

JANET COWELL TREASURER

Memorandum #2010-18

STATE OF NORTH CAROLINA DEPARTMENT OF STATE TREASURER

State and Local Government Finance Division and the Local Government Commission

> T. VANCE HOLLOMAN DEPUTY TREASURER

TO: All Local Governments, Public Authorities and Certified Public Accountants

FROM: Sharon Edmundson, Director, Fiscal Management Section

DATE: January 25, 2010

SUBJECT: GASB Statement No. 53, Accounting and Financial Reporting for Derivative Instruments

The purpose of this memo is to provide guidance to those local governments and their auditors who will have to account for and disclose derivatives in accordance with GASB Statement No. 53. This statement is effective for fiscal years beginning after June 15, 2009 which will be the year ending June 30, 2010 for most units.

Derivative instruments are often complex financial arrangements used by governments to manage specific risks. Statement No. 53 uses vocabulary particular to the derivative markets. This memo assumes that readers are familiar with this vocabulary since they are parties to derivative instruments. If a particular term is not familiar, the terms used are defined in the GASB Statement No. 53 glossary on page 41 of the statement.

The next several paragraphs will discuss the major points of GASB Statement No. 53. Due to the length and complexity of the Statement and the need to walk through several technical calculations in explanation, we have prepared a companion PowerPoint presentation that covers all major aspects of this Statement and takes you through GASB Statement No. 53 step by step. If you are not familiar with Statement No. 53, you might want to review the PowerPoint presentation to familiarize yourself with the statement at this time. An example of a cash flow interest rate swap with corresponding journal entries and financial statement presentation are provided in Appendix A of this memo. Please note that every derivative is unique and consequently, it is hard to develop a one- size-fits-all example. GASB Statement No. 53, along with its implementation guide, provides numerous examples and should be consulted to aid you in accounting and reporting for your particular type of transaction.

Overview

Statement No. 53 requires that all derivatives (as defined in statement) be reported on the net asset statements for government-wide, proprietary and fiduciary statements, at fair value. *Derivatives are not reported on governmental fund statements*. The Statement describes derivatives that fall under the scope of this Statement and defines how fair value is calculated. Units that hold derivatives that meet the definition of effective hedging derivatives will be required to show the annual changes to fair value of the instruments as a deferred inflow or outflow on the net asset statement. No amounts will be reported on the flow of resource statements. Units holding investment derivatives and ineffective hedging

derivatives will reflect annual changes to the fair value of derivatives on the flow of resource statements as an investment revenue classification. Amounts posted to the investment revenue classification also will be reported on the Cash Flow Statement under Investment Activities. GASB Statement No. 53 discusses investment derivates, commodity hedging derivatives and synthetic guaranteed investment contracts. Based on North Carolina investment and debt statutes, local governments should not have any of these instruments, therefore this memo will not include those provisions of Statement No. 53.

GASB Statement No. 53 provides guidance on acceptable methods of calculating fair value. Most units will have their counterparty provide the fair value method. Units will be responsible for making sure that fair value calculation is in accordance with GASB Statement No. 53. In addition to the fair value of the derivative, units should obtain the method used and the calculations from the counterparty that they are willing to provide. Your auditors will want to review this information as part of the audit. Units will need to meet with their auditors in advance of the audit to review derivatives and decide if they will need third party verification of fair value or they are satisfied with fair value information provided by the counterparty. For all future derivative issues we recommend that language be put in original documents requiring counterparties to provide fair value and appropriate documentation at least annually at June 30, in accordance with GASB Statement No. 53.

Is Your Hedged Derivative Effective

A key test of a hedging derivative is determining if the derivative is effective in hedging the risk for which it was designed. GASB Statement No. 53 describes and provides examples of several tests depending on the type of derivative. The accompanying PowerPoint walks through these tests. It should be noted that depending on market conditions a derivative could be initially determined to be effective and in a later year be determined ineffective. After a derivative loses its effectiveness, changes in fair value from year to year will be recorded on the flow of resources statements (Statement of Activities; Statement of Revenues, Expenses, and Changes in Fund Net Assets; and Statement of Changes in Fiduciary Net Assets) for the rest of derivative's remaining life.

Several of the quantitative methods for evaluation of a derivative's effectiveness are conducted using the past fiscal years data; however, if there have been disruptions in the market place, a unit may use inception to date data. Units of government should track and save data, such as fair value and cash flows for all derivatives, incase this data is needed in future years for determining effectiveness. Units who have existing data might should ensure that they have necessary data to perform inception to date calculation, if necessary.

Note Disclosure

GASB Statement No. 53 expands note disclosure based on current requirements. These requirements are fairly straight forward and are laid out in the companion PowerPoint presentation. Please note that the Local Government Commission staff will be reviewing these notes to determine compliance with the statement.

Hybrid Instruments

In reviewing fiscal year 2008 notes on derivatives, it appears that some units hold hybrid instruments. Illustration 6 of GASB Statement No. 53 describes an off-market interest rate swap where the unit receives an up-front payment. In the sample illustration the up-front

payment is reported as a borrowing at its historical cost. As payments are made on the swap, principal and interest payments on the borrowing are imputed at the discount rate of the transaction. There also are several questions addressing hybrids and implementation of Statement 53 in the Implementation Guide.

Termination of Swaps

For a variety of reason units of local government might decide to terminate a swap. Due to unique features of derivative transactions it is hard to provide generic guidance; however, general guidance would be to close out the balance sheet accounts such as derivative instrument, and deferred inflow or outflow. Termination payments theoretically represent the fair market value at the time the swap is terminated. Termination payments are disclosed on cash flow statements under the heading of "Cash Flows from Investing Activities". The unit also should budget the termination payment; therefore, a budget amendment will be needed. Appendix A discusses journal entries and financial statement presentation for a cash flow hedge for which the interest rate swap has been terminated.

Local Government Preparation

Although implementation of GASB Statement No.53 is not required until fiscal year ending June 30, 2010, the Local Government Commission staff recommends that units of government perform all the necessary calculations as soon as possible. Units will want to determine if each derivative meets the effectiveness test. If a particular derivative is determined to be ineffective, the unit will have time to decide on what action, if any, to take before year end. As some of the calculations are complicated, units might obtain additional expertise to either prepare the necessary calculations or provide an independent review of calculations prepared by staff. Units, at a minimum, should discuss with their auditor what documents will need to be prepared. All governments should have a system in place to monitor derivative fair values and to determine if counterparty collateralization requirements are in accordance with the documents throughout the life of the instrument.

As units prepare for implementation of GASB Statement No. 53, accounting professionals will need to work with staff members that possess knowledge of the unit's derivatives and the legal documents that accompany these instruments. It you have any questions, please call Melinda Canady at (919) 807-2384 or via email at <u>melinda.canady@nctreasurer.com</u>.

APPENDIX A

JOURNAL ENTRIES AND FINANCIAL STATEMENT PRESENTATION FOR A CASH FLOW HEDGE – INTEREST RATE SWAP – TERMINATION OF SWAP IN YEAR 3 DUE TO COUNTERPARTY ISSUES – (This example was taken from Illustration Number 5 in the "Guide to Implementation of GASB Statement 53 on Accounting and Financial Reporting for Derivative Instruments" and modified to show a swap termination due to counterparty issues. The debt transaction was not modified in any way.)

Overview

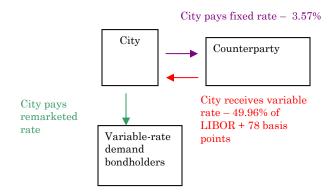
This illustration depicts a cash flow hedge that uses a pay-fixed, receive-variable interest rate swap. The maturity date of the swap is June 30, 20X4. The objective of the swap is to hedge the risk of overall changes in cash flows associated with variable-rate water/sewer bonds. The unit determines that the swap is an effective hedging derivative instrument for the fiscal years ended June 30, 20X1 and 20X2, using the synthetic instrument method. Accordingly, the decreases in the fair value of the swap in those fiscal years are reported as deferrals on the Statement of Net Assets.

However, in 20X3 there is an issue with the counterparty and the swap is terminated a year early as of June 30, 20X3. The hedged debt is not affected. The unit makes a termination payment to the counterparty of \$1,536,286. The unit enters into a new swap with a different counterparty. The following shows the journal entries for 3 years for the terminated swap and the new swap entered into in 20X3.

CAUTION: each derivative transaction is unique and it is difficult to draw comparisons. The purpose of this example is to illustrate a swap that was actually terminated. GASB Statement No. 53 and the implementation guide show examples of terminations of hedge accounting but not of a terminated swap. Units and their auditors should feel free to contact the LGC to discuss the facts of their individual situations.

Assumptions

On July 1, 20X0, a city issues variable-rate demand bonds of \$100 million through the Water and Sewer Fund. The bonds mature on June 30, 20X4. The coupon rate is remarketed weekly. At the same time, the city enters into a \$100 million notional, pay-fixed, receivevariable interest rate swap. The variable rate of the semiannual payment also resets weekly. The variable rate is 49.96 percent of the London Interbank Offered Rate (LIBOR) plus 78 basis points. The fixed rate is 3.57 (rounded) percent and the swap terminates on Jun 30, 20X4. Upon association with the variable-rate bonds (at the inception of the swap), the fair value of the swap is zero. The following diagram depicts the payment terms of the swap and variable-rate demand bonds.



Interest rates fluctuate after the swap is executed. The city continues to pay the contractual fixed rate (3.57%) to the counterparty. The actual synthetic rate, however, varies depending on the difference between the city's remarketed rate paid to the bondholders and the swap's variable payment made by the counterparty to the city. Payments on the swap, the interest payments on the variable-rate bonds, and the actual synthetic rate based on such payments are summarized as follows:

| Counterparty Sw | vap Payment |
|------------------------|-------------|
|------------------------|-------------|

| Fiscal Year Ended | То | From | Net | Interest payments to Bondholders | Total Payments | Actual Synthetic Rate* |
|-------------------------|----------------|-------------|---------------|--|-------------------|------------------------------|
| June 30, | | | | | | |
| 20X1 | (3,578,714) | \$2,031,713 | \$(1,547,001) | \$(1,789,314) | \$(3,336,315) | -3.34% |
| June 30, | | | | | | |
| 20X2 | (3,578,714) | 1,575,995 | (2,002,719) | (1,359,205) | (3, 361, 924) | -3.36% |
| June 30, | | | | | | |
| 20X3 | (3,578,714) | 1,359,597 | (2, 219, 117) | (1,078,661) | (3, 297, 778) | -3.30% |
| Total | \$(10,736,142) | \$4,967,305 | \$(5,768,837) | \$(4,227,180) | \$(9,996,017) |) |

*Calculated as the total payments divided by \$100,000,000 notional amount.

Swap Fair Values

The fair values and changes in fair values of the swap are as follows:

|--|

| | June 30, 20X1 | June 30, 20X2 | June 30, 20X3 |
|------------------------------|---------------|------------------|------------------|
| Fair Value Change in fair | \$(2,487,390) | \$(4,000,154) | \$(1,536,286) |
| value | (2,487,390) | (1,512,764) | 2,463,868 |

Journal Entries

Fiscal Year Ended June 30, 20X1

| | Debit | Credit |
|---|-------------|-------------|
| Cash | 100,000,000 | |
| Bonds Payable | | 100,000,000 |
| To record issuance of variable-rate bonds | | |
| | | |
| Interest expense | 1,547,001 | |
| Cash | | 1,547,001 |
| To record the net swap payment | | |
| | | |
| Interest expense | 1,789,314 | |
| Cash | | 1,789,314 |
| To record the interest payment to bondholders | | |
| | | |
| Deferred outflow of resources | 2,487,390 | |
| Derivative instrument – interest rate swap | | 2,487,390 |
| To record the change in fair value of the interest rate | | |
| swap | | |

Fiscal Year Ended June 30, 20X2

| Interest expense | 2,002,719 | |
|---|-----------|-----------|
| Cash | | 2,002,719 |
| To record the net swap payment | | |
| | | |
| Interest expense | 1,359,205 | |
| Cash | | 1,359,205 |
| To record the interest payment to bondholders | | |
| | | |
| Deferred outflow of resources | 1,512,764 | |
| Derivative instrument – interest rate swap | | 1,512,764 |

Fiscal Year Ended June 30, 20X3

| | Debit | Credit |
|---|-----------|-----------|
| Interest expense | 2,219,117 | |
| Cash | | 2,219,117 |
| To record the net swap payment | | |
| | | |
| Interest expense | 1,078,661 | |
| Cash | | 1,078,661 |
| To record the interest payment to bondholders | | |
| | | |
| Derivative instrument – Interest rate swap | 4,000,154 | |

| (2,489,390+1,512,764) | | |
|---------------------------------------|-----------|-----------|
| Deferred outflow of resources | | 4,000,154 |
| Swap Termination Payment | 1,536,286 | |
| Cash | | 1,536,286 |
| To record termination payment of swap | | |
| | | |
| Legal expenses | 20,000 | |
| Cash | | 20,000 |

The new swap the unit entered into on June 30, 20X3 has a fair market value of zero at time of inception. Since transactions took place on June 30, 20X3 there are no journal entries to record an effective hedging derivative with a fair market value of zero.

Financial Statement Presentation

The following elements of the government-wide financial statements recognize only the events related to the swap and the variable-rate bonds for the fiscal years ended June 30, 20x1 through June 30, 20X3. Elements do not reflect the remainder of the transactions accounted for in the government-wide financial statements during the year. Amounts are presented based on their natural classification.

| | Fiscal Year 20X1 | Fiscal Year 20X2 | Fiscal Year 20X3 |
|-------------------------------|---------------------|---------------------|------------------|
| Net Asset Statement: | | | |
| Cash | 96,663,685 | 93,301,761 | 88,447,697 |
| Deferred outflow of resources | 2,487,390 | 4,000,154 | 0 |
| Derivative liability | 2,487,390 | 4,000,154 | 0 |
| Bonds Payable | 100,000,000 | 100,000,000 | 100,000,000 |
| | | | |
| Statement of Activities: | | | |
| Interest Expense | 3,336,315 | 3,361,924 | 3,297,778 |
| Investment Income | | | (1,536,286) |
| | | | |
| Statement of Cash Flows: | | | |
| Cash flows from capital and | 3,336,315 | 3,361,924 | 3,297,778 |
| related financing activities: | | | |
| Cash flow from investing | | | (1,536,286) |
| activities | | | |