ORANGE WATER AND SEWER AUTHORITY

A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.

MEMORANDUM

TO: **Finance Committee**
John Young (Chair)
Terri Buckner
Michael Hughes
Heather Payne
Amy Witsil
Alan Rimer (*ex-officio*)

THROUGH: Ed Kerwin

FROM: Stephen Winters, CPA

DATE: December 6, 2013

SUBJECT: Finance Committee Meeting – December 12, 2013

The Finance Committee will meet on Thursday, December 12, 2013, at 5:30 PM in the OWASA Boardroom. The agenda will be:

Review and discuss OWASA's policies related to financial reserves and the funding status of our reserves. Background information is included in Attachment 1. At the meeting, staff will present information about the potential impact different "reserve scenarios" will have on our financial plan (e.g rates, borrowing, reserve levels).

The purpose of this agenda item is to:

- determine whether our current policies regarding reserves is appropriately meeting the organizations financial and sustainability goals, and
- discuss projections of reserve balances.

Stephen Winters, CPA
Director of Finance and Customer Service

cc: Board of Directors
Ed Kerwin
Bob Epting

Attachment 1 – Information for discussion of financial reserves

The purpose of this memo is to provide context and background for the Committee's discussion about Financial Reserves.

Background

In general, the purpose of reserves is to provide operational and financial stability. The amount of reserves should be based on risk and consequences.

For the Committee's discussion, we believe there are essentially two issues to address.

- Is the amount of our reserves appropriate to responsibly sustain the organization financially?
- Plans for our reserve balances that currently exceed the minimum targets set-forth in our Financial Management Policy.

The following two articles on reserves from UNC's Environmental Finance may be helpful as background information:

- Right-sizing Reserve Funds, by Jeffrey Hughes (published February 12, 2013)
- More on Reserve Funds: How Much Is Too Much? by Sarah Royster (published February 22, 2013)

OWASA Reserves policies

OWASA's Financial Management Policy calls for the three reserve funds described below.

Working Capital – Purpose is to provide cash flow for daily financial needs and adequate reserves to counter revenue instability and unanticipated expenses. The minimum target balance is the greater of, 1) 33% or four months of the Operating Budget, or 2) 20% of the Capital Improvements Program (CIP) budget for the succeeding three years.

Capital Improvements – Purpose is to: ensure more sustainable funding for CIP projects and capital equipment; cover major unplanned increases in CIP project costs; pay for unplanned capital needs; and provide funding flexibility needed in the annual budget to adjust for CIP costs carry-over adjustments. The minimum target balance is 2% of annual depreciated capital costs.[1]

Rate/Revenue Stabilization – Purpose is to provide sufficient funding during extended periods when expenditures are higher (e.g. unanticipated increase in operating expenses) and/or revenues are lower (during a drought, for example) than budgeted while offsetting the need for rate increases and spending changes during the fiscal year. The minimum target balance is 5% of the projected water and sewer revenue for the applicable year.[1]

Is the amount of our reserves appropriate to responsibly sustain the organization financially?

Working Capital – Staff believes that our working capital reserve minimum balance is reasonable and appropriate and in-line with general financial practices.

Capital Improvements – At 2% of annual depreciated capital costs, the FY 2014 minimum target balance is $5.8 million. As indicated above, the primary purpose of this reserve is to provide funds to pay for unplanned capital projects. Assessing the appropriateness of this reserve's minimum balance is subjective but consideration should

[1] Until fully funded, the Capital Improvements and Rate/Revenue Stabilization Reserves are being funded at an annual rate of $400,000 and $250,000, respectively.

be given to the types of unplanned projects that might arise and the likelihood of them occurring. We continue to work on developing our comprehensive asset management plan which may identify CIP projects that are not in our current CIP. During the drought of 2007-08, one of our backup water supply plans was to run a temporary above-ground pipeline to the Haw River. The estimated cost of this project was between $1 and $8 million depending on how long the pipeline had to be in place. In FY 2013, we incurred almost $1 million unplanned costs to repair the Cane Creek dam gates. This reserve is intended to cover these types of unplanned projects.

Rate/Revenue Stabilization – At 5% of projected water and sewer revenue, the FY 2014 minimum target balance is $1.75 million. As indicated above, the primary purpose of this reserve is to provide funds to offset the need for mid-year rate increases or cost-cuts when revenues are less than budget or expenses are greater than budget. Assessing the appropriateness of this reserve's minimum balance is also subjective. For perspective, a 5% reduction in projected FY 2014 water sales would be 0.31 million gallons a day (MGD). The FY 2014 water sales projection is 6.1 MGD so a 5% reduction would result in water sales of 5.8 MGD. The reduction in revenue would be approximately $1.7 million.

Plans for reserve balances that currently exceed the minimum targets set-forth in our Financial Management Policy

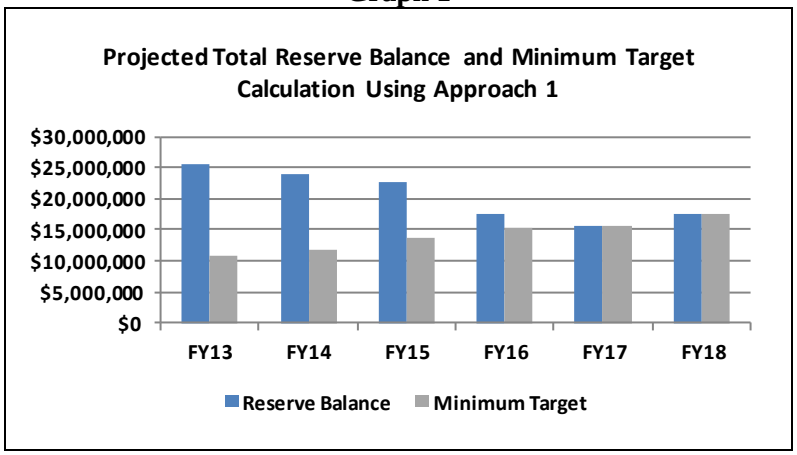
What is the amount our reserves are projected to be over the minimum targets?

As noted above, under our current financial plan our Capital Improvements and Rate/Revenue Stabilization reserves will not be fully funded until FY 2024 and FY 2016, respectively. We are contributing a fixed amount each year until the reserves reach their minimum targets.

Calculating the amount of reserves over our minimum targets – Approach 1

In our quarterly financial reports, we have reported a comparison of our reserve balances to the minimum targets. For the minimum targets for the Capital Improvements and Rate/Revenue Stabilization reserves, we have based our calculation on the incremental annual funding requirements we have set. In other words, the minimum target reported for the Capital Improvements reserve has not been $5.8 million but rather $400,000 times the number of years we have been funding the reserve ($2 million as of the end of FY 2014). Using this approach, we project that our reserve balances will be equal to our reserve minimums by the end of FY 2017 (see Graph 1 below).

Graph 1



Using Approach 1, the projected amount of reserves over our minimum targets at the end of FY 2014 is $12 million, as shown in Table 1.

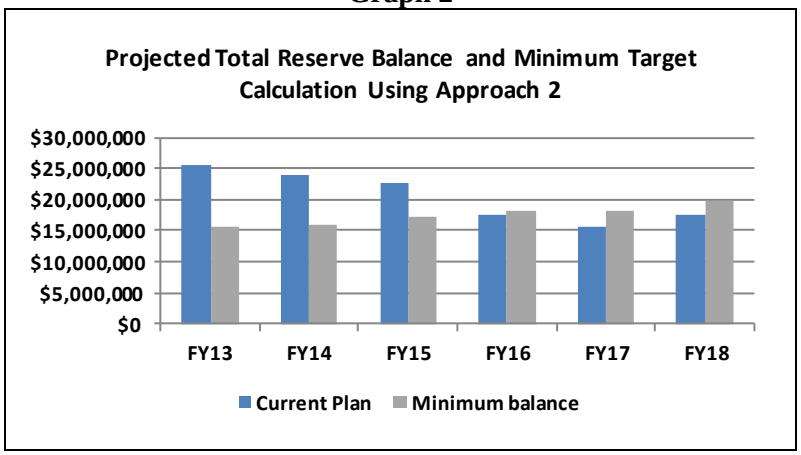
Table 1

Projected Balances as of the end of FY 2014	
Minimum Target Balance	**Amount**
Reserve Fund	
Working Capital	$8,510,000
Capital Improvements	2,000,000
Rate/Revenue Stabilization	1,250,000
Total minimum target balance	11,760,000
Total projected reserve balance	23,865,000
Projected reserve balance over minimum targets	12,105,000

Calculating the amount of reserves over our minimum targets – Approach 2

At the end of FY 2018, the Working Capital and Rate/Revenue Stabilization reserves are projected to equal the minimum targets. At the current rate of funding, the Capital Improvement reserve is not projected to reach its minimum target until FY 2024; at the end of FY 2018, it is projected to be approximately $2.2 million under the minimum target of $5.8 million. Using this approach, we project that our reserve balances will be equal to our reserve minimums by the end of FY 2024. Graph 2 below shows the funding status through FY 2018 for this approach.

Graph 2



Using Approach 2, the projected amount of reserves over our minimum targets at the end of FY 2014 is $7.8 million, as shown in Table 2.

Table 2

Projected Balances as of the end of FY 2014	
Minimum Target Balance	**Amount**
Reserve Fund	
Working Capital	$8,510,000
Capital Improvements	5,800,000
Rate/Revenue Stabilization	1,750,000
Total minimum target balance	16,060,000
Total projected reserve balance	23,865,000
Projected reserve balance over minimum targets	7,805,000

So what is the amount of reserves over minimum targets? Amount from Approach 1 or 2?

Staff views this question to be a choice of how to present reserve balances and minimum targets. Under either approach, reserve funds over our minimum targets are projected to be expended over the next two to three years.

What are our plans for reserve funds?

Under the current financial plan, the amount of reserve funds over the minimum targets will be spent by FY 2016 or FY 2017; the funds will augment annual revenues to pay for operating expenses, debt service payments and capital investments.

The current financial plan includes anticipated annual rate increases of 3%. In estimating the need for future rate increases, the amount of our reserves has been considered in the calculation. Therefore, if we decide to use the reserve funds for any other purpose (such as to offset a rate decrease, fund Automated Metering Infrastructure, or pay for any other unplanned expenditure), rate adjustments could be impacted.

Scenario-based testing of reserves

At the committee meeting on December 12, staff will present information about the effect different scenarios might have on reserve balances including:

- Funding all three reserves in FY 2014
- A "worst-case" scenario where revenue is under budget, operating expenses are over budget, and CIP expenditures are over budget

How are credit ratings affected by reserve levels?

The Financial Management Policy states that our credit ratings should be at least Aa2, AA+ and AA+ from Moody's, Standard and Poors and Fitch, respectively. Our current credit ratings are Aa1, AA+ and AA+.

Bond or credit ratings are indicators of the financial condition of the entity that issues bond debt and the relative quality of the bonds issued. A better bond rating indicates lower risk to an investor and translates into lower borrowing costs for the issuer. OWASA's current bond ratings are very good. A number of factors influence bond ratings but in discussions we have had with the ratings agencies, two of the most important factors for OWASA's favorable ratings are the level of our financial reserves and our debt service coverage ratio.

It is difficult to determine precisely how our credit ratings would be impacted by a reduction in our reserve balances. As you saw in a recent report on OWASA, Standard & Poor's stated that two of the primary factors in our ratings are our strong debt service coverage and liquidity levels (the latter refers to reserves). In general, a sound financial plan and a track record of delivering on that plan will support good credit ratings. We believe OWASA has demonstrated both, especially since the revised Financial Management Policy went into effect in FY 2009.

While it is difficult to say exactly how our credit ratings would be affected by lower reserves, we can estimate the financial impact of lower bond ratings. The table below shows an estimate of the effect lower bond ratings could have on OWASA's borrowing costs. The costs shown in the table are based on a $10 million bond issue; therefore, the costs on a $20 million bond issue would be twice the amounts shown.

	Current Rating	**Hypothetical Rating**	**Hypothetical Rating**	**Hypothetical Rating**
Rating Agency:				
Moody's	Aa1	Aa2	Aa3	A1
Fitch	AA+	AA	AA-	A+
Standard & Poor's	AA+	AA	AA-	A+
Impact of lower rating	x%	x.1%	x.2%	x.45%
Estimated additional average annual cost on a $10 million bond issue	N/A	$6,500	$13,000	$29,250
Estimated additional cost over the life of a 25-year, $10 million bond issue	N/A	$162,500	$325,000	$731,250