



CARLYON BEACH HOA

Olympia, Washington

Statutory Minimum Level 3 Reserve Study update without a site visit

2021/2022 FUNDING RECOMMENDATIONS

Issued April, 2021

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Next Update: **Level 2** study by **April, 2022**



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ABBREVIATION KEY

EA	each
BLDG	building(s)
FIXT	fixture(s)
LF	liner foot
LS	lump sum
SF	square feet
SQ	roofing square
SY	square yard
ZN	zone

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EXECUTIVE SUMMARY

This Reserve Study meets the requirements of the Washington Homeowners' Association Act and the Washington Unified Common Interest Owner Act for a Level 3 Reserve Study update without a site visit, and was prepared by an independent Reserve Study Professional.

Carlyon Beach HOA is a 689-unit residential community located along Island Drive NW in Olympia, Washington. Construction of Carlyon Beach HOA was completed in about 1959. The community maintains a clubhouse and a maintenance/shop building, in addition to equipment for a portable water system, boat docks, and a sewage treatment facility.

CARLYON BEACH HOA RESERVE FUND STATUS

CARLYON BEACH HOA'S FISCAL YEAR	July 1st - June 30th
RESERVE ACCOUNT BALANCE ON FEBRUARY 28, 2021	\$495,000 ¹
FULLY FUNDED BALANCE YEAR 2021	\$1,130,953 ²
PERCENT FUNDED AT TIME OF STUDY	44% ³
FUNDING STATUS - RISK OF SPECIAL ASSESSMENT	Moderate Risk
PLANNED OR IMPLEMENTED SPECIAL ASSESSMENT	None
COMPONENT INCLUSION THRESHOLD VALUE	\$82,000

CARLYON BEACH HOA CURRENT AND RECOMMENDED RESERVE CONTRIBUTIONS

CURRENT BUDGETED ANNUAL CONTRIBUTION TO RESERVES	\$220,000
2021/2022 RECOMMENDED ANNUAL CONTRIBUTION RATE	\$270,000*
2034 RECOMMENDED CONTRIBUTION ADJUSTMENT (INFLATED VALUE)	\$313,077
2022 AVERAGE CONTRIBUTION PER UNIT PER YEAR	\$392
2022 AVERAGE CONTRIBUTION PER UNIT PER MONTH	\$33
2021/2022 BASELINE FUNDING PLAN CONTRIBUTION RATE	\$251,200
2021/2022 FULL FUNDING PLAN CONTRIBUTION RATE	\$251,000

¹ The actual or projected total reserve fund balance presented in the Reserve Study is based on information provided by the Association representative and was not audited by RCL.

² 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 §924 & RCW §64.90.010 §26. The fully funded balance changes from year to year.

³ The percent fully funded 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.



COMPONENTS EXCLUDED FROM THIS STUDY

Components that individual unit owners are responsible to maintain, repair, and/or replace are not included in the study or funding projections. We recommend the Association establish a clear definition of these components, as well as policies and processes regarding maintenance of these "owner responsibility" items.

OPERATING BUDGET

The following components have been excluded from the budget because they are below the \$5,000 capital cost threshold set by the Association:

Asphalt Repairs - Courts	Paint - Interior - Community Building
Asphalt Repairs - Walkways	Paint - Interior Maintenance Building
Air Compressors	Paint - Interior - Restrooms
Alarm - Water System	Paint - Interior - Rental House
Benches - Wood/Wrought Iron	Paint - Siding - Rental House
Blinds	Paint - Siding - Trim- Rental House
Boat & Boat Trailer	Picnic Tables
Bulletin Board Building	Power Generator - Well Pump 2
Canoe Rack	Pressure Washer
Ceiling Fans	Pump - Rolachem Rcc503Sc
Chain Saw	Pump - Waste Water Facility
Computer 1, 2 & 3	Pump Motor - Miscellaneous
Concrete Mixer	Radio - 2-way
Container Box	Radio - CB
Copier & Transcriber	Radio - Hand - Held
Culverts	Refrigerator
Equalization Tanks	Refrigerator - Community Building
Equipment - Office - Furniture	Rehab - Well 1
Flag Pole	Rehab - Well 2
Flow Meter	Restrooms & Fixtures
Furnaces	Roof - Rental House
Gates - Entry	Roof - Restroom Building
Garage Doors - Maintenance Shed	Roof - Well 2
Guard House	Roof - Treatment Facility
Guard Rails	Security System & Locks - Clubhouse
Gutters & Downspouts - Community Building	Siding - Treatment Plant
Gutters & Downspouts - Rental House	Trim - Maintenance Building
Gutters & Downspouts - Park Buildings	Siding & Trim - Miscellaneous buildings on site
Lights - Exterior	Diesel Tank - Water Treatment Facility
Line Locator	Vehicle Stops
Meter Calibration - Water Source	Washer & Dryer
Paint - Exterior - Park Area Buildings	Water Heater - Community Building
Paint - Exterior - Well #2	Water Heater - Waste Treatment Building



ESTIMATED STARTING RESERVE FUND BALANCE FOR 2021/2022

BALANCE CALCULATIONS

The fiscal year for Carlyon Beach HOA is July 1st - June 30th.

\$495,000	Reserve Fund Balance as of February 28, 2021
(\$70,000)	Anticipated Remaining Reserve Expenses In 2020/2021
\$0	Planned Special Assessment In 2020/2021
\$72,000	Remaining Reserve Contributions For 2020/2021
\$1,662	Projected Interest on the 2020/2021 Reserve Fund Balance
\$498,662	ESTIMATED STARTING BALANCE FOR FISCAL YEAR 2021/2022

SUMMARY OF THE ANTICIPATED REMAINING MAINTENANCE EXPENSES FOR 2020/2021

COMPONENT DESCRIPTION	ESTIMATED COST
2.9.1 Mooring Docks - Repair	\$50,000
15.1.7 Water Meters - Installation	\$20,000
Total Estimated Costs for 2020/2021	\$70,000

PERCENT FUNDED

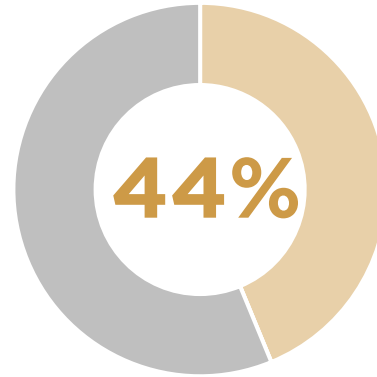
The "percent funded" is a measure of how much the Association should have saved in their reserve account compared to the projected cost for all the components the Association is responsible for, and relates to the level of deterioration compared to the cost to repair or replace the component.

We typically recommend a contribution rate to meet a minimum reserve account balance (threshold) goal instead of a 100% funded rate.

We usually recommend that an association consider a threshold equal to the recommended annual reserve contribution because this is the average maintenance expense over the thirty years. However, each association must judge their unique risk tolerance.

The Fully Funded Balance for Carlyon Beach HOA is \$1,130,953. The actual current funding is \$495,000. The Association is approximately 44% funded.

This means that based on a straight-line savings for each reserve component, the Association saved 44% of the accumulated depreciation of the reserve components.



At 44%, Carlyon Beach HOA is considered to be at **moderate risk for a special assessment.**

EXAMPLE OF PERCENT FUNDED FOR ROOF REPLACEMENT

SCENARIO	ANALYSIS
<p>For a roof that lasts 10 years and costs \$100,000 to replace:</p> <ul style="list-style-type: none"> • Save \$10,000 each year, for 10 years • Year 2, the roof has deteriorated 20%. <ul style="list-style-type: none"> ○ If you have \$20,000 saved it is fully funded. ○ If you have \$10,000 saved it is 50% funded. • Year 8, the roof has deteriorated 80%. <ul style="list-style-type: none"> ○ If you have \$80,000 saved it is fully funded. ○ If you have \$20,000 saved it is 25% funded. If you have \$10,000 saved it is 13% funded. 	<p>A. In effect, the percent 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 higher than predicted, and expenses that are required earlier than anticipated.</p> <p>B. A higher percent funded means more money is in the bank which lowers the risk of special assessment if something unexpected occurs. A poorly funded Association has less cash on hand, therefore much higher risk of special assessment for unplanned expenses.</p> <p>C. By analyzing deterioration cycles and cash flow needs, we determine how much money should be steadily contributed, over a 30 year period, to fund the repair and replacement needs of the components included in the study. Budgeting to maintain a minimum balance, or threshold, helps to ensure that a special assessment will not be required if an unexpected expense arises.</p>



FULLY FUNDED BALANCE CALCUATIONS



FULLY FUNDED BALANCE = THE SUM OF $\frac{\text{REPLACEMENT COST} \times \text{EFFECTIVE AGE}}{\text{USEFUL LIFE}}$ FOR ALL RESERVE COMPONENTS

		COMPONENT DESCRIPTION	QTY	UNIT	MAINT. CYCLE (USEFUL LIFE)	REMAINING USEFUL LIFE	EFFECTIVE AGE	CURRENT REPLACEMENT COST	FULLY FUNDED BALANCE
100%	2.6.1	Asphalt Road - Major Repairs	575165	SF	1	1	-	\$81,550	\$0
25%	2.6.2	Gravel Road - Repair	3228	SY	5	1	4	\$37,930	\$30,344
15%	2.7.1	Chain-Link Fence - Maintenance	2985	LF	5	4	1	\$10,520	\$2,104
100%	2.9.1	Mooring Docks - Repair	7800	SF	1	0	1	\$50,000	\$50,000
100%	2.9.2	Log Boom - Repair	1	LS	10	7	3	\$20,390	\$6,117
25%	2.9.3	Marina Floats - Repair	7800	SF	10	7	3	\$20,630	\$6,189
100%	2.9.4	Marina Metal Pilings - Replace	22	EA	50	48	2	\$64,630	\$2,585
100%	2.9.5	Marina Main Walkway - Replace	1120	SF	50	42	8	\$158,580	\$25,373
100%	2.9.6	Hazardous Tree Removal	1	LS	5	4	1	\$5,100	\$1,020
100%	3.3.1	Bulkhead Retaining Walls - Ph. 1 Repair	860	LF	50	42	8	\$416,230	\$66,597
100%	3.3.2	Bulkhead Retaining Walls - Ph. 2 Repair	765	LF	50	4	46	\$370,230	\$340,612
5%	6.2.1	Clubhouse Exterior Surfaces - Repair	4210	SF	7	2	5	\$3,220	\$2,300
100%	7.4.1	Clubhouse Shingle Roof - Replace	23	SQ	24	14	10	\$14,670	\$6,113
100%	7.4.3	Picnic Area "Wanagan" Roof - Replace	11	SQ	30	12	18	\$7,040	\$4,224
100%	7.4.4	Maintenance Bldg. Shingle Roof - Replace	23	SQ	24	24	-	\$8,000	\$0
100%	8.5.1	Clubhouse Windows - Replace	860	SF	40	8	32	\$46,480	\$37,184
100%	9.6.1	Clubhouse Carpet Flooring - Replace	200	SY	10	4	6	\$9,790	\$5,874
100%	9.8.1	Clubhouse Exterior Surfaces - Paint	4210	SF	7	2	5	\$11,610	\$8,293
100%	9.8.2	Water Tower Exterior - Paint	9650	SF	20	2	18	\$56,800	\$51,120
100%	10.1.1	Carport - Replace	1	LS	20	18	2	\$3,570	\$357
100%	10.1.2	Larger Playground - Replace Equipment	1	LS	20	20	-	\$20,000	\$0
100%	10.1.3	Smaller Playground - Replace Equipment	1	LS	20	2	18	\$10,000	\$9,000
100%	11.2.1	Bolens Mower - Replace	1	EA	10	3	7	\$7,140	\$4,998
100%	11.2.2	Backhoe - Replace	1	EA	18	2	16	\$39,250	\$34,889
100%	11.2.3	Hydroexcavator - Replace	1	EA	18	4	14	\$30,730	\$23,901
100%	11.2.4	Vehicles - Contingency	4	EA	5	1	4	\$20,000	\$16,000
100%	11.2.5	Main Pump Truck - Replace	1	EA	10	7	3	\$168,200	\$50,460
100%	11.2.6	Dump Trailer - Replace	1	EA	20	4	16	\$10,190	\$8,152
50%	11.2.7	Diesel Tank - Replace	2	EA	15	2	13	\$10,730	\$9,299
100%	11.2.8	Miscellaneous Equipment - Contingency	1	EA	10	8	2	\$13,090	\$2,618



FULLY FUNDED BALANCE CALCUATIONS CONTINUED



FULLY FUNDED BALANCE = THE SUM OF $\frac{\text{REPLACEMENT COST} \times \text{EFFECTIVE AGE}}{\text{USEFUL LIFE}}$ FOR ALL RESERVE COMPONENTS

		COMPONENT DESCRIPTION	QTY	UNIT	MAINT. CYCLE (USEFUL LIFE)	REMAINING USEFUL LIFE	EFFECTIVE AGE	CURRENT REPLACEMENT COST	FULLY FUNDED BALANCE
100%	12.1.1	Clubhouse Interiors - Update	1	LS	10	4	6	\$10,190	\$6,114
100%	12.1.2	Clubhouse Office Equipment - Replace	1	LS	5	3	2	\$5,100	\$2,040
100%	12.1.4	Misc. Building Repair - Contingency	1	LS	10	8	2	\$5,100	\$1,020
100%	15.1.1	Plumbing System - Contingency	1	LS	3	3	-	\$10,190	\$0
100%	15.1.2	Water Tower - Maintenance	1	LS	5	3	2	\$10,190	\$4,076
100%	15.1.3	Water System Computer 1 - Contingency	1	EA	15	4	11	\$10,460	\$7,671
100%	15.1.4	Well Pump 1 - Maintenance	1	EA	12	1	11	\$20,000	\$18,333
100%	15.1.5	Water System Computer 2 - Contingency	1	EA	15	4	11	\$10,460	\$7,671
100%	15.1.6	Well Pump 2 - Maintenance	1	EA	12	1	11	\$15,700	\$14,392
10%	15.1.7	Water Meters - Installation	750	EA	1	0	1	\$20,000	\$20,000
10%	15.1.8	Water Meters - Maintenance	750	EA	5	6	-	\$11,980	\$0
100%	15.1.9	Water System Telemetry - Maintenance	1	EA	20	1	19	\$10,810	\$10,270
100%	15.5.1	Clubhouse Septic Tanks - Contingency	2	EA	30	5	25	\$15,960	\$13,300
50%	15.5.2	Decanter Unit - Contingency	2	EA	10	5	5	\$18,350	\$9,175
100%	15.5.3	Aeration Manifold - Contingency	2	EA	20	5	15	\$23,500	\$17,625
100%	15.5.4	Aerobic System Controls - Contingency	1	LS	20	1	19	\$20,390	\$19,371
100%	15.5.5	Mixer Unit - Contingency	2	EA	20	1	19	\$23,500	\$22,325
50%	15.5.6	Air Compressor - Maintenance	2	EA	10	3	7	\$9,950	\$6,965
100%	15.5.7	Uv Disinfection Controller - Contingency	1	LS	20	16	4	\$40,780	\$8,156
100%	15.5.8	Sewage Treatment Facility - Contingency	1	LS	20	14	6	\$91,740	\$27,522
50%	15.5.9	Expansion Sampler - Contingency	2	EA	10	4	6	\$11,750	\$7,050
100%	15.6.1	Treatment Plant Outfall - Contingency	1	LS	15	3	12	\$10,190	\$8,152
100%	15.6.2	Bioswale - Maintenance	1	LS	25	14	11	\$81,550	\$35,882
100%	15.6.3	Bioswale - Inspection	1	LS	5	3	2	\$5,100	\$2,040
100%	15.7.1	Bio-Filter Park - Maintenance	1	LS	15	14	1	\$30,580	\$2,039
100%	15.8.1	Fire Hydrant PSV - Maintenance	1	LF	25	11	14	\$10,380	\$5,813
100%	16.1.1	Electrical System - Contingency	1	LS	5	3	2	\$10,190	\$4,076
100%	16.3.1	Emergency Generator - Maintenance	1	EA	10	2	8	\$26,160	\$20,928
100%	16.3.2	Sewage Treatment Emergency Generator - Contingency	1	EA	10	3	7	\$13,090	\$9,163
100%	17.1.1	Security Lighting - Replace	1	LS	10	3	7	\$10,190	\$7,133
100%	18.1.1	Surveillance System - Update	1	LS	10	8	2	\$20,390	\$4,078
100%	20.1.1	Reserve Study Updates - With Site Visit	1	LS	3	1	2	\$4,280	\$2,853



DEFICIT OR SURPLUS IN RESERVE FUNDING

RCW 64.90.550 §2(l) requires that the reserve study include the amount of any current deficit or surplus in reserve funding expressed on a dollars per unit basis. This is calculated by subtracting the community's reserve account balance as of the date of the study from the fully funded balance, and then multiplying the result by the fraction or percentage of the common expenses of the community allocable to each unit.

The fully funded balance calculates how much money should be saved for future maintenance based on the age of each component and the cost for future maintenance. In other words, the fully funded balance assumes that money will be saved every year for the next maintenance of a component to ensure special assessments are not required to fund future maintenance. The intent of RCW 64.90.550 §2 (l) is to show each unit's "share" of the surplus or deficit in reserve funding.

If the reserve account balance is:

- **equal to** the fully funded balance, Carlyon Beach HOA would be considered as 100% fully funded. There would be neither a surplus nor deficit.
- **less than** the fully funded balance, there is a deficit meaning Carlyon Beach HOA would be thought behind on saving for future maintenance.
- **more than** the fully funded balance, there is a surplus meaning Carlyon Beach HOA would be deemed ahead on saving for future maintenance.

The Recommended Funding Plan is based on Threshold Funding, a reserve contribution rate that is constant (increasing annually 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. The threshold provides a monetary cushion in the reserve account to help ensure that a special assessment is not required for the duration of the study, even in years when there are significant withdrawals from the reserve account. Primary consideration is given to cash needed to cover expenses and the threshold; the percent funded is typically targeted to be 80%.

SUMMARY

RESERVE ACCOUNT BALANCE AS OF FEBRUARY 28, 2021	\$495,000
CURRENT FULLY FUNDED BALANCE	\$1,130,953
RESERVE FUND DEFICIT	(\$635,953)
NUMBER OF UNITS	689
AVERAGE DEFICIT PER UNIT	(\$923)

RESERVE FUND (DEFICIT) PER UNIT

QTY	LOT DESCRIPTION	ALLOCATED INTEREST	TOTAL ALLOCATED INTEREST	(DEFICIT) PER UNIT	(DEFICIT) PER LOT TYPE
616	single lots	0.1415%	87%	(\$900)	(\$554,490)
35	combined lots	0.2123%	7%	(\$1,350)	(\$47,258)
38	slide lots	0.1415%	5%	(\$900)	(\$34,206)
GRAND TOTAL			100%		(\$635,953)



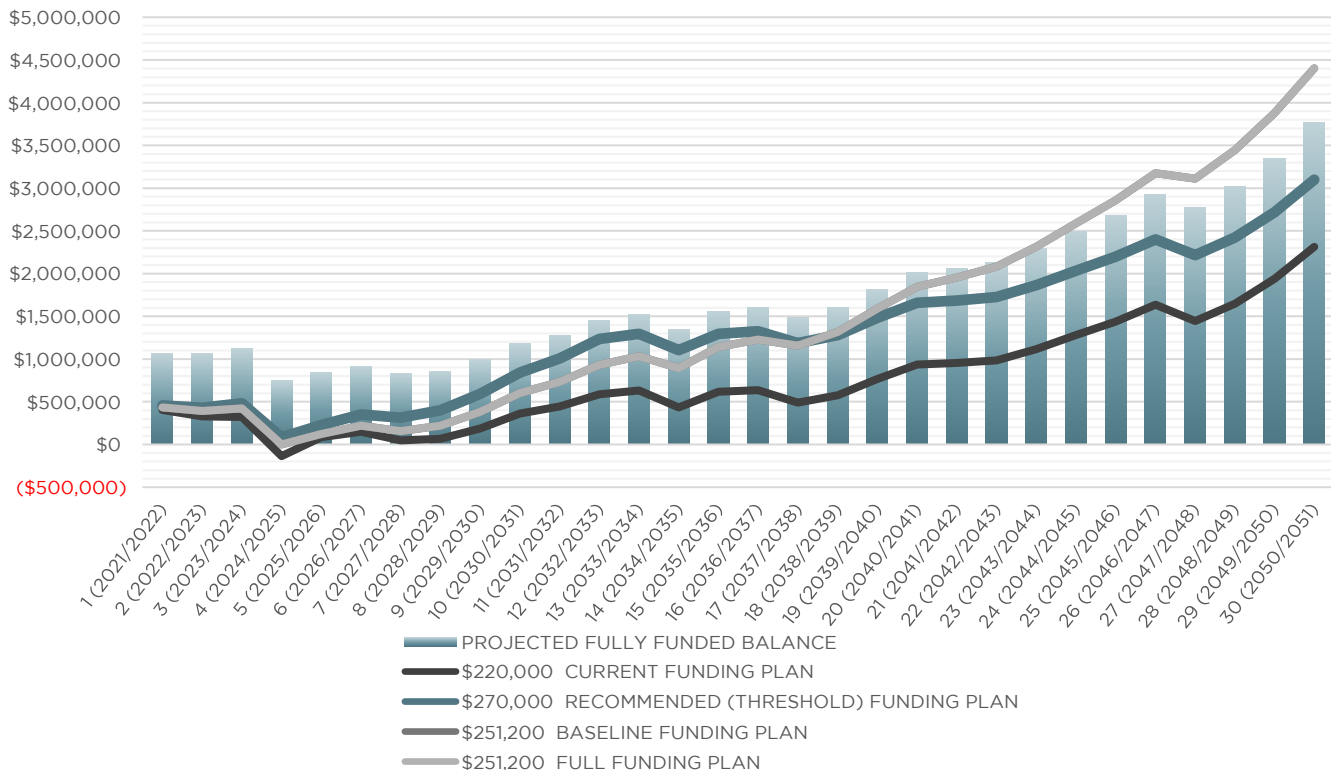
FUNDING PLANS

THRESHOLD FUNDING PLAN \$270,000 - with the recommended adjustment(s) in the reserve contribution	BASELINE FUNDING PLAN \$251,200, not including the anticipated contribution adjustment(s)	FULL FUNDING PLAN \$251,000, not including the anticipated contribution adjustment(s)
RECOMMENDED	OPTIONAL STRATEGY	100% FUNDED BY YEAR 30
initial annual contribution of \$270,000	initial annual contribution of \$251,200	initial annual contribution of \$251,000
meets yearly projected reserve expenses	meets annual reserve expenses with no minimum balance requirement	most flexibility for cost variables and unplanned expenses
maintains minimum reserve balance equal to annual contribution amount	less flexibility with cost variables and unplanned expenses	lowest risk for special assessment

The Threshold Funding Plan is the **RECOMMENDED FUNDING PLAN** for Carlyon Beach HOA, balancing cashflow and anticipated expenses over 30 years while maintaining a minimum reserve account balance of at least \$83,000*. Cost projection accuracy decreases into the distant future. Assumptions should be reconsidered and updated with each revision of the study.

COMPARISON OF FULLY FUNDED BALANCE AND FUNDING PLANS

Since the Baseline and Full Funding Plans are identical, only one line is visible on the chart.





PROJECTED RESERVE ACCOUNT BALANCE FOR FUNDING PLANS OVER 30 YEARS

Per RCW 64.90.550 §2 (j) of the Washington Unified Common Interest Owners Act (WUCIOA), the projected reserve account balance for each of the funding plans over the next 30 years is provided, along with the current funding plan projections. The values in the Recommended Funding Plan include the previously mentioned recommended adjustment(s) in the annual reserve contribution.

FISCAL YEAR END	\$270,000 RECOMMENDED (THRESHOLD) FUNDING PLAN	\$220,000 CURRENT FUNDING PLAN	\$251,200 BASELINE FUNDING PLAN	\$251,200 FULL FUNDING PLAN
1 (2021/2022)	\$454,713	\$404,588	\$435,018	\$435,018
2 (2022/2023)	\$431,669	\$328,527	\$392,023	\$392,023
3 (2023/2024)	\$481,239	\$322,459	\$420,656	\$420,656
4 (2024/2025)	\$82,666	(\$136,334)	\$123	\$123
5 (2025/2026)	\$226,490	\$85,332	\$120,924	\$120,924
6 (2026/2027)	\$350,312	\$147,788	\$220,623	\$220,623
7 (2027/2028)	\$312,874	\$46,001	\$157,920	\$157,920
8 (2028/2029)	\$399,777	\$65,457	\$218,370	\$218,370
9 (2029/2030)	\$590,634	\$185,654	\$381,544	\$381,544
10 (2030/2031)	\$840,625	\$361,655	\$602,579	\$602,579
11 (2031/2032)	\$1,005,898	\$443,693	\$734,817	\$734,817
12 (2032/2033)	\$1,236,702	\$586,011	\$930,559	\$930,559
13 (2033/2034)	\$1,293,367	\$633,118	\$1,034,482	\$1,034,482
14 (2034/2035)	\$1,102,834	\$433,138	\$894,881	\$894,881
15 (2035/2036)	\$1,295,143	\$616,131	\$1,141,998	\$1,141,998
16 (2036/2037)	\$1,323,117	\$634,944	\$1,228,869	\$1,228,869
17 (2037/2038)	\$1,188,105	\$490,940	\$1,157,057	\$1,157,057
18 (2038/2039)	\$1,281,142	\$575,183	\$1,317,832	\$1,317,832
19 (2039/2040)	\$1,481,773	\$767,240	\$1,590,979	\$1,590,979
20 (2040/2041)	\$1,657,336	\$934,477	\$1,844,091	\$1,844,091
21 (2041/2042)	\$1,683,219	\$952,309	\$1,952,821	\$1,952,821
22 (2042/2043)	\$1,723,988	\$985,329	\$2,082,011	\$2,082,011
23 (2043/2044)	\$1,862,347	\$1,116,274	\$2,314,656	\$2,314,656
24 (2044/2045)	\$2,032,289	\$1,279,172	\$2,585,058	\$2,585,058
25 (2045/2046)	\$2,196,763	\$1,437,003	\$2,856,480	\$2,856,480
26 (2046/2047)	\$2,401,061	\$1,635,097	\$3,174,549	\$3,174,549
27 (2047/2048)	\$2,215,935	\$1,444,243	\$3,110,364	\$3,110,364
28 (2048/2049)	\$2,422,250	\$1,645,352	\$3,445,162	\$3,445,162
29 (2049/2050)	\$2,719,395	\$1,937,850	\$3,878,709	\$3,878,709
30 (2050/2051)	\$3,098,352	\$2,312,767	\$4,402,388	\$4,402,388



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 problem.

SOURCES USED IN COMPILING THIS REPORT

Reserve Consultants LLC has provided reserve studies and construction services since 1992 and base component repair and replacement costs on this extensive experience and information provided by the Association. Sources used include:

- Review of previous reserve study report(s);
- Input provided by association representatives;
- Review of a list of components the community is responsible for;
- Generally accepted construction, maintenance, and repair guidelines

The current replacement cost is an estimate and actual costs may vary. Material selection, timing of the work, and requirements for Architectural services or construction management can impact cost projections. Expenses related to common interest communities are typically higher than other multi-family construction types, often due to the elevated insurance requirements contractors must carry. All estimates assume that a licensed and bonded contractor will be utilized to complete the work due to liability issues. Regional cost factors are applied as appropriate.



GOVERNMENT REQUIREMENTS FOR A RESERVE STUDY

The Washington State government 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.

Effective July 1, 2018, the Washington Unified Common Interest Act (WUCIOA) has impacted common interest communities. Our reserve studies also comply with WUCIOA.

The WUCIOA requires the following disclosure in every Reserve Study (RCW 64.90.550 § 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 the association to (1) defer major maintenance, repair, or replacement, (2) increase future reserve contributions, (3) borrow funds to pay for major maintenance, repair, or replacement, or (4) impose special assessments for the cost of major maintenance, repair, or replacement."

RCW 64.90.550 §2 (d) – (f) requirements are covered by the reserve disclosure that is prepared with each reserve study when the Community is ready to ratify the budget.

The full Washington Unified Common Interest Act can be accessed at the Washington State Legislature's website at <https://app.leg.wa.gov/RCW/default.aspx?cite=64.90>.



LIMITATIONS AND ASSUMPTIONS OF A RESERVE STUDY

This Reserve Study is not a report on the condition of the assets maintained by Carlyon Beach HOA, or a detailed report of necessary maintenance 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 and the Washington Common Interest Ownership Act (WUCIOA).

The component list is based on information provided by Carlyon Beach HOA. Reserve Consultants LLC does not provide legal interpretations of governing documents or auditing services on account information provided.

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 maintenance and repair by Carlyon Beach HOA. 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 Carlyon Beach HOA 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 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 unit owners.



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 1990 is 3.07%. 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 1990 is 2.82%. 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.

INFLATION AND INTEREST RATE PROJECTIONS

YEARS APPLIED	RESERVE CONTRIBUTION INFLATION	RESERVE EXPENSE INFLATION	INTEREST RATE
Year 0 (2020/2021)	0%	0%	0.5%
Year 1 (2021/2022)	0%	4%	0.5%
Year 2 (2022/2023) through Year 10 (2030/2031)	3%	3%	2%
Year 11 (2031/2032) through Year 30 (2050/2051)	4%	4%	3%



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; nor is there any involvement with Carlyon Beach HOA which could result in a conflict of interest.
3. Reserve Consultants LLC has been a member of the Community Associations 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. Any on-site inspection should not be considered a project audit or quality inspection.
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 record.
8. The report complies with the requirements for reserve studies as set forth by Washington State law. The report may not comply with national standards for reserve studies as set forth by the Community Associations Institute or the Association of Professional Reserve Analysts.

RCL APPENDIX A

CARLYON BEACH HOA

30-YEAR RESERVE STUDY PROJECTIONS
WITH STARTING RECOMMENDED FUNDING OF \$270,000
AND COMPOUND INFLATION

				3-Apr-21				
STARTING RESERVE BALANCE				\$498,662	\$454,713	\$431,669	\$481,239	\$82,666
ANNUAL RESERVE CONTRIBUTION				\$270,000	\$278,100	\$286,443	\$295,036	\$303,887
ESTIMATED INTEREST EARNED				\$2,377	\$8,776	\$9,039	\$5,583	\$3,061
SPECIAL ASSESSMENT				\$0	\$0	\$0	\$0	\$0
ACCUMULATED CREDITS				\$771,039	\$741,589	\$727,151	\$781,858	\$389,615
#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.	1 2021/ 2022	2 2022/ 2023	3 2023/ 2024	4 2024/ 2025	5 2025/ 2026
2.6.1	Asphalt Road - Major Repairs	1	1	\$84,812	\$87,356	\$89,977	\$92,676	\$95,457
2.6.2	Gravel Road - Repair	5	1	\$39,447				
2.7.1	Chain-Link Fence - Maintenance	5	4				\$11,955	
2.9.1	Mooring Docks - Repair	1	0	\$52,000	\$53,560	\$55,167	\$56,822	
2.9.2	Log Boom - Repair	10	7					
2.9.3	Marina Floats - Repair	10	7					
2.9.4	Marina Metal Pilings - Replace	50	48					
2.9.5	Marina Main Walkway - Replace	50	42					
2.9.6	Hazardous Tree Removal	5	4				\$5,796	
3.3.1	Bulkhead Retaining Walls - Ph. 1 Repair	50	42					
3.3.2	Bulkhead Retaining Walls - Ph. 2 Repair	50	4				\$420,743	
6.2.1	Clubhouse Exterior Surfaces - Repair	7	2		\$3,449			
7.4.1	Clubhouse Shingle Roof - Replace	24	14					
7.4.3	Picnic Area "Wanagan" Roof - Replace	30	12					
7.4.4	Maintenance Bldg. Shingle Roof - Replace	24	24					
8.5.1	Clubhouse Windows - Replace	40	8					
9.6.1	Clubhouse Carpet Flooring - Replace	10	4				\$11,126	
9.8.1	Clubhouse Exterior Surfaces - Paint	7	2		\$12,437			
9.8.2	Water Tower Exterior - Paint	20	2		\$60,844			
10.1.1	Carport - Replace	20	18					
10.1.2	Larger Playground - Replace Equipment	20	20					
10.1.3	Smaller Playground - Replace Equipment	20	2		\$10,712			
11.2.1	Bolens Mower - Replace	10	3			\$7,878		
11.2.2	Backhoe - Replace	18	2		\$42,045			
11.2.3	Hydroexcavator - Replace	18	4				\$34,923	
11.2.4	Vehicles - Contingency	5	1	\$20,800				
11.2.5	Main Pump Truck - Replace	10	7					
11.2.6	Dump Trailer - Replace	20	4				\$11,580	
11.2.7	Diesel Tank - Replace	15	2		\$11,494			
11.2.8	Miscellaneous Equipment - Contingency	10	8					
12.1.1	Clubhouse Interiors - Update	10	4				\$11,580	
12.1.2	Clubhouse Office Equipment - Replace	5	3			\$5,627		
12.1.4	Misc. Building Repair - Contingency	10	8					
15.1.1	Plumbing System - Contingency	3	3			\$11,243		
15.1.2	Water Tower - Maintenance	5	3			\$11,243		
15.1.3	Water System Computer 1 - Contingency	15	4				\$11,887	
15.1.4	Well Pump 1 - Maintenance	12	1	\$20,800				
15.1.5	Water System Computer 2 - Contingency	15	4				\$11,887	
15.1.6	Well Pump 2 - Maintenance	12	1	\$16,328				
15.1.7	Water Meters - Installation	1	0	\$20,800				
15.1.8	Water Meters - Maintenance	5	6					
15.1.9	Water System Telemetry - Maintenance	20	1	\$11,242				
15.5.1	Clubhouse Septic Tanks - Contingency	30	5					\$18,682
15.5.2	Decanter Unit - Contingency	10	5					\$21,479
15.5.3	Aeration Manifold - Contingency	20	5					\$27,507
15.5.4	Aerobic System Controls - Contingency	20	1	\$21,206				
15.5.5	Mixer Unit - Contingency	20	1	\$24,440				
15.5.6	Air Compressor - Maintenance	10	3			\$10,978		
15.5.7	UV Disinfection Controller - Contingency	20	16					
15.5.8	Sewage Treatment Facility - Contingency	20	14					
15.5.9	Expansion Sampler - Contingency	10	4				\$13,353	
15.6.1	Treatment Plant Outfall - Contingency	15	3			\$11,243		
15.6.2	Bioswale - Maintenance	25	14					
15.6.3	Bioswale - Inspection	5	3			\$5,627		
15.7.1	Bio-Filter Park - Maintenance	15	14					
15.8.1	Fire Hydrant PSV - Maintenance	25	11					
16.1.1	Electrical System - Contingency	5	3			\$11,243		
16.3.1	Emergency Generator - Maintenance	10	2		\$28,023			
16.3.2	Sewage Treatment Emergency Generator - Contingency	10	3			\$14,443		
17.1.1	Security Lighting - Replace	10	3			\$11,243		
18.1.1	Surveillance System - Update	10	8					
20.1.1	Reserve Study Updates - With Site Visit	3	1	\$4,451			\$4,864	
TOTAL ANTICIPATED ANNUAL RESERVE EXPENSES				\$316,326	\$309,920	\$245,912	\$699,192	\$163,125
ACCUMULATED CREDITS				\$771,039	\$741,589	\$727,151	\$781,858	\$389,615
ACCUMULATED DEBITS				\$316,326	\$309,920	\$245,912	\$699,192	\$163,125
YEAR-END BALANCE				\$454,713	\$431,669	\$481,239	\$82,666	\$226,490
YEARS	1	2-10	11-30	1 (2022)	2 (2023)	3 (2024)	4 (2025)	5 (2026)
CONTRIBUTION INFLATION	0%	3%	4%	0%	3%	3%	3%	3%
COMPONENT COMPOUND INFLATION	4%	3%	4%	104%	107%	110%	114%	117%
INTEREST RATE MULTIPLIER	0.5%	2%	3%	1%	2%	2%	2%	2%

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RCL APPENDIX A

CARLYON BEACH HOA

30-YEAR RESERVE STUDY PROJECTIONS
WITH STARTING RECOMMENDED FUNDING OF \$270,000
AND COMPOUND INFLATION

					3-Apr-21							
STARTING RESERVE BALANCE					\$226,490	\$350,312	\$312,874	\$399,777	\$590,634			
ANNUAL RESERVE CONTRIBUTION					\$313,004	\$322,394	\$332,066	\$342,028	\$352,289			
ESTIMATED INTEREST EARNED					\$5,711	\$6,566	\$7,056	\$9,806	\$14,171			
SPECIAL ASSESSMENT					\$0	\$0	\$0	\$0	\$0			
ACCUMULATED CREDITS					\$545,205	\$679,272	\$651,996	\$751,611	\$957,093			
#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.	6 2026/2027	7 2027/2028	8 2028/2029	9 2029/2030	10 2030/2031				
2.6.1	Asphalt Road - Major Repairs	1	1	\$98,320	\$101,270	\$104,308	\$107,437	\$110,660				
2.6.2	Gravel Road - Repair	5	1	\$45,730								
2.7.1	Chain-Link Fence - Maintenance	5	4				\$13,859					
2.9.1	Mooring Docks - Repair	1	0									
2.9.2	Log Boom - Repair	10	7		\$25,321							
2.9.3	Marina Floats - Repair	10	7		\$25,619							
2.9.4	Marina Metal Pilings - Replace	50	48									
2.9.5	Marina Main Walkway - Replace	50	42									
2.9.6	Hazardous Tree Removal	5	4				\$6,719					
3.3.1	Bulkhead Retaining Walls - Ph. 1 Repair	50	42									
3.3.2	Bulkhead Retaining Walls - Ph. 2 Repair	50	4									
6.2.1	Clubhouse Exterior Surfaces - Repair	7	2				\$4,242					
7.4.1	Clubhouse Shingle Roof - Replace	24	14									
7.4.3	Picnic Area "Wanagan" Roof - Replace	30	12									
7.4.4	Maintenance Bldg. Shingle Roof - Replace	24	24									
8.5.1	Clubhouse Windows - Replace	40	8			\$59,451						
9.6.1	Clubhouse Carpet Flooring - Replace	10	4									
9.8.1	Clubhouse Exterior Surfaces - Paint	7	2				\$15,295					
9.8.2	Water Tower Exterior - Paint	20	2									
10.1.1	Carport - Replace	20	18									
10.1.2	Larger Playground - Replace Equipment	20	20									
10.1.3	Smaller Playground - Replace Equipment	20	2									
11.2.1	Bolens Mower - Replace	10	3									
11.2.2	Backhoe - Replace	18	2									
11.2.3	Hydroexcavator - Replace	18	4									
11.2.4	Vehicles - Contingency	5	1	\$24,113								
11.2.5	Main Pump Truck - Replace	10	7		\$208,873							
11.2.6	Dump Trailer - Replace	20	4									
11.2.7	Diesel Tank - Replace	15	2									
11.2.8	Miscellaneous Equipment - Contingency	10	8			\$16,743						
12.1.1	Clubhouse Interiors - Update	10	4									
12.1.2	Clubhouse Office Equipment - Replace	5	3			\$6,523						
12.1.4	Misc. Building Repair - Contingency	10	8			\$6,523						
15.1.1	Plumbing System - Contingency	3	3	\$12,286			\$13,425					
15.1.2	Water Tower - Maintenance	5	3			\$13,034						
15.1.3	Water System Computer 1 - Contingency	15	4									
15.1.4	Well Pump 1 - Maintenance	12	1									
15.1.5	Water System Computer 2 - Contingency	15	4									
15.1.6	Well Pump 2 - Maintenance	12	1									
15.1.7	Water Meters - Installation	1	0									
15.1.8	Water Meters - Maintenance	5	6	\$14,444								
15.1.9	Water System Telemetry - Maintenance	20	1									
15.5.1	Clubhouse Septic Tanks - Contingency	30	5									
15.5.2	Decanter Unit - Contingency	10	5									
15.5.3	Aeration Manifold - Contingency	20	5									
15.5.4	Aerobic System Controls - Contingency	20	1									
15.5.5	Mixer Unit - Contingency	20	1									
15.5.6	Air Compressor - Maintenance	10	3									
15.5.7	UV Disinfection Controller - Contingency	20	16									
15.5.8	Sewage Treatment Facility - Contingency	20	14									
15.5.9	Expansion Sampler - Contingency	10	4									
15.6.1	Treatment Plant Outfall - Contingency	15	3									
15.6.2	Bioswale - Maintenance	25	14									
15.6.3	Bioswale - Inspection	5	3			\$6,523						
15.7.1	Bio-Filter Park - Maintenance	15	14									
15.8.1	Fire Hydrant PSV - Maintenance	25	11									
16.1.1	Electrical System - Contingency	5	3			\$13,034						
16.3.1	Emergency Generator - Maintenance	10	2									
16.3.2	Sewage Treatment Emergency Generator - Contingency	10	3									
17.1.1	Security Lighting - Replace	10	3									
18.1.1	Surveillance System - Update	10	8			\$26,080						
20.1.1	Reserve Study Updates - With Site Visit	3	1		\$5,315			\$5,808				
TOTAL ANTICIPATED ANNUAL RESERVE EXPENSES					\$194,893	\$366,398	\$252,219	\$160,977	\$116,468			
ACCUMULATED CREDITS					\$545,205	\$679,272	\$651,996	\$751,611	\$957,093			
ACCUMULATED DEBITS					\$194,893	\$366,398	\$252,219	\$160,977	\$116,468			
YEAR-END BALANCE					\$350,312	\$312,874	\$399,777	\$590,634	\$840,625			
YEARS					1	2-10	11-30	6 (2027)	7 (2028)	8 (2029)	9 (2030)	10 (2031)
CONTRIBUTION INFLATION					0%	3%	4%	3%	3%	3%	3%	3%
COMPONENT COMPOUND INFLATION					4%	3%	4%	121%	124%	128%	132%	136%
INTEREST RATE MULTIPLIER					0.5%	2%	3%	2%	2%	2%	2%	2%

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RCL APPENDIX A

CARLYON BEACH HOA

30-YEAR RESERVE STUDY PROJECTIONS
WITH STARTING RECOMMENDED FUNDING OF \$270,000
AND COMPOUND INFLATION

					3-Apr-21				
STARTING RESERVE BALANCE					\$840,625	\$1,005,898	\$1,236,702	\$1,293,367	\$1,102,834
ANNUAL RESERVE CONTRIBUTION					\$366,380	\$381,036	\$313,077	\$325,600	\$338,624
ESTIMATED INTEREST EARNED					\$27,289	\$33,142	\$37,390	\$35,412	\$35,438
SPECIAL ASSESSMENT					\$0	\$0	\$0	\$0	\$0
ACCUMULATED CREDITS					\$1,234,294	\$1,420,076	\$1,587,169	\$1,654,379	\$1,476,896
#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.		11 2031/ 2032	12 2032/ 2033	13 2033/ 2034	14 2034/ 2035	15 2035/ 2036
2.6.1	Asphalt Road - Major Repairs	1	1		\$115,087	\$119,690	\$124,478	\$129,457	\$134,635
2.6.2	Gravel Road - Repair	5	1		\$53,528				
2.7.1	Chain-Link Fence - Maintenance	5	4					\$16,700	
2.9.1	Mooring Docks - Repair	1	0						
2.9.2	Log Boom - Repair	10	7						
2.9.3	Marina Floats - Repair	10	7						
2.9.4	Marina Metal Pilings - Replace	50	48						
2.9.5	Marina Main Walkway - Replace	50	42						
2.9.6	Hazardous Tree Removal	5	4					\$8,096	
3.3.1	Bulkhead Retaining Walls - Ph. 1 Repair	50	42						
3.3.2	Bulkhead Retaining Walls - Ph. 2 Repair	50	4						
6.2.1	Clubhouse Exterior Surfaces - Repair	7	2						
7.4.1	Clubhouse Shingle Roof - Replace	24	14					\$23,288	
7.4.3	Picnic Area "Wanagan" Roof - Replace	30	12			\$10,333			
7.4.4	Maintenance Bldg. Shingle Roof - Replace	24	24						
8.5.1	Clubhouse Windows - Replace	40	8						
9.6.1	Clubhouse Carpet Flooring - Replace	10	4					\$15,541	
9.8.1	Clubhouse Exterior Surfaces - Paint	7	2						
9.8.2	Water Tower Exterior - Paint	20	2						
10.1.1	Carport - Replace	20	18						
10.1.2	Larger Playground - Replace Equipment	20	20						
10.1.3	Smaller Playground - Replace Equipment	20	2						
11.2.1	Bolens Mower - Replace	10	3				\$10,898		
11.2.2	Backhoe - Replace	18	2						
11.2.3	Hydroexcavator - Replace	18	4						
11.2.4	Vehicles - Contingency	5	1		\$28,225				
11.2.5	Main Pump Truck - Replace	10	7						
11.2.6	Dump Trailer - Replace	20	4						
11.2.7	Diesel Tank - Replace	15	2						
11.2.8	Miscellaneous Equipment - Contingency	10	8						
12.1.1	Clubhouse Interiors - Update	10	4					\$16,176	
12.1.2	Clubhouse Office Equipment - Replace	5	3				\$7,785		
12.1.4	Misc. Building Repair - Contingency	10	8						
15.1.1	Plumbing System - Contingency	3	3			\$14,956			\$16,823
15.1.2	Water Tower - Maintenance	5	3				\$15,554		
15.1.3	Water System Computer 1 - Contingency	15	4						
15.1.4	Well Pump 1 - Maintenance	12	1				\$30,528		
15.1.5	Water System Computer 2 - Contingency	15	4						
15.1.6	Well Pump 2 - Maintenance	12	1				\$23,964		
15.1.7	Water Meters - Installation	1	0						
15.1.8	Water Meters - Maintenance	5	6		\$16,907				
15.1.9	Water System Telemetry - Maintenance	20	1						
15.5.1	Clubhouse Septic Tanks - Contingency	30	5						
15.5.2	Decanter Unit - Contingency	10	5						\$30,295
15.5.3	Aeration Manifold - Contingency	20	5						
15.5.4	Aerobic System Controls - Contingency	20	1						
15.5.5	Mixer Unit - Contingency	20	1						
15.5.6	Air Compressor - Maintenance	10	3				\$15,188		
15.5.7	UV Disinfection Controller - Contingency	20	16						
15.5.8	Sewage Treatment Facility - Contingency	20	14					\$145,633	
15.5.9	Expansion Sampler - Contingency	10	4					\$18,653	
15.6.1	Treatment Plant Outfall - Contingency	15	3						
15.6.2	Bioswale - Maintenance	25	14					\$129,457	
15.6.3	Bioswale - Inspection	5	3				\$7,785		
15.7.1	Bio-Filter Park - Maintenance	15	14					\$48,544	
15.8.1	Fire Hydrant PSV - Maintenance	25	11		\$14,649				
16.1.1	Electrical System - Contingency	5	3				\$15,554		
16.3.1	Emergency Generator - Maintenance	10	2			\$38,395			
16.3.2	Sewage Treatment Emergency Generator - Contingency	10	3				\$19,981		
17.1.1	Security Lighting - Replace	10	3				\$15,554		
18.1.1	Surveillance System - Update	10	8						
20.1.1	Reserve Study Updates - With Site Visit	3	1				\$6,533		
TOTAL ANTICIPATED ANNUAL RESERVE EXPENSES					\$228,396	\$183,374	\$293,802	\$551,545	\$181,753
ACCUMULATED CREDITS					\$1,234,294	\$1,420,076	\$1,587,169	\$1,654,379	\$1,476,896
ACCUMULATED DEBITS					\$228,396	\$183,374	\$293,802	\$551,545	\$181,753
YEAR-END BALANCE					\$1,005,898	\$1,236,702	\$1,293,367	\$1,102,834	\$1,295,143
YEARS					1	2-10	11-30		
CONTRIBUTION INFLATION					0%	3%	4%		
COMPONENT COMPOUND INFLATION					4%	3%	4%		
INTEREST RATE MULTIPLIER					0.5%	2%	3%		
					11 (2032)	12 (2033)	13 (2034)	14 (2035)	15 (2036)
					4%	4%	4%	4%	4%
					141%	147%	153%	159%	165%
					3%	3%	3%	3%	3%

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RCL APPENDIX A

CARLYON BEACH HOA

30-YEAR RESERVE STUDY PROJECTIONS
WITH STARTING RECOMMENDED FUNDING OF \$270,000
AND COMPOUND INFLATION

					3-Apr-21				
STARTING RESERVE BALANCE					\$1,295,143	\$1,323,117	\$1,188,105	\$1,281,142	\$1,481,773
ANNUAL RESERVE CONTRIBUTION					\$352,169	\$366,256	\$380,906	\$396,142	\$411,988
ESTIMATED INTEREST EARNED					\$38,693	\$37,112	\$36,491	\$40,831	\$46,391
SPECIAL ASSESSMENT					\$0	\$0	\$0	\$0	\$0
ACCUMULATED CREDITS					\$1,686,005	\$1,726,485	\$1,605,502	\$1,718,115	\$1,940,152
#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.		16 2036/ 2037	17 2037/ 2038	18 2038/ 2039	19 2039/ 2040	20 2040/ 2041
2.6.1	Asphalt Road - Major Repairs	1	1		\$140,021	\$145,622	\$151,446	\$157,504	\$163,804
2.6.2	Gravel Road - Repair	5	1		\$65,126				
2.7.1	Chain-Link Fence - Maintenance	5	4					\$20,318	
2.9.1	Mooring Docks - Repair	1	0						
2.9.2	Log Boom - Repair	10	7			\$36,410			
2.9.3	Marina Floats - Repair	10	7			\$36,838			
2.9.4	Marina Metal Pilings - Replace	50	48						
2.9.5	Marina Main Walkway - Replace	50	42						
2.9.6	Hazardous Tree Removal	5	4					\$9,850	
3.3.1	Bulkhead Retaining Walls - Ph. 1 Repair	50	42						
3.3.2	Bulkhead Retaining Walls - Ph. 2 Repair	50	4						
6.2.1	Clubhouse Exterior Surfaces - Repair	7	2		\$5,529				
7.4.1	Clubhouse Shingle Roof - Replace	24	14						
7.4.3	Picnic Area "Wanagan" Roof - Replace	30	12						
7.4.4	Maintenance Bldg. Shingle Roof - Replace	24	24						
8.5.1	Clubhouse Windows - Replace	40	8						
9.6.1	Clubhouse Carpet Flooring - Replace	10	4						
9.8.1	Clubhouse Exterior Surfaces - Paint	7	2		\$19,934				
9.8.2	Water Tower Exterior - Paint	20	2						
10.1.1	Carport - Replace	20	18				\$6,630		
10.1.2	Larger Playground - Replace Equipment	20	20						\$40,173
10.1.3	Smaller Playground - Replace Equipment	20	2						
11.2.1	Bolens Mower - Replace	10	3						
11.2.2	Backhoe - Replace	18	2						\$78,839
11.2.3	Hydroexcavator - Replace	18	4						
11.2.4	Vehicles - Contingency	5	1		\$34,340				
11.2.5	Main Pump Truck - Replace	10	7			\$300,350			
11.2.6	Dump Trailer - Replace	20	4						
11.2.7	Diesel Tank - Replace	15	2			\$19,160			
11.2.8	Miscellaneous Equipment - Contingency	10	8				\$24,309		
12.1.1	Clubhouse Interiors - Update	10	4						
12.1.2	Clubhouse Office Equipment - Replace	5	3				\$9,471		
12.1.4	Misc. Building Repair - Contingency	10	8				\$9,471		
15.1.1	Plumbing System - Contingency	3	3				\$18,924		
15.1.2	Water Tower - Maintenance	5	3				\$18,924		
15.1.3	Water System Computer 1 - Contingency	15	4					\$20,202	
15.1.4	Well Pump 1 - Maintenance	12	1						
15.1.5	Water System Computer 2 - Contingency	15	4					\$20,202	
15.1.6	Well Pump 2 - Maintenance	12	1						
15.1.7	Water Meters - Installation	1	0						
15.1.8	Water Meters - Maintenance	5	6		\$20,570				
15.1.9	Water System Telemetry - Maintenance	20	1						
15.5.1	Clubhouse Septic Tanks - Contingency	30	5						
15.5.2	Decanter Unit - Contingency	10	5						
15.5.3	Aeration Manifold - Contingency	20	5						
15.5.4	Aerobic System Controls - Contingency	20	1						
15.5.5	Mixer Unit - Contingency	20	1						
15.5.6	Air Compressor - Maintenance	10	3						
15.5.7	UV Disinfection Controller - Contingency	20	16		\$70,019				
15.5.8	Sewage Treatment Facility - Contingency	20	14						
15.5.9	Expansion Sampler - Contingency	10	4						
15.6.1	Treatment Plant Outfall - Contingency	15	3				\$18,924		
15.6.2	Bioswale - Maintenance	25	14						
15.6.3	Bioswale - Inspection	5	3				\$9,471		
15.7.1	Bio-Filter Park - Maintenance	15	14						
15.8.1	Fire Hydrant PSV - Maintenance	25	11						
16.1.1	Electrical System - Contingency	5	3				\$18,924		
16.3.1	Emergency Generator - Maintenance	10	2						
16.3.2	Sewage Treatment Emergency Generator - Contingency	10	3						
17.1.1	Security Lighting - Replace	10	3						
18.1.1	Surveillance System - Update	10	8				\$37,866		
20.1.1	Reserve Study Updates - With Site Visit	3	1		\$7,349		\$8,266		
TOTAL ANTICIPATED ANNUAL RESERVE EXPENSES					\$362,888	\$538,380	\$324,360	\$236,342	\$282,816
ACCUMULATED CREDITS					\$1,686,005	\$1,726,485	\$1,605,502	\$1,718,115	\$1,940,152
ACCUMULATED DEBITS					\$362,888	\$538,380	\$324,360	\$236,342	\$282,816
YEAR-END BALANCE					\$1,323,117	\$1,188,105	\$1,281,142	\$1,481,773	\$1,657,336
YEARS					1	2-10	11-30		
CONTRIBUTION INFLATION					0%	3%	4%		
COMPONENT COMPOUND INFLATION					4%	3%	4%		
INTEREST RATE MULTIPLIER					0.5%	2%	3%		
					16 (2037)	17 (2038)	18 (2039)	19 (2040)	20 (2041)
					4%	4%	4%	4%	4%
					172%	179%	186%	193%	201%
					3%	3%	3%	3%	3%

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RCL APPENDIX A

CARLYON BEACH HOA

30-YEAR RESERVE STUDY PROJECTIONS
WITH STARTING RECOMMENDED FUNDING OF \$270,000
AND COMPOUND INFLATION

					3-Apr-21							
STARTING RESERVE BALANCE					\$1,657,336	\$1,683,219	\$1,723,988	\$1,862,347	\$2,032,289			
ANNUAL RESERVE CONTRIBUTION					\$428,467	\$445,606	\$463,430	\$481,968	\$501,246			
ESTIMATED INTEREST EARNED					\$49,368	\$50,353	\$53,000	\$57,556	\$62,498			
SPECIAL ASSESSMENT					\$0	\$0	\$0	\$0	\$0			
ACCUMULATED CREDITS					\$2,135,171	\$2,179,178	\$2,240,419	\$2,401,870	\$2,596,034			
#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.	21 2041/ 2042	22 2042/ 2043	23 2043/ 2044	24 2044/ 2045	25 2045/ 2046				
2.6.1	Asphalt Road - Major Repairs	1	1	\$170,357	\$177,171	\$184,258	\$191,628	\$199,293				
2.6.2	Gravel Road - Repair	5	1	\$79,235								
2.7.1	Chain-Link Fence - Maintenance	5	4				\$24,720					
2.9.1	Mooring Docks - Repair	1	0									
2.9.2	Log Boom - Repair	10	7									
2.9.3	Marina Floats - Repair	10	7									
2.9.4	Marina Metal Pilings - Replace	50	48									
2.9.5	Marina Main Walkway - Replace	50	42									
2.9.6	Hazardous Tree Removal	5	4				\$11,984					
3.3.1	Bulkhead Retaining Walls - Ph. 1 Repair	50	42									
3.3.2	Bulkhead Retaining Walls - Ph. 2 Repair	50	4									
6.2.1	Clubhouse Exterior Surfaces - Repair	7	2			\$7,275						
7.4.1	Clubhouse Shingle Roof - Replace	24	14									
7.4.3	Picnic Area "Wanagan" Roof - Replace	30	12									
7.4.4	Maintenance Bldg. Shingle Roof - Replace	24	24				\$18,799					
8.5.1	Clubhouse Windows - Replace	40	8									
9.6.1	Clubhouse Carpet Flooring - Replace	10	4				\$23,005					
9.8.1	Clubhouse Exterior Surfaces - Paint	7	2			\$26,232						
9.8.2	Water Tower Exterior - Paint	20	2		\$123,400							
10.1.1	Carport - Replace	20	18									
10.1.2	Larger Playground - Replace Equipment	20	20									
10.1.3	Smaller Playground - Replace Equipment	20	2		\$21,725							
11.2.1	Bolens Mower - Replace	10	3			\$16,132						
11.2.2	Backhoe - Replace	18	2									
11.2.3	Hydroexcavator - Replace	18	4		\$66,762							
11.2.4	Vehicles - Contingency	5	1	\$41,780								
11.2.5	Main Pump Truck - Replace	10	7									
11.2.6	Dump Trailer - Replace	20	4				\$23,945					
11.2.7	Diesel Tank - Replace	15	2									
11.2.8	Miscellaneous Equipment - Contingency	10	8									
12.1.1	Clubhouse Interiors - Update	10	4				\$23,945					
12.1.2	Clubhouse Office Equipment - Replace	5	3			\$11,523						
12.1.4	Misc. Building Repair - Contingency	10	8									
15.1.1	Plumbing System - Contingency	3	3	\$21,287			\$23,945					
15.1.2	Water Tower - Maintenance	5	3			\$23,024						
15.1.3	Water System Computer 1 - Contingency	15	4									
15.1.4	Well Pump 1 - Maintenance	12	1					\$48,876				
15.1.5	Water System Computer 2 - Contingency	15	4									
15.1.6	Well Pump 2 - Maintenance	12	1					\$38,368				
15.1.7	Water Meters - Installation	1	0									
15.1.8	Water Meters - Maintenance	5	6	\$25,026								
15.1.9	Water System Telemetry - Maintenance	20	1	\$22,582								
15.5.1	Clubhouse Septic Tanks - Contingency	30	5									
15.5.2	Decanter Unit - Contingency	10	5					\$44,844				
15.5.3	Aeration Manifold - Contingency	20	5					\$57,430				
15.5.4	Aerobic System Controls - Contingency	20	1	\$42,594								
15.5.5	Mixer Unit - Contingency	20	1	\$49,091								
15.5.6	Air Compressor - Maintenance	10	3			\$22,481						
15.5.7	UV Disinfection Controller - Contingency	20	16									
15.5.8	Sewage Treatment Facility - Contingency	20	14									
15.5.9	Expansion Sampler - Contingency	10	4				\$27,610					
15.6.1	Treatment Plant Outfall - Contingency	15	3									
15.6.2	Bioswale - Maintenance	25	14									
15.6.3	Bioswale - Inspection	5	3			\$11,523						
15.7.1	Bio-Filter Park - Maintenance	15	14									
15.8.1	Fire Hydrant PSV - Maintenance	25	11									
16.1.1	Electrical System - Contingency	5	3			\$23,024						
16.3.1	Emergency Generator - Maintenance	10	2		\$56,834							
16.3.2	Sewage Treatment Emergency Generator - Contingency	10	3			\$29,576						
17.1.1	Security Lighting - Replace	10	3			\$23,024						
18.1.1	Surveillance System - Update	10	8									
20.1.1	Reserve Study Updates - With Site Visit	3	1		\$9,298			\$10,460				
TOTAL ANTICIPATED ANNUAL RESERVE EXPENSES					\$451,952	\$455,190	\$378,072	\$369,581	\$399,271			
ACCUMULATED CREDITS					\$2,135,171	\$2,179,178	\$2,240,419	\$2,401,870	\$2,596,034			
ACCUMULATED DEBITS					\$451,952	\$455,190	\$378,072	\$369,581	\$399,271			
YEAR-END BALANCE					\$1,683,219	\$1,723,988	\$1,862,347	\$2,032,289	\$2,196,763			
YEARS					1	2-10	11-30	21 (2042)	22 (2043)	23 (2044)	24 (2045)	25 (2046)
CONTRIBUTION INFLATION					0%	3%	4%	4%	4%	4%	4%	4%
COMPONENT COMPOUND INFLATION					4%	3%	4%	209%	217%	226%	235%	244%
INTEREST RATE MULTIPLIER					0.5%	2%	3%	3%	3%	3%	3%	3%

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RCL APPENDIX A

CARLYON BEACH HOA

30-YEAR RESERVE STUDY PROJECTIONS
WITH STARTING RECOMMENDED FUNDING OF \$270,000
AND COMPOUND INFLATION

					3-Apr-21				
STARTING RESERVE BALANCE					\$2,196,763	\$2,401,061	\$2,215,935	\$2,422,250	\$2,719,395
ANNUAL RESERVE CONTRIBUTION					\$521,296	\$542,148	\$563,834	\$586,387	\$609,843
ESTIMATED INTEREST EARNED					\$67,948	\$68,231	\$68,545	\$75,985	\$85,977
SPECIAL ASSESSMENT					\$0	\$0	\$0	\$0	\$0
ACCUMULATED CREDITS					\$2,786,007	\$3,011,441	\$2,848,313	\$3,084,622	\$3,415,215
#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.		26 2046/ 2047	27 2047/ 2048	28 2048/ 2049	29 2049/ 2050	30 2050/ 2051
2.6.1	Asphalt Road - Major Repairs	1	1		\$207,265	\$215,555	\$224,178	\$233,145	\$242,471
2.6.2	Gravel Road - Repair	5	1		\$96,402				
2.7.1	Chain-Link Fence - Maintenance	5	4					\$30,076	
2.9.1	Mooring Docks - Repair	1	0						
2.9.2	Log Boom - Repair	10	7			\$53,895			
2.9.3	Marina Floats - Repair	10	7			\$54,530			
2.9.4	Marina Metal Pilings - Replace	50	48						
2.9.5	Marina Main Walkway - Replace	50	42						
2.9.6	Hazardous Tree Removal	5	4					\$14,580	
3.3.1	Bulkhead Retaining Walls - Ph. 1 Repair	50	42						
3.3.2	Bulkhead Retaining Walls - Ph. 2 Repair	50	4						
6.2.1	Clubhouse Exterior Surfaces - Repair	7	2						\$9,574
7.4.1	Clubhouse Shingle Roof - Replace	24	14						
7.4.3	Picnic Area "Wanagan" Roof - Replace	30	12						
7.4.4	Maintenance Bldg. Shingle Roof - Replace	24	24						
8.5.1	Clubhouse Windows - Replace	40	8						
9.6.1	Clubhouse Carpet Flooring - Replace	10	4						
9.8.1	Clubhouse Exterior Surfaces - Paint	7	2						\$34,520
9.8.2	Water Tower Exterior - Paint	20	2						
10.1.1	Carport - Replace	20	18						
10.1.2	Larger Playground - Replace Equipment	20	20						
10.1.3	Smaller Playground - Replace Equipment	20	2						
11.2.1	Bolens Mower - Replace	10	3						
11.2.2	Backhoe - Replace	18	2						
11.2.3	Hydroexcavator - Replace	18	4						
11.2.4	Vehicles - Contingency	5	1		\$50,831				
11.2.5	Main Pump Truck - Replace	10	7			\$444,591			
11.2.6	Dump Trailer - Replace	20	4						
11.2.7	Diesel Tank - Replace	15	2						
11.2.8	Miscellaneous Equipment - Contingency	10	8				\$35,984		
12.1.1	Clubhouse Interiors - Update	10	4						
12.1.2	Clubhouse Office Equipment - Replace	5	3				\$14,020		
12.1.4	Misc. Building Repair - Contingency	10	8				\$14,020		
15.1.1	Plumbing System - Contingency	3	3			\$26,935			\$30,298
15.1.2	Water Tower - Maintenance	5	3				\$28,012		
15.1.3	Water System Computer 1 - Contingency	15	4						
15.1.4	Well Pump 1 - Maintenance	12	1						
15.1.5	Water System Computer 2 - Contingency	15	4						
15.1.6	Well Pump 2 - Maintenance	12	1						
15.1.7	Water Meters - Installation	1	0						
15.1.8	Water Meters - Maintenance	5	6		\$30,448				
15.1.9	Water System Telemetry - Maintenance	20	1						
15.5.1	Clubhouse Septic Tanks - Contingency	30	5						
15.5.2	Decanter Unit - Contingency	10	5						
15.5.3	Aeration Manifold - Contingency	20	5						
15.5.4	Aerobic System Controls - Contingency	20	1						
15.5.5	Mixer Unit - Contingency	20	1						
15.5.6	Air Compressor - Maintenance	10	3						
15.5.7	UV Disinfection Controller - Contingency	20	16						
15.5.8	Sewage Treatment Facility - Contingency	20	14						
15.5.9	Expansion Sampler - Contingency	10	4						
15.6.1	Treatment Plant Outfall - Contingency	15	3						
15.6.2	Bioswale - Maintenance	25	14						
15.6.3	Bioswale - Inspection	5	3				\$14,020		
15.7.1	Bio-Filter Park - Maintenance	15	14					\$87,426	
15.8.1	Fire Hydrant PSV - Maintenance	25	11						
16.1.1	Electrical System - Contingency	5	3				\$28,012		
16.3.1	Emergency Generator - Maintenance	10	2						
16.3.2	Sewage Treatment Emergency Generator - Contingency	10	3						
17.1.1	Security Lighting - Replace	10	3						
18.1.1	Surveillance System - Update	10	8				\$56,051		
20.1.1	Reserve Study Updates - With Site Visit	3	1				\$11,766		
TOTAL ANTICIPATED ANNUAL RESERVE EXPENSES					\$384,946	\$795,506	\$426,063	\$365,227	\$316,863
ACCUMULATED CREDITS					\$2,786,007	\$3,011,441	\$2,848,313	\$3,084,622	\$3,415,215
ACCUMULATED DEBITS					\$384,946	\$795,506	\$426,063	\$365,227	\$316,863
YEAR-END BALANCE					\$2,401,061	\$2,215,935	\$2,422,250	\$2,719,395	\$3,098,352
YEARS					26 (2047)	27 (2048)	28 (2049)	29 (2050)	30 (2051)
CONTRIBUTION INFLATION					0%	4%	4%	4%	4%
COMPONENT COMPOUND INFLATION					4%	264%	275%	286%	297%
INTEREST RATE MULTIPLIER					0.5%	2%	3%	3%	3%

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