 + tax = \$18,000			
Notes:	The deck was last maintained in approximately 2007. The association has requested that we budget 20% of \$68,000 for decking replacement over a 5 year period beginning in 2027. This figures is for lumber and hardware only as labor is to be provided by the Association. This component budgets funds in Phase 3.			

3.9.8 Decking - Replace Phase 4

Repair Cycle:	20 years	Next Major Repair:	Year	13 (2030)
Quantity:	11,466 Square Feet	Unit Cost:	\$1.44	/ SF
Estimate:	11,466 SF X 100% X \$1.44/SF = \$16,511 + tax = \$18,000			
Notes:	The deck was last maintained in approximately 2007. The association has requested that we budget 20% of \$68,000 for decking replacement over a 5 year period beginning in 2027. This figures is for lumber and hardware only as labor is to be provided by the Association. This component budgets funds in Phase 4.			

**3.9.9 Decking - Replace Phase 5**

Repair Cycle:	20 years	Next Major Repair:	Year	14 (2031)
Quantity:	11,466 Square Feet	Unit Cost:	\$1.44	/ SF

Estimate: 11,466 SF X 100% X \$1.44/SF = \$16,511 + tax = \$18,000

Notes: The deck was last maintained in approximately 2007. The association has requested that we budget 20% of \$68,000 for decking replacement over a 5 year period beginning in 2027. This figures is for lumber and hardware only as labor is to be provided by the Association. This component budgets funds in Phase 5.

3.10.1 Wood Pilings - Replace/Major Repairs

Repair Cycle:	30 years	Next Major Repair:	Year	9 (2026)
Quantity:	35 Each	Unit Cost:	\$4,000.00	/ EA

Estimate: 35 EA X 100% X \$4,000.00/EA = \$140,000 + tax = \$152,600

Notes: Seven of the wood pilings were encased in concrete in 2011 at a cost of \$4,500 each. The pilings were originally installed in 1996. This component budgets for replacing or completing major repairs on all of the pilings by 2026.

3.10.2 North Gangway - Replace

Repair Cycle:	35 years	Next Major Repair:	Year	20 (2037)
Quantity:	90 Square Feet	Unit Cost:	\$88.00	/ SF

Estimate: 90 SF X 100% X \$88.00/SF = \$7,920 + tax = \$8,630

Notes: The North gangway was replaced in 2002. We have budgeted funds to replace the gangway within the next 20 years. The gangway was in good condition at the time of our site visit.

3.10.3 South Gangway - Replace

Repair Cycle:	35 years	Next Major Repair:	Year	8 (2025)
Quantity:	90 Square Feet	Unit Cost:	\$88.00	/ SF

Estimate: 90 SF X 100% X \$88.00/SF = \$7,920 + tax = \$8,630

Notes: The South gangway was replaced in 1990. We have budgeted funds to replace the gangway within the next 8 years. No problems were reported with the South gangway.

3.10.4 Helix Mooring Buoys - Replace

Repair Cycle:	10 years	Next Major Repair:	Year	4 (2021)
Quantity:	1 Each	Unit Cost:	\$3,500.00	/ EA

Estimate: 1 EA X 100% X \$3,500.00/EA = \$3,500 + tax = \$3,820

Notes: This component budgets funds to replace one helix mooring buoy that is anticipated to be replaced in 2021. No problems were reported with the buoy.



3.10.5 Helix Mooring Buoys - Replace

Repair Cycle:	10 years	Next Major Repair:	Year	5 (2022)
Quantity:	1 Each	Unit Cost:	\$3,500.00	/ EA
Estimate:	1 EA X 100% X \$3,500.00/EA = \$3,500 + tax = \$3,820			
Notes:	This component budgets funds to replace one helix mooring buoy that is anticipated to be replaced in 2022. We did not receive any reports of unresolved issues.			

3.11.1 Basin - Complete Dredging

Repair Cycle:	20 years	Next Major Repair:	Year	5 (2022)
Quantity:	1 Lump Sum	Unit Cost:	\$60,000.00	/ LS
Estimate:	\$60,000			
Notes:	The basin was placed in service in 1997. The master Army Corps of Engineers dredging permit (NWS-213-108b), both partial basin and annual channel, expires on 06/24/2024. The Jefferson County dredging permit (MLA 14-00007) expires in 2020 with the probability of renewal. The Association plans to apply for a renewal of the Jefferson County permit so that they may conduct a complete dredging of the basin by 2022 at an estimated cost of \$60,000.			

3.11.2 Basin - Partial Dredging

Repair Cycle:	20 years	Next Major Repair:	Year	3 (2020)
Quantity:	1 Lump Sum	Unit Cost:	\$12,000.00	/ LS
Estimate:	\$12,000			
Notes:	The master Army Corps of Engineers dredging permit (NWS-213-108b), both partial basin and annual channel, expires on 06/24/2024. The Jefferson County dredging permit (MLA 14-00007) expires in 2020 with the probability of renewal. The Association plans on completing limited marina basin dredging by 2020 per the permit parameters if funding is available. Channel dredging is paid for out of the operating budget and is not included in this estimate.			

3.11.3 North Sea Wall - Replace

Repair Cycle:	50 years	Next Major Repair:	Year	47 (2064)
Quantity:	110 Linear Feet	Unit Cost:	\$0.00	/ LF
Estimate:	110 LF X 100% X \$0.00/LF = \$0 + tax = \$0			
Notes:	The North sea wall is approximately 10 linear feet and rises 15 feet above the basin. For budgetary proposes the previous reserve study aged the steel reinforced North sea wall to 2014. The useful life has been adjusted to 50 years due to constant saltwater exposure, per the Association's contractor, with a total cost of \$360,000. We list the North Sea wall as a place holder for future inclusion in the reserve study. No funds are budgeted per the Association since replacement falls outside the 30 year timeline of the report.			

3.11.4 South Sea Wall - Replace

Repair Cycle:	50 years	Next Major Repair:	Year	47 (2064)
Quantity:	60 Linear Feet	Unit Cost:	\$0.00	/ LF
Estimate:	60 LF X 100% X \$0.00/LF = \$0 + tax = \$0			
Notes:	The South sea wall was replaced for approximately \$100,000. For budgetary proposes the previous reserve study aged the steel reinforced South sea wall to 2014. The useful life has been adjusted to 50 years due to constant saltwater exposure, per the Association's contractor. We list the South sea wall as a place holder for future inclusion in the reserve study. No funds are budgeted per the Association since replacement falls outside the 30 year timeline of the report.			



6.1.1 Cleaning Station - Replace

Repair Cycle:	25 years	Next Major Repair:	Year	8 (2025)
Quantity:	1 Lump Sum	Unit Cost:	\$4,860.00	/ LS
Estimate:	\$4,860			

Notes: The Cooking/Cleaning Station is a 8'x10' wood structure with a wood shingle roofing. It was constructed in 2000. We have budgeted funds to replace the structure using volunteer labor. The budget will need to be adjusted if a licensed contractor is hired to complete this work.

6.1.2 Wood Deck - Replace

Repair Cycle:	20 years	Next Major Repair:	Year	8 (2025)
Quantity:	290 Square Feet	Unit Cost:	\$15.05	/ SF
Estimate:	290 SF X 100% X \$15.05/SF = \$4,365 + tax = \$4,760			

Notes: Cleaning and sealing of the North Marina access deck is completed on an as-needed basis by maintenance staff. The deck and railing were installed in 2005. This component budgets funds for replacing the deck after it has been in service 20 years.

16.3.1 Electrical System - Contingency

Repair Cycle:	20 years	Next Major Repair:	Year	1 (2018)
Quantity:	1 Lump Sum	Unit Cost:	\$101,000.00	/ LS
Estimate:	\$101,000			

Notes: This component budgets to replace 28 electrical supply outlets and pedestals in the marina. The bid in 2017 for replacement came in at \$101,000, which is higher than what was anticipated. The replacement has been moved out to 2018 per the Association. Records indicate that the system was installed in 1992.

15.5.1 Marina Water Supply System - Contingency

Repair Cycle:	20 years	Next Major Repair:	Year	2 (2019)
Quantity:	1 Lump Sum	Unit Cost:	\$4,050.00	/ LS
Estimate:	\$4,050			

Notes: There are 38 water spigots throughout the marina. Water spigots and supply lines are typically replaced when needed. The system was installed in 1992



FINANCIAL ANALYSIS & RESERVE CONTRIBUTION RECOMMENDATIONS

For budgeting purposes, we recommend that Cape George Colony Club set the contribution rate at \$46,000 for reserves beginning in 2018 (with an adjustment in the reserve contribution in 2030 to \$26,000 in constant dollars). This amount should increase annually with inflation. This amount is determined using the Cash Flow method with a Threshold Funding plan, to provide adequate reserves each time an expense is anticipated, with a minimum level of reserves (the threshold) equal to at least \$30,000 at all times during the study period, so that no special assessments will be required. Cape George Colony Club should determine the best reserve funding level for their association based on their major repair or replacement needs and risk aversion.

Recommended 2018 Contribution	\$46,000
Recommended Contribution per Month	\$3,833
Average Contribution per Unit per Year	\$ 354
Average Contribution per Unit Per Month	\$ 29

The contribution as a percentage of average unit value is calculated to provide a way for owners, and prospective owners, to compare the reserve requirements of one association with that of another association or of single-family home ownership.

Typically, condominium associations in the Puget Sound area need to set aside from 1/2% to 1% of their average unit value, homeowners' associations need to put aside 1/3% to 1/2% and single family homeowners should put aside 1% to 2% each year.

FUNDING PLANS

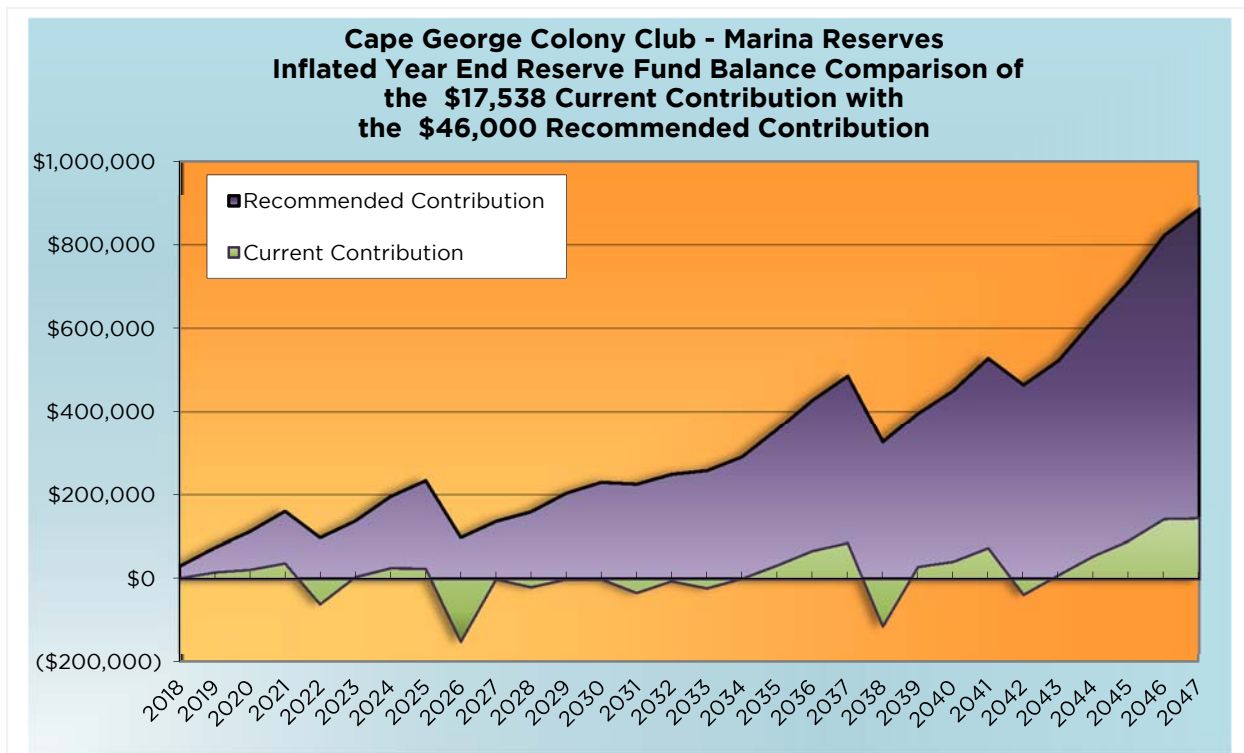
A starting annual contribution of \$46,000 (with an adjustment in the reserve contribution in 2030 to \$26,000 in constant dollars) is a Threshold Funding plan to provide funding as expenses are incurred over time, while maintaining a minimum reserve fund balance of at least \$30,000. Absent specific instructions from clients, or unusual circumstances, this is our recommended funding plan.

An alternative strategy Cape George Colony Club could employ is Baseline Funding. This provides for necessary expenditures without maintaining a minimum reserve fund balance. To pursue such a strategy, the recommended Baseline Funding contribution rate would be \$37,100, not including the anticipated contribution adjustment.

Cape George Colony Club could also consider contributions to obtain and maintain the level of reserves to be Fully Funded, so that the Percent Fully Funded is 100% by Year 30. The recommended Full Funding contribution rate would be \$38,300, not including the anticipated contribution adjustment.

We recommend that Cape George Colony Club adopt a policy regarding their reserve funding which would address the level of funding that the Association would strive to maintain, as well as methods of investing reserve funds to best match risk with return and investment length with expected expenses.

Below is a graph illustrating the projected year end reserve fund balance using both the current budgeted annual contribution and the recommended funding. The graph includes the anticipated adjustment in the reserve contribution starting in 2030.



**Five Year Funding Plan Comparison**

Below is a comparison of the fully funded balance and year end reserve fund balance using the budgeted reserve funding for 2017 and the three funding plans presented in the report. The calculations include inflated values, interest and special assessments through Year 5 (2022).

Cape George Colony Club - Marina Reserves
Five Year Funding Plan Comparison
Including Inflated Values, Interest and Special Assessments

\$17,538 Current Funding Plan

Year	Annual Reserve Contribution	Special Assessment	Year End Reserve Balance	% Funded	Funding Status
1 (2018)	\$17,538	\$0	\$1,582	1%	At Risk for Special Assessment
2 (2019)	\$18,064	\$0	\$15,560	5%	At Risk for Special Assessment
3 (2020)	\$18,606	\$0	\$21,549	6%	At Risk for Special Assessment
4 (2021)	\$19,164	\$0	\$37,035	10%	At Risk for Special Assessment
5 (2022)	\$19,739	\$0	(\$60,707)	-19%	At Risk for Special Assessment

\$37,100 Baseline Funding Plan

Year	Annual Reserve Contribution	Special Assessment	Year End Reserve Balance	% Funded	Funding Status
1 (2018)	\$37,100	\$0	\$22,101	8%	At Risk for Special Assessment
2 (2019)	\$38,213	\$0	\$56,840	18%	At Risk for Special Assessment
3 (2020)	\$39,359	\$0	\$84,615	24%	At Risk for Special Assessment
4 (2021)	\$40,540	\$0	\$122,952	32%	Adequately Funded
5 (2022)	\$41,756	\$0	\$49,166	16%	At Risk for Special Assessment

\$46,000 Recommended (Threshold) Funding Plan

Year	Annual Reserve Contribution	Special Assessment	Year End Reserve Balance	% Funded	Funding Status
1 (2018)	\$46,000	\$0	\$30,186	10%	At Risk for Special Assessment
2 (2019)	\$47,380	\$0	\$74,346	23%	At Risk for Special Assessment
3 (2020)	\$48,801	\$0	\$112,007	32%	Adequately Funded
4 (2021)	\$50,265	\$0	\$160,715	42%	Adequately Funded
5 (2022)	\$51,773	\$0	\$97,801	31%	Adequately Funded

\$38,300 Full Funding Plan

Year	Annual Reserve Contribution	Special Assessment	Year End Reserve Balance	% Funded	Funding Status
1 (2018)	\$38,300	\$0	\$23,307	8%	At Risk for Special Assessment
2 (2019)	\$39,449	\$0	\$59,319	18%	At Risk for Special Assessment
3 (2020)	\$40,632	\$0	\$88,429	25%	Adequately Funded
4 (2021)	\$41,851	\$0	\$128,167	33%	Adequately Funded
5 (2022)	\$43,107	\$0	\$55,849	18%	At Risk for Special Assessment

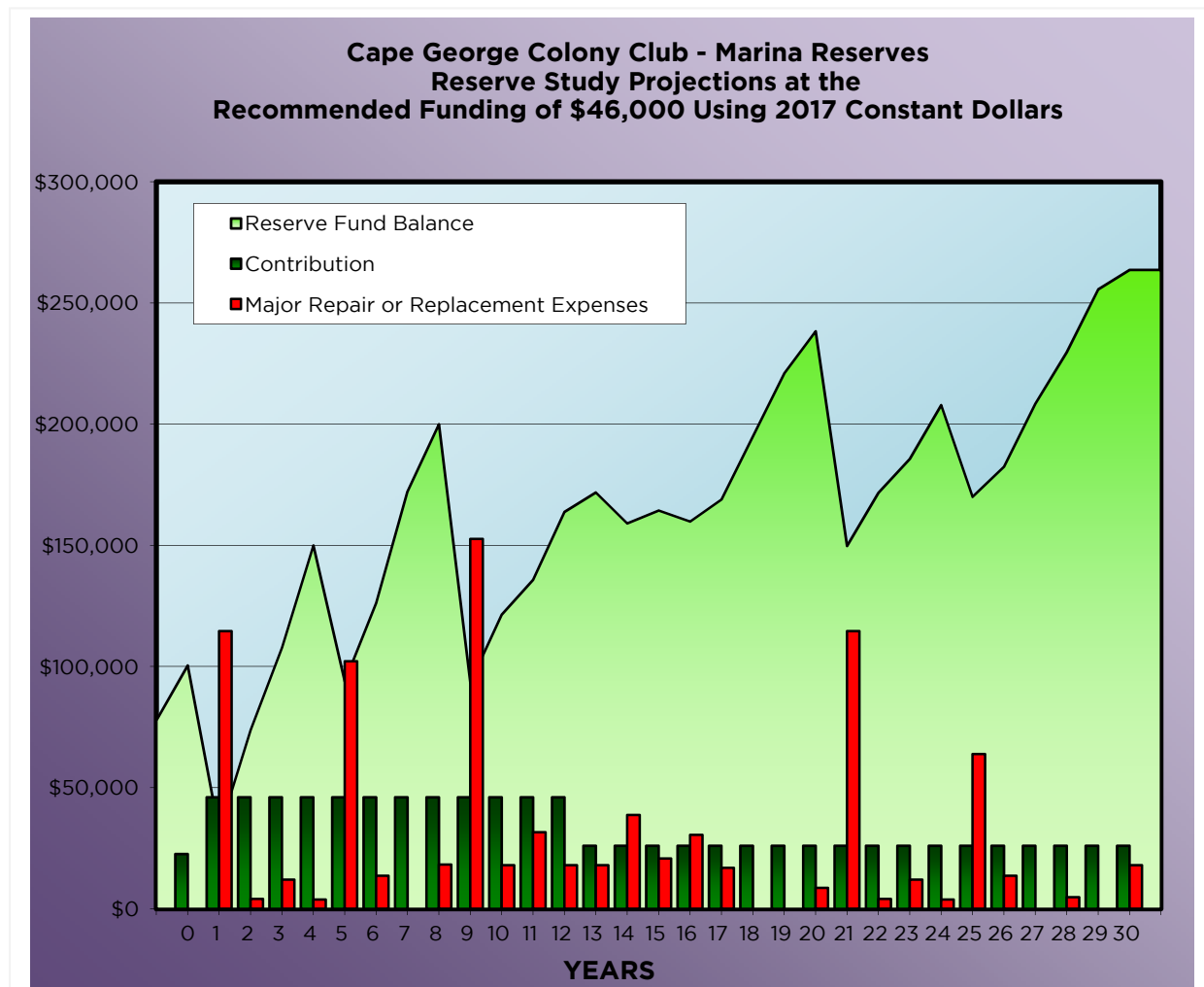
Reserve Study Projections using Constant Dollar Values

Below is a graph depicting the projected fiscal year end reserve fund balance over 30 years, the annual contribution and the anticipated yearly major repair or replacement expenses.

The year-end reserve fund balance is shown as a line graph in bright green. Our recommended funding plan is a threshold funding plan which ensures that the reserve account balance does not dip below a designated “threshold”, which is set to at least \$30,000.

The annual reserve fund contributions are shown as green bars. This chart depicts the annual contribution in constant dollars, so the contributions are constantly \$46,000 over the 30 year timeline of the study, with exception of the anticipated contribution adjustment in 2030.

The anticipated yearly major repair or replacement expenses are shown as red bars, clearly illustrating the anticipated expenses over the next 30 years.





**Reserve Study Projections at the Starting Recommended Funding of \$46,000
Using Constant Dollar Values**



Cape George Colony Club - Marina Reserves

Reserve Study Projections at Recommended Funding of \$46,000

Reserve Consultants LLC

30-YEAR SPREADSHEET WITH CONSTANT DOLLARS

PER YEAR EXPENSES IN 2017 DOLLARS

DATE: 10-Aug-17

#	COMPONENT NAME	REPAIR CYCLE	NEXT REPAIR	1 2018	2 2019	3 2020	4 2021	5 2022
2.6.1	Concrete Boat Ramp - Replace	30	5					\$38,310
2.6.2	Gravel - Replace	5	1	\$13,600				
3.9.1	Dock Float - Replace Phase 1	20	14					
3.9.2	Dock Float - Replace Phase 2	20	15					
3.9.3	Dock Float - Replace Phase 3	20	16					
3.9.4	Dock Float - Replace Phase 4	20	17					
3.9.5	Decking - Replace Phase 1	20	10					
3.9.6	Decking - Replace Phase 2	20	11					
3.9.7	Decking - Replace Phase 3	20	12					
3.9.8	Decking - Replace Phase 4	20	13					
3.9.9	Decking - Replace Phase 5	20	14					
3.10.1	Wood Pilings - Replace/Major Repairs	30	9					
3.10.2	North Gangway - Replace	35	20					
3.10.3	South Gangway - Replace	35	8					
3.10.4	Helix Mooring Buoys - Replace	10	4				\$3,820	
3.10.5	Helix Mooring Buoys - Replace	10	5					\$3,820
3.11.1	Basin - Complete Dredging	20	5					\$60,000
3.11.2	Basin - Partial Dredging	20	3			\$12,000		
3.11.3	North Sea Wall - Replace	50	47					
3.11.4	South Sea Wall - Replace	50	47					
6.1.1	Cleaning Station - Replace	25	8					
6.1.2	Wood Deck - Replace	20	8					
16.3.1	Electrical System - Contingency	20	1	\$101,000				
15.5.1	Marina Water Supply System - Contingency	20	2		\$4,050			
TOTAL EXPENDED BY YEAR				\$114,600	\$4,050	\$12,000	\$3,820	\$102,130
CARRY OVER RESERVES				\$100,428	\$31,828	\$73,778	\$107,778	\$149,958
ANNUAL RESERVE CONTRIB				\$46,000	\$46,000	\$46,000	\$46,000	\$46,000
RESERVE EXPENDITURES				\$114,600	\$4,050	\$12,000	\$3,820	\$102,130
ACCUMULATED RESERVES				\$31,828	\$73,778	\$107,778	\$149,958	\$93,828
INTEREST EARNED				\$0	\$0	\$0	\$0	\$0
SPECIAL ASSESSMENT								
YEAR-END BALANCE				\$31,828	\$73,778	\$107,778	\$149,958	\$93,828
STUDY YEAR				1 (2018)	2 (2019)	3 (2020)	4 (2021)	5 (2022)

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Cape George Colony Club - Marina Reserves

Reserve Study Projections at Recommended Funding of \$46,000

Reserve Consultants LLC

30-YEAR SPREADSHEET WITH CONSTANT DOLLARS

PER YEAR EXPENSES IN 2017 DOLLARS

DATE: 10-Aug-17

#	COMPONENT NAME	REPAIR CYCLE	NEXT REPAIR	6 2023	7 2024	8 2025	9 2026	10 2027
2.6.1	Concrete Boat Ramp - Replace	30	5					
2.6.2	Gravel - Replace	5	1	\$13,600				
3.9.1	Dock Float - Replace Phase 1	20	14					
3.9.2	Dock Float - Replace Phase 2	20	15					
3.9.3	Dock Float - Replace Phase 3	20	16					
3.9.4	Dock Float - Replace Phase 4	20	17					
3.9.5	Decking - Replace Phase 1	20	10					\$18,000
3.9.6	Decking - Replace Phase 2	20	11					
3.9.7	Decking - Replace Phase 3	20	12					
3.9.8	Decking - Replace Phase 4	20	13					
3.9.9	Decking - Replace Phase 5	20	14					
3.10.1	Wood Pilings - Replace/Major Repairs	30	9				\$152,600	
3.10.2	North Gangway - Replace	35	20					
3.10.3	South Gangway - Replace	35	8			\$8,630		
3.10.4	Helix Mooring Buoys - Replace	10	4					
3.10.5	Helix Mooring Buoys - Replace	10	5					
3.11.1	Basin - Complete Dredging	20	5					
3.11.2	Basin - Partial Dredging	20	3					
3.11.3	North Sea Wall - Replace	50	47					
3.11.4	South Sea Wall - Replace	50	47					
6.1.1	Cleaning Station - Replace	25	8			\$4,860		
6.1.2	Wood Deck - Replace	20	8			\$4,760		
16.3.1	Electrical System - Contingency	20	1					
15.5.1	Marina Water Supply System - Contingency	20	2					
TOTAL EXPENDED BY YEAR				\$13,600	\$0	\$18,250	\$152,600	\$18,000
CARRY OVER RESERVES				\$93,828	\$126,228	\$172,228	\$199,978	\$93,378
ANNUAL RESERVE CONTRIB				\$46,000	\$46,000	\$46,000	\$46,000	\$46,000
RESERVE EXPENDITURES				\$13,600	\$0	\$18,250	\$152,600	\$18,000
ACCUMULATED RESERVES				\$126,228	\$172,228	\$199,978	\$93,378	\$121,378
INTEREST EARNED				\$0	\$0	\$0	\$0	\$0
SPECIAL ASSESSMENT								
YEAR-END BALANCE				\$126,228	\$172,228	\$199,978	\$93,378	\$121,378
STUDY YEAR				6 (2023)	7 (2024)	8 (2025)	9 (2026)	10 (2027)

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Cape George Colony Club - Marina Reserves

Reserve Study Projections at Recommended Funding of \$46,000

Reserve Consultants LLC

30-YEAR SPREADSHEET WITH CONSTANT DOLLARS

PER YEAR EXPENSES IN 2017 DOLLARS

DATE: 10-Aug-17

#	COMPONENT NAME	REPAIR CYCLE	NEXT REPAIR	11 2028	12 2029	13 2030	14 2031	15 2032
2.6.1	Concrete Boat Ramp - Replace	30	5					
2.6.2	Gravel - Replace	5	1	\$13,600				
3.9.1	Dock Float - Replace Phase 1	20	14				\$16,900	
3.9.2	Dock Float - Replace Phase 2	20	15					\$16,900
3.9.3	Dock Float - Replace Phase 3	20	16					
3.9.4	Dock Float - Replace Phase 4	20	17					
3.9.5	Decking - Replace Phase 1	20	10					
3.9.6	Decking - Replace Phase 2	20	11	\$18,000				
3.9.7	Decking - Replace Phase 3	20	12		\$18,000			
3.9.8	Decking - Replace Phase 4	20	13			\$18,000		
3.9.9	Decking - Replace Phase 5	20	14				\$18,000	
3.10.1	Wood Pilings - Replace/Major Repairs	30	9					
3.10.2	North Gangway - Replace	35	20					
3.10.3	South Gangway - Replace	35	8					
3.10.4	Helix Mooring Buoys - Replace	10	4				\$3,820	
3.10.5	Helix Mooring Buoys - Replace	10	5					\$3,820
3.11.1	Basin - Complete Dredging	20	5					
3.11.2	Basin - Partial Dredging	20	3					
3.11.3	North Sea Wall - Replace	50	47					
3.11.4	South Sea Wall - Replace	50	47					
6.1.1	Cleaning Station - Replace	25	8					
6.1.2	Wood Deck - Replace	20	8					
16.3.1	Electrical System - Contingency	20	1					
15.5.1	Marina Water Supply System - Contingency	20	2					
TOTAL EXPENDED BY YEAR				\$31,600	\$18,000	\$18,000	\$38,720	\$20,720
CARRY OVER RESERVES				\$121,378	\$135,778	\$163,778	\$171,778	\$159,058
ANNUAL RESERVE CONTRIB				\$46,000	\$46,000	\$26,000	\$26,000	\$26,000
RESERVE EXPENDITURES				\$31,600	\$18,000	\$18,000	\$38,720	\$20,720
ACCUMULATED RESERVES				\$135,778	\$163,778	\$171,778	\$159,058	\$164,338
INTEREST EARNED				\$0	\$0	\$0	\$0	\$0
SPECIAL ASSESSMENT								
YEAR-END BALANCE				\$135,778	\$163,778	\$171,778	\$159,058	\$164,338
STUDY YEAR				11 (2028)	12 (2029)	13 (2030)	14 (2031)	15 (2032)

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Cape George Colony Club - Marina Reserves

Reserve Study Projections at Recommended Funding of \$46,000

Reserve Consultants LLC

30-YEAR SPREADSHEET WITH CONSTANT DOLLARS

PER YEAR EXPENSES IN 2017 DOLLARS

DATE: 10-Aug-17

#	COMPONENT NAME	REPAIR CYCLE	NEXT REPAIR	16 2033	17 2034	18 2035	19 2036	20 2037
2.6.1	Concrete Boat Ramp - Replace	30	5					
2.6.2	Gravel - Replace	5	1	\$13,600				
3.9.1	Dock Float - Replace Phase 1	20	14					
3.9.2	Dock Float - Replace Phase 2	20	15					
3.9.3	Dock Float - Replace Phase 3	20	16	\$16,900				
3.9.4	Dock Float - Replace Phase 4	20	17		\$16,900			
3.9.5	Decking - Replace Phase 1	20	10					
3.9.6	Decking - Replace Phase 2	20	11					
3.9.7	Decking - Replace Phase 3	20	12					
3.9.8	Decking - Replace Phase 4	20	13					
3.9.9	Decking - Replace Phase 5	20	14					
3.10.1	Wood Pilings - Replace/Major Repairs	30	9					
3.10.2	North Gangway - Replace	35	20					\$8,630
3.10.3	South Gangway - Replace	35	8					
3.10.4	Helix Mooring Buoys - Replace	10	4					
3.10.5	Helix Mooring Buoys - Replace	10	5					
3.11.1	Basin - Complete Dredging	20	5					
3.11.2	Basin - Partial Dredging	20	3					
3.11.3	North Sea Wall - Replace	50	47					
3.11.4	South Sea Wall - Replace	50	47					
6.1.1	Cleaning Station - Replace	25	8					
6.1.2	Wood Deck - Replace	20	8					
16.3.1	Electrical System - Contingency	20	1					
15.5.1	Marina Water Supply System - Contingency	20	2					
TOTAL EXPENDED BY YEAR				\$30,500	\$16,900	\$0	\$0	\$8,630
CARRY OVER RESERVES				\$164,338	\$159,838	\$168,938	\$194,938	\$220,938
ANNUAL RESERVE CONTRIB				\$26,000	\$26,000	\$26,000	\$26,000	\$26,000
RESERVE EXPENDITURES				\$30,500	\$16,900	\$0	\$0	\$8,630
ACCUMULATED RESERVES				\$159,838	\$168,938	\$194,938	\$220,938	\$238,308
INTEREST EARNED				\$0	\$0	\$0	\$0	\$0
SPECIAL ASSESSMENT								
YEAR-END BALANCE				\$159,838	\$168,938	\$194,938	\$220,938	\$238,308
STUDY YEAR				16 (2033)	17 (2034)	18 (2035)	19 (2036)	20 (2037)

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Cape George Colony Club - Marina Reserves

Reserve Study Projections at Recommended Funding of \$46,000

Reserve Consultants LLC

30-YEAR SPREADSHEET WITH CONSTANT DOLLARS

PER YEAR EXPENSES IN 2017 DOLLARS

DATE: 10-Aug-17

#	COMPONENT NAME	REPAIR CYCLE	NEXT REPAIR	21 2038	22 2039	23 2040	24 2041	25 2042
2.6.1	Concrete Boat Ramp - Replace	30	5					
2.6.2	Gravel - Replace	5	1	\$13,600				
3.9.1	Dock Float - Replace Phase 1	20	14					
3.9.2	Dock Float - Replace Phase 2	20	15					
3.9.3	Dock Float - Replace Phase 3	20	16					
3.9.4	Dock Float - Replace Phase 4	20	17					
3.9.5	Decking - Replace Phase 1	20	10					
3.9.6	Decking - Replace Phase 2	20	11					
3.9.7	Decking - Replace Phase 3	20	12					
3.9.8	Decking - Replace Phase 4	20	13					
3.9.9	Decking - Replace Phase 5	20	14					
3.10.1	Wood Pilings - Replace/Major Repairs	30	9					
3.10.2	North Gangway - Replace	35	20					
3.10.3	South Gangway - Replace	35	8					
3.10.4	Helix Mooring Buoys - Replace	10	4				\$3,820	
3.10.5	Helix Mooring Buoys - Replace	10	5					\$3,820
3.11.1	Basin - Complete Dredging	20	5					\$60,000
3.11.2	Basin - Partial Dredging	20	3			\$12,000		
3.11.3	North Sea Wall - Replace	50	47					
3.11.4	South Sea Wall - Replace	50	47					
6.1.1	Cleaning Station - Replace	25	8					
6.1.2	Wood Deck - Replace	20	8					
16.3.1	Electrical System - Contingency	20	1	\$101,000				
15.5.1	Marina Water Supply System - Contingency	20	2		\$4,050			
TOTAL EXPENDED BY YEAR				\$114,600	\$4,050	\$12,000	\$3,820	\$63,820
CARRY OVER RESERVES				\$238,308	\$149,708	\$171,658	\$185,658	\$207,838
ANNUAL RESERVE CONTRIB				\$26,000	\$26,000	\$26,000	\$26,000	\$26,000
RESERVE EXPENDITURES				\$114,600	\$4,050	\$12,000	\$3,820	\$63,820
ACCUMULATED RESERVES				\$149,708	\$171,658	\$185,658	\$207,838	\$170,018
INTEREST EARNED				\$0	\$0	\$0	\$0	\$0
SPECIAL ASSESSMENT								
YEAR-END BALANCE				\$149,708	\$171,658	\$185,658	\$207,838	\$170,018
STUDY YEAR				21 (2038)	22 (2039)	23 (2040)	24 (2041)	25 (2042)

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Cape George Colony Club - Marina Reserves

Reserve Study Projections at Recommended Funding of \$46,000

Reserve Consultants LLC

30-YEAR SPREADSHEET WITH CONSTANT DOLLARS

PER YEAR EXPENSES IN 2017 DOLLARS

DATE: 10-Aug-17

#	COMPONENT NAME	REPAIR CYCLE	NEXT REPAIR	26 2043	27 2044	28 2045	29 2046	30 2047
2.6.1	Concrete Boat Ramp - Replace	30	5					
2.6.2	Gravel - Replace	5	1	\$13,600				
3.9.1	Dock Float - Replace Phase 1	20	14					
3.9.2	Dock Float - Replace Phase 2	20	15					
3.9.3	Dock Float - Replace Phase 3	20	16					
3.9.4	Dock Float - Replace Phase 4	20	17					
3.9.5	Decking - Replace Phase 1	20	10					\$18,000
3.9.6	Decking - Replace Phase 2	20	11					
3.9.7	Decking - Replace Phase 3	20	12					
3.9.8	Decking - Replace Phase 4	20	13					
3.9.9	Decking - Replace Phase 5	20	14					
3.10.1	Wood Pilings - Replace/Major Repairs	30	9					
3.10.2	North Gangway - Replace	35	20					
3.10.3	South Gangway - Replace	35	8					
3.10.4	Helix Mooring Buoys - Replace	10	4					
3.10.5	Helix Mooring Buoys - Replace	10	5					
3.11.1	Basin - Complete Dredging	20	5					
3.11.2	Basin - Partial Dredging	20	3					
3.11.3	North Sea Wall - Replace	50	47					
3.11.4	South Sea Wall - Replace	50	47					
6.1.1	Cleaning Station - Replace	25	8					
6.1.2	Wood Deck - Replace	20	8			\$4,760		
16.3.1	Electrical System - Contingency	20	1					
15.5.1	Marina Water Supply System - Contingency	20	2					
TOTAL EXPENDED BY YEAR				\$13,600	\$0	\$4,760	\$0	\$18,000
CARRY OVER RESERVES				\$170,018	\$182,418	\$208,418	\$229,658	\$255,658
ANNUAL RESERVE CONTRIB				\$26,000	\$26,000	\$26,000	\$26,000	\$26,000
RESERVE EXPENDITURES				\$13,600	\$0	\$4,760	\$0	\$18,000
ACCUMULATED RESERVES				\$182,418	\$208,418	\$229,658	\$255,658	\$263,658
INTEREST EARNED				\$0	\$0	\$0	\$0	\$0
SPECIAL ASSESSMENT								
YEAR-END BALANCE				\$182,418	\$208,418	\$229,658	\$255,658	\$263,658
STUDY YEAR				26 (2043)	27 (2044)	28 (2045)	29 (2046)	30 (2047)

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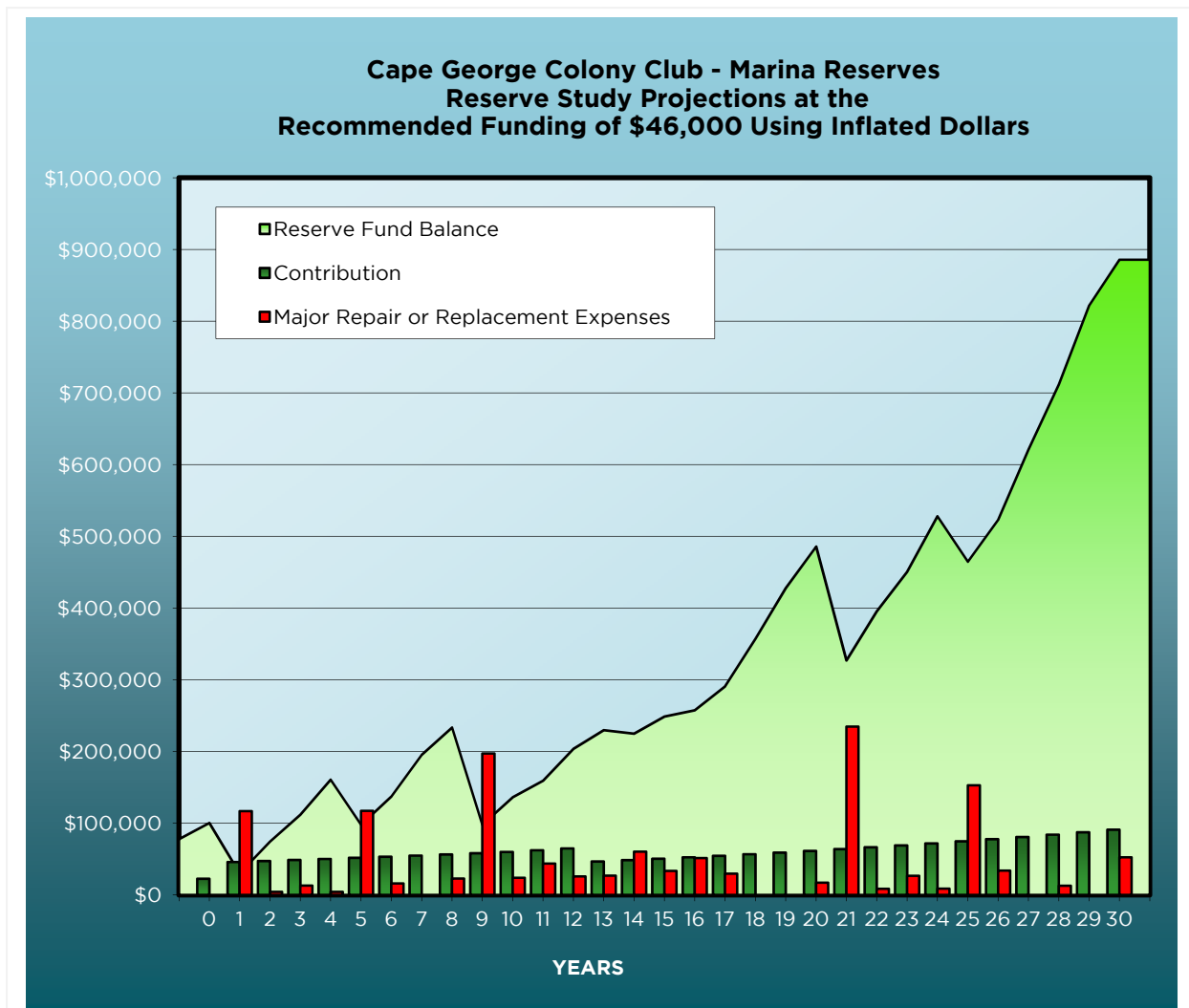
Reserve Study Projections using Inflated Dollar Values

Below is a graph depicting the projected fiscal year end reserve fund balance over 30 years, the annual contribution and the anticipated yearly major repair or replacement expenses.

The year-end reserve fund balance is shown as a line graph in bright green. Our recommended funding plan is a threshold funding plan which ensures that the reserve account balance does not dip below a designated “threshold”, which is set to at least \$30,000.

The annual reserve fund contributions are shown as green bars. This chart depicts the annual contribution inflated each year, so the contributions gradually increase over the 30 year timeline of the study from the initial contribution of \$46,000, with exception of the anticipated contribution adjustment in 2030.

The anticipated yearly major repair or replacement expenses are shown as red bars, clearly illustrating the anticipated expenses over the next 30 years.





**Reserve Study Projections at the Starting Recommended Funding of \$46,000
Using Inflated Dollar Values**



Cape George Colony Club - Marina Reserves

Reserve Study Projections at Recommended Funding of \$46,000

Reserve Consultants LLC

30-YEAR SPREADSHEET WITH INFLATED DOLLARS
PER YEAR EXPENSES IN 2017 DOLLARS

DATE: 10-Aug-17

#	COMPONENT NAME	REPAIR CYCLE	NEXT REPAIR	1 2018	2 2019	3 2020	4 2021	5 2022	
2.6.1	Concrete Boat Ramp - Replace	30	5					\$43,981	
2.6.2	Gravel - Replace	5	1	\$13,872					
3.9.1	Dock Float - Replace Phase 1	20	14						
3.9.2	Dock Float - Replace Phase 2	20	15						
3.9.3	Dock Float - Replace Phase 3	20	16						
3.9.4	Dock Float - Replace Phase 4	20	17						
3.9.5	Decking - Replace Phase 1	20	10						
3.9.6	Decking - Replace Phase 2	20	11						
3.9.7	Decking - Replace Phase 3	20	12						
3.9.8	Decking - Replace Phase 4	20	13						
3.9.9	Decking - Replace Phase 5	20	14						
3.10.1	Wood Pilings - Replace/Major Repairs	30	9						
3.10.2	North Gangway - Replace	35	20						
3.10.3	South Gangway - Replace	35	8						
3.10.4	Helix Mooring Buoys - Replace	10	4				\$4,258		
3.10.5	Helix Mooring Buoys - Replace	10	5					\$4,385	
3.11.1	Basin - Complete Dredging	20	5					\$68,881	
3.11.2	Basin - Partial Dredging	20	3			\$12,985			
3.11.3	North Sea Wall - Replace	50	47						
3.11.4	South Sea Wall - Replace	50	47						
6.1.1	Cleaning Station - Replace	25	8						
6.1.2	Wood Deck - Replace	20	8						
16.3.1	Electrical System - Contingency	20	1	\$103,020					
15.5.1	Marina Water Supply System - Contingency	20	2		\$4,255				
TOTAL EXPENDED BY YEAR				\$116,892	\$4,255	\$12,985	\$4,258	\$117,247	
CARRY OVER RESERVES				\$100,428	\$30,186	\$74,346	\$112,007	\$160,715	
ANNUAL RESERVE CONTRIB				\$46,000	\$47,380	\$48,801	\$50,265	\$51,773	
RESERVE EXPENDITURES				\$116,892	\$4,255	\$12,985	\$4,258	\$117,247	
ACCUMULATED RESERVES				\$29,536	\$73,311	\$110,162	\$158,015	\$95,241	
INTEREST EARNED				\$650	\$1,035	\$1,845	\$2,700	\$2,560	
SPECIAL ASSESSMENT									
YEAR-END BALANCE				\$30,186	\$74,346	\$112,007	\$160,715	\$97,801	
YEARS		0-1	2-10	11-30	1 (2018)	2 (2019)	3 (2020)	4 (2021)	5 (2022)
CONTRIBUTION INFLATION		0%	3%	4%	0%	3%	3%	3%	3%
COMPONENT COMPOUND INFLATION		2%	3%	4%	102%	105%	108%	111%	115%
INTEREST RATE MULTIPLIER		1%	2%	3%	1%	2%	2%	2%	2%

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Cape George Colony Club - Marina Reserves

Reserve Study Projections at Recommended Funding of \$46,000

Reserve Consultants LLC

30-YEAR SPREADSHEET WITH INFLATED DOLLARS
PER YEAR EXPENSES IN 2017 DOLLARS

DATE: 10-Aug-17

#	COMPONENT NAME	REPAIR CYCLE	NEXT REPAIR	6 2023	7 2024	8 2025	9 2026	10 2027	
2.6.1	Concrete Boat Ramp - Replace	30	5						
2.6.2	Gravel - Replace	5	1	\$16,081					
3.9.1	Dock Float - Replace Phase 1	20	14						
3.9.2	Dock Float - Replace Phase 2	20	15						
3.9.3	Dock Float - Replace Phase 3	20	16						
3.9.4	Dock Float - Replace Phase 4	20	17						
3.9.5	Decking - Replace Phase 1	20	10					\$23,956	
3.9.6	Decking - Replace Phase 2	20	11						
3.9.7	Decking - Replace Phase 3	20	12						
3.9.8	Decking - Replace Phase 4	20	13						
3.9.9	Decking - Replace Phase 5	20	14						
3.10.1	Wood Pilings - Replace/Major Repairs	30	9				\$197,175		
3.10.2	North Gangway - Replace	35	20						
3.10.3	South Gangway - Replace	35	8			\$10,826			
3.10.4	Helix Mooring Buoys - Replace	10	4						
3.10.5	Helix Mooring Buoys - Replace	10	5						
3.11.1	Basin - Complete Dredging	20	5						
3.11.2	Basin - Partial Dredging	20	3						
3.11.3	North Sea Wall - Replace	50	47						
3.11.4	South Sea Wall - Replace	50	47						
6.1.1	Cleaning Station - Replace	25	8			\$6,097			
6.1.2	Wood Deck - Replace	20	8			\$5,971			
16.3.1	Electrical System - Contingency	20	1						
15.5.1	Marina Water Supply System - Contingency	20	2						
TOTAL EXPENDED BY YEAR				\$16,081	\$0	\$22,894	\$197,175	\$23,956	
CARRY OVER RESERVES				\$97,801	\$137,374	\$195,597	\$233,526	\$97,904	
ANNUAL RESERVE CONTRIB				\$53,327	\$54,926	\$56,574	\$58,271	\$60,020	
RESERVE EXPENDITURES				\$16,081	\$0	\$22,894	\$197,175	\$23,956	
ACCUMULATED RESERVES				\$135,046	\$192,301	\$229,278	\$94,622	\$133,968	
INTEREST EARNED				\$2,328	\$3,297	\$4,249	\$3,281	\$2,319	
SPECIAL ASSESSMENT									
YEAR-END BALANCE				\$137,374	\$195,597	\$233,526	\$97,904	\$136,287	
YEARS		0-1	2-10	11-30	6 (2023)	7 (2024)	8 (2025)	9 (2026)	10 (2027)
CONTRIBUTION INFLATION		0%	3%	4%	3%	3%	3%	3%	3%
COMPONENT COMPOUND INFLATION		2%	3%	4%	118%	122%	125%	129%	133%
INTEREST RATE MULTIPLIER		1%	2%	3%	2%	2%	2%	2%	2%

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Cape George Colony Club - Marina Reserves

Reserve Study Projections at Recommended Funding of \$46,000

Reserve Consultants LLC

30-YEAR SPREADSHEET WITH INFLATED DOLLARS
PER YEAR EXPENSES IN 2017 DOLLARS

DATE: 10-Aug-17

#	COMPONENT NAME	REPAIR CYCLE	NEXT REPAIR	11 2028	12 2029	13 2030	14 2031	15 2032	
2.6.1	Concrete Boat Ramp - Replace	30	5						
2.6.2	Gravel - Replace	5	1	\$18,824					
3.9.1	Dock Float - Replace Phase 1	20	14				\$26,312		
3.9.2	Dock Float - Replace Phase 2	20	15					\$27,365	
3.9.3	Dock Float - Replace Phase 3	20	16						
3.9.4	Dock Float - Replace Phase 4	20	17						
3.9.5	Decking - Replace Phase 1	20	10						
3.9.6	Decking - Replace Phase 2	20	11	\$24,914					
3.9.7	Decking - Replace Phase 3	20	12		\$25,910				
3.9.8	Decking - Replace Phase 4	20	13			\$26,947			
3.9.9	Decking - Replace Phase 5	20	14				\$28,025		
3.10.1	Wood Pilings - Replace/Major Repairs	30	9						
3.10.2	North Gangway - Replace	35	20						
3.10.3	South Gangway - Replace	35	8						
3.10.4	Helix Mooring Buoys - Replace	10	4				\$5,947		
3.10.5	Helix Mooring Buoys - Replace	10	5					\$6,185	
3.11.1	Basin - Complete Dredging	20	5						
3.11.2	Basin - Partial Dredging	20	3						
3.11.3	North Sea Wall - Replace	50	47						
3.11.4	South Sea Wall - Replace	50	47						
6.1.1	Cleaning Station - Replace	25	8						
6.1.2	Wood Deck - Replace	20	8						
16.3.1	Electrical System - Contingency	20	1						
15.5.1	Marina Water Supply System - Contingency	20	2						
TOTAL EXPENDED BY YEAR				\$43,738	\$25,910	\$26,947	\$60,284	\$33,550	
CARRY OVER RESERVES				\$136,287	\$159,338	\$203,710	\$229,885	\$224,904	
ANNUAL RESERVE CONTRIB				\$62,420	\$64,917	\$46,714	\$48,582	\$50,526	
RESERVE EXPENDITURES				\$43,738	\$25,910	\$26,947	\$60,284	\$33,550	
ACCUMULATED RESERVES				\$154,969	\$198,345	\$223,477	\$218,183	\$241,880	
INTEREST EARNED				\$4,369	\$5,365	\$6,408	\$6,721	\$7,002	
SPECIAL ASSESSMENT									
YEAR-END BALANCE				\$159,338	\$203,710	\$229,885	\$224,904	\$248,882	
YEARS		0-1	2-10	11-30	11 (2028)	12 (2029)	13 (2030)	14 (2031)	15 (2032)
CONTRIBUTION INFLATION		0%	3%	4%	4%	4%	4%	4%	4%
COMPONENT COMPOUND INFLATION		2%	3%	4%	138%	144%	150%	156%	162%
INTEREST RATE MULTIPLIER		1%	2%	3%	3%	3%	3%	3%	3%

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Cape George Colony Club - Marina Reserves

Reserve Study Projections at Recommended Funding of \$46,000

Reserve Consultants LLC

30-YEAR SPREADSHEET WITH INFLATED DOLLARS
PER YEAR EXPENSES IN 2017 DOLLARS

DATE: 10-Aug-17

#	COMPONENT NAME	REPAIR CYCLE	NEXT REPAIR	16 2033	17 2034	18 2035	19 2036	20 2037	
2.6.1	Concrete Boat Ramp - Replace	30	5						
2.6.2	Gravel - Replace	5	1	\$22,902					
3.9.1	Dock Float - Replace Phase 1	20	14						
3.9.2	Dock Float - Replace Phase 2	20	15						
3.9.3	Dock Float - Replace Phase 3	20	16	\$28,459					
3.9.4	Dock Float - Replace Phase 4	20	17		\$29,598				
3.9.5	Decking - Replace Phase 1	20	10						
3.9.6	Decking - Replace Phase 2	20	11						
3.9.7	Decking - Replace Phase 3	20	12						
3.9.8	Decking - Replace Phase 4	20	13						
3.9.9	Decking - Replace Phase 5	20	14						
3.10.1	Wood Pilings - Replace/Major Repairs	30	9						
3.10.2	North Gangway - Replace	35	20					\$17,001	
3.10.3	South Gangway - Replace	35	8						
3.10.4	Helix Mooring Buoys - Replace	10	4						
3.10.5	Helix Mooring Buoys - Replace	10	5						
3.11.1	Basin - Complete Dredging	20	5						
3.11.2	Basin - Partial Dredging	20	3						
3.11.3	North Sea Wall - Replace	50	47						
3.11.4	South Sea Wall - Replace	50	47						
6.1.1	Cleaning Station - Replace	25	8						
6.1.2	Wood Deck - Replace	20	8						
16.3.1	Electrical System - Contingency	20	1						
15.5.1	Marina Water Supply System - Contingency	20	2						
TOTAL EXPENDED BY YEAR				\$51,361	\$29,598	\$0	\$0	\$17,001	
CARRY OVER RESERVES				\$248,882	\$257,551	\$290,705	\$357,113	\$427,821	
ANNUAL RESERVE CONTRIB				\$52,547	\$54,649	\$56,835	\$59,108	\$61,472	
RESERVE EXPENDITURES				\$51,361	\$29,598	\$0	\$0	\$17,001	
ACCUMULATED RESERVES				\$250,067	\$282,602	\$347,539	\$416,221	\$472,292	
INTEREST EARNED				\$7,484	\$8,102	\$9,574	\$11,600	\$13,502	
SPECIAL ASSESSMENT									
YEAR-END BALANCE				\$257,551	\$290,705	\$357,113	\$427,821	\$485,794	
YEARS		0-1	2-10	11-30	16 (2033)	17 (2034)	18 (2035)	19 (2036)	20 (2037)
CONTRIBUTION INFLATION		0%	3%	4%	4%	4%	4%	4%	4%
COMPONENT COMPOUND INFLATION		2%	3%	4%	168%	175%	182%	189%	197%
INTEREST RATE MULTIPLIER		1%	2%	3%	3%	3%	3%	3%	3%

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Cape George Colony Club - Marina Reserves

Reserve Study Projections at Recommended Funding of \$46,000

Reserve Consultants LLC

30-YEAR SPREADSHEET WITH INFLATED DOLLARS
PER YEAR EXPENSES IN 2017 DOLLARS

DATE: 10-Aug-17

#	COMPONENT NAME	REPAIR CYCLE	NEXT REPAIR	21 2038	22 2039	23 2040	24 2041	25 2042	
2.6.1	Concrete Boat Ramp - Replace	30	5						
2.6.2	Gravel - Replace	5	1	\$27,864					
3.9.1	Dock Float - Replace Phase 1	20	14						
3.9.2	Dock Float - Replace Phase 2	20	15						
3.9.3	Dock Float - Replace Phase 3	20	16						
3.9.4	Dock Float - Replace Phase 4	20	17						
3.9.5	Decking - Replace Phase 1	20	10						
3.9.6	Decking - Replace Phase 2	20	11						
3.9.7	Decking - Replace Phase 3	20	12						
3.9.8	Decking - Replace Phase 4	20	13						
3.9.9	Decking - Replace Phase 5	20	14						
3.10.1	Wood Pilings - Replace/Major Repairs	30	9						
3.10.2	North Gangway - Replace	35	20						
3.10.3	South Gangway - Replace	35	8						
3.10.4	Helix Mooring Buoys - Replace	10	4				\$8,804		
3.10.5	Helix Mooring Buoys - Replace	10	5					\$9,156	
3.11.1	Basin - Complete Dredging	20	5					\$143,809	
3.11.2	Basin - Partial Dredging	20	3			\$26,592			
3.11.3	North Sea Wall - Replace	50	47						
3.11.4	South Sea Wall - Replace	50	47						
6.1.1	Cleaning Station - Replace	25	8						
6.1.2	Wood Deck - Replace	20	8						
16.3.1	Electrical System - Contingency	20	1	\$206,930					
15.5.1	Marina Water Supply System - Contingency	20	2		\$8,630				
TOTAL EXPENDED BY YEAR				\$234,794	\$8,630	\$26,592	\$8,804	\$152,965	
CARRY OVER RESERVES				\$485,794	\$326,942	\$395,477	\$450,535	\$528,108	
ANNUAL RESERVE CONTRIB				\$63,931	\$66,488	\$69,148	\$71,914	\$74,790	
RESERVE EXPENDITURES				\$234,794	\$8,630	\$26,592	\$8,804	\$152,965	
ACCUMULATED RESERVES				\$314,931	\$384,801	\$438,033	\$513,645	\$449,934	
INTEREST EARNED				\$12,011	\$10,676	\$12,503	\$14,463	\$14,671	
SPECIAL ASSESSMENT									
YEAR-END BALANCE				\$326,942	\$395,477	\$450,535	\$528,108	\$464,604	
YEARS		0-1	2-10	11-30	21 (2038)	22 (2039)	23 (2040)	24 (2041)	25 (2042)
CONTRIBUTION INFLATION		0%	3%	4%	4%	4%	4%	4%	4%
COMPONENT COMPOUND INFLATION		2%	3%	4%	205%	213%	222%	230%	240%
INTEREST RATE MULTIPLIER		1%	2%	3%	3%	3%	3%	3%	3%

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Cape George Colony Club - Marina Reserves

Reserve Study Projections at Recommended Funding of \$46,000

Reserve Consultants LLC

30-YEAR SPREADSHEET WITH INFLATED DOLLARS
PER YEAR EXPENSES IN 2017 DOLLARS

DATE: 10-Aug-17

#	COMPONENT NAME	REPAIR CYCLE	NEXT REPAIR	26 2043	27 2044	28 2045	29 2046	30 2047	
2.6.1	Concrete Boat Ramp - Replace	30	5						
2.6.2	Gravel - Replace	5	1	\$33,901					
3.9.1	Dock Float - Replace Phase 1	20	14						
3.9.2	Dock Float - Replace Phase 2	20	15						
3.9.3	Dock Float - Replace Phase 3	20	16						
3.9.4	Dock Float - Replace Phase 4	20	17						
3.9.5	Decking - Replace Phase 1	20	10					\$52,490	
3.9.6	Decking - Replace Phase 2	20	11						
3.9.7	Decking - Replace Phase 3	20	12						
3.9.8	Decking - Replace Phase 4	20	13						
3.9.9	Decking - Replace Phase 5	20	14						
3.10.1	Wood Pilings - Replace/Major Repairs	30	9						
3.10.2	North Gangway - Replace	35	20						
3.10.3	South Gangway - Replace	35	8						
3.10.4	Helix Mooring Buoys - Replace	10	4						
3.10.5	Helix Mooring Buoys - Replace	10	5						
3.11.1	Basin - Complete Dredging	20	5						
3.11.2	Basin - Partial Dredging	20	3						
3.11.3	North Sea Wall - Replace	50	47						
3.11.4	South Sea Wall - Replace	50	47						
6.1.1	Cleaning Station - Replace	25	8						
6.1.2	Wood Deck - Replace	20	8			\$12,833			
16.3.1	Electrical System - Contingency	20	1						
15.5.1	Marina Water Supply System - Contingency	20	2						
TOTAL EXPENDED BY YEAR				\$33,901	\$0	\$12,833	\$0	\$52,490	
CARRY OVER RESERVES				\$464,604	\$523,082	\$620,881	\$711,873	\$822,035	
ANNUAL RESERVE CONTRIB				\$77,782	\$80,893	\$84,129	\$87,494	\$90,994	
RESERVE EXPENDITURES				\$33,901	\$0	\$12,833	\$0	\$52,490	
ACCUMULATED RESERVES				\$508,486	\$603,975	\$692,177	\$799,367	\$860,539	
INTEREST EARNED				\$14,596	\$16,906	\$19,696	\$22,669	\$25,239	
SPECIAL ASSESSMENT									
YEAR-END BALANCE				\$523,082	\$620,881	\$711,873	\$822,035	\$885,778	
YEARS		0-1	2-10	11-30	26 (2043)	27 (2044)	28 (2045)	29 (2046)	30 (2047)
CONTRIBUTION INFLATION		0%	3%	4%	4%	4%	4%	4%	4%
COMPONENT COMPOUND INFLATION		2%	3%	4%	249%	259%	270%	280%	292%
INTEREST RATE MULTIPLIER		1%	2%	3%	3%	3%	3%	3%	3%

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30 Year Summary at the Starting Recommended Funding of \$46,000 Using Inflated Dollar Values

Inflation & Interest Assumptions						Percent Funded		
		Inflation	Interest					
	Years 0-1	0%	1%			Fully Funded		100% and above
	Years 2-10	3%	2%			Well Funded		60% 99%
	Years 11-30	4%	3%			Adequately Funded		25% to 59%
						At Risk for Special Assessment		0% to 24%
Fiscal Year End	Fiscal Year Beginning Reserve Balance	Recommended Annual Reserve Contribution	Projected Reserve Expenditures	Special Assessment	Projected Interest Earned	Fiscal Year End Reserve Balance	Projected Fully Funded Balance	% Funded
1 (2018)	\$100,428	\$46,000	(\$116,892)	\$0	\$650	\$30,186	\$289,255	10%
2 (2019)	\$30,186	\$47,380	(\$4,255)	\$0	\$1,035	\$74,346	\$322,092	23%
3 (2020)	\$74,346	\$48,801	(\$12,985)	\$0	\$1,845	\$112,007	\$348,204	32%
4 (2021)	\$112,007	\$50,265	(\$4,258)	\$0	\$2,700	\$160,715	\$384,532	42%
5 (2022)	\$160,715	\$51,773	(\$117,247)	\$0	\$2,560	\$97,801	\$312,078	31%
6 (2023)	\$97,801	\$53,327	(\$16,081)	\$0	\$2,328	\$137,374	\$337,561	41%
7 (2024)	\$137,374	\$54,926	(\$0)	\$0	\$3,297	\$195,597	\$380,531	51%
8 (2025)	\$195,597	\$56,574	(\$22,894)	\$0	\$4,249	\$233,526	\$403,330	58%
9 (2026)	\$233,526	\$58,271	(\$197,175)	\$0	\$3,281	\$97,904	\$256,965	38%
10 (2027)	\$97,904	\$60,020	(\$23,956)	\$0	\$2,319	\$136,287	\$277,076	49%
11 (2028)	\$136,287	\$62,420	(\$43,738)	\$0	\$4,369	\$159,338	\$282,604	56%
12 (2029)	\$159,338	\$64,917	(\$25,910)	\$0	\$5,365	\$203,710	\$307,323	66%
13 (2030)	\$203,710	\$46,714	(\$26,947)	\$0	\$6,408	\$229,885	\$333,567	69%
14 (2031)	\$229,885	\$48,582	(\$60,284)	\$0	\$6,721	\$224,904	\$329,792	68%
15 (2032)	\$224,904	\$50,526	(\$33,550)	\$0	\$7,002	\$248,882	\$353,756	70%
16 (2033)	\$248,882	\$52,547	(\$51,361)	\$0	\$7,484	\$257,551	\$362,963	71%
17 (2034)	\$257,551	\$54,649	(\$29,598)	\$0	\$8,102	\$290,705	\$395,691	73%
18 (2035)	\$290,705	\$56,835	(\$0)	\$0	\$9,574	\$357,113	\$460,635	78%
19 (2036)	\$357,113	\$59,108	(\$0)	\$0	\$11,600	\$427,821	\$530,141	81%
20 (2037)	\$427,821	\$61,472	(\$17,001)	\$0	\$13,502	\$485,794	\$587,803	83%
21 (2038)	\$485,794	\$63,931	(\$234,794)	\$0	\$12,011	\$326,942	\$436,374	75%
22 (2039)	\$326,942	\$66,488	(\$8,630)	\$0	\$10,676	\$395,477	\$502,828	79%
23 (2040)	\$395,477	\$69,148	(\$26,592)	\$0	\$12,503	\$450,535	\$556,628	81%
24 (2041)	\$450,535	\$71,914	(\$8,804)	\$0	\$14,463	\$528,108	\$632,409	84%
25 (2042)	\$528,108	\$74,790	(\$152,965)	\$0	\$14,671	\$464,604	\$572,373	81%
26 (2043)	\$464,604	\$77,782	(\$33,901)	\$0	\$14,596	\$523,082	\$629,251	83%
27 (2044)	\$523,082	\$80,893	(\$0)	\$0	\$16,906	\$620,881	\$724,329	86%
28 (2045)	\$620,881	\$84,129	(\$12,833)	\$0	\$19,696	\$711,873	\$813,424	88%
29 (2046)	\$711,873	\$87,494	(\$0)	\$0	\$22,669	\$822,035	\$921,573	89%
30 (2047)	\$822,035	\$90,994	(\$52,490)	\$0	\$25,239	\$885,778	\$985,612	90%

Note: The long term nature of this study requires that certain assumptions and predictions be made about future events. Since there can be no guarantee that these future events will occur as assumed, this analysis must be viewed in light of the circumstances under which it was conducted. Reasonable effort has been made to ensure that the conclusions of this report are based on reliable information and sound reasoning.



FULLY FUNDED BALANCE CALCULATIONS

RCW 64.38.070 (j) states that a reserve study shall include: “Projected reserve account balance for thirty years and a funding plan to pay for projected costs from those reserves without reliance on future unplanned special assessments”.

Furthermore, RCW 64.38.070 (e) stipulates that a reserve study shall include “The percentage of the fully funded balance that the reserve account is funded”.

“Fully funded balance” means the current value of the deteriorated portion, not the total replacement value, of all the reserve components. The fully funded balance for each reserve component is calculated by multiplying the current replacement cost of that reserve component by its effective age, then dividing the result by that reserve component’s useful life. The sum total of all reserve components’ fully funded balances is the association’s fully funded balance. RCW 64.38.010 (9)

$$FFB = \text{the sum of } \frac{\text{replacement cost} * \text{effective age}}{\text{useful life}} \text{ for all reserve components}$$

The **percent fully funded** relates to how much the building has deteriorated, or been used up, compared to the cost of making it new again. Another way of thinking of this is the percent fully funded illustrates how much you should have saved thus far to pay for the future replacement of a component, based on the replacement cost and how many years you have to save.

For example, if you have a roof that will last 10 years and cost \$100,000 to replace:

- To pay for the future replacement in 10 years, you should save \$10,000 each year to have enough money to cover the replacement cost.
- When it is 2 years old, it is 20% used up, and the Fully Funded Balance for its future replacement is \$20,000. If you have saved \$10,000 for the future replacement in 2 years, you are 50% fully funded. If you have saved \$20,000, you are 100% fully funded.
- When the roof is 8 years old it will be 80% deteriorated, and its Fully Funded Balance would be \$80,000. If you have saved only \$10,000 by Year 8 you are 13% fully funded. If you have saved \$20,000, you are at 25%, and at \$80,000 you are at 100% fully funded.

In effect the percent fully funded is a measure of how well an association can withstand the risk of unexpected expenses. Such unexpected expenses include: emergency expenses not covered by insurance, expenses that are more expensive than predicted, and expenses that are required earlier than anticipated.

A higher percent funded means more money is in the bank, and that lowers the risk of special assessment when unexpected expenses occur. A poorly funded association would have less money available for unexpected expenses, and a higher risk of a special assessment to generate the needed funds.



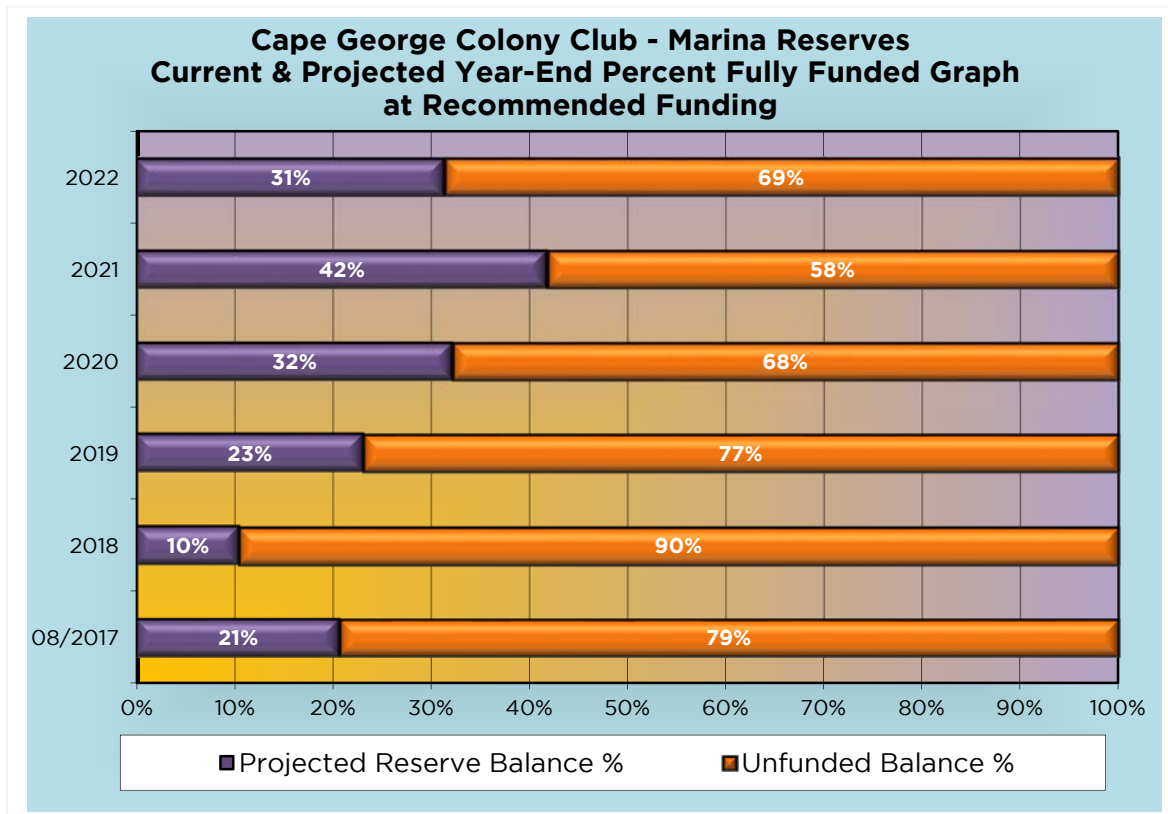
We typically recommend that an association select a minimum reserve account balance (or Threshold) it wants to maintain, and select a contribution rate to maintain that minimum rather than try to build their account to 100% fully funded. We typically recommend that an association consider a threshold equal to the recommended annual reserve contribution because this is the average major repair or replacement expense over the thirty years. However, each association must judge their unique risk tolerance.

The Fully Funded Balance for Cape George Colony Club is \$376,349. The actual current funding is \$77,788. The Association is approximately 21% funded. This means that based on a straight line savings for each reserve component, the Association saved 21% of the accumulated depreciation of the reserve components.

Percent Funded	Considered
100% or more	Fully Funded
60% to 99%	Reasonably Well Funded
25% to 59%	Adequately Funded
24% or less	At High Risk for a Special Assessment

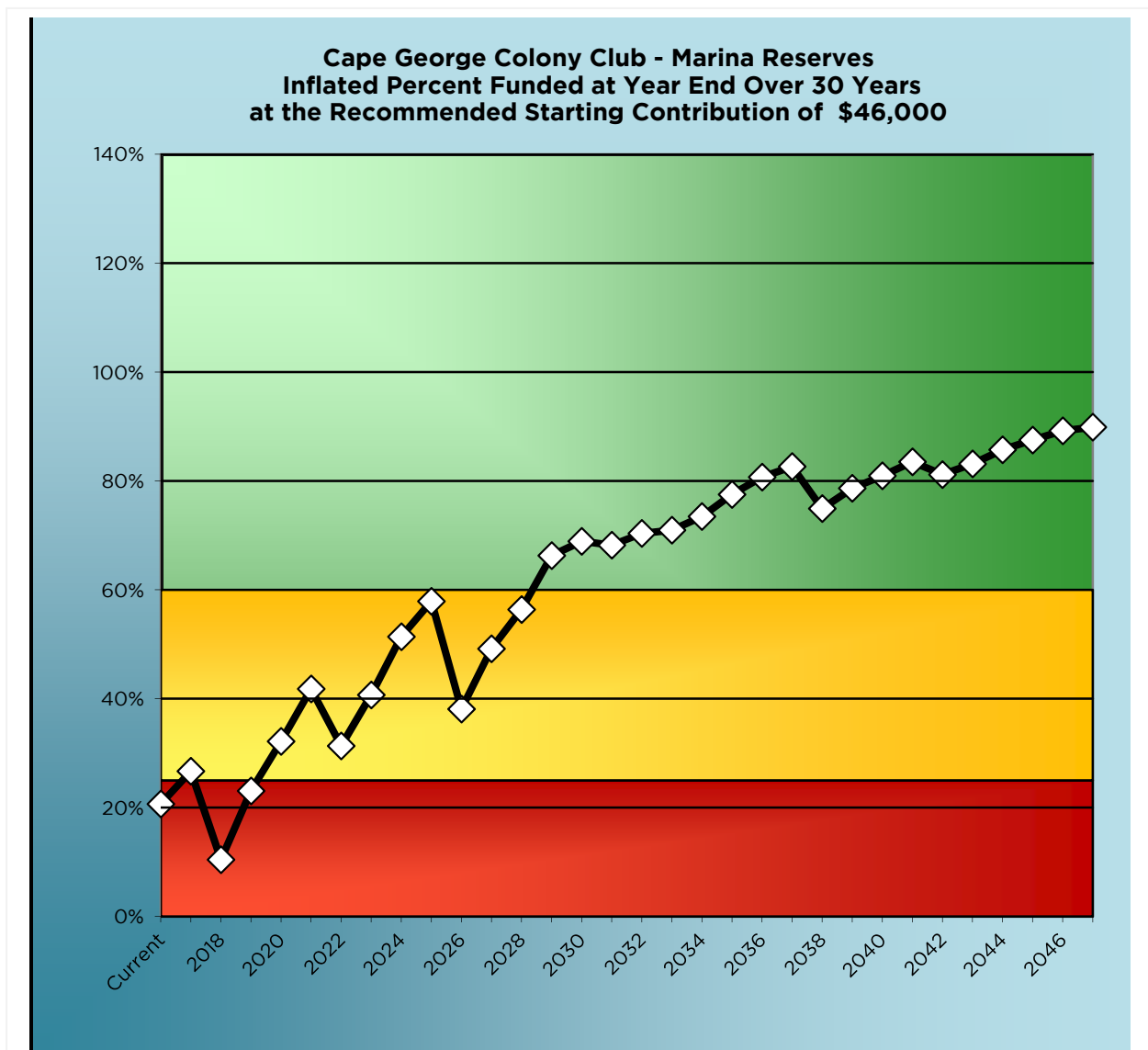
At 21%, Cape George Colony Club is considered at high risk for special assessment.

Below is a graph with the current and projected year-end percent fully funded calculated at the recommended starting annual reserve contribution of \$46,000.



The following chart illustrates the projected percent funded at year end over the next 30 years at the recommended starting contribution rate of \$46,000. The values include interest and inflation rate assumptions, and the anticipated contribution adjustment in 2030.

Note: The long term nature of this study requires that certain assumptions and predictions be made about future events. Since there can be no guarantee that these future events will occur as assumed, this analysis must be viewed in light of the circumstances under which it was conducted. Reasonable effort has been made to ensure that the conclusions of this report are based on reliable information and sound reasoning.





FULLY FUNDED BALANCE CALCULATION TABLE



Fully Funded Balance Calculations

Cape George Colony Club - Marina Reserves

$$FFB = \text{the sum of } \frac{\text{replacement cost} * \text{effective age}}{\text{useful life}} \text{ for all reserve components}$$

Component Description	Quantity	Unit	Repair Cycle (Useful Life)	Remaining Useful Life	Effective Age	Current Replacement Cost	Fully Funded Balance
2.6.1 Concrete Boat Ramp - Replace	1900	SF	30	5	25	\$ 38,310	\$ 31,925
2.6.2 Gravel - Replace	177	CY	5	1	4	\$ 13,600	\$ 10,880
3.9.1 Dock Float - Replace Phase 1	62	PR	20	14	6	\$ 16,900	\$ 5,070
3.9.2 Dock Float - Replace Phase 2	62	PR	20	15	5	\$ 16,900	\$ 4,225
3.9.3 Dock Float - Replace Phase 3	62	PR	20	16	4	\$ 16,900	\$ 3,380
3.9.4 Dock Float - Replace Phase 4	62	PR	20	17	3	\$ 16,900	\$ 2,535
3.9.5 Decking - Replace Phase 1	11466	SF	20	10	10	\$ 18,000	\$ 9,000
3.9.6 Decking - Replace Phase 2	11466	SF	20	11	9	\$ 18,000	\$ 8,100
3.9.7 Decking - Replace Phase 3	11466	SF	20	12	8	\$ 18,000	\$ 7,200
3.9.8 Decking - Replace Phase 4	11466	SF	20	13	7	\$ 18,000	\$ 6,300
3.9.9 Decking - Replace Phase 5	11466	SF	20	14	6	\$ 18,000	\$ 5,400
3.10.1 Wood Pilings - Replace/Major Repairs	35	EA	30	9	21	\$ 152,600	\$ 106,820
3.10.2 North Gangway - Replace	90	SF	35	20	15	\$ 8,630	\$ 3,699
3.10.3 South Gangway - Replace	90	SF	35	8	27	\$ 8,630	\$ 6,657
3.10.4 Helix Mooring Buoys - Replace	1	EA	10	4	6	\$ 3,820	\$ 2,292
3.10.5 Helix Mooring Buoys - Replace	1	EA	10	5	5	\$ 3,820	\$ 1,910
3.11.1 Basin - Complete Dredging	1	LS	20	5	15	\$ 60,000	\$ 45,000
3.11.2 Basin - Partial Dredging	1	LS	20	3	17	\$ 12,000	\$ 10,200
3.11.3 North Sea Wall - Replace	110	LF	50	47	3	\$ -	\$ -
3.11.4 South Sea Wall - Replace	60	LF	50	47	3	\$ -	\$ -
6.1.1 Cleaning Station - Replace	1	LS	25	8	17	\$ 4,860	\$ 3,305
6.1.2 Wood Deck - Replace	290	SF	20	8	12	\$ 4,760	\$ 2,856
16.3.1 Electrical System - Contingency	1	LS	20	1	19	\$ 101,000	\$ 95,950
15.5.1 Marina Water Supply System - Contingency	1	LS	20	2	18	\$ 4,050	\$ 3,645
FULLY FUNDED BALANCE						Total	\$ 376,349

CURRENT RESERVE BALANCE = \$77,788

PERCENT FULLY FUNDED = 21%

August 10, 2017

ABBREVIATION KEY

EA each
BLDG building(s)
FIXT fixture(s)

LF linear foot
LS lump sum
SF square feet

SQ roofing square
SY square yard
ZN zone



SUPPLEMENTAL BUDGET INFORMATION (SBI)

RCW 64.38.025 states that within thirty days after adoption of any proposed budget for the association, the board of directors shall provide a summary of the budget to all the unit owners and shall set a date for a meeting of the unit owners to consider ratification of the budget not less than fourteen nor more than sixty days after mailing of the summary. As part of the summary of the budget to all owners, the board of directors shall disclose the supplemental budget information as outlined in RCW 64.38.025 section (4), which we refer to as the Supplemental Budget Information (SBI). Below is a sample of the SBI we will compile when the association is ready to provide a summary of the budget to the unit owners. Please contact RCL one week before the Association plans on sending the budget summary to unit owners and we will issue a completed SBI at no additional charge within one year of issuing the draft of the reserve study report.

Sample Association - Fiscal Year End 2018 Proposed Budget Supplemental Budget Information on Reserves In Compliance with RCW 64.34.308 & RCW 64.38.025 February 3, 2017

Funding Information	
\$15,000	Proposed annual contribution to reserves for the fiscal year ending in 2018 per the budget.
\$180,000	Projected fiscal year end 2017 reserve balance per the budget.
\$36,000	Budgeted annual contribution to reserves for the current fiscal year ending in 2017.

Information from the Most Recent Reserve Study	
79%	Percent fully funded as of the date of the most recent reserve study.
\$36,000	Recommended annual contribution to reserves for the fiscal year ending in 2018.
Threshold	Type of funding plan used for recommended annual funding per the most recent reserve study.
\$164,676	Projected fiscal year end 2017 reserve balance per the most recent reserve study.
Yes	Based upon the most recent reserve study, will the Association have funds to meet obligations for the next 30 years at the current contribution rate*?

* - We assume the current contribution rate will be adjusted annually for inflation. Not doing so may cause a failure to meet obligations.

Anticipated Reserve Funding Shortfalls Over the Next 30 Years					
\$36,000 Current Fiscal Year Contribution			\$15,000 Proposed Annual Contribution		
Year	Projected Funding Shortfall	Average Per Unit Per Year	Year	Projected Funding Shortfall	Average Per Unit Per Year
	None		2041	(\$382,924)	\$12,764
			2040	(\$422,516)	\$14,084
			2035	(\$103,726)	\$3,458

Proposed Additional Regular or Special Assessment for Fiscal Year End 2018	
No	Is additional funding (Regular or Special Assessment) planned?
N/A	Amount of additional Regular or Special Assessment.
N/A	Average amount per unit per year.
N/A	Average amount per unit per month.
N/A	Date assessment is due.

5 Year Projections Using the Fiscal Year End 2017 Current Reserve Funding						
\$36,000 Current Reserve Funding	2018	2019	2020	2021	2022	
	Projected Account Balance at End of Fiscal Year	\$210,292	\$247,799	\$246,126	\$240,505	\$280,371
	Projected Percent Fully Funded at end of Fiscal Year	109%	109%	109%	109%	108%

5 Year Projections Using the Fiscal Year End 2018 Recommended Reserve Funding						
\$36,000 Recommended Reserve Funding	2018	2019	2020	2021	2022	
	Projected Account Balance at End of Fiscal Year	\$210,292	\$247,799	\$246,126	\$240,505	\$280,371
	Projected Percent Fully Funded at end of Fiscal Year	109%	109%	109%	109%	108%

5 Year Projections Using the Fiscal Year End 2018 Proposed Reserve Funding						
\$15,000 Proposed Contribution	2018	2019	2020	2021	2022	
	Projected Account Balance at End of Fiscal Year	\$189,187	\$204,426	\$179,383	\$149,251	\$163,420
	Projected Percent Fully Funded at end of Fiscal Year	98%	90%	79%	68%	63%

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DISCLOSURES

- 1 - Reserve Consultants LLC also provides construction inspection services for condominiums, and does design and construction oversight for major repair projects, including roofing, decks and building envelope replacement.
- 2 - No shareholder or employee of Reserve Consultants LLC has any interest in, or obligation to, any construction company, management company, or development entity that creates condominiums.
- 3 - Reserve Consultants LLC has been a member of Community Association Institute since about 1993, and has worked with a variety of management companies, associations and other types of clients in Washington State.
- 4 - This report and analysis is based upon observations of the visible and apparent condition of the building and its major components on the date of the inspection. Although care has been taken in the performance of this inspection, Reserve Consultants LLC (and/or its representatives) make no representations regarding latent or concealed defects which may exist and no warranty or guarantee is expressed or implied. This report is made only in the best exercise of our ability and judgment. Conclusions in this report are based on estimates of the age and normal working life of various items of equipment and appliances. Predictions of life expectancy and the balance of useful life are necessarily based on industry and/or statistical comparisons. It is essential to understand that actual conditions can alter the useful life of any item. The previous use or misuse, irregularity of servicing, faulty manufacture, unfavorable conditions, acts of god, and unforeseen circumstances make it impossible to state precisely when each item would require replacement. The client herein should be aware that certain components within the above referenced property may function consistent with their purpose at the time of inspection, but due to their nature, are subject to deterioration without notice.
- 5 - Unless otherwise noted, all reserve components are assumed to meet the building code requirements in force at the time of construction. Any on-site inspection should not be considered a project audit or quality inspection.
- 6 - Conclusions reached in this report assume responsible ownership and competent management of the property. Information provided by others is believed to be reliable. Information provided by others was not audited; we assume no responsibility for accuracy thereof.
- 7 - The reserve study is a reflection of information provided to the consultant and assembled for the association's use, not for the purpose of performing an audit, quality/forensic analyses or background checks of historical records.



APPENDIX - GLOSSARY OF TERMS

Baseline Funding (contribution rate) – A Reserve Contribution Rate that is constant, increasing with inflation, to provide funds for all anticipated Reserve Expenses so that no special assessments are required for 30 years, but with no contingency some years.

Building Codes - Nationally recognized standards used to gauge the acceptability of a particular material or building procedure. Typically, if something is built to "code," it is acceptable to all concerned. Some often used codes are International Building Code (IBC) (applicable to most multifamily housing), International Residential Code (IRC) (applicable to one and two family structures), Washington Energy Code, National Electric Code (NEC), Uniform Plumbing Code (UPC), and the National Fire Protection Association Standards (NFPA). These are usually amended slightly by each city or county.

Building Component – see "Reserve Component".

Component Number - A number assigned to each building component that allows grouping of like components. Based roughly on Construction Industry Standards.

Common Elements – Those portions of the building which are owned collectively by all Unit owners in a condominium, and for which the association is responsible.

"Contribution Rate" means, in a Reserve Study as described in RCW64.38, the amount contributed to the reserve account so that the association will have cash reserves to pay major maintenance, repair, or replacement costs without the need of a special assessment. RCW 64.38.010 (6)

Constant Dollars - Pretends that inflation does not exist. Shows all costs and contributions in today's dollars, no matter how far in the future they occur.

"Effective Age" means the difference between the useful life and the remaining useful life. RCW 64.38.010 (7)

"Fully Funded Balance" means the value of the deteriorated portion of all the reserve components. The fully funded balance for each reserve component is calculated by multiplying the current replacement cost of that reserve component by its effective age, then dividing the result by that reserve component's useful life. The sum total of all reserve components' fully funded balances is the association's fully funded balance. RCW 64.38.010 (9)

Fully Funded (contribution rate) - A Reserve Contribution Rate that is constant, increasing with inflation, that will bring the Reserve Account balance up to the "Fully Funded Balance" level and keep it there.

Inflated Dollars - As opposed to constant dollars, inflated dollars recognize that costs in the future will probably be higher than today because each dollar will buy fewer goods and services. A rate of inflation must be assumed and applied to all future costs. Also referred to as future cost.



Inflation Multiplier - 100% plus the assumed rate of inflation. Thus, for an assumed yearly inflation rate of 5%, the "multiplier" would be 105% or 1.05 if expressed as a decimal number rather than as a percentage. Each successive year the previous year's "multiplier" is multiplied by this number to arrive at the next year's "multiplier."

Interest Rate Multiplier - The assumed rate of interest earned on the average annual reserve bank account balance. Thus, 4% interest would be 0.04 expressed as a decimal number. A rate of interest earned must be assumed for all future years. Typically this is lower than the rate of inflation.

Limited Common Element - those common elements which are assigned exclusively to one or some Units. Unit owners may be responsible for the cost to repair and maintain limited common elements, so those costs may not appear in a Reserve Study.

Next Repair - the next time the "Repair Cycle" starts with work on a component.

Percent Fully Funded - The percentage of the "Fully Funded Balance" which the current condominium Reserve Account actually has in it.

RCW - the Revised Code of Washington. RCW 64.38 is the Washington Homeowners' Act, the statute that governs homeowners' associations.

"Remaining useful life" means the estimated time, in years, that a reserve component can be expected to continue to serve its intended function. RCW 64.38.010 (14)

Repair Cycle - the frequency of maintenance, major repair or replacement of a component to reach or extend its Useful Life. Often shorter than the full "Useful Life" for repairs that occur in lieu of complete replacement.

"Replacement cost" means the current cost of replacing, repairing, or restoring a reserve component to its original functional condition. RCW 64.38.010 (15)

Reserve Account - Money set aside for future repair and replacement projects. For condominiums, the RCW requires a separate Reserve Account be maintained to hold reserves to fund repair or replacement of Reserve Components.

"Reserve components" means common elements whose cost of maintenance, repair, or replacement is infrequent, significant, and impractical to include in an annual budget. RCW 64.38.010 (16)

Reserve Contribution - The amount of money saved to fund "replacement Costs" for maintenance and repairs of Common Elements. See "Contribution Rate". Current contributions and recommended contributions may be different.

Reserve Specialist - A designation for those professionals who have met the standards established by Community Associations Institute (www.caionline.org) for Reserve Study providers.

Reserve Study - A physical assessment of a building and a subsequent report which estimates the anticipated major maintenance, repair, and replacement costs, whose infrequent and significant nature make them impractical to be included in an annual budget, which will need to be repaired or replaced over the next 30 years. It



provides estimates of these replacement costs and details expected annual expenditures. It is used to calculate the Reserve Contribution Rate required to maintain a facility in good condition both functionally and cosmetically. The Washington Condominium Act sets out requirements for annual reserve studies.

"Reserve study professional" means an independent person suitably qualified by knowledge, skill, experience, training, or education to prepare a reserve study in accordance with RCW 64.38. RCW 64.38.010 (17)

Special Assessment - A levy against all unit owners that is necessary when a needed repair/replacement/upgrade has not been planned for, and for which insufficient money has been saved.

Threshold Funding (contribution rate) - A Reserve Contribution Rate that is constant, increasing with inflation, to provide funds for all anticipated Reserve Expenses for the life of the study, but leaving a minimum level of Reserves (the "threshold") at all times. Our default minimum threshold is one year's contribution.

Typ. - Abbreviation for 'typical'; used on photographs and in text to refer to a problem that is shown or described once, but applies to many locations.

Typical Life - An average expected life for an average building component. As in any statistical average, there is a range of years over which each individual item might fall. This is the same as "Useful life"

"Useful life" means the estimated time, in years, that a reserve component can be expected to serve its intended function. RCW 64.38.010 (20)

Year End Reserve Balance or Reserve Fund Balance - What is projected to be left in the reserve account after the expected yearly expenses and contributions are added to the prior year's carryover balance. Assumes that the reserve contributions and expenses occur as predicted.

Yearly Expenses - The total labor and material costs associated with all of the repairs/maintenance that are scheduled in that particular year.

30 Year Spreadsheet - A summary listing each building component and its yearly cost to maintain/repair over the next 30 years. It also lists the annual reserve fund balance, reserve contributions, reserve expenses and bank interest earned on any reserve fund balance.



APPENDIX - EVALUATOR'S CREDENTIALS

Denise Dana

Principal, Reserve Consultants LLC
B.S. Education, M. Architecture
Washington Registered Architect, #8702
LEED Accredited Professional

Denise Dana first obtained licensure as an Architect and became a LEED accredited professional in 2003. She is currently a licensed Architect in the State of Washington and is certified by the National Council of Architectural Registration Boards. With over fifteen years of experience in architecture, her resume includes a variety of project types ranging from residential to corporate. She has worked through all phases of construction including design development, construction documentation and construction administration with project budgets varying from a few thousand dollars to over sixty million dollars. Denise has been conducting reserve studies since joining Reserve Consultants in 2008; in 2011 she was recognized as a "Reserve Specialist" by the Community Associations Institute.