



The Falcon Group

ENGINEERS, ARCHITECTS AND RESERVE SPECIALISTS

Capital Reserve Replacement Fund Analysis
For
**White Haven Poconos Property
Owners Association
White Haven, Pennsylvania**

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Falcon Client: 21-0051



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Please observe that this document consists of three sections which are independently page numbered; the Narrative Report (whose page numbers have an “N” prefix), the Calculation Tables (whose page numbers have a “C” prefix), and the Appendix (whose page numbers have an “A” prefix).

Community Description

The White Haven Poconos Property Owners Association consists of 230 single family lots and residences serviced by various common facilities and site improvements consisting of a private roadway (Lakeview Drive) and a lake with an integral dam structure. Recreational facilities owned and maintained by the Association include a private beach, a bathhouse, pavilion structures, playground equipment, a basketball court, and various other buildings and equipment used for purposes of supporting these amenities.

The community is located in White Haven, Pennsylvania.

Capital Reserve Replacement Analysis Overview

The function of a Capital Reserve Replacement Analysis is to inform and advise the Community Association as to the likely capital expenditures for replacement of common elements over the time frame considered by the analysis and the annual contribution levels to the Capital Reserve Replacement Fund calculated as being sufficient to avoid having to levy special assessments or take out a loan in order to support the predicted capital expenditures.

All Capital Reserve Replacement Analyses therefore assume that the Association is funding capital expenditures through the use of regular (e.g. annual, quarterly, or monthly), budgeted contributions to an account set aside for the sole purpose of funding the replacement of a designated set of common elements (often called the "Capital Reserve Fund").

A Community Association can defer common element replacement projects. Such deferrals tend to result in the gradual decrease in property values as the infrastructure and appearance of the community facilities degrade over time. In addition, such deferrals often result in the final replacement costs increasing significantly due to more extensive deterioration and additional damage to other common elements resulting from the failure of the common element to be replaced.

Association Considerations for a Capital Reserve Replacement Analysis

Each Association has a number of choices and options to consider during the Capital Reserve Replacement Analysis process. Two of the most important decisions are the Methodology (q.v.) of the analysis and the Funding Goal (q.v.) of the Association, although there are a number of other considerations, including:

- **Budget Thresholds** – the budget threshold is simply the lowest total project cost that the Association wants to fund using the Capital Reserve Fund. This is normally a function of the Association's proclivities, operating budget size, and administrative/fiscal history – some communities will fund a \$5,000 project through the maintenance or operating budget, while others prefer to schedule and fund a \$500 project through the capital reserve budget. Many Associations never make a formal decision, leaving this to the professionals who prepare their Capital Reserve Replacement Analyses.
- **Federal Housing Authority/Housing & Urban Development Limitations** – the federal government is a significant mortgage insurance provider. The FHA/HUD mortgage insurance programs currently require that community Associations fund replacement reserves for capital expenditures and deferred maintenance with at least 10% of the Association budget in order to meet eligibility requirements for FHA mortgage insurance – failure to maintain this level of replacement reserve funding can trigger requests for a current (less than 12 month old) reserve study or a Fannie Mae form 1073a from lenders (see HUD Mortgagee Letter 2009-46 B).
- **Maintenance Budget** – no project should be funded in two places. Any and all maintenance contracts for common elements should be reviewed, and any common element whose complete replacement is included in the maintenance contract should be removed from consideration in the Capital Reserve Replacement Analysis, since the Association is already allocating funds to replace the element.
- **Operating Budget** – no project should be funded in two places. Any common elements that the Association is planning to replace in a series of incremental projects on an annual or irregular (as-needed) basis using the

operating budget funds should be removed from consideration in the Capital Reserve Replacement Analysis, since the Association is already allocating funds to replace the element.

- Preventive or Deferred Maintenance Budget – no project should be funded in two places. The Association should compare its capital reserve budget to its preventive/deferred maintenance budget. Line items existing in both schedules should be removed from one or the other, since the Association is already allocating funds to replace the element.
- Statutory Requirements – some jurisdictions may require that certain elements are included in a reserve fund analysis, and other municipalities agree to accept responsibility for some elements (most commonly roadways). Such factors cannot be determined by site inspection – the Association should have documentation indicating any such factors, and should certainly inform the professionals performing the Capital Reserve Replacement Analysis of these factors.
- Time Window – the time window is simply the time span that the Association desires to consider its capital reserve expenditures over. Typically, Associations do not consider common elements with a condition assessed remaining life cycle of longer than 30 years as part of the Capital Reserve Replacement Analysis. As a general rule, longer time windows are more conservative (resulting in higher annual contribution levels), with the longer time windows allows the Association a longer lead-time to accumulate funds for large projects.
- Interest and Inflation – interest (sometimes called the rate of return) and inflation can have significant influence on the capital reserve budget. Increasing interest rates tends to reduce the necessary annual contributions, as the Association is essentially collecting additional funding from investment of its capital reserve fund. Increasing inflation rates tends to increase the necessary annual contributions, as the Association needs to collect additional funds to account for the decreasing purchasing power of money. The Falcon Group generally recommends that most Associations are better served by assuming interest and inflation rates of zero and updating their Capital Reserve Replacement Analysis every two to three years (thus correcting for the effects of interest and inflation every second or third year), rather than making assumptions about factors that vary significantly and unpredictably with market forces. That being said, if the Association desires, The Falcon Group can certainly assume whatever average annual interest and inflation rates the Association requests.

Besides the above considerations, there are two decisions that the Association will need to make:

Funding Goals

The funding goal helps to determine the methodology used in the Capital Reserve Replacement Analysis and also is the principal reflection of the Association's fiscal policy. Funding goals can be categorized by their fiscal aggressiveness (willingness to risk the need to levy a special assessment or take out a loan) – more aggressive funding goals tend to result in lower annual levels of contribution to the capital reserve fund, with associated higher risks of shortfalls requiring special assessments or loans.

There are four basic funding goals used by communities when determining Capital Reserve Fund requirements:

- Baseline Funding is the most aggressive funding goal commonly used by Associations. Baseline funding is essentially a special case of threshold funding, where the goal is to never have a negative capital reserve fund balance (in other words the threshold is zero). As this funding goal provides no margin for errors, unexpected or unforeseeable expenses, or market forces that are not in the Association's favor, The Falcon Group does not recommend this as a funding goal for the Association's capital reserve budget.
- Full Funding is the most conservative funding goal commonly used by Associations. Full funding is best understood as an attempt to maintain the capital reserve fund at or near 100% of the accumulated common element depreciation. As an example: assuming element X has a life cycle of 10 years, is presently 5 years old, and has a replacement cost of \$10,000, then the full funding goal would be to have \$5,000 ($5/10 \times \$10,000$) in the capital reserve fund for this item. Full funding, as defined by GAP Report #24 ("A Complete Guide to Reserve Funding &

Reserve Investment Strategies”, 4th ed., produced by CAI), appears simpler than it actually is in practice, and tends to result in over-funding if the community is starting with a capital reserve fund balance less than the current depreciation of its common elements, or to result in under-funding if the community is starting with a capital reserve fund balance greater than the current depreciation of its common elements, unless applied carefully and with the understanding that annual contributions will change over the course of time as overages and shortages are corrected, resulting in an annual contribution recommendation that decreases or increases with the passage of time in all except the simplest cases.

- Statutory Funding is a funding goal (and/or methodology) that the community is legally obligated to meet or exceed. Such funding goals are typically the result of state or local statutes or the result of one or more provisions in the governing documents of the Community Association. The relative aggressiveness of such funding goals will vary depending upon the statute or provision involved.
- Threshold Funding is normally a moderate funding goal. The essential goal of threshold funding is to avoid having a capital reserve fund balance below some predetermined level (the “threshold” or “threshold balance”), which can be determined as a percentage of the total cost to replace the considered common elements, by decree as some absolute value (e.g. the community decides that \$100,000 is the threshold balance because that is a number it is comfortable with), or as some multiple of the annual contribution (e.g. the community wants to have a capital reserve fund balance of no less than 9 months of capital reserve fund contributions). Note that Baseline Funding is essentially a threshold funding goal where the threshold balance equals zero.

Methodology

There are essentially three methods used in Capital Reserve Analyses performed for most communities. The decision of which methodology to use is made by the Community Association, often under the advisement of its accountant, lawyer, and/or engineer. These three methodologies are:

- Cash Flow methodologies are based upon a projection of the future expenditures that the Community Association is likely to experience. The cash flow is then determined, based upon these expenditures, so that the resulting Capital Reserve Fund balances over the time window meet the funding goal.
- Component methodologies are based upon calculating the yearly contribution necessary to fund the replacement of each common element that is being considered. Each element is considered separately, producing a series of distinct line item entries of necessary contributions, which are summed to produce the total annual contribution to meet the funding goal.
- Statutory methodologies, like Statutory Funding Goals, are determined entirely by the statutes and/or governing document provisions that create the methodology. Statutory methodologies will most commonly resemble cash flow or component methodologies, but can theoretically be based upon any fiscal or legal conceptualization of the capital reserve funding.

Methodology and funding goal are normally related closely to each other. As a rule, baseline and threshold funding goals are most easily calculated using a cash flow methodology, full funding goals are normally calculated using a component methodology, and statutory funding goals and methodologies are often found together (e.g. the local government legislates both what the funding goal is and how the community calculates its reserve fund contribution to insure that the funding goal is met).

Please note that cash flow methodologies and component methodologies cannot be easily compared on a line item by line item basis, as cash flow methodologies do not generate a definite line item breakdown of how the annual funding is distributed between the various line items. Likewise, cash flow methodologies do not lend themselves to division of common element responsibilities between various entities. For instance, if an Association is internally divided between several sub-groups that do not share all common elements (for instance, an Association where owners of detached dwelling units do not own a share of the common elements of multifamily buildings in the Association and vice versa, but all owners share responsibility for the recreational facilities and site improvements), then the proper application a cash flow methodology

would require multiple analyses, with one analysis for each division of responsibility (in the aforesaid case, there would need to be an analysis for detached dwelling unit buildings, an analysis for multifamily buildings, and an analysis for the recreational facilities and site improvements), and each analysis requiring a distinct set of initial conditions (most notably initial capital reserve fund balances).

Analysis

A Capital Reserve Replacement Analysis consists of a series of calculations, which essentially attempt to create a mathematical model of the Association's capital reserve fund expenditures/cash flows over a designated time window, and then determine the annual contributions to the capital reserve fund necessary to support the modeled expenditures/cash flows.

Capital Reserve Replacement Analyses, as performed by The Falcon Group, performs several sets of separate, distinct, and independent calculations upon the same basic information. This permits the analysis to include a component methodology full funding calculation and several cash flow methodology threshold funding calculations (using different threshold balances) to permit the Association to more fully examine its possible capital reserve funding options. Please note that the cash flow and component methodologies cannot be directly compared on a line item by line item basis, due to the significant differences between the underlying mathematics of these methodologies.

The Capital Reserve Replacement Analysis calculations and results are shown in a series of tables and graphs that demonstrate the general viability and end results of the various scenarios. These tables and graphs allow the Association to verify that one or more of the scenarios considered meet Association requirements and do not engage in unacceptable levels of over- or under-funding, as well as allowing the Association to inspect the underlying assumptions and numerical bases of the various scenarios and compare the costs (annual contributions over the time window of the analysis) of achieving these scenarios.

Please note that this Capital Reserve Replacement Analysis is a guide, not a legally binding document. The Association should not allow itself to feel constrained from performing necessary or desirable projects simply because they are not included in this analysis, nor should it feel itself forced to perform any project simply because it has been scheduled in this analysis. If work needs to be done, then do it, and likewise, if the common element condition does not justify replacement or refurbishment, then refrain from performing the work until it needs to be done. The Falcon Group believes and recommends that every Association should have a reserve analysis performed no less than once every three years to allow the updating of estimated replacement costs to reflect inflation, technological advances, changes in the construction industry, and current market forces, as well to allow alterations in life cycle information to reflect any significant alterations in the Association's common element conditions or quantities, as well as any significant changes in industry standards or market forces.

Limits of Inspection & Disclosures

The Falcon Group will not accept responsibility for the detection or analysis of conditions not visible to the naked eye under normal lighting conditions, or conditions located in areas which cannot be accessed by inspectors.

On-site inspections include walking the improved areas of the site and visual inspection of representative samples of the observable common elements and accessible areas of the common buildings. Please note that The Falcon Group cannot accept responsibility for detection of non-representative conditions as part of the on-site inspections.

On-site inspections are limited, most notably by the following:

- Unless otherwise stated in the Common Element Descriptions & General Comments, no non-visual examinations were conducted.
- No destructive or invasive testing of any kind was undertaken.

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- No security measures (locks, alarms, etc.) were circumvented, and areas within security perimeters were examined from outside said perimeter.
- No area of the site inaccessible to pedestrian traffic was examined and no areas requiring special tools to access or necessitating specific equipment or training to work in safely were entered.

Conditions stated in the report are representative of the general observed conditions of each item. Isolated areas of above or below average conditions may exist for any item. This analysis is not meant to be, nor should it be used as, a detailed condition evaluation of the common elements or a construction defect investigation.

No attempt has been made to predict either the rate of inflation or the rate of return on investments and savings that can be achieved by the Association. The Falcon Group assumes that the Association can achieve a consistent rate of return on investments and savings that equals or exceeds inflation, and that any investment income above and beyond the rate of inflation will be retained within the Capital Reserve Fund, but, for budgeting purposes, assumes that the annual rate of cost inflation and the annual rate of investment return seen by the Association is zero (0%). The Association should consult with its accountant to verify the viability of these assumptions. If the Association desires inclusion of non-zero inflation and investment return, please contact The Falcon Group with the desired annual rates of inflation and investment return so that a revised analysis can be prepared to reflect the Association's desired assumptions in this regard.

Information provided by official representatives of the Association is assumed to be reliable and accurate. This analysis is a reflection of the information supplied to The Falcon Group, and has been assembled for the Association's use; this analysis is not meant to be an audit, quality/forensic analysis, or background check of historical information. Similarly, on-site inspections performed as part of this analysis should not be considered a project audit or quality inspection of any reserve project.

Community Specific Conditions & Commentary

General Comments

Please note that, based upon professional judgment and information provided by the Association or the Association's management professionals, the following have not been considered as part of this Capital Reserve Replacement Analysis:

- Annual maintenance tasks (e.g. filling pot-holes & sealing pavement cracks).
- Drainage repairs or enhancements.
- Landscaping, including maintenance, replacement, or enhancement.
- Painting, sealing, or staining of exterior or interior wooden components.
- Painting of exterior or interior metal components.
- Preventive maintenance tasks (e.g. power-washing siding, annual inspections).
- Protected or concealed structural components, such as foundations, wall framing, floor/ceiling framing, roof framing, and similar components.
- Radon mitigation systems.
- Routine (e.g. sweeping stoops, snow clearing) and emergency (e.g. repairing broken stair treads) maintenance tasks.
- Underground utilities.

Should the above list be incorrect, please notify The Falcon Group so that the analysis can be appropriately amended.

These items are excluded from this analysis because they are typically considered to be either maintenance or operating expenses, and are therefore expected to be accounted for in those budgets, or have predicted remaining life cycles that exceed the analysis time window, and are therefore not typically considered a capital expenditure (at this point in time), or are not common elements, and are therefore not the Association's responsibility. The Association should review all maintenance and operating budgets to confirm that sufficient funding is being allocated toward all maintenance and operating budget items, and the Association's legal professionals should verify the responsibilities of both Association and individual unit owners to confirm that the common element list used in the analysis is accurate.

Calculation Table Notes

The following are notes that provide specific comments for use with the Association's current Capital Reserve Replacement Analysis. These notes are numbered and correspond to the numbers given in the analysis Calculation Tables, which immediately follow these notes.

1. General Note on Aging Estimates: Many of the line item components vary slightly in age and/or condition; however, in general like components have been assigned an estimated average remaining useful service life based upon our observations. Single or isolated replacements of certain components may be needed occasionally and can be funded through the capital reserves as the need arises. Such as-needed isolated replacements may be especially prevalent for items like heaved or broken flags of concrete, etc. For purposes of establishing the funding strategies, complete replacement projects are assumed in most cases (with exceptions for percentage or partial quantities where complete replacement is not typically necessary). Capital reserve replacement projects are generally more economical when completed as larger, more comprehensive scopes of work due to realized economies of scale and mobilization costs.
2. General Note on Replacement Cost Estimates: In accordance with recommended industry standards, the replacement cost estimates utilized for this analysis should be reviewed and updated every two to three (2 – 3) years. Periodic professional updates of this analysis for pricing, aging, physical conditions, and actual fund balances are required to prevent an underfunded condition from developing in the future.
3. Unit Costs: Similarly, the estimated per-unit costs used are average costs for the type, quality and class of existing components. Further, unit costs are typical average costs for the item understanding that specific costs can be expected to vary both above and below the unit cost used in the analysis.
4. General Note on Component Quantities: The current analysis uses field-measured Line Item Quantities. Field measurements performed as part of this analysis are not meant or intended to be used for contractor bidding, design work/calculations, or any function other than budget calculation.
5. The cost used assumes complete replacement of the existing roof systems with allowances for flashing, underlayment, and ventilation enhancements. Please note that detailed roof/attic inspections were not performed as part of this scope of work and the remaining useful life given for the roofing is based solely on the age of the roof system, information provided by the Association, and general visual observations.
6. We have included a line item for gutters and leaders as full scale replacement will likely be required or desired during the roof replacement project as the gutters will become damaged over time from ice and snow accumulations and physical abuse from ladders.
7. Please note that playgrounds are areas that are subject to deterioration from weathering and use. The rate of deterioration of impact attenuation surfacing materials and playground equipment will vary depending upon local climate/exposure and maintenance practices. Loose fill impact attenuation surfacing materials require regular maintenance (actual frequency depends upon usage and material characteristics). Detailed inspection of the playground impact attenuation surfacing materials, the playground equipment, or playground accessibility for

conformance to U.S. Consumer Product Safety Commission guidelines (publication 325) and Uniform Construction Code requirements is not part of the scope of this analysis.

For safety purposes, the study has assumed replacement of the older playground equipment in Year 1.

8. This item has been budgeted for future expenditures based upon the assumption that 10% of the gross element quantity will be replaced every five (5) years for the foreseeable future.
9. The private roadway (Lakeview Drive) contains substantial areas of cracking and sub-grade failures and will require enhanced repairs during the pavement project. The costs shown in the funding schedule reflect these conditions as well as drainage inlet wall repairs that are needed at some locations. The cost for this item assumes milling for drainage and planar continuity purposes, as well as to maintain curb reveal. The cost also includes full depth repairs (as required), installation of a new 2" thick wearing course.
10. Please note that the given cost estimate for [HVAC, plumbing, mechanical equipment, etc.] is for replacement of the central equipment, and does not include replacement of wiring, piping, or ductwork which is assumed to last indefinitely (typically wiring, piping, and ductwork would be repaired on an as-needed basis as an operating or maintenance expense).
11. The Falcon Group recommends that the lake conditions be evaluated to determine if dredging needs to be undertaken or will need to be undertaken in the near future. Depending upon the results of the evaluation, adjustments to the reserve analysis funding schedule may be necessary. Based on provided information, the Association has obtained estimates for dredging of the community lake. Association provided costs for this project are included early (Year 2) in the study period.
12. Dredging costs will vary with the sediment accumulation to be removed and disposal costs of the sediment once it has been removed. It therefore follows that the actual cost of dredging can be expected to depend upon landscaping and weather conditions between dredging projects, as well as upon the regulatory environment (i.e. the methods and locations allowable for the disposal of the sediment) and pollutants (i.e. pesticides, herbicides, fertilizers, salts, petrochemicals, etc.) that may be contained within the sediment.
13. Please note that, as a matter of best operating practice, all common area pedestrian walkways should be subjected to annual inspection for safety concerns, including trip hazards. This evaluation does not purport to be an inclusive or definitive walkway safety evaluation.
14. Upgrades driven by aesthetics often involve renovations of an entire building. Further, due to older fixtures and interior components, large-scale renovations at the bathhouse facility are recommended early in the study period. As such, a refurbishment allowance for this project is included in the funding analysis.
15. While an evaluation of the dam structure and associated components was not included in the scope for work for this project, we have included an allowance for potential future dam upgrades/repairs on regular cycles over the study period. Based upon actual repair replacement projects in the future, the Association may want to increase or decrease this number to reflect actual rates of failure propagation.
16. Unit of Measure Abbreviations:

LF = Linear Foot LS = Lump Sum SQ = Square SF = Square Foot SY = Square Yard

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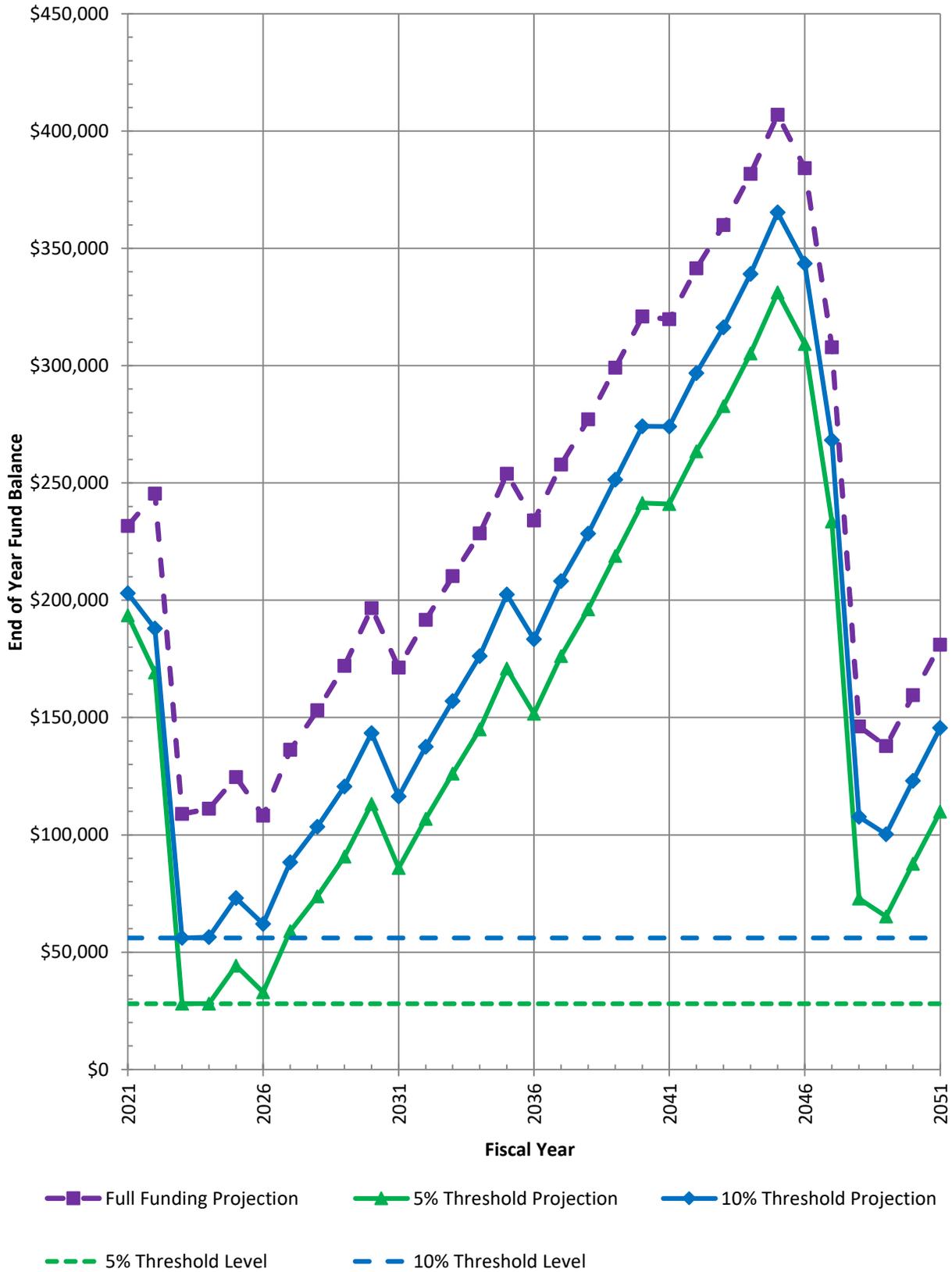
Line Item <small>footnotes in parentheses at the end of each line item</small>		Reserve Schedule					
		Life Cycle		Estimated Cost			
		Typically Expected	Condition Assessed Remaining (note 1)	Quantity (note 2)	Unit of Measure	Unit Cost	Line Item Occurrence Cost
1	BATHHOUSE-Doors-replacement	20	7	2	EA	\$ 1,100.00	\$ 2,200
2	BATHHOUSE-Interior-restroom refurbishment fund-[14]	30	4	1	LS	20,000.00	20,000
3	BATHHOUSE-Mechanical-water heater-[10]	15	11	1	EA	1,600.00	1,600
4	BATHHOUSE-Mechanical-well pressure tank-[10]	15	5	1	EA	1,400.00	1,400
5	BATHHOUSE-Mechanical-well pump-[10]	20	5	1	EA	7,500.00	7,500
6	BATHHOUSE-Roof-gutters & downspouts-[6]	25	3	40	LF	8.00	320
7	BATHHOUSE-Roof-low slope-[5]	25	3	1,156	SF	14.00	16,184
8	BATHHOUSE-Safety-surveillance equipment	15	5	1	LS	1,300.00	1,300
9	BATHHOUSE-Windows-newer	30	25	4	EA	450.00	1,800
10	BATHHOUSE-Windows-older	30	3	6	EA	450.00	2,700
11	RECREATION-Basketball Court-color coating	10	12	405	SY	10.50	4,253
12	RECREATION-Basketball Court-goals	25	2	2	EA	2,500.00	5,000
13	RECREATION-Basketball Court-reconstruction	25	2	405	SY	45.00	18,225
14	RECREATION-Beach-beach sand, replenishment	2	1	1	LS	3,500.00	3,500
15	RECREATION-Benches-park style	15	1	2	EA	750.00	1,500
16	RECREATION-Kayak-rack, free-standing	15	13	2	EA	1,800.00	3,600
17	RECREATION-Lake-anchored swim dock/raft	25	3	1	EA	4,000.00	4,000
18	RECREATION-Lake-boat slip dock	25	0	2	EA	3,500.00	7,000
19	RECREATION-Lifeguard Chair-replacement	20	18	1	EA	1,600.00	1,600
20	RECREATION-Pavilion-beach, small	30	8	2	EA	4,500.00	9,000
21	RECREATION-Pavilion-primary structure, guardrails	25	3	110	LF	32.00	3,520
22	RECREATION-Pavilion-primary structure, roof-[5]	25	3	12	SQ	500.00	6,000
23	RECREATION-Pavilion-primary structure, vinyl siding	40	18	205	SF	8.00	1,640
24	RECREATION-Picnic Tables-replace, 10%-[8]	5	0	3	EA	600.00	1,800
25	RECREATION-Playground-equipment, newer-[7]	20	15	1	LS	15,000.00	15,000
26	RECREATION-Playground-equipment, older-[7]	20	0	1	LS	7,500.00	7,500
27	RECREATION-Sandboxes-replacement	20	0	3	EA	1,100.00	3,300
28	SITE WORK-Beach Parking Lot-landings & stairway-[13]	30	20	136	SF	14.50	1,972
29	SITE WORK-Beach Parking Lot-stairway, handrails	20	10	8	LF	54.00	432
30	SITE WORK-Dam-dock structure, decking-[15]	20	0	260	SF	16.00	4,160
31	SITE WORK-Dam-general allowance-[15]	10	5	1	LS	25,000.00	25,000
32	SITE WORK-Dam-steel dock structure, reconstruct-[15]	50	10	260	SF	70.00	18,200
33	SITE WORK-Lake-dredging, allowance-[11, 12]	25	1	1	LS	100,000.00	100,000
34	SITE WORK-Road-asphalt reconstruction, lakeview dr.-[9]	25	2	3,700	SY	42.00	155,400
35	SITE WORK-Septic System-pump-[10]	15	10	1	EA	1,400.00	1,400
36	SITE WORK-Septic System-tanks and leachfield	30	10	1	LS	30,000.00	30,000
37	SITE WORK-Sidewalks-concrete, bathhouse-[13]	30	5	564	SF	12.50	7,050
38	SITE WORK-Signage-entrance signs	20	0	2	EA	2,500.00	5,000
39	SITE WORK-Signage-lakeview drive	20	10	1	EA	1,500.00	1,500
40	SITE WORK-Storage Shed-replacement	30	7	1	EA	3,000.00	3,000
41	STORAGE BUILDING-Exterior-repair/maintennace, allowance	5	2	1	LS	2,500.00	2,500
42	STORAGE BUILDING-Roof-standing seam metal-[5]	40	2	28	SQ	1,400.00	39,200
43	STORAGE BUILDING-Roof-gutters & downspouts-[6]	40	2	180	LF	8.00	1,440
						-	-
						-	-
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Line Item <small>footnotes in parentheses at the end of each line item</small>	Total Line Item Cost	Full Funding Schedule				
		Current Theoretical Full Funding Line Item Balance	Initial Fund Allocation (pooling)	Current Coverage (+) or Shortage (-)	Effective Age of Component	Current Theoretical Full Funding Line Item Annual Contribution
1 BATHHOUSE-Doors-replacement	\$ 2,200	\$ 1,320	\$ 373	\$ (947)	12	\$ 110
2 BATHHOUSE-Interior-restroom refurbishment fund-[14]	20,000	16,667	4,713	(11,953)	25	667
3 BATHHOUSE-Mechanical-water heater-[10]	1,600	320	90	(230)	3	107
4 BATHHOUSE-Mechanical-well pressure tank-[10]	1,400	840	238	(602)	9	93
5 BATHHOUSE-Mechanical-well pump-[10]	7,500	5,250	1,485	(3,765)	14	375
6 BATHHOUSE-Roof-gutters & downspouts-[6]	320	269	76	(193)	21	13
7 BATHHOUSE-Roof-low slope-[5]	16,184	13,595	3,845	(9,750)	21	647
8 BATHHOUSE-Safety-surveillance equipment	1,300	780	221	(559)	9	87
9 BATHHOUSE-Windows-newer	1,800	240	68	(172)	4	60
10 BATHHOUSE-Windows-older	2,700	2,340	662	(1,678)	26	90
11 RECREATION-Basketball Court-color coating	4,253	-	-	-	-	425
12 RECREATION-Basketball Court-goals	5,000	4,400	1,244	(3,156)	22	200
13 RECREATION-Basketball Court-reconstruction	18,225	16,038	4,536	(11,502)	22	729
14 RECREATION-Beach-beach sand, replenishment	3,500	-	-	-	-	1,750
15 RECREATION-Benches-park style	1,500	1,300	368	(932)	13	100
16 RECREATION-Kayak-rack, free-standing	3,600	240	68	(172)	1	240
17 RECREATION-Lake-anchored swim dock/raft	4,000	3,360	950	(2,410)	21	160
18 RECREATION-Lake-boat slip dock	7,000	6,720	6,720	-	24	280
19 RECREATION-Lifeguard Chair-replacement	1,600	80	23	(57)	1	80
20 RECREATION-Pavilion-beach, small	9,000	6,300	1,782	(4,518)	21	300
21 RECREATION-Pavilion-primary structure, guardrails	3,520	2,957	836	(2,121)	21	141
22 RECREATION-Pavilion-primary structure, roof-[5]	6,000	5,040	1,425	(3,615)	21	240
23 RECREATION-Pavilion-primary structure, vinyl siding	1,640	861	243	(618)	21	41
24 RECREATION-Picnic Tables-replace, 10%-[8]	15,000	1,440	1,440	-	4	360
25 RECREATION-Playground-equipment, newer-[7]	15,000	3,000	848	(2,152)	4	750
26 RECREATION-Playground-equipment, older-[7]	7,500	7,125	7,125	-	19	375
27 RECREATION-Sandboxes-replacement	3,300	3,135	3,135	-	19	165
28 SITE WORK-Beach Parking Lot-landings & stairway-[13]	1,972	592	167	(424)	9	66
29 SITE WORK-Beach Parking Lot-stairway, handrails	432	194	55	(139)	9	22
30 SITE WORK-Dam-dock structure, decking-[15]	4,160	3,952	3,952	-	19	208
31 SITE WORK-Dam-general allowance-[15]	25,000	10,000	2,828	(7,172)	4	2,500
32 SITE WORK-Dam-steel dock structure, reconstruct-[15]	18,200	14,196	4,015	(10,181)	39	364
33 SITE WORK-Lake-dredging, allowance-[11, 12]	100,000	92,000	26,017	(65,983)	23	4,000
34 SITE WORK-Road-asphalt reconstruction, lakeview dr.-[9]	155,400	136,752	38,673	(98,079)	22	6,216
35 SITE WORK-Septic System-pump-[10]	1,400	373	106	(268)	4	93
36 SITE WORK-Septic System-tanks and leachfield	30,000	19,000	5,373	(13,627)	19	1,000
37 SITE WORK-Sidewalks-concrete, bathhouse-[13]	7,050	5,640	1,595	(4,045)	24	235
38 SITE WORK-Signage-entrance signs	5,000	4,750	4,750	-	19	250
39 SITE WORK-Signage-lakeview drive	1,500	675	191	(484)	9	75
40 SITE WORK-Storage Shed-replacement	3,000	2,200	622	(1,578)	22	100
41 STORAGE BUILDING-Exterior-repair/maintennace, allowance	2,500	1,000	283	(717)	2	500
42 STORAGE BUILDING-Roof-standing seam metal-[5]	39,200	36,260	10,254	(26,006)	37	980
43 STORAGE BUILDING-Roof-gutters & downspouts-[6]	1,440	1,332	377	(955)	37	36
	-	-	-	-	-	-
	-	-	-	-	-	-
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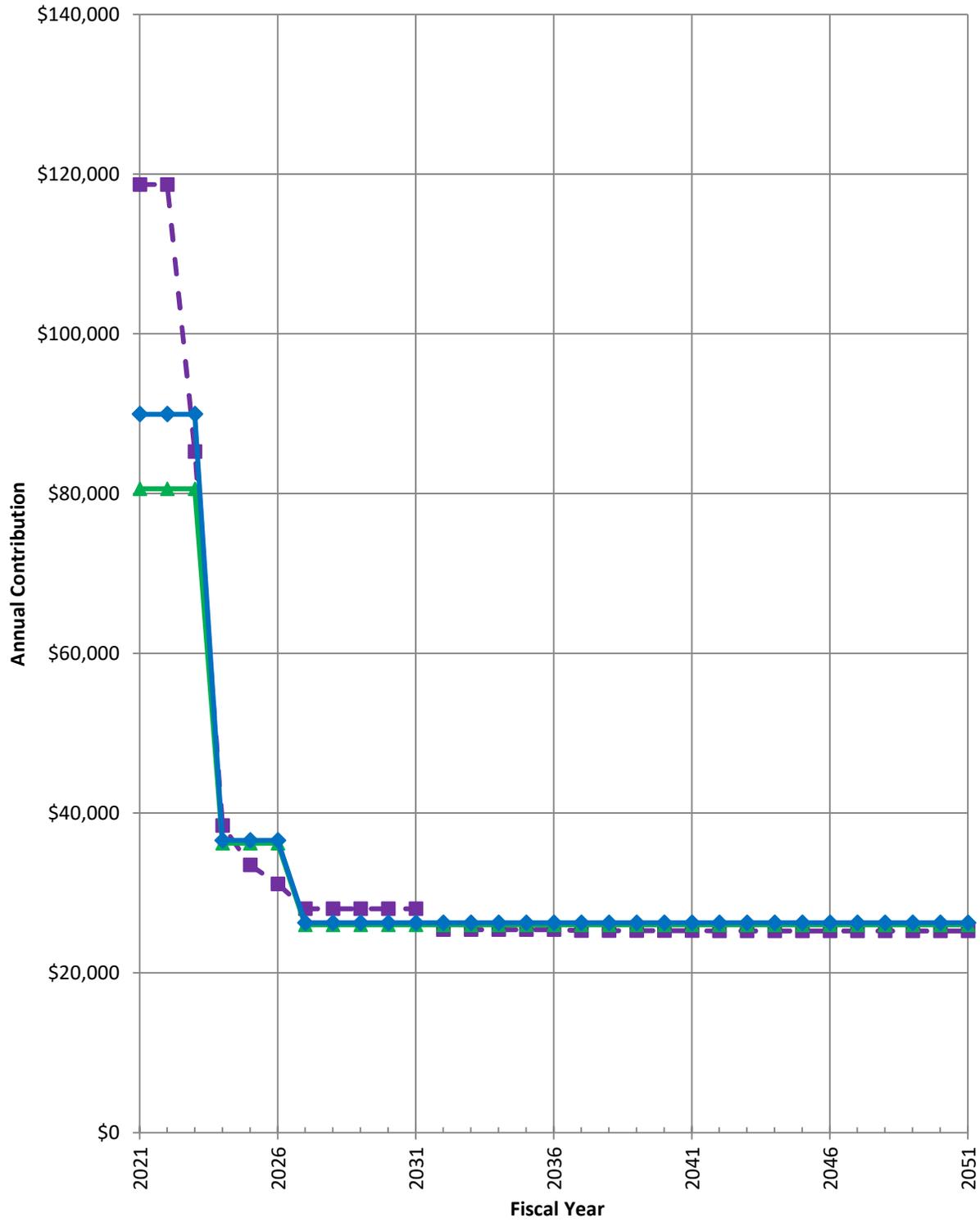
Fiscal Year	Nominal Expenditure (in Future Dollars) in Fiscal Year	Full Funding Scenario Projection		
		Start of Year Fund Balance	Projected Contribution	End of Year Fund Balance
2021	\$ 28,760	\$ 141,771	\$ 118,708	\$ 231,719
2022	105,000	231,719	118,708	245,427
2023	221,765	245,427	85,250	108,912
2024	36,224	108,912	38,445	111,133
2025	20,000	111,133	33,504	124,637
2026	47,550	124,637	31,113	108,200
2027	-	108,200	28,032	136,232
2028	11,200	136,232	28,032	153,065
2029	9,000	153,065	28,032	172,097
2030	3,500	172,097	28,032	196,629
2031	53,332	196,629	28,032	171,329
2032	5,100	171,329	25,398	191,627
2033	6,753	191,627	25,398	210,273
2034	7,100	210,273	25,398	228,571
2035	-	228,571	25,398	253,969
2036	45,300	253,969	25,398	234,066
2037	1,500	234,066	25,277	257,844
2038	6,000	257,844	25,277	277,121
2039	3,240	277,121	25,277	299,159
2040	3,500	299,159	25,277	320,936
2041	26,432	320,936	25,277	319,781
2042	3,500	319,781	25,236	341,517
2043	6,753	341,517	25,236	360,000
2044	3,500	360,000	25,236	381,736
2045	-	381,736	25,236	406,972
2046	48,000	406,972	25,236	384,208
2047	101,600	384,208	25,229	307,837
2048	186,825	307,837	25,229	146,241
2049	33,624	146,241	25,229	137,847
2050	3,500	137,847	25,229	159,576
2051	3,732	159,576	25,229	181,073

Fiscal Year	Nominal Expenditure (in Future Dollars) in Fiscal Year	5% Threshold Funding Scenario Projection				10% Threshold Funding Scenario Projection			
		Initial Year Threshold of \$28,045				Initial Year Threshold of \$56,090			
		Start of Year Fund Balance	Projected Contribution	End of Year Fund Balance	Nominal Threshold in Year	Start of Year Fund Balance	Projected Contribution	End of Year Fund Balance	Nominal Threshold in Year
2021	\$ 28,760	\$ 141,771	\$ 80,600	\$ 193,611	\$ 28,045	\$ 141,771	\$ 89,948	\$ 202,959	\$ 56,090
2022	105,000	193,611	80,600	169,210	28,045	202,959	89,948	187,907	56,090
2023	221,765	169,210	80,600	28,045	28,045	187,907	89,948	56,090	56,090
2024	36,224	28,045	36,224	28,045	28,045	56,090	36,586	56,452	56,090
2025	20,000	28,045	36,224	44,269	28,045	56,452	36,586	73,038	56,090
2026	47,550	44,269	36,224	32,943	28,045	73,038	36,586	62,074	56,090
2027	-	32,943	26,000	58,943	28,045	62,074	26,260	88,334	56,090
2028	11,200	58,943	26,000	73,743	28,045	88,334	26,260	103,394	56,090
2029	9,000	73,743	26,000	90,743	28,045	103,394	26,260	120,654	56,090
2030	3,500	90,743	26,000	113,243	28,045	120,654	26,260	143,414	56,090
2031	53,332	113,243	26,000	85,911	28,045	143,414	26,260	116,342	56,090
2032	5,100	85,911	26,000	106,811	28,045	116,342	26,260	137,502	56,090
2033	6,753	106,811	26,000	126,058	28,045	137,502	26,260	157,010	56,090
2034	7,100	126,058	26,000	144,958	28,045	157,010	26,260	176,170	56,090
2035	-	144,958	26,000	170,958	28,045	176,170	26,260	202,430	56,090
2036	45,300	170,958	26,000	151,658	28,045	202,430	26,260	183,390	56,090
2037	1,500	151,658	26,000	176,158	28,045	183,390	26,260	208,150	56,090
2038	6,000	176,158	26,000	196,158	28,045	208,150	26,260	228,410	56,090
2039	3,240	196,158	26,000	218,918	28,045	228,410	26,260	251,430	56,090
2040	3,500	218,918	26,000	241,418	28,045	251,430	26,260	274,190	56,090
2041	26,432	241,418	26,000	240,986	28,045	274,190	26,260	274,018	56,090
2042	3,500	240,986	26,000	263,486	28,045	274,018	26,260	296,778	56,090
2043	6,753	263,486	26,000	282,734	28,045	296,778	26,260	316,285	56,090
2044	3,500	282,734	26,000	305,234	28,045	316,285	26,260	339,045	56,090
2045	-	305,234	26,000	331,234	28,045	339,045	26,260	365,305	56,090
2046	48,000	331,234	26,000	309,234	28,045	365,305	26,260	343,565	56,090
2047	101,600	309,234	26,000	233,634	28,045	343,565	26,260	268,225	56,090
2048	186,825	233,634	26,000	72,809	28,045	268,225	26,260	107,660	56,090
2049	33,624	72,809	26,000	65,185	28,045	107,660	26,260	100,296	56,090
2050	3,500	65,185	26,000	87,685	28,045	100,296	26,260	123,056	56,090
2051	3,732	87,685	26,000	109,953	28,045	123,056	26,260	145,584	56,090

End of Fiscal Year Fund Projection Graph



Annual Contribution in Fiscal Year Graph



- Full Funding Annual Contribution
- 5% Threshold Funding Annual Contribution
- 10% Threshold Funding Annual Contribution

<p>2021 total expenditure \$28,760 consisting of these projects:</p>	<p>2022 total expenditure \$105,000 consisting of these projects:</p>	<p>2023 total expenditure \$221,765 consisting of these projects:</p>	<p>2024 total expenditure \$36,224 consisting of these projects:</p>
<p>RECREATION-Playground-equipment, older-[7] \$7,500</p> <p>RECREATION-Lake-boat slip dock \$7,000</p> <p>SITE WORK-Signage-entrance signs \$5,000</p> <p>SITE WORK-Dam-dock structure, decking-[15] \$4,160</p> <p>RECREATION-Sandboxes-replacement \$3,300</p> <p>RECREATION-Picnic Tables-replace, 10%-[8] \$1,800</p>	<p>SITE WORK-Lake-dredging, allowance-[11, 12] \$100,000</p> <p>RECREATION-Beach-beach sand, replenishment \$3,500</p> <p>RECREATION-Benches-park style \$1,500</p>	<p>SITE WORK-Road-asphalt reconstruction, lakeview dr.-[9] \$155,400</p> <p>STORAGE BUILDING-Roof-standing seam metal-[5] \$39,200</p> <p>RECREATION-Basketball Court-reconstruction \$18,225</p> <p>RECREATION-Basketball Court-goals \$5,000</p> <p>STORAGE BUILDING-Exterior-repair/maintennace, allowance \$2,500</p> <p>STORAGE BUILDING-Roof-gutters & downspouts-[6] \$1,440</p>	<p>BATHHOUSE-Roof-low slope-[5] \$16,184</p> <p>RECREATION-Pavilion-primary structure, roof-[5] \$6,000</p> <p>RECREATION-Lake-anchored swim dock/raft \$4,000</p> <p>RECREATION-Pavilion-primary structure, guardrails \$3,520</p> <p>RECREATION-Beach-beach sand, replenishment \$3,500</p> <p>BATHHOUSE-Windows-older \$2,700</p> <p>BATHHOUSE-Roof-gutters & downspouts-[6] \$320</p>

2025 total expenditure \$20,000 consisting of these projects:	2026 total expenditure \$47,550 consisting of these projects:	2027 total expenditure \$0 consisting of these projects:	2028 total expenditure \$11,200 consisting of these projects:
BATHHOUSE-Interior-restroom refurbishment fund-[14] \$20,000	SITE WORK-Dam-general allowance-[15] \$25,000 BATHHOUSE-Mechanical-well pump-[10] \$7,500 SITE WORK-Sidewalks-concrete, bathhouse-[13] \$7,050 RECREATION-Beach-beach sand, replenishment \$3,500 RECREATION-Picnic Tables-replace, 10%-[8] \$1,800 BATHHOUSE-Mechanical-well pressure tank-[10] \$1,400 BATHHOUSE-Safety-surveillance equipment \$1,300		RECREATION-Beach-beach sand, replenishment \$3,500 SITE WORK-Storage Shed-replacement \$3,000 STORAGE BUILDING-Exterior-repair/maintennace, allowance \$2,500 BATHHOUSE-Doors-replacement \$2,200

<p>2029 total expenditure \$9,000 consisting of these projects:</p>	<p>2030 total expenditure \$3,500 consisting of these projects:</p>	<p>2031 total expenditure \$53,332 consisting of these projects:</p>	<p>2032 total expenditure \$5,100 consisting of these projects:</p>
<p>RECREATION-Pavilion-beach, small \$9,000</p>	<p>RECREATION-Beach-beach sand, replenishment \$3,500</p>	<p>SITE WORK-Septic System-tanks and leachfield \$30,000 SITE WORK-Dam-steel dock structure, reconstruct-[15] \$18,200 RECREATION-Picnic Tables-replace, 10%-[8] \$1,800 SITE WORK-Signage-lakeview drive \$1,500 SITE WORK-Septic System-pump-[10] \$1,400 SITE WORK-Beach Parking Lot-stairway, handrails \$432</p>	<p>RECREATION-Beach-beach sand, replenishment \$3,500 BATHHOUSE-Mechanical-water heater- [10] \$1,600</p>

<p>2033 total expenditure \$6,753 consisting of these projects:</p>	<p>2034 total expenditure \$7,100 consisting of these projects:</p>	<p>2035 total expenditure \$0 consisting of these projects:</p>	<p>2036 total expenditure \$45,300 consisting of these projects:</p>
<p>RECREATION-Basketball Court-color coating \$4,253</p> <p>STORAGE BUILDING-Exterior-repair/maintennace, allowance \$2,500</p>	<p>RECREATION-Kayak-rack, free-standing \$3,600</p> <p>RECREATION-Beach-beach sand, replenishment \$3,500</p>		<p>SITE WORK-Dam-general allowance-[15] \$25,000</p> <p>RECREATION-Playground-equipment, newer-[7] \$15,000</p> <p>RECREATION-Beach-beach sand, replenishment \$3,500</p> <p>RECREATION-Picnic Tables-replace, 10%-[8] \$1,800</p>

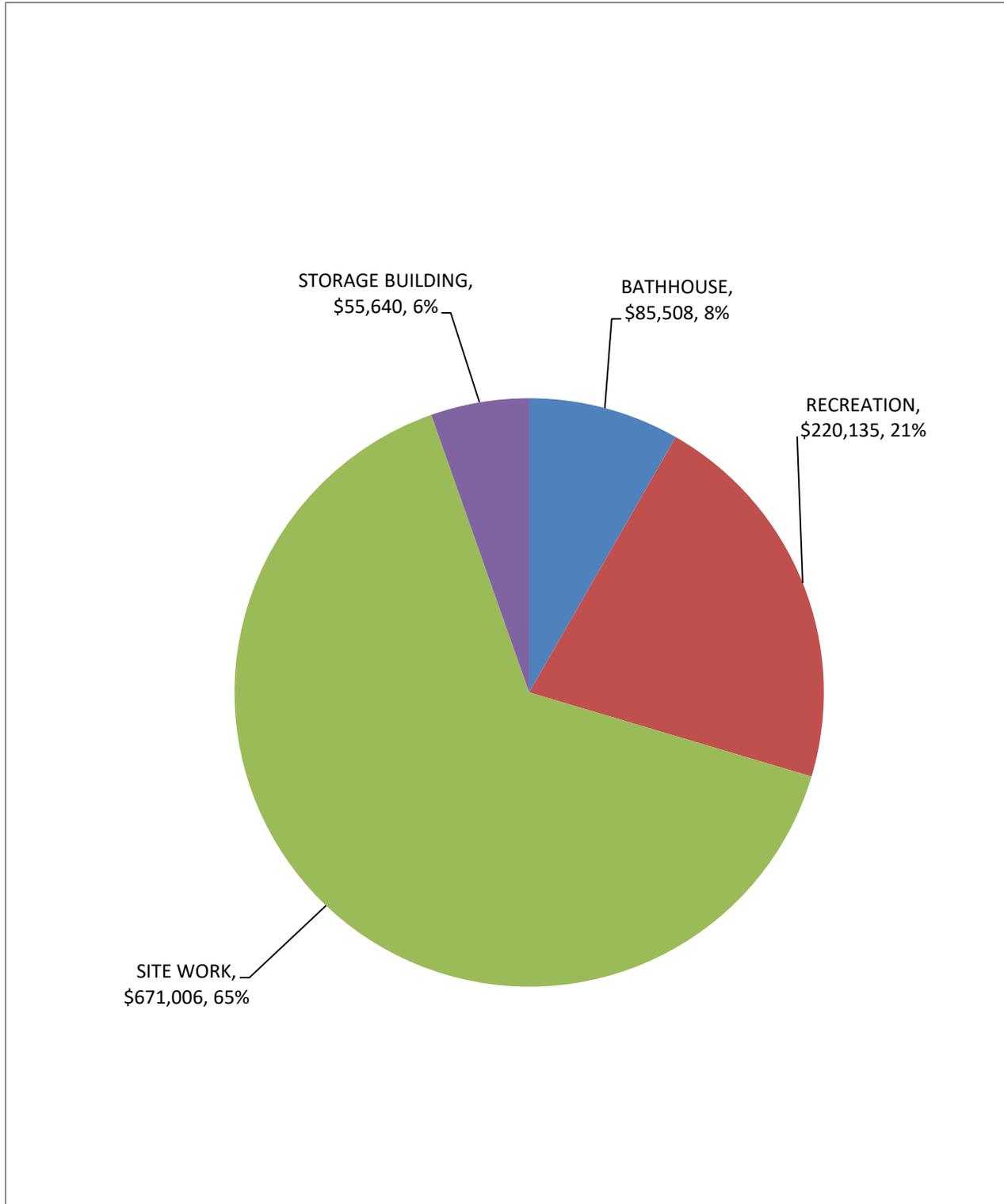
<p>2037 total expenditure \$1,500 consisting of these projects:</p>	<p>2038 total expenditure \$6,000 consisting of these projects:</p>	<p>2039 total expenditure \$3,240 consisting of these projects:</p>	<p>2040 total expenditure \$3,500 consisting of these projects:</p>
<p>RECREATION-Benches-park style \$1,500</p>	<p>RECREATION-Beach-beach sand, replenishment \$3,500</p> <p>STORAGE BUILDING-Exterior- repair/maintennace, allowance \$2,500</p>	<p>RECREATION-Pavilion-primary structure, vinyl siding \$1,640</p> <p>RECREATION-Lifeguard Chair- replacement \$1,600</p>	<p>RECREATION-Beach-beach sand, replenishment \$3,500</p>

2041 total expenditure \$26,432 consisting of these projects:	2042 total expenditure \$3,500 consisting of these projects:	2043 total expenditure \$6,753 consisting of these projects:	2044 total expenditure \$3,500 consisting of these projects:
RECREATION-Playground-equipment, older-[7] \$7,500 SITE WORK-Signage-entrance signs \$5,000 SITE WORK-Dam-dock structure, decking-[15] \$4,160 RECREATION-Sandboxes-replacement \$3,300 SITE WORK-Beach Parking Lot-landings & stairway-[13] \$1,972 RECREATION-Picnic Tables-replace, 10%-[8] \$1,800 BATHHOUSE-Mechanical-well pressure tank-[10] \$1,400 BATHHOUSE-Safety-surveillance equipment \$1,300	RECREATION-Beach-beach sand, replenishment \$3,500	RECREATION-Basketball Court-color coating \$4,253 STORAGE BUILDING-Exterior-repair/maintennace, allowance \$2,500	RECREATION-Beach-beach sand, replenishment \$3,500

<p>2045 total expenditure \$0 consisting of these projects:</p>	<p>2046 total expenditure \$48,000 consisting of these projects:</p>	<p>2047 total expenditure \$101,600 consisting of these projects:</p>	<p>2048 total expenditure \$186,825 consisting of these projects:</p>
	<p>SITE WORK-Dam-general allowance-[15] \$25,000</p> <p>BATHHOUSE-Mechanical-well pump-[10] \$7,500</p> <p>RECREATION-Lake-boat slip dock \$7,000</p> <p>RECREATION-Beach-beach sand, replenishment \$3,500</p> <p>RECREATION-Picnic Tables-replace, 10%-[8] \$1,800</p> <p>BATHHOUSE-Windows-newer \$1,800</p> <p>SITE WORK-Septic System-pump-[10] \$1,400</p>	<p>SITE WORK-Lake-dredging, allowance- [11, 12] \$100,000</p> <p>BATHHOUSE-Mechanical-water heater- [10] \$1,600</p>	<p>SITE WORK-Road-asphalt reconstruction, lakeview dr.-[9] \$155,400</p> <p>RECREATION-Basketball Court- reconstruction \$18,225</p> <p>RECREATION-Basketball Court-goals \$5,000</p> <p>RECREATION-Beach-beach sand, replenishment \$3,500</p> <p>STORAGE BUILDING-Exterior- repair/maintennace, allowance \$2,500</p> <p>BATHHOUSE-Doors-replacement \$2,200</p>

<p>2049 total expenditure \$33,624 consisting of these projects:</p>	<p>2050 total expenditure \$3,500 consisting of these projects:</p>	<p>2051 total expenditure \$3,732 consisting of these projects:</p>
<p>BATHHOUSE-Roof-low slope-[5] \$16,184</p> <p>RECREATION-Pavilion-primary structure, roof-[5] \$6,000</p> <p>RECREATION-Lake-anchored swim dock/raft \$4,000</p> <p>RECREATION-Kayak-rack, free-standing \$3,600</p> <p>RECREATION-Pavilion-primary structure, guardrails \$3,520</p> <p>BATHHOUSE-Roof-gutters & downspouts-[6] \$320</p>	<p>RECREATION-Beach-beach sand, replenishment \$3,500</p>	<p>RECREATION-Picnic Tables-replace, 10%-[8] \$1,800</p> <p>SITE WORK-Signage-lakeview drive \$1,500</p> <p>SITE WORK-Beach Parking Lot-stairway, handrails \$432</p>

Present Value Expenditure Over Time Window by Line Item Category



Calculation Table Explanatory Descriptions

The following sections describe the individual sheets of the Calculation Tables, in the order they appear in the report.

Executive Summary

This page shows the basic fiscal and initial condition information upon which the remainder of the analysis has been based and includes basic information regarding the Association, the report (including its revision history), and a basic summary of the funding schedules considered in the analysis.

Client

This entry lists the full (official) name of the Association, to the best of The Falcon Group's knowledge.

File Number

This entry indicates the file/client number that The Falcon Group has assigned to the Association for our internal filing and archiving purposes. This number should remain constant through all of the communications that the Association has with The Falcon Group.

Version

This entry indicates the month and year in which this analysis was performed. This information is included to allow differentiation between precedent and antecedent analyses.

Community Information

These entries indicate the number of privately owned portions (be they detached single family dwellings, condominium units, attached single family dwellings [often called townhouses], business condominium units, or some combination thereof) within the Association, the approximate or median date of original construction, and the geographic location of the Association's physical components (which is often useful information in that construction costs tend to vary with geographic location and local market forces).

Initial Conditions

These entries list the conditions that The Falcon Group understands to exist as of the first day of the initial fiscal year of the analysis shown (while most Associations have fiscal years that run concurrent with calendar years, this is not universal, and the initial conditions therefore include an explicit listing of the last day of the Association's fiscal year), and include the initial fund balance, which is often pro-rated from the current fund balance, based upon the date of the current fund balance and the prior year's annual contribution. The initial conditions also include the initial percent funded, which gives an indication of how conservatively the Association has historically funded its capital reserve fund to the beginning of the initial fiscal year, and the initial estimated total replacement cost, which is the basis that The Falcon Group typically uses to determine the threshold levels for the cash-flow methodology fund projections.

Included in this area, for the Association's edification, is the "PV Expenditure in Time Window", which is the summation of the "Present Value of Line Item Expenditures in Time Window" column from the Expenditure Projection.

Scope of Work

This indicates the processes undertaken as part of the analysis evaluation. The Falcon Group, besides specifying scopes of work by CAI standards (updates with and without site visits and full studies) also indicates if the Association requested field measurement of the common elements, and indicates if other work scopes (e.g. roof or siding inspections, moisture testing, etc.) beyond typical visual inspection and quantity measurement, are included in the analysis evaluation.

Revisions

Many Capital Reserve Replacement Analyses are revised one or more times to reflect changes in assumptions, new information, or alternative funding goals. The revision entries indicate dates that The Falcon Group has revised the current

analysis, and include short descriptions of the revisions made and initials of the editor in The Falcon Group who performed the revision(s).

Analysis Calculation Constants

These entries list the constants used in the analysis, including the time window (industry standard time window is thirty years), the assumed annual rate of cost inflation (The Falcon Group, unless otherwise directed by the Association, will assume this to be zero), and the assumed annual rate of investment return (The Falcon Group, unless otherwise directed by the Association, will assume this to be zero).

Summary of Funding Schedules Over Time Window

These entries indicate the funding schedules (the various scenarios) considered in the analysis, along with relevant notes regarding these funding schedules, the contribution required in the initial fiscal year to comply with the funding schedule as calculated, and the maximum and minimum end of year fund balances projected to occur in each of the funding schedules.

Line Item Schedules

There are two distinct line item schedules, the reserve schedule, which displays life cycle and estimated cost information that is used to develop the expenditure projection, and the depreciation schedule, which displays the depreciation and fund allocation information that is used to develop the full funding scenario projection.

Line Item

These entries name the individual projects/expenditures that are expected to be funded through the Association's capital reserve fund and are therefore being considered in the analysis. Each line item name is compounded of a category (typical categories are ANCILLARY, BUILDING, and SITE), a type (such as Pavement, Roof, Swimming Pool, or Utility, among others), a description (such as asphalt, concrete, metal railing, seal coating, wood deck, or so forth), and, in some cases a miscellaneous component including secondary descriptions (such as street names, building numbers, or phase numbers) and notes (typically in the form of one or more numbers in parenthesis that reference the notes in the narrative section of the report), with all components being separated by hyphens. The line item names are constructed in this fashion so that they can be easily organized into related categories. The organization of the individual line items in a systematic fashion (arranging similar or related line items in close proximity to each other) tends to make the Line Item Schedules and Expenditure Projection of the analysis more easily read, cross-referenced, and checked.

Always be mindful of notes – due to the tabular nature of the Calculation Sheets, important qualifications, disclosures, and observations regarding individual line items typically cannot be expected to fit within the space limitations of the Calculation Sheets, so the line item notes often include vital explanatory material.

Life Cycle [Reserve Schedule]

The typically expected life cycle is the number of years that The Falcon Group would expect to see between occurrences of the line item expenditure. The condition assessed remaining life cycle is the number of years that The Falcon Group expects to elapse before the next occurrence of the line item expenditure.

Estimated Cost [Reserve Schedule]

The total line item cost per occurrence of the line item expenditure in the initial year is determined by multiplying the line item quantity by the line item unit cost. Please note that each line item has also been given a unit of measure – this is very important, in that a both quantity and unit cost entries cannot be appropriately interpreted without knowing the unit of measurement (for instance, there is a vast difference between a square foot of concrete and a cubic yard of concrete, and quantities and unit costs based upon cubic yards will be very different from those based upon square feet).

It must be understood that estimated costs are shown for the initial fiscal year of the analysis. If inflation is assumed to be zero, than the estimated line item cost per occurrence will be constant over the time window – otherwise estimated line item costs will change over the time window.

The individual line item unit costs (the estimated cost for which the components represented by the line item can be realistically replaced, reconstructed, or refurbished as the case may be, per unit of measurement) are based upon the cost information available to us as of the time the analysis is performed, as well as various assumptions in regards to non-visible construction details and material characteristics. The Falcon Group bases unit costs upon current R.S. Means reference books (R.S. Means is a commercially available series of cost estimating guides published by Reed Construction Data), contractor bids for similar scopes of work with which The Falcon Group has been involved, industry/manufacturer specific information, and whatever historical expenditure information that the Association has supplied to The Falcon Group for review.

The Association should remain aware that these are estimated costs. Market forces can alter individual costs significantly in comparatively short periods of time due to material price increases, labor shortages, regulatory environment changes, and etcetera. Actual costs can also be significantly altered by design requirements (e.g. use of unusual materials or design details), project or community specific requirements (e.g. unusually restricted hours of work), or other factors that are not determined until the actual project designs and specifications are created. The actual cost that the Association will see can be expected to vary to a greater or lesser degree from what has been estimated for the purposes of this Capital Reserve Replacement Analysis.

Please note that the Line Item Occurrence Cost is not necessarily identical to the Total Line Item Cost (q.v.), in that line items, for various reasons, may not be showing the entire quantity of the common element considered in the analysis (this is typically done to allow more accurate modeling of items such as concrete pedestrian walks, where replacement is often performed on an as-needed basis for comparatively small portions of the total, and is generally combined with a very short life cycle to reflect many small expenditures rather than a single large expenditure).

Total Line Item Cost

This line item entry is simply the total quantity of the common element multiplied by the unit cost. Please note that, for various reasons, the analysis tables may not be showing the total quantity of the common element in question (q.v., Estimated Cost), in which case this entry will not agree with the Line Item Occurrence Cost entry under the Reserve Schedule heading. These entries have been included for the use of accounting professionals and community managers, and do not necessarily appear elsewhere in the analysis, as expenditure projections are based upon the Line Item Occurrence Cost entries.

Current Theoretical Full Funding Line Item Balance [Full Funding Schedule]

This line item entry is essentially the difference between the estimated line item occurrence cost and the depreciated value at the beginning of the initial fiscal year of the analysis (based upon simple straight-line depreciation of the occurrence cost over the typically expected life cycle with an assumed residual value of zero), and thus represents both the value of the common element(s) represented by the line item that has been lost to senescence (aging), wear, weathering, and other forms of deterioration since the installation of said element(s) and the theoretical "ideal" level of funding expected if the Association was attempting to maintain full funding.

Initial Fund Allocation [Full Funding Schedule]

This line item entry is the portion of the initial fund balance that has been allocated to the line item for calculation purposes. The process of determining this allocation is called "pooling", and tends to become a complex issue, especially in regards to fund distribution in severely under-funded situations. The Falcon Group uses an algorithm that preferentially directs funding allocation to cover expenditures occurring in the initial fiscal year and allocates the remainder based upon the individual line item current cumulative depreciations. Note the sum of all line item initial fund allocations, by definition, is equal to the initial fund balance.

The Association should remember that pooling is essentially an accounting convenience that is used to allow the component methodology calculations, not an intrinsic characteristic of the typical capital reserve fund. It is rare for an Association to explicitly divide their capital reserve fund into separate savings or investment accounts for each individual line item of their Capital Reserve Replacement Analysis, and the line item initial fund allocation is therefore not normally reflected in any administrative or fiscal structure within an Association.

Current Coverage (+) or Shortage (-) [Full Funding Schedule]

This line item entry is simply the difference between the initial fund allocation and the current theoretical full funding line item balance. Positive numbers indicate overages (the initial fund allocation is greater than the current theoretical full funding line item balance) while negative numbers indicates shortages (the initial fund allocation is less than the current theoretical full funding line item balance). An Association that is fully funded will have neither overages nor shortages.

Effective Age of Component [Full Funding Schedule]

This line item entry is essentially the numerical representation of the estimated number of full years of “typical” deterioration experienced by the components of the line item up to the initial year of the analysis. Thus, if a line item has an expected life cycle of 15 years and a condition assessed remaining life of 10 years, it has an effective age of 4, because the line item is in the midst of its 5th year.

Current Theoretical Full Funding Line Item Annual Contribution [Full Funding Schedule]

This line item entry is the estimated value of the common element(s) represented by the line item that is lost each year to senescence (aging), wear, weathering, and other forms of deterioration, and is therefore a form of depreciation. This analysis assumes all depreciation to be a linear function of the line item life cycle and occurrence cost for budgeting purposes. Depreciation is an accounting convention and mathematical construction, not necessarily a true reflection of the actual physical deterioration of many common elements. Many objects tend to experience a gradually increasing rate of deterioration as they age, and their actual value often more closely resembles a logarithmic or exponential function than a linear function. The difficulties in attempting to more accurately model actual material degradation mathematically make depreciation via linear functions the favored basis of calculation for full funding analyses.

Expenditure Projection

The expenditure projection sheets essentially cycle the line item life cycles, including various non-cyclical or meta-cyclical factors, over the analysis time window and generate the predicted cash-outflow from the Association’s capital reserve fund over the course of the analysis time window.

The majority of the expenditure projection takes the form of an array or grid that cross-references each line item (the rows) with each fiscal year (the columns) in the analysis time window, with line item expenditure occurrences in each fiscal year being summed to produce the nominal expenditure (in future dollars) for each fiscal year.

Line Item

These entries are identical to the entries in the line item schedules.

Fiscal Year

These entries indicate the fiscal year in which the entries below are occurring. Please note that, depending upon the start/end date of the Association’s fiscal year, these years may or may not match calendar periods. The Falcon Group will generally use the calendar year numeral in which the fiscal year starts as the fiscal year numeral – for instance, if an Association’s fiscal year runs from April 1 to March 1, then The Falcon Group would indicate the fiscal year from April 1, 2020 to March 1, 2021 as the 2020 fiscal year.

Nominal Expenditure (in Future Dollars) in Fiscal Year

These entries are the sums of the expenditures projected to occur in each individual fiscal year. These entries reflect the effects of any assumed rate of cost inflation, and are therefore in terms of future dollars for the fiscal year in which they appear.

Present Value of Line Item Expenditures in Time Window

These entries are the summation of the projected expenditures for each individual line item. These entries reflect the effects of any assumed rate of cost inflation and rate of return on investment, and are therefore an estimate of the current dollar sum (present value) that is theoretically equivalent to the cash-flow represented for the line item. In other words, if the

Association has an initial reserve fund balance equal to the sum of all of the present value of line item expenditures in time window entries, then it would theoretically be able to fund all of the expenditures projected to occur within the current time window out of the reserve fund and its investment earnings without any contributions from the Association, with the last expenditures in the time window reducing the fund balance to zero. The Falcon Group has never observed such a situation, and would never advise an Association to attempt such a strategy; these entries have been included to give the Association an index by which it can determine which line items are likely to have the most influence on threshold funding scenario projections (and thus where changes are most likely to materially alter recommended annual contributions).

Annual Funding Projection

The annual funding projection sheets display the projected expenditures from the capital reserve fund, contributions to the capital reserve fund, and the resulting start of year and end of year fund balances for the various funding scenarios considered in the analysis. Each sheet takes the form of an array or grid that cross-references each fiscal year (the rows) with the projected expenditures in that fiscal year, and the starting and ending fund balances, projected contribution, and (in the case of threshold funding scenarios) the nominal threshold (initial year threshold corrected for cost inflation) for each scenario considered in the analysis. Please note that each scenario is represented by the columns underneath the title of the scenario (located along the top of the sheet), and that these scenarios are each independently calculated.

Fiscal Year and Nominal Expenditure (in Future Dollars) in Fiscal Year

These entries have identical values to the entries in the expenditure projection, although they have been transposed, which is to say that these entries are displayed horizontally from left to right in the expenditure projection but are displayed vertically from top to bottom in the annual funding projection.

Start of Year Fund Balance

These entries are the projected capital reserve fund balance on the first day of the given fiscal year for the given scenario projection. Please observe that the start of year fund balance for all considered funding scenarios is the same in the initial fiscal year, and equals the initial fund balance.

The start of year fund balance for fiscal years after the initial year is equal to preceding fiscal years end of year fund balance for the given scenario plus any return on investment.

Projected Contribution

These entries are the per annum contributions to the capital reserve fund for the given fiscal year and given scenario projection.

End of Year Fund Balance

These entries are the projected capital reserve fund balances on the last day of the given fiscal year for the given scenario projection; it is essentially the sum of that fiscal year's start of year fund balance and projected contribution, less the expenditure in that fiscal year.

Nominal Threshold in Year

These entries are initial year threshold (which is shown directly below the threshold scenario title), corrected for the estimated cumulative cost inflation since the initial fiscal year. Where the assumed rate of cost inflation is zero, all of these entries should be identical within a given funding scenario.

Projection Graphs

These sheets contain graphic representations of subsets of the information within the annual funding projection.

The end of fiscal year fund project graph is a graphical comparison of the various scenario projections tabulated in the annual funding projection. This graph contains information given in the annual funding projection in a more accessible format that often proves helpful for qualitative judgments of the merits of the various funding scenarios offered in the Capital

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Reserve Replacement Analysis. This graph displays the end of year fund balances for the various funding scenarios, as well as the various non-zero threshold balances so as to allow for relatively simple comparison between the various scenarios over the analysis time window.

Expenditure Calendar

These sheets display the total (nominal) expenditure within each fiscal year of the analysis time window, along with the list of line items and their associated expenditures (in order from greatest to least expenditure) occurring in the given fiscal year.

The expenditure calendar essentially displays the same basic information set as the expenditure projection, but organizes the information in a different format that many users find more accessible. While the expenditure projection predominantly organizes information by line item and only secondarily by year, the expenditure calendar organizes information predominantly by year.