



Port Townsend, Washington

Level 2 Reserve Study Update with a Site Visit

# **2024 FUNDING RECOMMENDATIONS**

Issued July, 2023

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Next Update: Level 3 study by July 2024





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# 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



# **EXECUTIVE SUMMARY**

This Reserve Study meets the requirements of the Washington Homeowners' Association Act and the Washington Uniform Common Interest Owner Act for a Level 2 Reserve Study Update with a Site Visit, and was prepared by an independent Reserve Study Professional.

Cape George Colony Club, the Association, includes a 520-member user small municipality water system located in Port Townsend, Washington. The Association was established in the mid-1960s. The water system assets include wells, pumps and an emergency generator, filter and treatment system, storage tanks and 9 miles of distribution system.

CAPE GEORGE COLONY CLUB WATER FACILITIES RESERVE FUND STATUS	
CAPE GEORGE COLONY CLUB WATER FACILITIES'S FISCAL YEAR	a calendar year
PROJECTED RESERVE ACCOUNT BALANCE ON <b>DECEMBER 31, 2023</b>	\$1,219,079 1
FULLY FUNDED BALANCE @ FISCAL YEAR-END 2023	\$5,011,379 <sup>2</sup>
PERCENT FUNDED BALANCE @ FISCAL YEAR-END 2023	24% <sup>3</sup>
FUNDING STATUS - RISK OF SPECIAL ASSESSMENT @ FISCAL YEAR-END	Highest Risk
2023 PLANNED OR IMPLEMENTED SPECIAL ASSESSMENT	\$0
COMPONENT INCLUSION THRESHOLD VALUE	\$1,850

CAPE GEORGE COLONY CLUB WATER FACILITIES CURRENT AND RECOMM CONTRIBUTIONS	IENDED RESERVE
CURRENT BUDGETED ANNUAL CONTRIBUTION TO RESERVES	\$107,758
2024 RECOMMENDED ANNUAL CONTRIBUTION RATE	\$300,000 4
2024 RECOMMENDED SPECIAL ASSESSMENT	None
2024 AVERAGE CONTRIBUTION PER UNIT PER YEAR	\$577
2024 AVERAGE CONTRIBUTION PER UNIT PER MONTH	\$48
2024 BASELINE FUNDING PLAN CONTRIBUTION RATE	\$224,800
2024 FULL FUNDING PLAN CONTRIBUTION RATE	\$316,100

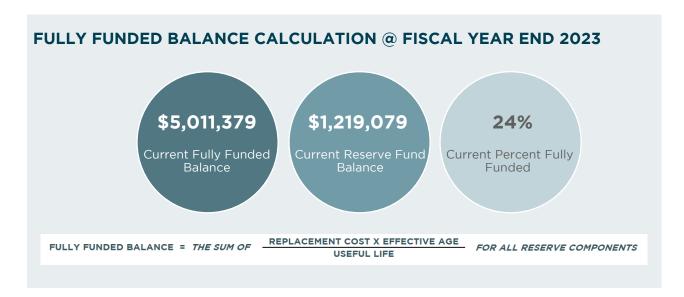
<sup>&</sup>lt;sup>1</sup> The actual or projected total reserve fund balance presented in the Reserve Study is based on information provided by the Association representative and was not audited by RCL.

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 as defined by Washington State law. The fully funded balance changes from year to year.

<sup>&</sup>lt;sup>3</sup> 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.

<sup>&</sup>lt;sup>4</sup> To help ensure the Association has the appropriate funds for the anticipated expenses over the next 30 years, we have provided recommended funding plans with a constant contribution to reserves that increases annually for inflation.





# **FINANCIAL OVERVIEW FOR 2024**

\$1,219,079

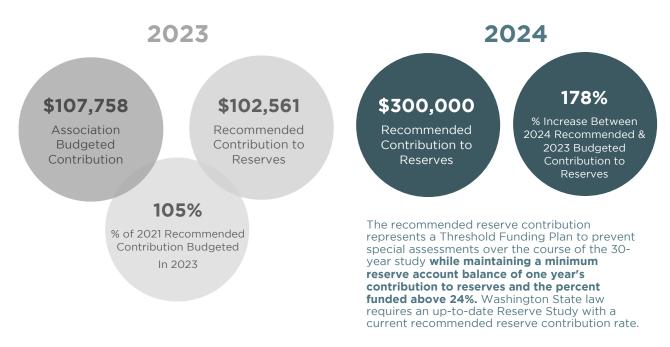
2024 Estimated Starting Balance 24%

2024 Estimated Percent Funded w/the Recommended Funding Plan

\$223,200

2024 Estimated Reserve Expenditures

#### RESERVE CONTRIBUTION COMPARISON 2023 VS 2024





# **ASSOCIATION OVERVIEW**

Cape George Colony Club, the Association, includes a 520-member user small municipality water system located in Port Townsend, Washington. The Association was established in the mid-1960s.

The water system assets include wells, pumps and an emergency generator, filter and treatment system, storage tanks and 9 miles of distribution system.

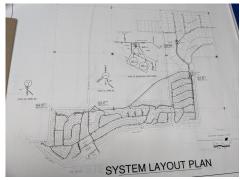
### **REVIEW OF GENERAL CONDITIONS**

The Maintenance Building, the John Deer 990 Tractor, and accessories, the stakebed truck and the ½ Ton truck are major repair or replacement expenses shared 50%/50% with the General Operations Reserves.

The water delivery system includes over 9 miles of underground pipes that includes 4", 6" and 8" asbestos cement (AC) pipes that were installed in the early 1960's. Another 2 miles of 6", 8" and 12" PVC pipes were installed between 1984 and 2005.

The most recent update of the water system plan was approved by the State Dept. of Health in early 2014 for a maximum of 665 equivalent users.

The water storage tanks seemed to be in good condition and reported to be functioning properly. Tank #4 was inspected and cleaned in 2022 with no issues reported.









# **COMPONENT LIST**

Each reserve component is evaluated to determine the current condition, the remaining useful life, and the estimated replacement cost. Reserve studies for homeowners' associations are required to include 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 (RCW 64.38.070). While the law defines the inclusion threshold to be 1% of the operating budget, or \$1,850 (1% of \$185,029), components valued less than the legal threshold may be included to better capture reserve funding for Cape George Colony Club Water Facilities.

The component list is based on information provided by Cape George Colony Club Water Facilities. Reserve Consultants LLC does not provide legal interpretations of governing documents. It is the responsibility of Cape George Colony Club Water Facilities to ensure that the component list is complete and complies with their governing documents. Many factors may influence the actual costs that an association will experience. The quality of replacement materials of items can significantly impact cost, as well as the timing between replacements. The use of consultants to specify and oversee work may also cause additional expenses.

COMPONENT DESCRIPTION	MAINT. CYCLE	REMAINING USEFUL LIFE	NEXT MAINT. YEAR	CURRENT REPLACEMENT COST
2.6.1 Chain Link Fence - Replace	25	11	2034	\$18,000
7.4.1 Maint. Comp. Shingle Roof - Replace	20	1	2024	\$10,820
11.1.1 John Deere 990 Tractor - Replace	15	12	2035	\$16,900
11.1.2 Ford Diesel Stakebed - Replace	10	1	2024	\$25,000
11.1.3 Ford Ranger XLT 1/2 Ton - Replace	7	2	2025	\$22,000
11.2.1 Diesel Storage Tank - Replace	30	8	2031	\$5,770
11.2.2 Diesel Generator - Replace	40	10	2033	\$65,460
15.1.1 Water Filter System Media - Replace	7	2	2025	\$17,353
15.1.2 Water Filter System - Replace	35	15	2038	\$90,000
15.1.3 Water Meter Register & Battery - Replace	12	13	2036	\$48,000
15.1.4 Water Meter - Replace	25	1	2024	\$168,950
15.1.5 Booster Pumps - Replace	27	24	2047	\$15,930
15.1.6 Well Control Panel - Replace	15	8	2031	\$5,080
15.2.1 Well #4 - Replace	100	46	2069	\$78,000
15.2.2 Water Storage Tank #4 - Replace	60	6	2029	\$160,000
15.2.3 Pump #4 - Replace	20	13	2036	\$20,320
15.2.4 Water Storage Tank #5 - Replace	60	15	2038	\$172,000
15.2.5 Well #6 - Replace	50	24	2047	\$78,000
15.2.6 Water Storage Tank #6 - Replace	60	<b>1</b> 5	2038	\$172,000
15.2.7 Pump #6 - Replace	20	2	2025	\$20,320
15.2.8 Water Storage Tank #7 - Replace	60	43	2066	\$191,000



# COMPONENT LIST CONTINUED

COMPONENT DESCRIPTION	MAINT. CYCLE	REMAINING USEFUL LIFE	NEXT MAINT. YEAR	CURRENT REPLACEMENT COST
15.2.9 Pump #8 - Replace	20	11	2034	\$20,320
15.2.10 Well #8 - Replace	50	41	2064	\$78,000
15.2.11 Water System Delivery Pipes - Replace Phase 1	70	8	2031	\$1,467,100
15.2.12 Water System Delivery Pipes - Replace Phase 2	70	18	2041	\$1,467,100
15.2.13 Water System Delivery Pipes - Replace Phase 3	70	26	2049	\$1,467,100
15.2.14 Water System Delivery Pipes - Replace Phase 4	70	34	2057	\$1,467,100
16.6.1 Telemetry System - Install	10	9	2032	\$16,000
18.1.1 Well House Metal Doors - Replace	25	2	2025	\$0
18.3.1 Maintenance Roll Up Door - Replace	24	2	2025	\$12,000



# 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 that common interest properties 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 may qualify for inclusion in the Reserve Study, but are excluded because the Association elects to maintain them with funds from the operating budget:

- 5 HP booster pump motors replace
- maint. interior surfaces paint
- maint. doors & hardware contingency
- maintenance shop gutters replace
- well house siding & trim repair & paint
- water chemical system contingency
- maint. siding & trim repair & paint
- maintenance refrigerator replace
- well house roof replace
- well house plywood doors replace
- well house metal door replace

#### **UNIT OWNER RESPONSIBILITY**

There are items that individual unit owners are responsible to maintain and pay for, including, but not limited to:

#### ADJUSTMENTS TO COMPONENT RESERVE RECOMMENDATIONS

This reserve study provides updated information on the components from prior reserve studies. All cost estimates were adjusted to reflect the actual inflation rate for construction work in Washington State, and costs actually experienced by Cape George Colony Club Water Facilities 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 2021 to 2023 inflation figure of 23.81% for construction work.



# **SIX YEARS AT A GLANCE (2023 - 2028)**

Below is a comprehensive list of reserve funded expenses that are expected to occur this fiscal year and the following five years at Cape George Colony Club Water Facilities.

2023 (	YEAR O) ANTICIPATED MAINTENANCE	ESTIMATED COST
	Total Estimated Expenses for 2023	\$0
2024 (	YEAR 1) ANTICIPATED MAINTENANCE	ESTIMATED COST
	7.4.1 Maint. Comp. Shingle Roof - Replace	\$11,794
	11.1.2 Ford Diesel Stakebed - Replace	\$27,250
	15.1.4 Water Meter - Replace	\$184,156
	Total Estimated Expenses for 2024	\$223,200
2025 (	YEAR 2) ANTICIPATED MAINTENANCE	ESTIMATED COST
	11.1.3 Ford Ranger XLT 1/2 Ton - Replace	\$24,939
	15.1.1 Water Filter System Media - Replace	\$19,671
	15.2.7 Pump #6 - Replace	\$23,035
	18.3.1 Maintenance Roll Up Door - Replace	\$13,603
	Total Estimated Expenses for 2025	\$81,248
2026 (	YEAR 3) ANTICIPATED MAINTENANCE	ESTIMATED COST
	Total Estimated Expenses for 2026	\$0
2027 (	YEAR 4) ANTICIPATED MAINTENANCE	ESTIMATED COST
	Total Estimated Expenses for 2027	\$0
2028 (	YEAR 5) ANTICIPATED MAINTENANCE	ESTIMATED COST
	Total Estimated Expenses for 2028	\$0



# PROJECTED RESERVE ACCOUNT BALANCE

FOR EACH FUNDING PLAN OVER NEXT 5 YEARS

\$300,000 RE	COMMENDED (	N			
YEAR	ANNUAL RESERVE CONTRIBUTION	SPECIAL ASSESSMENT	YEAR END RESERVE BALANCE	PERCENT FUNDED	SPECIAL ASSESSMENT RISK LEVEL
1 (2024)	\$300,000	\$0	\$1,308,454	24%	Highest Risk
2 (2025)	\$312,000	\$0	\$1,574,802	28%	Moderate Risk
3 (2026)	\$324,480	\$0	\$1,942,708	32%	Moderate Risk
4 (2027)	\$337,459	\$0	\$2,332,953	36%	Moderate Risk
5 (2028)	\$350,958	\$0	\$2,746,621	40%	Moderate Risk
\$107,758 CUF	RENT FUNDING	3 PLAN			
YEAR	ANNUAL RESERVE CONTRIBUTION	SPECIAL ASSESSMENT	YEAR END RESERVE BALANCE	PERCENT FUNDED	SPECIAL ASSESSMENT RISK LEVEL
1 (2024)	\$107,758	\$0	\$1,115,251	21%	Highest Risk
2 (2025)	\$112,068	\$0	\$1,174,338	21%	Highest Risk
3 (2026)	\$116,551	\$0	\$1,321,704	22%	Highest Risk
4 (2027)	\$121,213	\$0	\$1,477,475	23%	Highest Risk
5 (2028)	\$126,062	\$0	\$1,642,049	24%	Highest Risk
\$224,800 BA	SELINE FUNDIN	IG PLAN			
\$224,800 BA	SELINE FUNDIN ANNUAL RESERVE CONTRIBUTION	IG PLAN SPECIAL ASSESSMENT	YEAR END RESERVE BALANCE	PERCENT FUNDED	SPECIAL ASSESSMENT RISK LEVEL
	ANNUAL RESERVE	SPECIAL	RESERVE		
YEAR	ANNUAL RESERVE CONTRIBUTION	SPECIAL ASSESSMENT	RESERVE BALANCE	FUNDED	RISK LEVEL
YEAR 1 (2024)	ANNUAL RESERVE CONTRIBUTION \$224,800	SPECIAL ASSESSMENT \$0	RESERVE BALANCE \$1,232,878	FUNDED 23%	RISK LE <b>Y</b> EL Highest Risk
YEAR 1 (2024) 2 (2025)	ANNUAL RESERVE CONTRIBUTION \$224,800 \$233,792	SPECIAL ASSESSMENT \$0 \$0	RESERVE BALANCE \$1,232,878 \$1,418,151	23% 25%	RISK LEVEL Highest Risk Moderate Risk
YEAR 1 (2024) 2 (2025) 3 (2026)	ANNUAL RESERVE CONTRIBUTION \$224,800 \$233,792 \$243,144	SPECIAL ASSESSMENT \$0 \$0 \$0	\$1,232,878 \$1,418,151 \$1,699,787	23% 25% 28%	RISK LEVEL Highest Risk Moderate Risk Moderate Risk
1 (2024) 2 (2025) 3 (2026) 4 (2027) 5 (2028)	ANNUAL RESERVE CONTRIBUTION \$224,800 \$233,792 \$243,144 \$252,869	SPECIAL ASSESSMENT \$0 \$0 \$0 \$0 \$0	\$1,232,878 \$1,418,151 \$1,699,787 \$1,998,312	23% 25% 25% 28% 31%	Highest Risk Moderate Risk Moderate Risk Moderate Risk Moderate Risk
1 (2024) 2 (2025) 3 (2026) 4 (2027) 5 (2028)	ANNUAL RESERVE CONTRIBUTION \$224,800 \$233,792 \$243,144 \$252,869 \$262,984	SPECIAL ASSESSMENT \$0 \$0 \$0 \$0 \$0	\$1,232,878 \$1,418,151 \$1,699,787 \$1,998,312	23% 25% 25% 28% 31%	Highest Risk Moderate Risk Moderate Risk Moderate Risk Moderate Risk
1 (2024) 2 (2025) 3 (2026) 4 (2027) 5 (2028) \$316,100 FUL	ANNUAL RESERVE CONTRIBUTION \$224,800 \$233,792 \$243,144 \$252,869 \$262,984 L FUNDING PLA ANNUAL RESERVE	SPECIAL ASSESSMENT  \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,232,878 \$1,418,151 \$1,699,787 \$1,998,312 \$2,314,542 YEAR END RESERVE	23% 25% 28% 31% 34%	Highest Risk Moderate Risk Moderate Risk Moderate Risk Moderate Risk Moderate Risk
1 (2024) 2 (2025) 3 (2026) 4 (2027) 5 (2028) \$316,100 FUL	ANNUAL RESERVE CONTRIBUTION \$224,800 \$233,792 \$243,144 \$252,869 \$262,984  L FUNDING PLA ANNUAL RESERVE CONTRIBUTION	SPECIAL ASSESSMENT  \$0 \$0 \$0 \$0 \$0 \$0 AN  SPECIAL ASSESSMENT	\$1,232,878 \$1,418,151 \$1,699,787 \$1,998,312 \$2,314,542 YEAR END RESERVE BALANCE	23% 25% 28% 31% 34%  PERCENT FUNDED	Highest Risk Moderate Risk Moderate Risk Moderate Risk Moderate Risk Moderate Risk SPECIAL ASSESSMENT RISK LEVEL
1 (2024) 2 (2025) 3 (2026) 4 (2027) 5 (2028) \$316,100 FUL YEAR 1 (2024)	ANNUAL RESERVE CONTRIBUTION \$224,800 \$233,792 \$243,144 \$252,869 \$262,984  L FUNDING PLA ANNUAL RESERVE CONTRIBUTION \$316,100	SPECIAL ASSESSMENT  \$0 \$0 \$0 \$0 \$0 \$0 AN  SPECIAL ASSESSMENT \$0	\$1,232,878 \$1,418,151 \$1,699,787 \$1,998,312 \$2,314,542 YEAR END RESERVE BALANCE \$1,324,635	23% 25% 28% 31% 34%  PERCENT FUNDED 25%	Highest Risk Moderate Risk
YEAR  1 (2024) 2 (2025) 3 (2026) 4 (2027) 5 (2028)  \$316,100 FUL  YEAR  1 (2024) 2 (2025)	ANNUAL RESERVE CONTRIBUTION \$224,800 \$233,792 \$243,144 \$252,869 \$262,984 \$262,984 \$ANNUAL RESERVE CONTRIBUTION \$316,100 \$328,744	SPECIAL ASSESSMENT  \$0 \$0 \$0 \$0 \$0 \$0 \$0 AN  SPECIAL ASSESSMENT  \$0 \$0	\$1,232,878 \$1,418,151 \$1,699,787 \$1,998,312 \$2,314,542 YEAR END RESERVE BALANCE \$1,324,635 \$1,608,340	23% 25% 28% 31% 34%  PERGENT FUNDED  25% 28%	Highest Risk Moderate Risk Moderate Risk Moderate Risk Moderate Risk Moderate Risk Moderate Risk  SPECIAL ASSESSMENT RISK LEVEL  Moderate Risk Moderate Risk



# PERCENT FUNDED

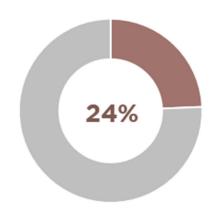
The "percent funded" is a measure of how much the Association should have saved in their reserve account compared to the projected cost for all the components the Association is responsible for and relates to the level of deterioration compared to the cost to repair or replace the component.

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 Cape George Colony Club Water Facilities is \$5,011,379. The actual current funding is \$1,219,079. The Association is approximately 24% funded.

This means that based on a straight-line savings for each reserve component, the Association saved 24% of the accumulated depreciation of the reserve components.



At 24% percent funded, Cape George Colony Club Water Facilities is considered to be at

Highest Risk for a special assessment.

#### EXAMPLE OF PERCENT FUNDED FOR ROOF REPLACEMENT

# SCENARIO

# For a deck membrane that lasts 10 years and costs \$100,000 to replace:

- Save \$10,000 each year, for 10 years
- Year 2, the membrane has deteriorated 20%.
  - o If you have \$20,000 saved it is fully funded.
  - o If you have \$10,000 saved it is 50% funded.
- Year 8, the membrane has deteriorated 80%.
  - o If you have \$80,000 saved it is fully funded.
  - o If you have \$20,000 saved it is 25% funded. If you have \$10,000 saved it is 13% funded.

#### **ANALYSIS**

- 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.
- 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.
- 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.



# **DEFICIT OR SURPLUS IN RESERVE FUNDING**

RCW 64.90.550 \$2(I) 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 (I) 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, Cape George Colony Club Water Facilities 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 Cape George Colony Club Water Facilities would be thought behind on saving for future maintenance.
- more than the fully funded balance, there is a surplus meaning Cape George Colony Club Water Facilities 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	
PROJECTED RESERVE ACCOUNT BALANCE AS OF DECEMBER 31, 2023	\$1,219,079
CURRENT FULLY FUNDED BALANCE	\$5,011,379
RESERVE FUND (DEFICIT)	(\$3,792,300)
NUMBER OF UNITS	520
AVERAGE (DEFICIT) PER UNIT	(\$7,293)

**ALL UNITS PAY EQUALLY INTO RESERVES** 



# **FUNDING PLANS**

THRESHOLD FUNDING PLAN \$300,000	BASELINE FUNDING PLAN \$224,800	FULL FUNDING PLAN \$316,100
Special Assessment None in 2024 Contribution Accelerator Years 2 -10 : 0.0% Years 11 - 30 : 0.0% Contribution Adjustment None	Special Assessment None in 2024 Contribution Accelerator Years 2 -10 - None Years 11 - 30 - None Contribution Adjustment None	Special Assessment None in 2024 Contribution Accelerator Years 2 -10 - None Years 11 - 30 - None Contribution Adjustment None
RECOMMENDED	OPTIONAL STRATEGY	100% FUNDED BY YEAR 30
initial annual contribution of \$300,000	initial annual contribution of \$224,800	initial annual contribution of \$316,100
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 Cape George Colony Club Water Facilities, balancing cashflow and anticipated expenses over 30 years while maintaining a minimum reserve account balance of one year's contribution to reserves and the percent funded above 24%. Cost projection accuracy decreases into the distant future. Assumptions should be reconsidered and updated with each revision of the study.

#### ALTERNATIVE FUNDING STRATEGIES

In addition to an annual contribution to reserves that increases every year to keep up with inflation, a variety of funding strategies are available. These strategies are not typically employed, but are options that provide additional flexibility in developing a custom funding plan to fit the unique needs of a community.

**Special assessments** – additional lump-sum contributions to either cover the cost of anticipated expenses, or to help increase the reserve account balance.

• Recommended special assessment: None in 2024

**Contribution accelerators** – an additional increase to the annual reserve contribution above the applied inflation rate. Our system can accommodate up to two rates. The ranges are grouped with the same percentage increase in Years 2 - 10 and in Years 11 – 30.

- Budgeted accelerator in Years 2 -10: 0.0%
- Budgeted accelerator in Years 11 30: 0.0%

**Contribution adjustments** – stepped increase or decrease in the reserve contribution to provide appropriate funding over the 30-year span of the report.

• Allocated contribution adjustments: None



### COMPARISON OF FULLY FUNDED BALANCE AND FUNDING PLANS

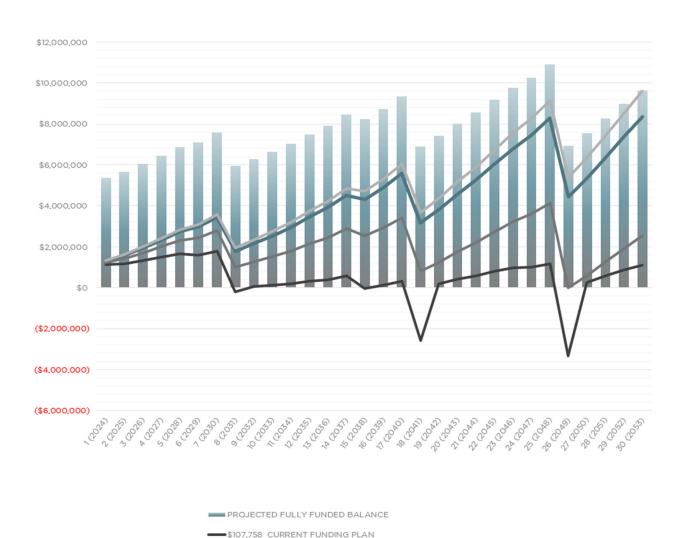
The following graph illustrates the projected Fully Funded Balance, along with the

- Current Budgeted Contribution to reserves (Current Funding Plan)
- Recommended Funding Plan (Threshold Funding Plan)
- Baseline Funding Plan
- Full Funding Plan

#### If any of the following special funding strategies are employed:

- **Special assessments** are calculated in all the funding plans.
- Contribution accelerators are only applied to the Recommended (Threshold) Funding Plan.
- Contribution adjustments are only applied to the Recommended (Threshold) Funding Plan.

Note: If the funding plans are similar or identical, only one line will be visible on some parts of the graph where the lines intersect.



\$300,000 RECOMMENDED (THRESHOLD) FUNDING PLAN

\$224,800 BASELINE FUNDING PLAN
\$316,100 FULL FUNDING PLAN



# PROJECTED RESERVE ACCOUNT BALANCES

FOR FUNDING PLANS OVER 30 YEARS

Per RCW 64.90.550 §2 (j) of the Washington Uniform Common Interest Ownership 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, if applicable.

FISCAL YEAR END	\$300,000 RECOMMENDED (THRESHOLD) FUNDING PLAN	\$107,758 CURRENT FUNDING PLAN	\$224,800 BASELINE FUNDING PLAN	\$316,100 FULL FUNDING PLAN
1 (2024)	\$1,308,454	\$1,115,251	\$1,232,878	\$1,324,635
2 (2025)	\$1,574,802	\$1,174,338	\$1,418,151	\$1,608,340
3 (2026)	\$1,942,708	\$1,321,704	\$1,699,787	\$1,994,716
4 (2027)	\$2,332,953	\$1,477,475	\$1,998,312	\$2,404,598
5 (2028)	\$2,746,621	\$1,642,049	\$2,314,542	\$2,839,128
6 (2029)	\$2,970,009	\$1,601,007	\$2,434,491	\$3,084,661
7 (2030)	\$3,428,599	\$1,779,084	\$2,783,353	\$3,566,744
8 (2031)	\$1,767,609	(\$199,034)	\$1,006,036	\$1,930,659
9 (2032)	\$2,143,898	\$65,713	\$1,259,082	\$2,333,333
10 (2033)	\$2,527,002	\$119,822	\$1,511,695	\$2,744,374
11 (2034)	\$2,936,359	\$180,878	\$1,782,964	\$3,183,296
12 (2035)	\$3,448,664	\$324,649	\$2,149,220	\$3,726,870
13 (2036)	\$3,900,477	\$386,728	\$2,446,644	\$4,211,736
14 (2037)	\$4,503,755	\$578,064	\$2,886,798	\$4,849,939
15 (2038)	\$4,312,919	(\$54,521)	\$2,523,688	\$4,695,986
16 (2039)	\$4,889,562	\$118,275	\$2,918,476	\$5,311,563
17 (2040)	\$5,580,719	\$325,584	\$3,417,748	\$6,043,802
18 (2041)	\$3,158,011	(\$2,579,478)	\$792,652	\$3,664,424
19 (2042)	\$3,816,531	\$185,255	\$1,237,793	\$4,368,628
20 (2043)	\$4,551,900	\$419,754	\$1,748,277	\$5,152,143
21 (2044)	\$5,244,632	\$582,691	\$2,204,087	\$5,895,600
22 (2045)	\$6,016,820	\$794,780	\$2,726,756	\$6,721,209
23 (2046)	\$6,770,889	\$957,005	\$3,218,128	\$7,531,520
24 (2047)	\$7,433,317	\$994,342	\$3,604,074	\$8,253,143
25 (2048)	\$8,261,965	\$1,163,081	\$4,141,821	\$9,144,071
26 (2049)	\$4,429,562	(\$3,338,494)	\$3,437	\$5,377,177
27 (2050)	\$5,330,728	\$250,780	\$582,854	\$6,347,228
28 (2051)	\$6,339,820	\$571,640	\$1,253,709	\$7,428,735
29 (2052)	\$7,356,220	\$860,153	\$1,914,636	\$8,521,241
30 (2053)	\$8,351,970	\$1,086,471	\$2,536,892	\$9,596,954

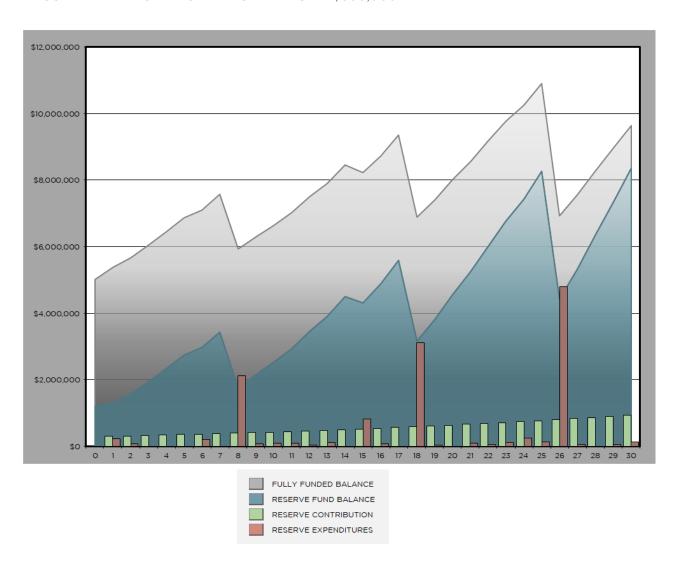


# RESERVE STUDY PROJECTIONS USING INFLATED DOLLAR VALUES

The recommended contribution to reserves is primarily based on cashflow over thirty years to ensure that there will be enough funds in reserves to cover anticipated expenses without the need of a special assessment. Monitoring the Fully Funded Balance helps anticipate future financial liabilities and the community's potential risk for a special assessment. The inflated scenario includes annual increases in the reserve contribution to keep up with inflation.

- **Teal Area Graph:** The fiscal year-end running reserve fund balance is shown as a line graph in teal.
- Grey Area Graph: The anticipated fully funded balance is shown as a line graph in grey.
- Mint Green Bars: The annual reserve fund contributions are shown as mint green bars.
- Brick Red Bars: The anticipated yearly reserve expenditures are shown as brick red bars, depicting the anticipated expenses over the next 30 years.

#### RECOMMENDED FUNDING PLAN STARTING AT \$300,000





Years 11-30

# **RESERVE 30 YEAR SUMMARY AT THE RECOMMENDED FUNDING PLAN STARTING AT \$300,000**

4.0%

2.5%

#### INFLATION & INTEREST ASSUMPTIONS<sup>1</sup> CONTRIBUTION COMPONENT INTEREST INFLATION INFLATION Years 0-1 4.0% 4.0% Years 2-10 4 0% 2.5%

SSI	MENT RISK
	100% +
	70% to 99%
	25% to 69%
	0% to 24%
	SSI

FISCAL YEAR END	FISCAL YEAR BEGINNING RESERVE BALANCE	RECOMMMENDED ANNUAL RESERVE CONTRIBUTION <sup>2</sup>	AVERAGE CONTRIBUTION PER UNIT PER MONTH <sup>3</sup>	PROJECTED RESERVE EXPENDITURES	SPECIAL ASSESSMENT	PROJECTED INTEREST EARNED	FISCAL YEAR END RESERVE BALANCE	PROJECTED FULLY FUNDED BALANCE	PERCENT FUNDED
1 (2024)	\$1,219,079	\$300,000	\$48	(\$223,200)	\$0	\$12,575	\$1,308,454	\$5,377,702	24%
2 (2025)	\$1,308,454	\$312,000	\$50	(\$81,248)	\$0	\$35,596	\$1,574,802	\$5,660,133	28%
3 (2026)	\$1,574,802	\$324,480	\$52	(\$0)	\$0	\$43,426	\$1,942,708	\$6,041,054	32%
4 (2027)	\$1,942,708	\$337,459	\$54	(\$0)	\$0	\$52,786	\$2,332,953	\$6,443,391	36%
5 (2028)	\$2,332,953	\$350,958	\$56	(\$0)	\$0	\$62,711	\$2,746,621	\$6,868,250	40%
6 (2029)	\$2,746,621	\$364,996	\$58	(\$212,184)	\$0	\$70,576	\$2,970,009	\$7,104,604	42%
7 (2030)	\$2,970,009	\$379,596	\$61	(\$0)	\$0	\$78,995	\$3,428,599	\$7,569,549	45%
8 (2031)	\$3,428,599	\$394,780	\$63	(\$2,119,921)	\$0	\$64,151	\$1,767,609	\$5,940,401	30%
9 (2032)	\$1,767,609	\$410,571	\$66	(\$82,572)	\$0	\$48,290	\$2,143,898	\$6,290,955	34%
10 (2033)	\$2,143,898	\$426,994	\$68	(\$101,555)	\$0	\$57,665	\$2,527,002	\$6,644,369	38%
11 (2034)	\$2,527,002	\$444,073	\$71	(\$102,165)	\$0	\$67,449	\$2,936,359	\$7,019,443	42%
12 (2035)	\$2,936,359	\$461,836	\$74	(\$28,358)	\$0	\$78,827	\$3,448,664	\$7,491,786	46%
13 (2036)	\$3,448,664	\$480,310	\$77	(\$119,227)	\$0	\$90,730	\$3,900,477	\$7,900,950	49%
14 (2037)	\$3,900,477	\$499,522	\$80	(\$0)	\$0	\$103,756	\$4,503,755	\$8,454,856	53%
15 (2038)	\$4,503,755	\$519,503	\$83	(\$819,187)	\$0	\$108,848	\$4,312,919	\$8,221,247	52%
16 (2039)	\$4,312,919	\$540,283	\$87	(\$77,251)	\$0	\$113,611	\$4,889,562	\$8,730,124	56%
17 (2040)	\$4,889,562	\$561,894	\$90	(\$0)	\$0	\$129,263	\$5,580,719	\$9,346,899	60%
18 (2041)	\$5,580,719	\$584,370	\$94	(\$3,114,964)	\$0	\$107,886	\$3,158,011	\$6,884,084	46%
19 (2042)	\$3,158,011	\$607,745	\$97	(\$35,330)	\$0	\$86,105	\$3,816,531	\$7,413,520	51%
20 (2043)	\$3,816,531	\$632,055	\$101	(\$0)	\$0	\$103,314	\$4,551,900	\$8,011,041	57%
21 (2044)	\$4,551,900	\$657,337	\$105	(\$85,550)	\$0	\$120,945	\$5,244,632	\$8,558,951	61%
22 (2045)	\$5,244,632	\$683,630	\$110	(\$50,472)	\$0	\$139,030	\$6,016,820	\$9,176,377	66%
23 (2046)	\$6,016,820	\$710,976	\$114	(\$114,780)	\$0	\$157,873	\$6,770,889	\$9,767,213	69%
24 (2047)	\$6,770,889	\$739,415	\$118	(\$252,347)	\$0	\$175,361	\$7,433,317	\$10,257,658	72%
25 (2048)	\$7,433,317	\$768,991	\$123	(\$134,112)	\$0	\$193,769	\$8,261,965	\$10,900,040	76%
26 (2049)	\$8,261,965	\$799,751	\$128	(\$4,788,840)	\$0	\$156,686	\$4,429,562	\$6,928,037	64%
27 (2050)	\$4,429,562	\$831,741	\$133	(\$51,072)	\$0	\$120,497	\$5,330,728	\$7,550,155	71%
28 (2051)	\$5,330,728	\$865,011	\$139	(\$0)	\$0	\$144,081	\$6,339,820	\$8,264,072	77%
29 (2052)	\$6,339,820	\$899,611	\$144	(\$52,297)	\$0	\$169,087	\$7,356,220	\$8,970,726	82%
30 (2053)	\$7,356,220	\$935,595	\$150	(\$133,774)	\$0	\$193,928	\$8,351,970	\$9,641,304	87%

<sup>&</sup>lt;sup>1</sup>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.

 $<sup>^{2}</sup>$  The Recommended Annual Reserve Contribution includes inflation and any applicable recommended adjustments.

<sup>&</sup>lt;sup>3</sup> The Average Contribution Per Unit Per Month reflects the Recommended Annual Reserve Contribution divided by the total number of units in the community.



# **PURPOSE OF A RESERVE STUDY**

The purpose of a Reserve Study is to recommend a reasonable annual reserve contribution rate made by a common interest community to its reserve account. Reserve accounts are established to fund major maintenance, repair, and replacement of common elements, including limited common elements, expected within the next thirty years. A Reserve Study is intended to project availability of 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 the potential for special assessments. All costs and annual reserve fund balances are shown 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. Annual updates are key to keeping up with current trends in component pricing, inflation and interest rates, actual timing of maintenance experienced and the community's risk tolerance.

A Reserve Study also calculates a theoretical "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:

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

By comparing the actual current reserve fund balance, to the theoretical Fully Funded Balance a Percent Fully Funded is derived.

#### **OUR APPROACH TO A RESERVE STUDY**

Reserve Consultants LLC employs a "Reasonable Approach" when evaluating reserve components 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 repairs will be completed as they occur before they become major problems.



# **LEVELS OF RESERVE STUDIES**

**Level 1:** 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.

**Level 2:** Thereafter at least every three years, an updated Reserve Study must be prepared, which again is 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.

**Level 3:** As noted earlier, the Association is required to update its Reserve Study every year. However, in two of the three years, the annual updates do not require a site visit. This is also known as a Level 3 update without a site visit.

**Level 4:** The Community Associations Institute defines a Level 4 reserve study for communities under construction as a Preliminary, Community Not Yet Constructed reserve study.

This study
is a <u>Level 2</u>
Reserve Study
Update with a
Site Visit

The next required update for Cape George Colony Club Water Facilities is a **Level 3 study by July,** 2024.

#### 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:

- Site visit and visual inspection of a sampling of the components
- 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 multifamily 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 that the following disclosure be included in every Reserve Study (RCW 64.34.382§3 & 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 requirements of RCW 64.34 (Condo Act) and RCW 64.38 (Homeowners' Association Act) can be found on the Washington State Legislature's website. Effective July 1, 2018, the Washington Uniform Common Interest Ownership Act (WUCIOA) has impacted all common interest communities. Our reserve studies also comply with WUCIOA. 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."

We understand that common interest properties are to follow the budget ratification process outlined in RCW 64.90.525. Specifically,

"Within thirty days after adoption of any proposed budget for the common interest community, the board must provide a copy of the budget to all the unit owners and set a date for a meeting of the unit owners to consider ratification of the budget not less than fourteen nor more than fifty days after providing the budget. Unless at that meeting the unit owners of units to which a majority of the votes in the association are allocated or any larger percentage specified in the declaration reject the budget, the budget and the assessments against the units included in the budget are ratified, whether or not a quorum is present."

RCW 64.90.525 \$2 states that the copy of the budget must include:

- $\hbox{(d) the current amount of regular assessments budgeted for contribution to the reserve account;}\\$
- (e) A statement of whether the association has a reserve study that meets the requirements of RCW 64.90.550 of this act and, if so, the extent to which the budget meets or deviates from the recommendations of that reserve study; and
- (f) The current deficiency or surplus in reserve funding expressed on a per unit basis.

Reserve Consultants will prepare a Reserve Disclosure that covers the requirements of RCW 64.90.525 §2 (d) – (f) if requested within one year of when the draft report of the Reserve Study was issued. Once Cape George Colony Club Water Facilities has provided the required information in RCL's format, the Reserve Disclosure will be compiled at no additional charge for inclusion with the budget ratification package.



# LIMITATIONS AND ASSUMPTIONS OF A RESERVE STUDY

This Reserve Study is not a report on the condition of the assets maintained by Cape George Colony Club Water Facilities, 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 Washington State requirements common interest properties, including the Washington Uniform Common Interest Ownership Act (WUCIOA).

The component list is based on information provided by Cape George Colony Club Water Facilities. 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 Cape George Colony Club Water Facilities. 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 Cape George Colony Club Water Facilities 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 considering the circumstances under which it was conducted. A 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 1993 is 4.11%. 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 1993 is 2.44%. The interest for common interest properties is typically lower than average due to conservative investing options that are usually employed by common interest properties.

#### CONTRIBUTION & EXPENSE INFLATION AND INTEREST PROJECTIONS

YEARS APPLIED	CONTRIBUTION ACCELERATOR	RESERVE CONTRIBUTION INFLATION	RESERVE EXPENSE INFLATION	INTEREST RATE
Year 0 (2023)	0%	0%	0%	1.0%
Year 1 (2024)	0%	9.0%	9.0%	1.0%
Year 2 (2025) through Year 10 (2033)	0%	4.0%	4.0%	2.5%
Year 11 (2034) through Year 30 (2052)	0%	4.0%	4.0%	2.5%

A contribution accelerator applies an additional annual increase to the reserve contribution above the inflation rate assumption to help increase the reserve fund balance without the need for a special assessment. This is not a strategy that is typically employed.



# **DISCLOSURES**

- Reserve Consultants LLC also provides construction inspection services for common interest properties 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 common interest properties; nor is there any involvement with Cape George Colony Club Water Facilities 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, common interest properties, and other types of clients in Washington State.
- 4. This report and analysis are 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 reflects information provided to the consultant and assembled for Cape George Colony Club Water Facilities Facilities' use, not for the purpose of performing an audit, quality/forensic analyses or background checks of historical record.



# **GLOSSARY OF TERMS**

Allocated Interests - the following interests allocated to each unit: (a) In a condominium, the undivided interest in the common elements, the common expense liability, and votes in the association; (b) In a cooperative, the common expense liability, the ownership interest, and votes in the association; and (c) In a plat community and miscellaneous community, the common expense liability and the votes in the association, and also the undivided interest in the common elements if owned in common by the unit owners rather than an association. RCW 64.90.010 §2.

Assessment - all sums chargeable by the association against a unit, including any assessments levied pursuant to RCW 64.90.480, fines or fees levied or imposed by the association pursuant to this chapter or the governing documents, interest and late charges on any delinquent account, and all costs of collection incurred by the association in connection with the collection of a delinquent owner's account, including reasonable attorneys' fees. RCW 64.90.010 §3.

Association or Unit Owners Association - the unit owners association organized under RCW 64.90.400 of WUCIOA and, to the extent necessary to construe sections of this chapter made applicable to common interest communities pursuant to RCW 64.90.080, 64.90.090, or 64.90.095 of WUCIOA, the association organized or created to administer such common interest communities. RCW \$64.90.010 \$4.

**Baseline Funding Plan** – 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 excess funds some years.

**Board** - the body, regardless of name, designated in the declaration, map, or organizational documents, with primary authority to manage the affairs of the association. RCW \$64.90.010 \$6.

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. The numbers are based roughly on the Construction Specification Institute system.

Common Elements - (a) In a condominium or cooperative, all portions of the common interest community other than the units; (b) In a plat community or miscellaneous community, any real estate other than a unit within a plat community or miscellaneous community that is owned or leased either by the association or in common by the unit owners rather than an association; and (c) In all common interest communities, any other interests in real estate for the benefit of any unit owners that are subject to the declaration. RCW §64.90.010 §7.

**Common Expense** - any expense of the association, including allocations to reserves, allocated to all of the unit owners in accordance with common expense liability. RCW §64.90.010 §8.

**Common Expense Liability** - the liability for common expenses allocated to each unit pursuant to RCW 64.90.235. RCW §64.90.010 §9.

Common Interest Community - real estate described in a declaration with respect to which a person, by virtue of the person's ownership of a unit, is obligated to pay for a share of real estate taxes, insurance premiums, maintenance, or improvement of, or services or other expenses related to, common elements, other units, or other real estate described in the declaration. "Common interest community" does not include an arrangement described in RCW 64.90.110 or RCW 64.90.115. A common interest community may be a part of another common interest community. RCW §64.90.010 §10.

**Contribution Rate** - 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 for a special assessment. RCW 64.34.020 (10), RCW 64.38.010 (6)

**Constant Dollars** - costs and contributions are provided in today's dollars, no matter how far in the future they occur. Inflation and interest are not factored in.



**Effective Age** - the difference between the useful life and the remaining useful life. RCW 64.34.020 §19, RCW 64.38.010 §7 & RCW §64.90.010 §21.

Full Funding Plan - a reserve funding goal of achieving one hundred percent fully funded reserves by the end of the thirty-year study period described under RCW64.90.550 of WUCIOA, in which the reserve account balance equals the sum of the estimated costs required to maintain, repair, or replace the deteriorated portions of all reserve components. RCW \$64.90.010 \$25.

**Fully Funded Balance** - 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 64.34.020 §22, RCW 64.38.010 §10 & RCW §64.90.010 §26.

**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** - a portion of the common elements allocated by the declaration or by operation of RCW 64.90.210 \$1(b) or \$2 for the exclusive use of one or more, but fewer than all, of the unit owners. RCW \$64.90.010 \$30.

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.

Maintenance Cycle – the frequency of maintenance on 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.

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

Nominal Reserve Costs – the current estimated total replacement costs of the reserve components are less than fifty percent of the annual budgeted expense of the association, excluding contributions to the reserve funds, for a condominium or cooperative containing horizontal unit boundaries and less than seventy five percent of the annual budgeted expenses of the association, excluding contributions to the reserve fund for all other common interest communities. RCW §64.90.010 §34.

**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 64.34 is the Washington Condominium Act**, the statute that governs 'New Act' common interest properties formed between July 1, 1990 and June 30, 2018.

**RCW 64.38 is the Washington Homeowners' Act**, the statute that governs homeowners' common interest properties formed prior to June 30, 2018.

RCW 64.90 is the Washington Uniform Common Interest Ownership Act (WUCIOA) and governs common interest properties formed after July 1, 2018 and requires all common interest properties in Washington State to comply with RCW 64.90.525.

Remaining useful life - the estimated time, in years, that a reserve component can be expected to continue to serve its intended function. RCW 64.34.020 §31, RCW 64.38.010 §15. Or the estimated time before a reserve component will require major maintenance, repair or replacement to perform its intended function. RCW §64.90.010 §44.

**Replacement Cost** - the current cost of replacing, repairing, or restoring a reserve component to its original functional condition. RCW 64.34.020 §32, RCW 64.38.010 §16.

Or the estimated total cost to maintain, repair, or replace a reserve component to its original functional condition. RCW \$64.90.010 \$45.

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



**Reserve Component** - common elements whose cost of maintenance, repair, or replacement is infrequent, significant, and impractical to include in an annual budget. RCW 64.34.020 \$34, RCW 64.38.010 \$18

Or a physical component of the common interest community which the association is obligated to maintain, repair, or replace, which has an estimated useful life of less than thirty years, and for which the cost of such maintenance, repair or replacement is infrequent, significant, and impractical to include in an annual budget. RCW §64.90.010 §46.

**Reserve Contribution Rate** - 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 (<a href="www.caionline.org">www.caionline.org</a>) 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 of expected annual expenditure. 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 64.34.020 §35, RCW 64.38.010 §17, RCW 64.90.545 and RCW 64.90.550. For the purposes of WUCIOA," independent" means a person who is not an employee, officer, or director, and has no pecuniary interest in the declarant, association, or any other party for whom the reserve study is prepared. RCW §64.90.010 §47.

**Roofing Square** - A roofing industry term meaning 100 square feet.

**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 64.34.020 \$40 & RCW 64.38.010 \$20 or the estimated time during which a reserve component is expected to perform its intended function without major maintenance, repair or replacement. RCW \$64.90.010 \$59.

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 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 the calculated reserve fund balance.



# **EVALUATORS' CREDENTIALS**

#### Mahria Sooter

#### Principal

Reserve Consultants LLC B.A. Springfield College, MA Reserve Specialist, #380 Mahria joined Reserve Consultants in 2016. Mahria holds a Bachelor of Arts degree from Springfield College, MA. In 2019, the Condominium Associations Institute recognized Mahria as a 'Reserve Specialist.' She has over 20 years of experience with marketing and various aspects of integrated communication in the construction industry. In 2018, Mahria received a certificate of completion from the King County Dispute Resolution Center for Basic Mediation Training providing her the skills to assist Associations with identifying and effectively communicating interests and goals. Mahria's attention to detail lends well to providing clear and concise recommendations that clients can utilize to make informed decisions.

# Kyle Michael

#### Associate

Reserve Consultants LLC B.S. University of Portland, OR Kyle recently joined the Reserve Consultants team as Project Manager and Reserve Professional. He holds a Bachelor of Science in Electrical Engineering from the University of Portland in Oregon. He served in the Air Force as a Civil Engineering Officer from 2018-2021. Kyle has managed various construction projects both stateside and in Africa.



30-YEAR RESERVE STUDY PROJECTIONS WITH STARTING RECOMMENDED FUNDING OF \$300,000 AND COMPOUND INFLATION

		ANNUAL RE	ΓED INTERE	ITRIBUTION ST EARNED	\$1,219,079 \$300,000 \$12,575	\$1,308,454 \$312,000 \$35,596	\$1,574,802 \$324,480 \$43,426	\$1,942,708 \$337,459 \$52,786	<b>18-Jul-23</b> \$2,332,953 \$350,958 \$62,711
		A	SPECIAL AS	SSESSMENT D CREDITS	\$0 <b>\$1,531,654</b>	\$0 <b>\$1,656,050</b>	\$0 <b>\$1,942,708</b>	\$0 <b>\$2,332,953</b>	\$0 <b>\$2,746,621</b>
#	COMPONENT NAME		MAINT. CYCLE	NEXT MAINT.	1 <b>2024</b>	2 <b>2025</b>	3 <b>2026</b>	4 <b>2027</b>	5 <b>2028</b>
2.6.1	Chain Link Fence - Replace		25	11					
7.4.1	Maint. Comp. Shingle Roof - Replace		20	1	\$11,794				
11.1.1	John Deere 990 Tractor - Replace		15	12					
11.1.2	Ford Diesel Stakebed - Replace		10	1	\$27,250				
11.1.3	Ford Ranger XLT 1/2 Ton - Replace		7	2		\$24,939			
11.2.1	Diesel Storage Tank - Replace		30	8					
11.2.2	Diesel Generator - Replace		40	10					
15.1.1	Water Filter System Media - Replace		7	2		\$19,671			
15.1.2	Water Filter System - Replace		35	15					
15.1.3	Water Meter Register & Battery - Replace		12	13					
15.1.4	Water Meter - Replace		25	1	\$184,156				
15.1.5	Booster Pumps - Replace		27	24					
15.1.6	Well Control Panel - Replace		15	8					
15.2.1	Well #4 - Replace		100	46					
15.2.2	Water Storage Tank #4 - Replace		60	6					
15.2.3	Pump #4 - Replace		20	13					
15.2.4	Water Storage Tank #5 - Replace		60	15					
15.2.5	Well #6 - Replace		50	24					
15.2.6	Water Storage Tank #6 - Replace		60	15					
15.2.7	Pump #6 - Replace		20	2		\$23,035			
15.2.8	Water Storage Tank #7 - Replace		60	43					
15.2.9	Pump #8 - Replace		20	11					
15.2.10	Well #8 - Replace		50	41					
15.2.11	Water System Delivery Pipes - Replace Phase 1		70	8					
15.2.12	Water System Delivery Pipes - Replace Phase 2		70	18					
15.2.13	Water System Delivery Pipes - Replace Phase 3		70	26					
15.2.14	Water System Delivery Pipes - Replace Phase 4		70	34					
16.6.1	Telemetry System - Install		10	9					
18.1.1	Well House Metal Doors - Replace		25	2					
18.3.1	Maintenance Roll Up Door - Replace		24	2		\$13,603			
	TOTAL ANTICIPATED ANNUAL RESERVE ACCUMULATI				<b>\$223,200</b> \$1,531,654	<b>\$81,248</b> \$1,656,050	<b>\$0</b> \$1,942,708	<b>\$0</b> \$2,332,953	<b>\$0</b> \$2,746,621
	ACCUMULA				\$223,200 <b>\$1,308,454</b>	\$81,248 \$1,574,802	\$1,942,708 \$0 <b>\$1,942,708</b>	\$2,332,933 \$0 <b>\$2,332,953</b>	\$0 \$2,746,621 \$2,746,621
	YEARS	1	2-10	11-30	1(2024)	2 (2025)	3 (2026)	4 (2027)	5 (2028)
	CONTRIBUTION INFLATION COMPONENT COMPOUND INFLATION INTEREST RATE MULTIPLIER	0.0% 9.0% 1.0%	4.0% 4.0% 2.5%	4.0% 4.0% 2.5%	0.0% 109% 1.0%	4.0% 113% 2.5%	4.0% 118% 2.5%	4.0% 123% 2.5%	4.0% 128% 2.5%



30-YEAR RESERVE STUDY PROJECTIONS WITH STARTING RECOMMENDED FUNDING OF \$300,000 AND COMPOUND INFLATION

	,	ANNUAL RE ESTIMAT	SERVE CON TED INTERE SPECIAL AS	E BALANCE ITRIBUTION ST EARNED SSESSMENT ED CREDITS	\$2,746,621 \$364,996 \$70,576 \$0 <b>\$3,182,193</b>	\$2,970,009 \$379,596 \$78,995 \$0	\$3,428,599 \$394,780 \$64,151 \$0 \$3,887,530	\$1,767,609 \$410,571 \$48,290 \$0 <b>\$2,226,470</b>	18-Jul-23 \$2,143,898 \$426,994 \$57,665 \$0 \$2,628,557
		Α.	MAINT.	NEXT	6	<b>\$3,428,599</b>	8	9	10
2.6.1	COMPONENT NAME  Chain Link Fence - Replace		CYCLE	MAINT.	2029	2030	2031	2032	2033
			25						
7.4.1	Maint. Comp. Shingle Roof - Replace		20	1					
11.1.1	John Deere 990 Tractor - Replace		15	12					
11.1.2	Ford Diesel Stakebed - Replace		10	1				470.040	
11.1.3	Ford Ranger XLT 1/2 Ton - Replace		7	2			40.070	\$32,818	
11.2.1	Diesel Storage Tank - Replace		30	8			\$8,276		
11.2.2	Diesel Generator - Replace		40	10					\$101,555
15.1.1	Water Filter System Media - Replace		7	2				\$25,886	
15.1.2	Water Filter System - Replace		35	15					
15.1.3	Water Meter Register & Battery - Replace		12	13					
15.1.4	Water Meter - Replace		25	1					
15.1.5	Booster Pumps - Replace		27	24					
15.1.6	Well Control Panel - Replace		15	8			\$7,287		
15.2.1	Well #4 - Replace		100	46					
15.2.2	Water Storage Tank #4 - Replace		60	6	\$212,184				
15.2.3	Pump #4 - Replace		20	13					
15.2.4	Water Storage Tank #5 - Replace		60	15					
15.2.5	Well #6 - Replace		50	24					
15.2.6	Water Storage Tank #6 - Replace		60	15					
15.2.7	Pump #6 - Replace		20	2					
15.2.8	Water Storage Tank #7 - Replace		60	43					
15.2.9	Pump #8 - Replace		20	11					
15.2.10	Well #8 - Replace		50	41					
15.2.11	Water System Delivery Pipes - Replace Phase 1		70	8			\$2,104,358		
15.2.12	Water System Delivery Pipes - Replace Phase 2		70	18					
15.2.13	Water System Delivery Pipes - Replace Phase 3		70	26					
15.2.14	Water System Delivery Pipes - Replace Phase 4		70	34					
16.6.1	Telemetry System - Install		10	9				\$23,868	
18.1.1	Well House Metal Doors - Replace		25	2					
18.3.1	Maintenance Roll Up Door - Replace		24	2					
	TOTAL ANTICIPATED ANNUAL RESERVE			1	\$212,184	\$0	\$2,119,921	\$82,572	\$101,555
	ACCUMULATE ACCUMULAT	TED DEBITS			\$3,182,193 \$212,184	\$3,428,599 \$0	\$3,887,530 \$2,119,921	\$2,226,470 \$82,572	\$2,628,557 \$101,555
	YEARS YEARS	BALANCE 1	2-10	11-30	<b>\$2,970,009</b> 6 (2029 )	<b>\$3,428,599</b> 7 (2030 )	<b>\$1,767,609</b> 8 (2031)	<b>\$2,143,898</b> 9 (2032 )	<b>\$2,527,002</b> 10 (2033)
	CONTRIBUTION INFLATION COMPONENT COMPOUND INFLATION	0.0% 9.0%	4.0%	4.0% 4.0%	4.0% 133%	4.0% 138%	4.0% 143%	4.0% 149%	4.0% 155%
	INTEREST RATE MULTIPLIER	1.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%



30-YEAR RESERVE STUDY PROJECTIONS WITH STARTING RECOMMENDED FUNDING OF \$300,000 AND COMPOUND INFLATION

		ANNUAL RE ESTIMAT	SERVE CON TED INTERE SPECIAL AS	ST EARNED SSESSMENT	\$2,527,002 \$444,073 \$67,449 \$0	\$2,936,359 \$461,836 \$78,827 \$0	\$3,448,664 \$480,310 \$90,730 \$0	\$3,900,477 \$499,522 \$103,756 \$0	18-Jul-23 \$4,503,755 \$519,503 \$108,848 \$0
		A	MAINT.	NEXT	<b>\$3,038,524</b>	<b>\$3,477,022</b>	<b>\$4,019,704</b>	<b>\$4,503,755</b>	<b>\$5,132,106</b>
#	COMPONENT NAME		CYCLE	MAINT.	2034	2035	2036	2037	2038
2.6.1	Chain Link Fence - Replace		25	11	\$29,042				
7.4.1	Maint. Comp. Shingle Roof - Replace		20	1					
11.1.1	John Deere 990 Tractor - Replace		15	12		\$28,358			
11.1.2	Ford Diesel Stakebed - Replace		10	1	\$40,337				
11.1.3	Ford Ranger XLT 1/2 Ton - Replace		7	2					
11.2.1	Diesel Storage Tank - Replace		30	8					
11.2.2	Diesel Generator - Replace		40	10					
15.1.1	Water Filter System Media - Replace		7	2					
15.1.2	Water Filter System - Replace		35	15					\$169,877
15.1.3	Water Meter Register & Battery - Replace		12	13			\$83,766		
15.1.4	Water Meter - Replace		25	1					
15.1.5	Booster Pumps - Replace		27	24					
15.1.6	Well Control Panel - Replace		15	8					
15.2.1	Well #4 - Replace		100	46					
15.2.2	Water Storage Tank #4 - Replace		60	6					
15.2.3	Pump #4 - Replace		20	13			\$35,461		
15.2.4	Water Storage Tank #5 - Replace		60	15					\$324,655
15.2.5	Well #6 - Replace		50	24					
15.2.6	Water Storage Tank #6 - Replace		60	15					\$324,655
15.2.7	Pump #6 - Replace		20	2					
15.2.8	Water Storage Tank #7 - Replace		60	43					
15.2.9	Pump #8 - Replace		20	11	\$32,786				
15.2.10	Well #8 - Replace		50	41					
15.2.11	Water System Delivery Pipes - Replace Phase 1		70	8					
	Water System Delivery Pipes - Replace Phase 2		70	18					
-	Water System Delivery Pipes - Replace Phase 3		70	26					
	Water System Delivery Pipes - Replace Phase 4		70	34					
			10	9					
16.6.1	Telemetry System - Install								
18.1.1	Well House Metal Doors - Replace		25	2					
18.3.1	Maintenance Roll Up Door - Replace  TOTAL ANTICIPATED ANNUAL RESERVE	EXDENSES	24	2	\$102,165	\$28,358	\$119,227	\$0	\$819,187
	ACCUMULATE	ED CREDITS			\$3,038,524	\$3,477,022	\$4,019,704	\$4,503,755	\$5,132,106
	ACCUMULA' <b>YEAR-EN</b> I	D BALANCE			\$102,165 <b>\$2,936,359</b>	\$28,358 <b>\$3,448,664</b>	\$119,227 <b>\$3,900,477</b>	\$0 <b>\$4,503,755</b>	\$819,187 <b>\$4,312,919</b>
	YEARS CONTRIBUTION INFLATION	0.0%	<b>2-10</b> 4.0%	<b>11-30</b> 4.0%	11 (2034 ) 4.0%	12 (2035 ) 4.0%	13 (2036 ) 4.0%	14 (2037 ) 4.0%	15 (2038 ) 4.0%
	COMPONENT COMPOUND INFLATION	9.0%	4.0%	4.0%	161%	168%	175%	181%	189%
	INTEREST RATE MULTIPLIER	1.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%



30-YEAR RESERVE STUDY PROJECTIONS WITH STARTING RECOMMENDED FUNDING OF \$300,000 AND COMPOUND INFLATION

	,	ANNUAL RE ESTIMAT	ED INTERES	TRIBUTION ST EARNED SSESSMENT	\$4,312,919 \$540,283 \$113,611 \$0	\$4,889,562 \$561,894 \$129,263 \$0	\$5,580,719 \$584,370 \$107,886 \$0	\$3,158,011 \$607,745 \$86,105 \$0	18-Jul-23 \$3,816,531 \$632,055 \$103,314 \$0
		AC	MAINT.	NEXT	<b>\$4,966,813</b>	<b>\$5,580,719</b>	<b>\$6,272,975</b>	<b>\$3,851,861</b>	<b>\$4,551,900</b>
#	COMPONENT NAME		CYCLE	MAINT.	2039	2040	2041	2042	2043
2.6.1	Chain Link Fence - Replace		25	11					
7.4.1	Maint. Comp. Shingle Roof - Replace		20	1					
11.1.1	John Deere 990 Tractor - Replace		15	12					
11.1.2	Ford Diesel Stakebed - Replace		10	1					
11.1.3	Ford Ranger XLT 1/2 Ton - Replace		7	2	\$43,187				
11.2.1	Diesel Storage Tank - Replace		30	8					
11.2.2	Diesel Generator - Replace		40	10					
15.1.1	Water Filter System Media - Replace		7	2	\$34,064				
15.1.2	Water Filter System - Replace		35	15					
15.1.3	Water Meter Register & Battery - Replace		12	13					
15.1.4	Water Meter - Replace		25	1					
15.1.5	Booster Pumps - Replace		27	24					
15.1.6	Well Control Panel - Replace		15	8					
15.2.1	Well #4 - Replace		100	46					
15.2.2	Water Storage Tank #4 - Replace		60	6					
15.2.3	Pump #4 - Replace		20	13					
15.2.4	Water Storage Tank #5 - Replace		60	15					
15.2.5	Well #6 - Replace		50	24					
15.2.6	Water Storage Tank #6 - Replace		60	15					
15.2.7	Pump #6 - Replace		20	2					
15.2.8	Water Storage Tank #7 - Replace		60	43					
15.2.9	Pump #8 - Replace		20	11					
15.2.10			50	41					
15.2.11	·		70	8					
	Water System Delivery Pipes - Replace Phase 2		70	18			\$3,114,964		
	Water System Delivery Pipes - Replace Phase 3		70	26			7-,,		
	Water System Delivery Pipes - Replace Phase 4		70	34					
	Telemetry System - Install		10	9				\$35,330	
16.6.1								ψυυ,υυ	
18.1.1	Well House Metal Doors - Replace		25	2					
18.3.1	Maintenance Roll Up Door - Replace  TOTAL ANTICIPATED ANNUAL RESERVE	EXDENSES	24	2	\$77,251	\$0	\$3,114,964	\$35,330	\$0
	ACCUMULATE	D CREDITS			\$4,966,813	\$5,580,719	\$6,272,975	\$3,851,861	\$4,551,900
	ACCUMULAT <b>YEAR-END</b>	DEBITS DEBITS			\$77,251 <b>\$4,889,562</b>	\$0 <b>\$5,580,719</b>	\$3,114,964 <b>\$3,158,011</b>	\$35,330 <b>\$3,816,531</b>	\$0 <b>\$4,551,900</b>
	YEARS CONTRIBUTION INFLATION	1	2-10	11-30	16 (2039 )	17 (2040 )	18 (2041)	19 (2042 )	20 (2043 )
	CONTRIBUTION INFLATION COMPONENT COMPOUND INFLATION	0.0% 9.0%	4.0% 4.0%	4.0% 4.0%	4.0% 196%	4.0% 204%	4.0% 212%	4.0% 221%	4.0% 230%
	INTEREST RATE MULTIPLIER	1.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%



30-YEAR RESERVE STUDY PROJECTIONS
WITH STARTING RECOMMENDED FUNDING OF \$300,000
AND COMPOUND INFLATION

		ANNUAL RE ESTIMAT	NG RESERVI SERVE CON ED INTERE SPECIAL AS	ITRIBUTION ST EARNED	\$4,551,900 \$657,337 \$120,945 \$0	\$5,244,632 \$683,630 \$139,030 \$0	\$6,016,820 \$710,976 \$157,873	\$6,770,889 \$739,415 \$175,361	<b>18-Jul-23</b> \$7,433,317 \$768,991 \$193,769 \$0
			CCUMULATE	D CREDITS	\$5,330,182	\$6,067,292	\$6,885,669	\$7,685,664	\$8,396,077
#	COMPONENT NAME		MAINT. CYCLE	NEXT MAINT.	21 <b>2044</b>	22 <b>2045</b>	23 <b>2046</b>	24 <b>2047</b>	25 <b>2048</b>
2.6.1	Chain Link Fence - Replace		25	11					
7.4.1	Maint. Comp. Shingle Roof - Replace		20	1	\$25,842				
11.1.1	John Deere 990 Tractor - Replace		15	12					
11.1.2	Ford Diesel Stakebed - Replace		10	1	\$59,708				
11.1.3	Ford Ranger XLT 1/2 Ton - Replace		7	2			\$56,831		
11.2.1	Diesel Storage Tank - Replace		30	8					
11.2.2	Diesel Generator - Replace		40	10					
15.1.1	Water Filter System Media - Replace		7	2			\$44,826		
15.1.2	Water Filter System - Replace		35	15					
15.1.3	Water Meter Register & Battery - Replace		12	13					\$134,112
15.1.4	Water Meter - Replace		25	1					
15.1.5	Booster Pumps - Replace		27	24				\$42,797	
15.1.6	Well Control Panel - Replace		15	8			\$13,123		
15.2.1	Well #4 - Replace		100	46					
15.2.2	Water Storage Tank #4 - Replace		60	6					
15.2.3	Pump #4 - Replace		20	13					
15.2.4	Water Storage Tank #5 - Replace		60	15					
15.2.5	Well #6 - Replace		50	24				\$209,550	
15.2.6	Water Storage Tank #6 - Replace		60	15					
15.2.7	Pump #6 - Replace		20	2		\$50,472			
15.2.8	Water Storage Tank #7 - Replace		60	43					
15.2.9	Pump #8 - Replace		20	11					
15.2.10	Well #8 - Replace		50	41					
15.2.11	Water System Delivery Pipes - Replace Phase 1		70	8					
15.2.12	Water System Delivery Pipes - Replace Phase 2		70	18					
15.2.13	Water System Delivery Pipes - Replace Phase 3		70	26					
15.2.14	Water System Delivery Pipes - Replace Phase 4		70	34					
16.6.1	Telemetry System - Install		10	9					
18.1.1	Well House Metal Doors - Replace		25	2					
18.3.1	Maintenance Roll Up Door - Replace		24	2					
	TOTAL ANTICIPATED ANNUAL RESERVE				\$85,550	\$50,472	\$114,780	\$252,347	\$134,112
	ACCUMULATI ACCUMULA	TED DEBITS			\$5,330,182 \$85,550	\$6,067,292 \$50,472	\$6,885,669 \$114,780	\$7,685,664 \$252,347	\$8,396,077 \$134,112
	YEAR-EN!	D BALANCE	2-10	11-30	<b>\$5,244,632</b> 21 (2044 )	\$6,016,820 22 (2045 )	<b>\$6,770,889</b> 23 (2046 )	<b>\$7,433,317</b> 24 (2047 )	<b>\$8,261,965</b> 25 (2048 )
	CONTRIBUTION INFLATION	0.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
	COMPONENT COMPOUND INFLATION INTEREST RATE MULTIPLIER	9.0%	4.0% 2.5%	4.0% 2.5%	239% 2.5%	248% 2.5%	258% 2.5%	269% 2.5%	279% 2.5%



30-YEAR RESERVE STUDY PROJECTIONS WITH STARTING RECOMMENDED FUNDING OF \$300,000 AND COMPOUND INFLATION

		STARTING RESERV		\$8,261,965	\$4,429,562	\$5,330,728	\$6,339,820	<b>18-Jul-23</b> \$7,356,220
	P	NNUAL RESERVE CON ESTIMATED INTERE	ST EARNED	\$799,751 \$156,686	\$831,741 \$120,497	\$865,011 \$144,081	\$899,611 \$169,087	\$935,595 \$193,928
		SPECIAL A ACCUMULAT	SSESSMENT ED CREDITS	\$0 <b>\$9,218,402</b>	\$0 \$5,381,800	\$6,339,820	\$0 \$7,408,517	\$0 <b>\$8,485,744</b>
		MAINT.	NEXT	26	27	28	29	30
2.6.1	COMPONENT NAME  Chain Link Fence - Replace	CYCLE 25	MAINT.	2049	2050	2051	2052	2053
7.4.1	Maint. Comp. Shingle Roof - Replace	20	1					
11.1.1	John Deere 990 Tractor - Replace	15	12		\$51,072			
11.1.2	Ford Diesel Stakebed - Replace	10	1					
11.1.3	Ford Ranger XLT 1/2 Ton - Replace	7	2					\$74,785
11.2.1	Diesel Storage Tank - Replace	30	8					
11.2.2	Diesel Generator - Replace	40	10					
15.1.1	Water Filter System Media - Replace	7	2					\$58,989
15.1.2	Water Filter System - Replace	35	15					
15.1.3	Water Meter Register & Battery - Replace	12	13					
15.1.4	Water Meter - Replace	25	1	\$490,928				
15.1.5	Booster Pumps - Replace	27	24					
15.1.6	Well Control Panel - Replace	15	8					
15.2.1	Well #4 - Replace	100	46					
15.2.2	Water Storage Tank #4 - Replace	60	6					
15.2.3	Pump #4 - Replace	20	13					
15.2.4	Water Storage Tank #5 - Replace	60	15					
15.2.5	Well #6 - Replace	50	24					
15.2.6	Water Storage Tank #6 - Replace	60	15					
15.2.7	Pump #6 - Replace	20	2					
15.2.8	Water Storage Tank #7 - Replace	60	43					
15.2.9	Pump #8 - Replace	20	11					
15.2.10	Well #8 - Replace	50	41					
15.2.11	Water System Delivery Pipes - Replace Phase 1	70	8					
15.2.12	Water System Delivery Pipes - Replace Phase 2	70	18					
15.2.13	Water System Delivery Pipes - Replace Phase 3	70	26	\$4,263,043				
15.2.14	Water System Delivery Pipes - Replace Phase 4	70	34					
16.6.1	Telemetry System - Install	10	9				\$52,297	
18.1.1	Well House Metal Doors - Replace	25	2					
18.3.1	Maintenance Roll Up Door - Replace	24	2	\$34,869				
	TOTAL ANTICIPATED ANNUAL RESERVE ACCUMULATE			<b>\$4,788,840</b> \$9,218,402	<b>\$51,072</b> \$5,381,800	<b>\$0</b> \$6,339,820	<b>\$52,297</b>	<b>\$133,774</b> \$8,485,744
	ACCUMULATE ACCUMULAT YEAR-END	ED DEBITS		\$9,218,402 \$4,788,840 <b>\$4,429,562</b>	\$5,381,800 \$51,072 <b>\$5,330,728</b>	\$6,339,820 \$0 <b>\$6,339,820</b>	\$7,408,517 \$52,297 <b>\$7,356,220</b>	\$133,774 \$133,774 \$8,351,970
	YEARS	1 2-10	11-30	26 (2049 )	27 (2050 )	28 (2051)	29 (2052)	30 (2053 )
	CONTRIBUTION INFLATION COMPONENT COMPOUND INFLATION	0.0% 4.0% 9.0% 4.0%	4.0% 4.0%	4.0% 291%	4.0% 302%	4.0% 314%	4.0%	4.0% 340%
	INTEREST RATE MULTIPLIER	1.0% 2.5%	2.5%	2.5%	2.5%	2.5%		2.5%



COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

18-Jul-23

#### 2.6.1 Chain Link Fence - Replace

Site

Maintenance Cycle: 25 years Quantity: 546 Linear Feet Next Maintenance: Year 11 (2034)

**Unit Cost:** \$30.22 / LF

**Estimate:** 546 LF X 100% X \$30.22/LF = \$16,500 + tax = \$18,000

The chainlink fence appeared to be stable and in good condition. This component budgets funds to replace the six-foot-high chain link perimeter fencing and four gates at the water facilities area at the end of its anticipated useful life. The fencing was installed around 2009.

FUTURE MAINTENANCE					
YEAR	COST				
11 (2034)	\$29,042				

#### 7.4.1 Maint. Comp. Shingle Roof - Replace

**Ext Envelope** 

Maintenance Cycle: 20 years

Next Maintenance: Year 1 (2024)

**Quantity:** 21 Roofing Squares

Unit Cost: \$944.18 / SQ

**Estimate:** 21 SQ X 50% X \$944.18/SQ = \$9,914 + tax = \$10,820

The Association reported that the maintenance building roof replacement has been deferred and requested that the replacement year be pushed to 2024. If the Association does not plan to replace the roof we highly recommend that they get the roof inspected to ensure that they can safely deffer replacing the roof. This component budgets funds for 50% of the replacement cost of replacing the maintenance buildings asphalt composition shingle roof. It is a shared component between the water and general operation reserve funds. The asphalt shingles of the maintenance building were installed in 2002.

FUTURE MAINTENANCE					
YEAR	COST				
1 (2024)	\$11,794				
21 (2044)	\$25,842				

#### 11.1.1 John Deere 990 Tractor - Replace

**Equipment** 

Maintenance Cycle: 15 years

Next Maintenance: Year 12 (2035)

**Quantity: 1 Lump Sum Estimate:** \$16,900

**Unit Cost:** \$16,900.00 / LS

The Association reported no issues with the John Deere 990 tractor. This component budgets funds for 50% of the replacement cost of the John Deere 990 tractor, the bucket, and the backhoe attachments. It is a shared component between the water and general operation reserve funds. The tractor was repaired, and associated equipment replaced in 2020 at a cost of about \$10,500 to the general ops fund. The John Deere tractor was purchased in 2004.

FUTURE MAINTENANCE					
YEAR	COST				
12 (2035)	\$28,358				
27 (2050)	\$51,072				

# 11.1.2 Ford Diesel Stakebed - Replace

Equipment

Maintenance Cycle: 10 years

Next Maintenance: Year 1 (2024)

Quantity: 1 Lump Sum

Unit Cost: \$25,000.00 / LS

Estimate: \$25.000

**FUTURE MAINTENANCE** YEAR COST 1 (2024) \$27,250 11 (2034) \$40,337 21 (2044) \$59.708

The Association reported no issues with the Ford diesel stakebed truck. This component budgets funds for 50% of the replacement cost of the stakebed truck. It is a shared component between the water and general operation reserve funds.



COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

18-Jul-23

#### 11.1.3 Ford Ranger XLT 1/2 Ton - Replace

Equipment

Maintenance Cycle: 7 years

Quantity: 1 Lump Sum

Next Maintenance: Year 2 (2025)
Unit Cost: \$22,000.00 / LS

**Estimate:** \$22,000

The Association reported no issues with the Ford Ranger XLT 1/2 ton. This component budgets funds for 50% of the replacement cost of the Ford Ranger. It is a shared component between the water and general operation reserve funds. The truck was purchased in October of 2017 for \$9,220.

FUTURE MAINTENANCE					
YEAR	COST				
2 (2025)	\$24,939				
9 (2032)	\$32,818				
16 (2039)	\$43,187				
23 (2046)	\$56,831				
30 (2053)	\$74,785				

#### 11.2.1 Diesel Storage Tank - Replace

**Equipment** 

Maintenance Cycle: 30 years

Quantity: 1 Each

Next Maintenance: Year 8 (2031)

Unit Cost: \$5,288.73 / EA

**Estimate:** 1 EA X 100% X \$5,288.73/EA = \$5,289 + tax = \$5,770

The Association is no longer replacing their diesel generator with a propane generator and will no longer need an external propane tank. The diesel fuel storage tank appeared to be in good condition with no issues reported. This component budgets funds to replace the 180-gallon diesel fuel storage tank at the end of its anticiapted useful life. The tank was installed in 2001.

FUTURE MAINTENANCE					
YEAR	COST				
8 (2031)	\$8,276				

# 11.2.2 Diesel Generator - Replace

**Equipment** 

Maintenance Cycle: 40 years

Quantity: 1 Each

Next Maintenance: Year 10 (2033)

Unit Cost: \$60,000.00 / EA

**Estimate:** 1 EA X 100% X \$60,000.00/EA = \$60,000 + tax = \$65,460

The diesel generator was reported to be working great. The generator is reported to be ran intermittently and so it is expected to last longer. At the request of the Association the maintenance cycle has been updated to 40 years. The Association is no longer planning on replacing the diesel generator with a propane generator. This component budgets funds to replace the Perkins, 1800 RPM diesel engine with a Stamford 125 KVA, 100KW, 60 hertz, 220-volt generator. Records indicate that the generator was replaced in 2007 at a cost of \$11,500.

FUTURE MAINTENANCE				
YEAR	COST			
10 (2033)	\$101,555			

# 15.1.1 Water Filter System Media - Replace

**Life Safety** 

Maintenance Cycle: 7 years Next Maintenance: Year 2 (2025)

Quantity: 1 Lump Sum
Unit Cost: \$17,353.00 / LS

**Estimate:** \$17,353

No issue were reported with the water filter media system. This component budgets funds to replace the water filter media system at the end of its anticipated useful life.

FUTURE MAINTENANCE	
YEAR	COST
2 (2025)	\$19,671
9 (2032)	\$25,886
16 (2039)	\$34,064
23 (2046)	\$44,826
30 (2053)	\$58,989



COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

18-Jul-23

**Life Safety** 

#### 15.1.2 Water Filter System - Replace

Estimate: \$90,000

Next Maintenance: Year 15 (2038)

Maintenance Cycle: 35 years

Quantity: 1 Lump Sum

Unit Cost: \$90,000.00 / LS

No issues were reported with the water filter system. At the request of the Association the maintenance cycle has been updated to 35 years with the next anticiapted maintenance in 2038. This component budgets funds to replace four - 3' diameter x 4.5' high Atec Systems media filters and equipment that were installed in 2003.

FUTURE MAINTENANCE	
YEAR	COST
15 (2038)	\$169,877

#### 15.1.3 Water Meter Register & Battery - Replace

Life Safety

Maintenance Cycle: 12 years

Quantity: 548 Each

Next Maintenance: Year 13 (2036)

Unit Cost: \$80.29 / EA

**Estimate:** 548 EA X 100% X \$80.29/EA = \$43,996 + tax = \$48,000

The Association reported that they need to replace all of their water meters due to the current meter being obsolete. The Association plans to replace all of the meters in 2024 which includes the water meter register and battery. This component budgets funds to replace all of the meter registers and batteries at the end of their anticipated useful life. Each water meter has a battery with a 20-year life expectancy and the entire register must be replaced with the battery replacement. The batteries were put into service in 2008.

FUTURE MAINTENANCE	
YEAR	COST
13 (2036)	\$83,766
25 (2048)	\$134,112

# 15.1.4 Water Meter - Replace

Life Safety

Maintenance Cycle: 25 years

Quantity: 548 Each

Next Maintenance: Year 1 (2024)

Unit Cost: \$282.59 / EA

**Estimate:** 548 EA X 100% X \$282.59/EA = \$154,858 + tax = \$168,950

The Association reported that they need to replace all of their water meters due to the current meter being obsolete. The Association plans to replace all of the meters in 2024 for an estimated cost \$168,950. This component budgets funds to replace all 548 water maters at the end of their anticiapted useful life. 500 meters were installed in 2008.

FUTURE MAINTENANCE	
YEAR	COST
1 (2024)	\$184,156
26 (2049)	\$490,928

install includes battery

#### 15.1.5 Booster Pumps - Replace

Life Safety

Maintenance Cycle: 27 years

Quantity: 4 Each

Next Maintenance: Year 24 (2047)

Unit Cost: \$3,650.32 / EA

**Estimate:** 4 EA X 100% X \$3,650.32/EA = \$14,601 + tax = \$15,930

No issues were reported with the booster pumps. This component budgets funds to replace the three booster pumps and the 7.5 hp booster pump motor at the end of their anticipated useful life. Replacement of three booster pumps was completed in 2020 with 2 of the 3 having variable speed drivers at a cost of abut \$8,690.

FUTURE MAINTENANCE	
YEAR	COST
24 (2047)	\$42,797



COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

18-Jul-23

#### 15.1.6 Well Control Panel - Replace

**Life Safety** 

Maintenance Cycle: 15 years

Quantity: 1 Each

Next Maintenance: Year 8 (2031)

Unit Cost: \$4,656.28 / EA

**Estimate:** 1 EA X 100% X \$4,656.28/EA = \$4,656 + tax = \$5,080

The well control panel appeared to be in working condition at the time of our site visit. This component budgets funds to replace the panel at the end of its anticiapted useful life. The panel was replaced in 2016.

	FUTURE MAINTENANCE	
5	YEAR	COST
	8 (2031)	\$7,287
	23 (2046)	\$13,123

#### 15.2.1 Well #4 - Replace

Life Safety

Maintenance Cycle: 100 years

Quantity: 1 Lump Sum

Next Maintenance: Year 46 (2069)

Unit Cost: \$78,000.00 / LS

**Estimate:** \$78,000

No issues were reported with well #4. The well is reported to be used intermittently to backwash the system. At the request of the Association the maintenance cycle has been updated to 100 years with replacement set to 2069 at a cost of \$78,000. This component budgets funds to repalce well #4, including permits, drilling, engineering assistance for testing, and well casing. Major renovation work of Well #4 was completed in 2016.

FUTURE MAINTENANCE	
YEAR	COST

# 15.2.2 Water Storage Tank #4 - Replace

Life Safety

Maintenance Cycle: 60 years

Quantity: 1 Lump Sum

Next Maintenance: Year 6 (2029)

Unit Cost: \$160,000.00 / LS

Estimate: \$160,000

The tank was inspected and cleaned in 2022 at a cost of about \$3,000. No issues were reported with the water storage tank #4. The storage tank is approaching its anticiapted end of useful life and the Association has received pricing for replacement at \$160,000 and includes permits and debris removal. At the request of the Association the maintenance cycle has been adjusted to 60 years based on information they have recieved from their vendor. This component budgets funds to replace the 30,500 gallon water storage tank #4 at the end of its anticiapted useful life. The tank was installed in 1969.

FUTURE MAINTENANCE	
YEAR	COST
6 (2029)	\$212,184

#### 15.2.3 Pump #4 - Replace

**Life Safety** 

Maintenance Cycle: 20 years

Quantity: 1 Lump Sum

Next Maintenance: Year 13 (2036)

Unit Cost: \$20,320.00 / LS

Estimate: \$20,320

No issues were reported with pump #4. The Association recieved an updated cost for replacement from their vendor of \$20,300. This component budgets funds to replace the pump at the end of its anticipated useful life. The pump was installed in 2016.

FUTURE MAINTENANCE	
YEAR	COST
13 (2036)	\$35,461



COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

18-Jul-23

### 15.2.4 Water Storage Tank #5 - Replace

**Life Safety** 

Maintenance Cycle: 60 years Quantity: 1 Lump Sum Estimate: \$172,000

Next Maintenance: Year 15 (2038) Unit Cost: \$172,000.00 / LS

No issues were reported with the water storage tank #5. At the request of the Association the maintenance cycle has been adjusted to 60 years and the cost for replacement increased to \$172,000 and includes permits and debris removal, based on information they have recieved from their vendor. This component budgets funds to replace the 55,000 gallon water storage tank #5 at the end of its anticiapted useful life. The tank was installed in 1978.

FUTURE MAINTENANCE	
YEAR	COST
15 (2038)	\$324,655

#### 15.2.5 Well #6 - Replace

Life Safety

Maintenance Cycle: 50 years **Quantity:** 1 Lump Sum **Estimate:** \$78,000

Next Maintenance: Year 24 (2047) Unit Cost: \$78,000.00 / LS

No issues were reported with well #6. The Association recieved an updated cost for replacement of the well from their vendor of \$78,000. This component budgets funds to replace the well and includes costs for the necessary permits, drilling, engineering assistance for testing, and well casing. The well was drilled in 1998.

FUTURE MAINTENANCE	
YEAR	COST
24 (2047)	\$209,550

# 15.2.6 Water Storage Tank #6 - Replace

**Life Safety** 

Maintenance Cycle: 60 years **Quantity:** 1 Lump Sum Next Maintenance: Year 15 (2038)

Estimate: \$172,000

Unit Cost: \$172.000.00 / LS

No issues were reported with the water storage tank #6. At the request of the Association the maintenance cycle has been adjusted to 60 years and the cost for replacement increased to \$172,000 and includes permits and debris removal, based on information they have recieved from their vendor. This component budgets funds to replace the 55,000 gallon water storage tank #6 at the end of its anticiapted useful life. The tank was installed in 1978.

FUTURE MAINTENANCE	
YEAR	COST
15 (2038)	\$324,655

# 15.2.7 Pump #6 - Replace

**Life Safety** 

Maintenance Cycle: 20 years **Quantity: 1 Lump Sum** Estimate: \$20,320

Next Maintenance: Year 2 (2025) Unit Cost: \$20,320.00 / LS

No issues were reported with pump #6. The Association recieved an updated cost for replacement from their vendor of \$20,300. This component budgets funds to replace the pump at the end of its

YEAR COST 2 (2025) \$23.035 22 (2045) \$50,472

**FUTURE MAINTENANCE** 

anticipated useful life. The pump was installed in 2003 and a soft start mechanism was installed on the pump in 2020.



COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

18-Jul-23

### 15.2.8 Water Storage Tank #7 - Replace

Life Safety

Maintenance Cycle: 60 years

Quantity: 1 Lump Sum

Estimate: \$191.000

Next Maintenance: Year 43 (2066) Unit Cost: \$191,000.00 / LS

No issues were reported with the water storage tank #7. At the request of the Association the maintenance cycle has been adjusted to 60 years and the cost for replacement increased to \$191,000 and includes permits and debris removal, based on information they have recieved from their vendor. This component budgets funds to replace the 80,000 gallon water storage tank #7 at the end of its anticiapted useful life. The tank was installed in 2006.

FUTURE MAINTENANCE	
YEAR	COST

#### 15.2.9 Pump #8 - Replace

Life Safety

Maintenance Cycle: 20 years

Next Maintenance: Year 11 (2034)

**Quantity:** 1 Lump Sum **Estimate:** \$20,320

Unit Cost: \$20,320.00 / LS

No issues were reported with pump #8. The Association recieved an updated cost for replacement from their vendor of \$20,300. This component budgets funds to replace the pump at the end of its anticipated useful life. The pump was installed in 2014.

FUTURE MAINTENANCE	
YEAR	COST
11 (2034)	\$32,786

# 15.2.10 Well #8 - Replace

Life Safety

Maintenance Cycle: 50 years

Next Maintenance: Year 41 (2064)

**Quantity:** 1 Lump Sum **Estimate:** \$78,000

Unit Cost: \$78.000.00 / LS

The Association reported that one of the wells was not on the study. A new componet has been added to budget funds for replacement of well #8 at the end of its anticipaed useful life. The vendor that the Association uses has estimated that the cost for replacement of well #8 would be about \$78,000. The well was drilled in 2014

FUTURE MAINTENANCE	
YEAR	COST

# 15.2.11 Water System Delivery Pipes - Replace Phase 1

**Life Safety** 

Maintenance Cycle: 70 years

Quantity: 58,613 Linear Feet

Next Maintenance: Year 8 (2031)

Unit Cost: \$91.77 / LF

**Estimate:** 58,613 LF X 25% X \$91.77/LF = \$1,344,729 + tax = \$1,467,100

The Association reported no major leaks or breaks in the water system delivery pipes. At the request of the Association the maintenace cycle has been adjusted to 70 years. The Association expressed interest in breaking the deliver system into specific piping loops or communities, however we recommend to not get that specific with large componets like this, since it is not known what areas will be replaced first, as well as how much piping will need to be replaced at one time. This component budgets a lump sum of funds to be used as needed to replace any broken or damaged pipes. It is not expected that all 25% of the pipes will be repalced at once but rather this just ensures that the Association is finacially prepared if those funds are required.

FUTURE MAINTENANCE	
YEAR	COST
8 (2031)	\$2,104,358



COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

18-Jul-23

#### 15.2.12 Water System Delivery Pipes - Replace Phase 2

**Life Safety** 

Maintenance Cycle: 70 years

Next Maintenance: Year 18 (2041)

Quantity: 58,613 Linear Feet

Unit Cost: \$91.77 / LF

**Estimate:** 58,613 LF X 25% X \$91.77/LF = \$1,344,729 + tax = \$1,467,100

The Association reported no major leaks or breaks in the water system delivery pipes. At the request of the Association the maintenace cycle has been adjusted to 70 years. The Association expressed interest in breaking the deliver system into specific piping loops or communities, however we recommend to not get that specific with large componets like this, since it is not known what areas will be replaced first, as well as how much piping will need to be replaced at one time. This component budgets a lump sum of funds to be used as needed to replace any broken or damaged pipes. It is not expected that all 25% of the pipes will be repalced at once but rather this just ensures that the Association is finacially prepared if those funds are required.

FUTURE MAINTENANCE	
YEAR	COST
18 (2041)	\$3,114,964

#### 15.2.13 Water System Delivery Pipes - Replace Phase 3

Life Safety

Maintenance Cycle: 70 years

Next Maintenance: Year 26 (2049)

Quantity: 58,613 Linear Feet

Unit Cost: \$91.77 / LF

**Estimate:** 58,613 LF X 25% X \$91.77/LF = \$1,344,729 + tax = \$1,467,100

The Association reported no major leaks or breaks in the water system delivery pipes. At the request of the Association the maintenace cycle has been adjusted to 70 years. The Association expressed interest in breaking the deliver system into specific piping loops or communities, however we recommend to not get that specific with large componets like this, since it is not known what areas will be replaced first, as well as how much piping will need to be replaced at one time. This component budgets a lump sum of funds to be used as needed to replace any broken or damaged pipes. It is not expected that all 25% of the pipes will be repalced at once but rather this just ensures that the Association is finacially prepared if those funds are required.

FUTURE MAINTENANCE	
YEAR	COST
26 (2049)	#######

# 15.2.14 Water System Delivery Pipes - Replace Phase 4

**Life Safety** 

Maintenance Cycle: 70 years

Next Maintenance: Year 34 (2057)

Quantity: 58,613 Linear Feet

Unit Cost: \$91.77 / LF

**Estimate:** 58,613 LF X 25% X \$91.77/LF = \$1,344,729 + tax = \$1,467,100

The Association reported no major leaks or breaks in the water system delivery pipes. At the request of the Association the maintenace cycle has been adjusted to 70 years. The Association expressed interest in breaking the deliver system into specific piping loops or communities, however we recommend to not get that specific with large componets like this, since it is not known what areas will be replaced first, as well as how much piping will need to be replaced at one time. This component budgets a lump sum of funds to be used as needed to replace any broken or damaged pipes. It is not expected that all 25% of the pipes will be repalced at once but rather this just ensures that the Association is finacially prepared if those funds are required.

FUTURE MAINTENANCE	
YEAR	COST

# 16.6.1 Telemetry System - Install

Life Safety

Maintenance Cycle: 10 years

Next Maintenance: Year 9 (2032)

**Quantity: 1 Lump Sum** 

**Unit Cost:** \$16,000.00 / LS

**Estimate:** \$16,000

The Association reported plans to install a telemetry system for water monitoring in 2022 at a cost of \$16,000. This component budgets funds for the installation and future replacement of the system once every 10 years.

FUTURE MAINTENANCE	
YEAR	COST
9 (2032)	\$23,868
19 (2042)	\$35,330
29 (2052)	\$52,297



COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

18-Jul-23
Security

Security

#### 18.1.1 Well House Metal Doors - Replace

Maintenance Cycle: 25 years

Quantity: 5 Each

Next Maintenance: Year 2 (2025)

Unit Cost: \$0.00 / EA

**Estimate:** 5 EA X 100% X \$0.00/EA = \$0 + tax = \$0

The Association reported that this component will be funded through the operating budget. The cost has been set to budget \$0 and will be reomved from the next Reserve Study. The budget provides funds to replace the metal doors on the well house buildings. The doors have been in service since 1995.

FUTURE MAINTENANCE	
YEAR	COST

#### 18.3.1 Maintenance Roll Up Door - Replace

Next Maintenance: Year 2 (2025)

Maintenance Cycle: 24 years

Quantity: 2 Lump Sum
Estimate: \$12,000

Unit Cost: \$12,000.00 / LS

The roll up doors for the maitenance building appeared to be in good condition, functioning properly, with no issues reported by the Association. This component budgets funds for 50% of the replacement cost for replacing one  $12' \times 10'$  door and one  $10' \times 10'$  door. It is a shared component between the water and general operation reserve funds. The doors were installed in 2001.

FUTURE MAINTENANCE	
YEAR	COST
2 (2025)	\$13,603
26 (2049)	\$34,869