

Understanding Your Cash Flow Analysis

Understanding your reserve cash flow analysis report does not necessarily require knowledge of accounting. The cash flow analysis conforms to the suggested example presented in the California State Department of Real Estate's Reserve Study Guidelines for Homeowner Association Budgets publication.

When examining the Optimized Cash Flow Analysis on the preceding pages, your primary concern should be to confirm that your reserve balance never falls below zero in the 30-year projection. The Optimized Cash Flow Analysis determines the optimal reserve contribution such that your association does not have a reserve deficit during the 30-year projection. Another *Status Quo Cash Flow Analysis* is done to calculate what will happen if you continue reserve funding only at current levels without following the recommended reserve contribution. The Status Quo Cash Flow is not printed in this study to avoid confusion by clients trying to figure out which cash flow analysis to follow. Rather, the data is shown in the first bar chart on the preceding page.

Note: Because the cash flow analysis uses a "zero-based" counting system, items to be replaced in year 2019 are shown with zero years remaining life as of the beginning of FY 2019 and items to be replaced the next year are shown with one year remaining life and so on... Thus an item with a 27-year life is shown with 26 years.

Following is a description of each line item in your cash flow analysis report.

RESERVE COMPONENT COSTS

The top portion of the Optimized Cash Flow Analysis itemizes each major capital replacement expense for your association over the next 30 years. Each of these capital assets – called “reserve components” – is listed with its estimated useful life, estimated remaining life, and estimated cost.

Inflation Factor Applied Each Year

This line-item shows compounded inflation rates used to determine future costs. The first number in this row is 1.000, which means that no inflation is assumed during the first year. This is because cost estimates are in current-year prices. If you repair or replace the items for which you recently obtained price quotes, the price will not yet be influenced by inflation.

The Inflation Factor for the second year in your reserve analysis is equal to the current inflation rate applied to long-term expenses. Notice the inflation factor is compounded in subsequent years thereafter.

Estimated Total Reserve Expense (NOTE: Costs Adjusted For Inflation)

The “*Estimated Total Reserve Expense*” line shows yearly future reserve expense totals multiplied by the compounded inflation rate. For each year (column) in the reserve analysis, this

line-item indicates how much money your association must have in reserve to fund all expenses in that year. You should examine the 30-year projection thoroughly to see which years have the highest expenses. High-expense years significantly deplete your reserve account.

Note the profound effect of compound inflation on future costs. Seeing these inflation-adjusted future costs provides a tangible incentive to set aside adequate funds in reserve.

CASH FLOW FORECASTS

Towards the bottom of the *Optimized Cash Flow Analysis* is the “Cash Flow Forecast” section that reconciles inflation-adjusted future expenses for each year against recommended annual reserve funding, special assessment income (if any) and after-tax interest income. The primary goal of the cash flow forecast is to observe the interplay between expenses and reserves over time with the intention of ensuring that the reserve balance never drops below zero. Each cash flow line item is described below.

Annual Reserve Funding

The “*Annual Reserve Funding*” line shows the recommended regular reserve assessments the association should budget for its reserve fund in each year. The *Optimized Cash Flow Analysis* determines the optimal annual reserve contribution such that capital expenses will be adequately funded while maintaining a reserve account balance above zero in each of the next 30 years. Therefore, the primary focus of the reserve study is to determine the optimal recommended reserve funding amount as shown on this line that will ensure funding for projected expenses.

Because repair/replacement costs typically increase at the rate of inflation, the cash flow projection assumes annual reserve funding will increase at the same rate to match these inflationary effects.

Special Assessment

The “*Special Assessment*” line shows how much the association will need to supplement its reserve funding (e.g. regular reserve assessments) with “special assessments” – if special assessments are necessary. It shows how much will need to be assessed and in what years assessments need to be made. If the projection doesn’t anticipate a need for a special assessment, there will be nothing shown on this line for each of the next 30 years.

After-Tax Interest Earnings on Reserve Account

Interest earned on reserve account funds can make a substantial contribution to reserve funding. Interest earnings are usually taxed, so the interest income is reduced by your association’s tax rate. Reserve account interest is reinvested in the reserve account in this cash flow model.

Gross Reserve Account Income

The figures on this line represent the sum of the “*Annual Reserve Funding*,” “Special Assessments” (if any), and “*After-Tax Interest Earnings on Reserve Account*” amounts, assuming reserve account interest is reinvested in the reserve account. But don’t confuse this with “net

reserve income” because the gross income amount is the reserve income *before* reserve expenses have been paid for that particular year. Sometimes expenses exceed annual reserve funding.

Annual Reserve Expense (from total above)

The “*Annual Reserve Expense*” line simply carries the numbers down from the “*Estimated Total Reserve Expense*” line above. This line represents the association’s total reserve funding liability (expense) for each year. This reserve expense total is then subtracted from the “*Gross Reserve Account Income*” for each year in the cash flow to yield the net reserve income for the year as shown on the following line.

Net Annual Reserve Income (Reserve Expense Minus Reserve Income)

This line shows the reserve cash balance remaining after subtracting major component costs for each year from the annual reserve account income. In other words, it represents the Net Income to your reserve account for the year. NOTE: If the major component costs for one year *exceed* the reserve account income for that year, this number will be negative, thereby reducing the reserve account balance from the prior year. A negative net reserve income amount for any one year doesn’t necessarily mean you’re going to run out of reserve funds, especially if you have a healthy reserve balance going into that year.

Reserve Account, Beginning of Year

This line-item shows the reserve account balance at the beginning of the year before major reserve component costs for each year (shown in the columns) are expensed.

Reserve Account, End of Year

The “*Reserve Account, End of Year*” line is perhaps the most important part of your cash flow analysis. It shows the net amount of money remaining in your reserve account at the end of each year after major reserve component costs have been paid.

Scan along this “bottom line” of your Cash Flow Analysis to determine which years in the 30-year projection have low projected reserve account balances so you can identify which expenses to anticipate in those years and how to plan for those critical years. Note also that the *Optimized Cash Flow Analysis* has no negative reserve account balances for the duration of the projection because our **SmartReserve™** software has optimized the reserve contribution to avoid future reserve deficits.

Most associations request to have the cash flow optimizer determine the appropriate annual reserve contribution such that in the worst case year in the 30-year projection, their reserve account always maintains a minimum balance that is more than zero dollars. This is a way of implementing a contingency buffer for unforeseen expenses.

In summary, the Optimized Cash Flow Analysis provides an efficient way to deploy your reserve funds over time to maintain & replace common area assets. The goal is to determine a smooth pattern of gradual funding increases that ensures sufficient reserve funds are available to make it through the “peaks and valleys” of expenses during the next 30 years.

Reserve Component Allocations Derived From Optimized Cash Flow Analysis

The *Reserve Component Allocations* report on the following page is useful to associations meeting the following conditions:

- * Your association keeps track of reserve funds allocated to each reserve component, (for example, “we have \$33,333 in our roofing fund, \$4,444 in our paving fund, \$5,555 in our painting fund, etc.”) AND
- * Your association has decided to base the forthcoming year’s reserve budget on the recommendations set forth in the *Optimized Cash Flow Analysis* on the preceding pages.

(On the contrary, if your association simply considers reserves as a pool of funds in the cash flow analysis “Cash Flow Pooling,” then this report is probably not needed).

The *Reserve Component Allocations* report helps your associations to:

- * Reallocate your fiscal year-end reserve fund balance proportionally among all reserve components (you can find this information on the following page in the second column from the right, titled “FY 2019 Begin Cash Flow Balance”).
- * Determine how much of your newly-chosen reserve budget – per the *Optimized Cash Flow Analysis* funding recommendation – should be allocated to each reserve component. For example, an association might want to indicate “in the forthcoming year, we budgeted \$30,000 for reserves, of which, \$12,000 was applied to the paving fund, \$5,000 to the painting fund, and \$13,000 to the roofing fund, etc.” You can find this information on the following page in the rightmost column, titled “2019 Cash Flow Allocations”

Note that the total of the annual allocations for each reserve component equals the annual reserve funding amount recommended by the *Optimized Cash Flow Analysis*.

If your association has elected to fund reserves via the straight-line depreciation method (generally a less precise funding method than the cash flow analysis), the reserve component allocations are on the straight-line analysis report in the next section.