# *SWAP Management Report*
# *As of March 31, 2015*

***History.*** Pursuant to the ISDA Master Agreements dated and effective as of August 20, 2004 (the "2004 ISDA Master Agreements") and the schedules, annexes thereto, the North Texas Tollway Authority (the "Authority" entered into multiple interest rate swap transactions in the cumulative notional amount of $202,720,000 with Citibank N.A., New York, Bear Stearns Financial Products Inc. and Lehman Brothers Special Financing Inc. (the "Swap Providers") The 2004 Swap Transactions were executed in connection with the then proposed refunding of a portion of the Dallas North Tollway System Revenue Bonds, Series 1995 (the "Series 1995 Bonds") and the issuance of the Variable Rate Revenue Bonds, Series 2005C (the "Series 2005C Bonds"), (the "2004 Swap Transactions").

Pursuant to the 2004 ISDA Master Agreements and concurrent with the issuance of the Series 2005C Bonds in December 2005, the Authority and the Swap Providers also entered into multiple interest rate swap transactions in the collective nominal amount of $138,950,000, effective as of December 15, 2005, relating to the portion of the Series 2005C Bonds issued to refund the remaining Series 1995 Bonds (the "2005 Swap Transactions" and together with the 2004 Swap Transactions, the "Swap Transactions").

In September 2008 Lehman Brothers declared bankruptcy and their portion of the Swap Transactions were terminated. On October 1, 2008, a swap termination payment of $4,511,011 was made by the Authority.

After the collapse of Bear Stearns on May 15, 2009, JPMorgan Chase Bank N.A. acquired some of the assets of Bear Stearns and some derivative transactions, including transactions with the Authority, were transferred from Bear Stearns Financial Products to JPMorgan Chase Bank N.A.

On August 14, 2009, $5,375,000 for the 2004 Swap Transaction and $706,700 for the 2005 Swap Transaction was paid to the Swap Providers to terminate a portion of each respective swap. Currently, the notional amount for the 2004 Swap Transaction and the 2005 Swap Transaction is $84,060,000 and $94,230,000, respectively. The Swap Providers are currently Citibank N.A. ("Citibank") and JPMorgan Chase Bank N.A. ("JPMorgan").

On September 1, 2009, the Series 2005C bonds were converted to fixed rate bonds. The outstanding Swap Transactions remain *legally* tied to the Series 2005C Bonds, which have been remarketed to fixed rate. However, the Authority recognized the need for the Swap Transactions to be *economically* tied to variable rate bonds so that the Swap Transactions could function properly and generate a reasonable synthetic fixed rate. To that end, the Authority negotiated a letter of credit with JPMorgan, and issued $178,400,000 Series 2009D variable rate bonds on November 5, 2009.

***Objective of the interest rate swap.*** The intention of the Swap Transactions was to produce an overall fixed rate cost of funds related to refunding of the Series 1995 Bonds. The Swap Transactions were structured to: lock in low rates; minimize the negative arbitrage in escrow; achieve higher present value savings than traditional fixed rate bond alternatives; and increase future debt capacity. Total present value savings from these transactions was originally estimated at $41.8 million.

***Terms – 2004 Swap Transactions.*** Under the 2004 Swap Transactions, the Authority is obligated to make payments to the Swap Providers calculated at a fixed rate of 3.673% per annum, and the Swap Providers are obligated to make floating rate payments to the Authority calculated at a rate equal to 67% of the one-month London Interbank Offered Rate ("LIBOR") for U.S. deposits. The 2004 Swap Transactions have a stated final maturity date of January 1, 2023.

***Terms – 2005 Swap Transactions***. Under the 2005 Swap Transactions, the Authority is obligated to make payments to the Swap Providers calculated at a fixed rate of 3.533% per annum, and the Swap Providers are obligated to make floating rate payments to the Authority calculated at a rate equal to 67% of the one-month LIBOR for U.S. deposits. The Series 2005C Bonds and the 2005 Swap Transactions have a stated final maturity date of January 1, 2025. As of March 31, 2015, rates were as follows: (see example in table below)

| **Interest rate swap:** | **Terms** | **2004 Swap Rates March 31, 2015** | **2005 Swap Rates March 31, 2015** |
|---|---|---|---|
| Fixed payment to counterparties | Fixed Payment | 3.673% | 3.533% |
| Minus Variable payment from counterparties | 67% of 1-Month LIBOR | 0.118% | 0.118% |
| Net interest rate swap payments | | 3.555% | 3.415% |
| Plus 2009D Variable-rate bond coupon payments | Avg. Coupon + 100 bps* | 1.050% | 1.050% |
| Synthetic interest rate on bonds including LOC & Remarketing | | 4.605% | 4.465% |

*90bps LOC fee & 10bps remarketing fee

***Fair value***. As of March 31, 2015, the 2004 Swap Transactions had a negative fair value of $13,201,069.50 and the 2005 Swap Transactions had a negative fair value of $18,734,793.47. The negative fair value signifies the amount that the Authority would owe to the Swap Providers upon the termination of all the Swap Transactions as of that date. The fair values were calculated using the ***FAIRVALUE ADVISOR,*** First Southwest's online swap valuation system. First Southwest is an independent third party provider of swap valuations.

***Credit risk***. As of March 31, 2015 the Authority was not exposed to counterparty credit risk because the Swap Transactions had a negative fair value. However, should interest rates change and the fair value of the Swap Transactions become positive, the Authority would be exposed to credit risk in the amount of the fair value of the Swap Transactions.

If the Swap Providers' credit rating is reduced below A2 by Moody's or A by S&P, in the case of Citibank N.A., New York, or Aa3 by Moody's or AA- by S&P in the case of JPMorgan Chase Bank N.A., the provider is required to post collateral to the Authority's credit.

As of March 31, 2015, the Swap Providers' respective ratings by Moody's Investors Service ("Moody's") and by Standard and Poor's Corporation ("S&P") are as follows: Citibank N.A., New York A2/A and JPMorgan Chase Bank N.A. Aa3/A+. Each party's portion of the 2004 Forward Swap and 2005 Current Swap agreement is 2/3 & 1/3 and 1/3 & 2/3 respectively.

***Interest Rate Risk***. Interest rate risk is the risk that changes in interest rates will adversely affect the fair values of the Authority's hedging instruments or their cash flows. The Authority is exposed to interest rate risk on its derivatives.

The underlying Bonds (Series 2009D) are issued as a callable CP product and have variable rate coupon payments which are reset with each remarketing. The Swap Payments paid to the Authority by the Swap Providers are also variable, tied to 67% of one month Libor. A decrease in Libor rates would increase the net swap payments for the Authority but it might be offset by a likely decrease in the variable coupon rate and a lower corresponding coupon payment. Any increase in the variable coupon rate would increase the corresponding coupon payment, but it might be offset by a likely increase in Libor rates and a lower corresponding net swap payment.

***Rollover Risk***. Rollover risk is the risk that a hedging instrument associated with hedgeable item does not extend to the maturity of that hedgeable item. The Authority is not exposed to rollover risks because the hedging derivative instruments associated with the hedgeable debt items extend beyond the maturity of the hedgeable debt items.

***Basis risk***. The Authority is exposed to basis risk under the swap agreements as the variable rate received from the counterparties will not perfectly match the rate paid on the bonds and the expected cost savings may not be realized.

***Collateral risk***. On September 30, 2008 MBIA and FGIC completed a reinsurance transaction related to the insurance on the Swap Transactions. The Swap Transactions are now insured by MBIA. The Authority is not required to post collateral on the portion of the Swap Transactions that are counterparty to Citibank. With regard to the portion of the Swap Transactions that are counterparty to JPMorgan, the Authority may be required to post collateral, if MBIA is rated below "A-" by S&P or "A3" by Moody's. If MBIA is rated below "A-" by S&P or "A3" by Moody's *and* the Authority is downgraded to below A3 by Moody's or A- by S&P, the Authority may be required to post collateral in an amount equal to the swap termination amount owed by the Authority to JPMorgan less the $5,000,000 threshold amount. If MBIA is rated below "A-" by S&P or "A3" by Moody's *and* the Authority is downgraded to below Baa1 by Moody's or BBB+ by S&P, the Authority will be obligated to post collateral in an amount equal to the swap termination amount owed by the Authority to JPMorgan. MBIA's rating is below the referenced levels, but the Authority has maintained its ratings above the referenced levels and no collateral is currently required to be posted. As of March 31, 2015, the Authority was rated A2 by Moody's and A- by S&P.

***Market Access Risk.*** The Authority is not directly exposed to market access risk on the swaps. It is, however, indirectly exposed to market access risk through the underlying bond issue (Series 2009D) to which the swaps are economically tied. The 2009D bonds are variable rate obligations that are backed by a letter of credit. Letters of credit typically have a two or three year term, and at the end of the initial term the Authority might need to refinance the debt or secure a new letter of credit. The risk is that the Authority may not be able to access the markets to obtain a new letter of credit.

***Foreign Currency Risk.*** The Authority is not exposed to Foreign Currency Risk as both the fixed and variable payment portion are in the same currency. (US Dollars)

***Counterparty Risk.*** Counterparty risk exists if the counterparty cannot make future payments or cannot make a termination payment owed to NTTA. Risk is reduced by ISDA (International Swaps and Derivatives Association) contract terms addressing collateral limits and credit ratings. Additionally, selection of more than one highly-rated counterparty diversifies counterparty risk.

***Termination risk***. Termination risk exists if: (i) the Authority opts to terminate the Swap Transactions prior to maturity and the Swap Providers do not have sufficient funds to pay the Authority, (ii) the Authority is downgraded to below A3 by Moody's or A- by S&P and the Authority is unable to post sufficient collateral; or (iii) the Authority's credit rating is reduced below investment grade by Moody's or S&P. If upon termination, the swap has a negative fair value, then the Authority would be liable to the Swap Providers for a payment equal to the Swap's fair value.

The Swap Transactions are subject to optional termination by the Authority at any time over the term of the Swap Transactions at the then prevailing market value. The Swap Providers do not have the elective right to optionally terminate the Swap Transactions. Each of the swap agreements may be terminated by the respective counterparty if the Authority does not maintain a credit rating of least Baa3 by Moody's or BBB- by S&P. The Authority's current ratings are A2 by Moody's and A- by S&P.

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