

# HOW TO READ ANY RESERVE STUDY – IN FIVE MINUTES OR LESS!

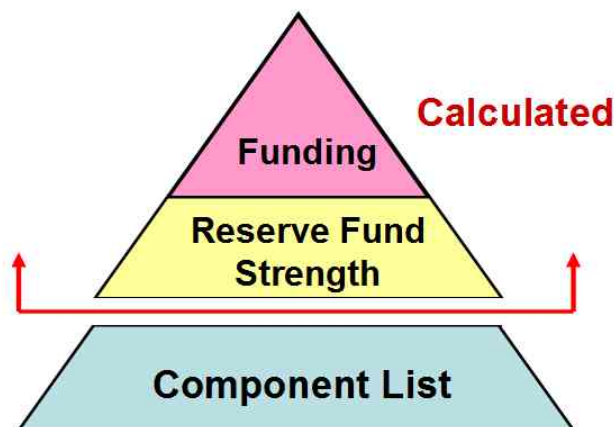
## WEBINAR OUTLINE

by Robert M. Nordlund, PE, RS, & Jim Talaga, RS

[www.reservestudy.com](http://www.reservestudy.com)

Jun 27, 2013

**Brief Outline:** Every Reserve Study consists of three parts, the Component List, a calculation of Reserve Fund Strength, and a calculated multi-yr Reserve Funding Plan. We think of it this way:



So there are three results you should look for (in the first five minutes!) in every Reserve Study:

- The Reserve Component List – a list showing the Reserve Components, their Useful Life, Remaining Useful Life, and the Current Replacement Cost.
- A calculated evaluation of Reserve Fund Strength – measured in terms of “Percent Funded”.
- A calculated multi-yr Reserve Funding Plan designed to meet the Reserve needs of the association.

The Percent Funded and Recommended Reserve Contribution rate are often found in the report’s “Executive Summary” near the front. In most cases, the Reserve Component List is one of the prominent, early Tables presented in the Reserve Study. The next few pages will explain these three results in more detail.

As dictated by National Reserve Study Standards, Reserve components need to pass this four-part test:



### RESERVE COMPONENT “FOUR-PART TEST”

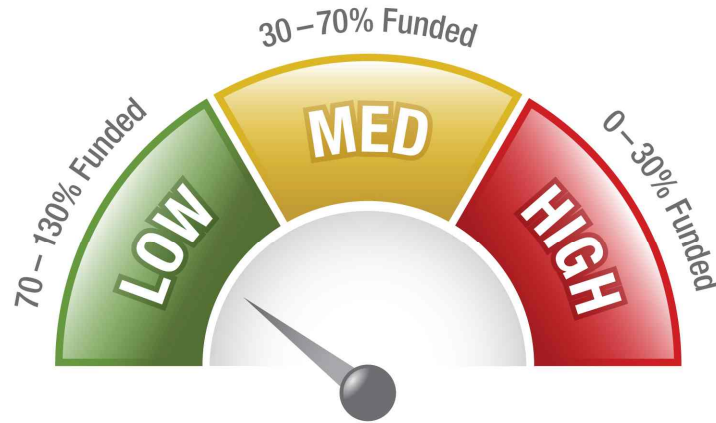
The Reserve Component List defines the Scope (Description and Cost) and Schedule (Useful Life and Remaining Useful Life) of all your Reserve components, and will look something like this:

<b>Reserve Component List</b>			
<b>Description</b>	<b>UL</b>	<b>RUL</b>	<b>Cost</b>
Pool Furniture - Replace	5	0	\$4,600
Pool - Resurface	10	5	\$10,000
Roof - Replace	20	18	\$80,000
Asphalt - Seal	5	2	\$5,000
Asphalt - Resurface	20	2	\$25,000
Building - Repaint	10	1	\$50,000
Elevator - Modernize	20	5	\$80,000
Hallways - Refurbish	8	6	\$24,000



Your Reserve Fund strength is measured in terms of Percent Funded, because cash in Reserves means different things to different associations at different times. Percent Funded is a comparison between your Reserve cash and the value of Reserve deterioration at the association. For small associations or associations with mostly new components, their Reserve needs are small. For large associations or associations with a great deal of Reserve component deterioration, their Reserve needs are large.

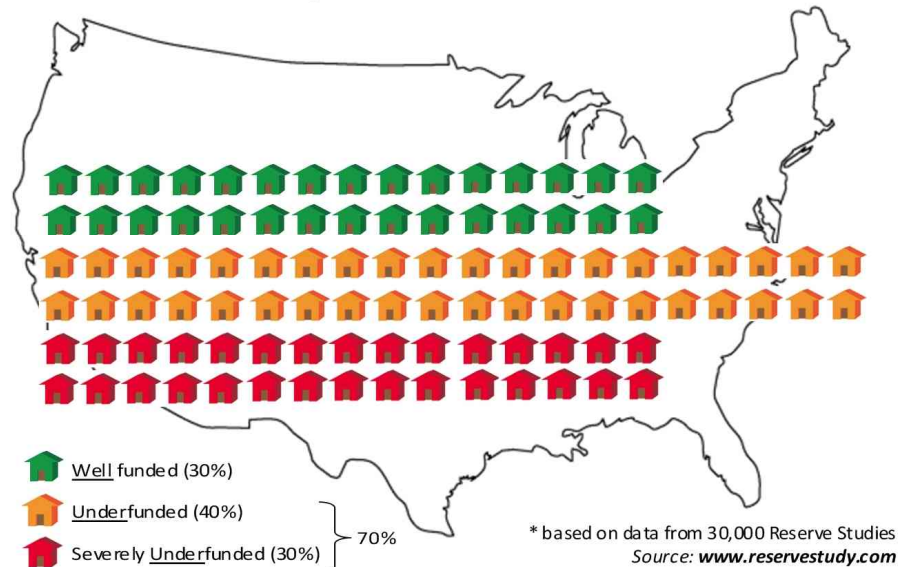
When an association's Reserves are weak (0-30% Funded), they have a high risk of special assessments and deferred maintenance. On the other hand, when an association's Reserves are strong (70-130% Funded), their risk of special assessments and deferred maintenance is low.



**SPECIAL ASSESSMENT RISK**

Note that across the country, approximately 30% of associations are in the 0-30% “severely underfunded” range, about the same as the amount of associations in the 70-130% “well funded” range

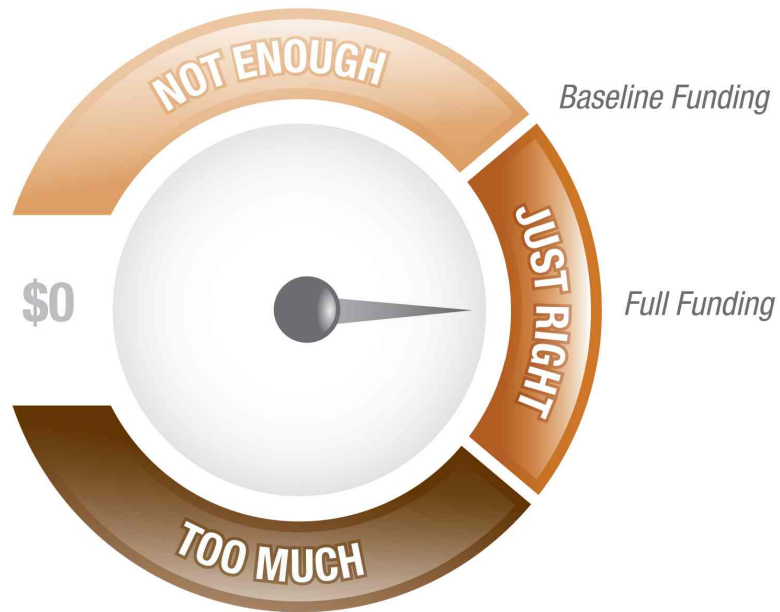
## Reserve Funding at Association-governed Communities\*



Finally, the third key result from a Reserve Study is the recommended multi-yr Reserve Funding Plan. The key word here is a “plan”, because this is a recommendation for action. If a board fails to take the recommended Reserve contribution rate seriously, there are very real negative consequences to the association and the homeowners. Projects can’t be accomplished in a timely manner, and community spirit declines along with home values.



The recommendation is typically either for a conservative “Full Funding” contribution rate (that will draw the association towards the 100% Funded level), or an aggressive “Baseline Funding” contribution rate (that will barely provide for the cash needs of the association). Remember that each are providing for exactly the same Reserve expenses, the only difference is in that the average Reserve balance is higher at Fully Funded associations. The result is that the difference between Full Funding contributions and Baseline Funding contributions is remarkably small – typically only 10-15% different. So you have to take the Recommended Reserve contribution rate seriously. If you cut your contributions in half “because you think what is being recommended is too much”, you’re underfunding the Reserve needs of the association.



## FUNDING PLAN

## Questions from the Audience!

Q: Why update a Reserve Study annually?

A: Each year your physical components deteriorate, your Reserve balance changes, interest and inflation change, and the legislative environment changes. So each year your Reserve Study goes out of date and needs to be updated with current information.

Q: But if you assume 3% interest and 3% inflation, don't they cancel each other out and eliminate that reason for updating your Reserve Study?

A: No. Inflation has an effect on the entire value of the Reserve Component, while interest is only earned on the actual funds in the bank. So inflation changes are regularly significantly larger (typically by a factor of four) than interest earnings.

Q: How is Percent Funded Calculated?

A: Percent Funded is the ratio between your Reserve Fund balance and the deterioration of the association's Reserve components (called the "Fully Funded Balance"), expressed as a percentage. This calculation is typically performed once a year, as-of the first day of the Fiscal Year.

### Percent Funded

$$\frac{\text{Actual \$ Reserves}}{\text{Fully Funded Balance}} \times 100$$



The Fully Funded Balance is the fractional age of each component multiplied by its current replacement cost, summed together for an association total.

Q: How often do you calculate Percent Funded?

A: As part of the annual budget preparation process, once a year, in advance of your Fiscal Year End, when you update your Reserve Study.

Q: Why show current cost and not future cost in the Reserve Component List?

A: Everything starts with current cost, that's why it is required to appear in your Reserve Component List. Percent Funded (your current evaluation of Reserve Fund strength), is based on current cost. Inflated future costs are used in the calculation of the recommended Reserve contribution rate.

Q: If we are less than 100% Funded, are we facing a special assessment?

A: No. Many associations function successfully without special assessments while less than 100% Funded. Percent Funded shows how well prepared you are. Your risk of a special assessment increases as your Percent Funded drops, but a special assessment is not automatic. You may be able to juggle your cash and your projects effectively in order to avoid a special assessment.

Q: Where can I find National Reserve Study Standards?

A: On our website, [www.ReserveStudy.com](http://www.ReserveStudy.com), under the Learning Center Link. You'll find a link there to National Reserve Study Standards.

Q: How can an association that is 0% Funded not have a special assessment?

A: Think about a brand new association, two years old. Most of its components are relatively new, no significant Reserve projects on the horizon. Presume they have \$0 in Reserves. They are 0% Funded. But they have time to collect Reserves through budgeted contributions before major Reserve expenses occur. So they can be 0% Funded, and have enough time to collect enough Reserves through regular contributions to avoid a special assessment.

Q: Should we have a Component for Earthquake (or flood, or hurricane, or hailstorm...) deductible?

A: No. Such expenses are very real, but they fail the third test of the National Reserve Study Standard four-part test in that they are not predictable. It is fundamentally impossible to budget accurately for something that you don't know when it will happen.

Q: Can (should?) we have a Component for landscape renovation?

A: Many associations rightfully have a Component for landscape upgrades on a periodic basis. Landscape upgrades are a part of keeping the common areas in good condition, they have a predictable life cycle, it is obvious when the need is approaching, and the cost is often above a minimum threshold of significance.

Q: Should we have a Component for plumbing or electrical upgrades/repairs?

A: Maybe. If the timing or magnitude of the project is unknown (tests two, three, and four of the National Reserve Study Standards four-part test), it is inappropriate to create a Component in your Reserve Study, because it is just a guess. If you can anticipate deterioration or have a specialist who has provided you with insights about timing and scope, then it is appropriate to include a plumbing or electrical repair/replacement Component.

Q: What is the threshold between doing a project from the Operating Budget or from Reserves?

A: If it is already a Component, then an expense that doesn't affect the Remaining Useful Life (a minor repair here or there) should be paid from the Operating Budget. If it is an expense that extends the Remaining Useful Life, then it can be paid from Reserves. If you are wondering "in general", then look to the National Reserve Study Standards four-part test for guidance. Note that typically "large enough to be significant" is often in the range of .5% to 1% of the association's annual budget. In some states, the \$ amount (in FL, components in excess of \$10,000 are to be funded through Reserves) or % of budget (in WA, components in excess of 1% of the association's annual budget) are to be funded through Reserves.

Q: Who should we share our Reserve Study with?

A: Most associations provide all owners with the executive summary (which should include the three results we've discussed today), and make the entire Reserve Study available upon request.

Q: How do National Reserve Study Standards compare to various State Law requirements?

A: To our knowledge, there are now 30 states with legislation affecting or requiring Reserve Studies. National Reserve Study Standards provides the definition of key terms used in those various legislated requirements. For instance, many states require that a *With-Site-Visit Update* be performed at least every x years. Florida requires an association to disclose if they use the *Cash Flow* or *Straight Line* Funding methodology, and in Hawaii an association needs to disclose their Funding Objective (*Baseline*, *Threshold*, or *Full*). National Reserve Study Standards provides us all with well-defined terms so we can understand what is being required, clearly and consistently.

Q: Why have I heard the difference between Baseline Funding and Full Funding is so big?

A: That's typically because someone is calculating Baseline Funding contributions using the advantageous Cash Flow method, and calculating Full Funding contributions with the inefficient and unsophisticated Straight Line method. When you use the same (Cash Flow) methodology to calculate both, there isn't much difference in contribution size between the two. It takes so much money to provide for the anticipated needs of the association, that building a little margin in the Reserve Fund (Full Funding) doesn't take very much more money.

Q: What size of total budget are Reserve Contributions (typically)?

A: While every association is different, it is common for an association to find that it takes 15-40% of its total budget to adequately fund its Reserves (offset ongoing deterioration).



Q: Is market value of a home affected by Reserve Funding?

A: As more and more prospective home-buyers are more savvy and ask to see the strength of the Reserve Fund (Percent Funded), home values are being affected. When a prospective buyer likes a home but finds that the Reserves are underfunded and a special assessment is likely, it is common to hear that that prospective buyer uses that information as a negotiating tool with the seller to reduce the sales price. The opposite is also true, that when there are sufficient Reserves at the association (the Reserves are over 70% Funded), sellers can command higher prices for their homes.

Q: How are replacement costs estimated? And do they include inflation and vendor charges?

A: We typically develop replacement costs from the association's actual experience, the experience of neighboring or similar properties, discussions with the association's vendors, or national cost-estimating resources. Our replacement cost estimates include all delivery, installation, permits, and disposal costs. In other words, current cost estimates are established which should account for the association's total costs to execute the project. Inflation is considered when developing the Reserve Funding Plan, based on the *current cost estimates* appearing in the Reserve Component List.