

- **Board of Directors**
Budget, Finance, Investment and Insurance Committee

February 14, 2006 Board Meeting

9-2

Subject

Financing strategy for future capital requirements

Description

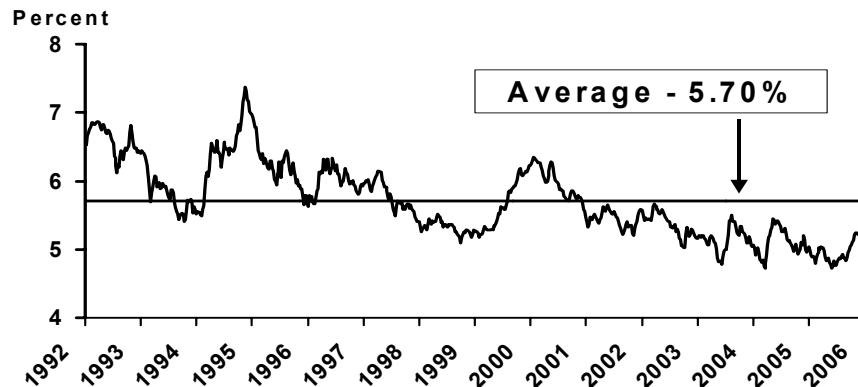
The funding requirements of Metropolitan's Capital Investment Program are estimated to be more than \$800 million from February 2006 through the end of fiscal year 2006/2007. Major projects to be funded over this time period include the Inland Feeder Project, the Oxidation Retrofit Program, San Diego Pipeline No. 6, and the Module 7 expansion at the Skinner Treatment Plant. In May 2005, the Board authorized up to \$500 million in water revenue bonds to continue funding the CIP. In addition, the Board approved entering into interest rate swap transactions of up to \$500 million to capture savings and reduce interest rate risk in accordance with the board-approved Master Swap Policy. Metropolitan issued \$200 million of water revenue bonds in July 2005 to fund a portion of the CIP requirements, and entered into \$229 million worth of interest rate swaps to help reduce interest rate cost and risk.

Given the funding requirements of the CIP, and existing construction funds of \$289 million as of December 31, 2005, staff anticipates that Metropolitan will not need to issue additional debt to fund the CIP until late summer or early fall of 2006. However, staff continues to review and analyze market opportunities to determine when it is most advantageous for Metropolitan to access the capital markets for new money requirements. Current market conditions may offer Metropolitan additional financial opportunities to issue debt or execute interest rate swaps to take advantage of market opportunities that reduce future debt service costs by "locking in" favorable fixed interest rates now. As described in detail later in this letter, and in [Attachment 1](#), Metropolitan may take advantage of the historically low interest rate market and unusually flat yield curve to capture today's interest rates for bonds to be issued later in the year.

Market Update

Metropolitan will have to continually access the municipal bond market to fund the Capital Investment Program. The ability to take advantage of market opportunities as they arise would produce lower debt service payments that in turn would help mitigate anticipated increases in future water rates and charges. Given rising short-term interest rates, and the overall historically low level of interest rates, it is prudent to consider additional bond funding strategies at these extremely low levels. As illustrated in the following graph of the Bond Buyer Revenue Bond Index (RBI), interest rates in the municipal bond market continue to be at historically attractive levels:

Bond Buyer Revenue Bond Index



The RBI is a reasonable proxy for the cost of long-term municipal debt. As illustrated in the graph, the RBI as of January 5, 2006 was 5.09 percent. It is estimated that Metropolitan's long-term fixed rate debt would bear interest at 4.40 percent in the current market (given an average maturity of 20 years), which is less than the current weighted average cost of Metropolitan's fixed rate water revenue bond debt of approximately 4.48 percent. Therefore, it may be in Metropolitan's best interest to lock in fixed rates that are equal to or lower than Metropolitan's overall cost of fixed rate debt. Tax-exempt fixed rates have been in a historically low interest rate environment for at least the past two years. Given Metropolitan's ongoing funding requirements for the CIP, Metropolitan will face interest rate risk (that is, interest rates may rise between now and the time Metropolitan needs additional funds) in the future, as the cost of funding the CIP could be higher than the current market offers. Since Metropolitan will not need to fund the capital program until later this year, Metropolitan will be exposed to interest rate risk through the fall of 2006.

It is appropriate for Metropolitan to consider mitigating interest rate risk for a portion of the funding requirements of the CIP by utilizing a hedging strategy to "lock in" interest rates available in the current market. The cost of such a hedge is the "forward premium" associated with the interest rate swap that would be executed in the current market. Forward premiums have decreased significantly as the yield curve has flattened, thereby making hedging opportunities more efficient. Metropolitan has taken advantage of forward pricing opportunities in the past to "lock in" interest rates at a future date. In April 2005, Metropolitan entered into forward starting interest rate swaps that will be used in conjunction with an issuance of refunding bonds to refund a portion of Metropolitan's outstanding debt. The interest rate swaps will become effective, and the refunding bonds will be priced and issued, in April 2006. The net result of the "forward refunding" transaction will be lower future debt service costs.

Financing (Hedging) Strategy

Metropolitan can wait until the late summer or early fall of 2006 to issue debt to fund the CIP and pay the interest rates that exist at that time. Metropolitan can also "lock in" the fixed rate cost of a portion of the CIP requirements by utilizing a hedging strategy. Funding requirements of the CIP during fiscal year 2006/2007 will be met through a combination of variable and fixed rate water revenue bonds, as well as the use of interest rate swaps. If the expectation in the financial markets continues to be higher interest rates, then it is prudent for Metropolitan to consider hedging a portion of its future financing requirements with an interest rate swap that guarantees Metropolitan will be able to fund a portion of the CIP at today's rates. For a detailed discussion of this strategy, refer to [Attachment 1](#) of this board letter. [Attachment 1](#) provides detailed information regarding the changes in the U.S. Treasury yield curve over the past twelve months and the opportunities as a result of these changes; a typical hedging strategy timeline; the decreasing forward premiums in the swap market; a forward

hedging strategy decision tree; an estimate of the costs to Metropolitan of forward premiums; and an example of the economic impact of terminating a forward position at settlement.


Many municipalities throughout the country have utilized this strategy to lock in a portion of their future financing requirements. Municipalities that have recently utilized a hedging strategy include the Bay Area Toll Authority in Northern California; the New Jersey Turnpike Authority; the New Jersey Economic Development Authority; and the Massachusetts Bay Transportation Authority.

In summary, since interest rates continue to be at historically low levels, and the yield curve continues to be extremely flat, Metropolitan can take advantage of an unusual market opportunity to lock in interest rates at levels below Metropolitan's existing average cost of long-term debt.

Existing interest rate swap authority of \$270.9 million is available, and staff will continue to monitor and evaluate market opportunities. Staff will work with the Ad Hoc Committee (consisting of the Chairman of the Board, the Chairman of the Budget, Finance, Investment and Insurance Committee, and the Chief Executive Officer/General Manager) if a favorable transaction can be executed. Metropolitan's existing new money water revenue bond authority of \$300 million is available to fund a portion of Metropolitan's future capital requirements. Staff will recommend additional bonding authority at a future board meeting for CIP requirements greater than \$300 million.

Policy

Section 4 on Metropolitan's Master Swap Policy: Board approval is required for multiple interest rate swap transactions over a consecutive three-month period.



Brian G. Thomas
Chief Financial Officer

1/30/2006
Date



Debra C. Man
Interim CEO/General Manager

1/30/2006
Date

Attachment 1 – Financing (Hedging) Strategy

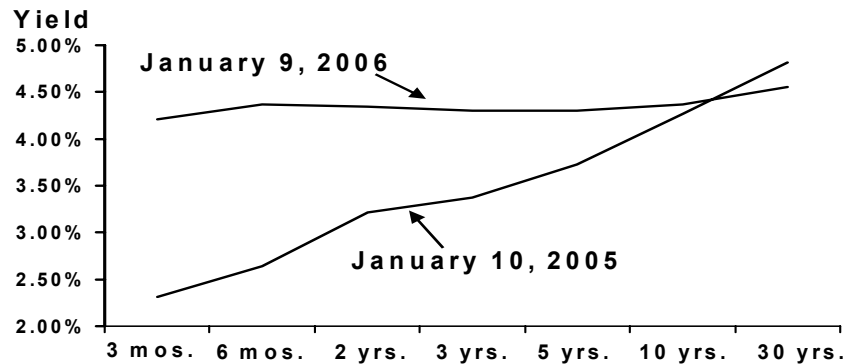
BLA #4185

Financing (Hedging) Strategy

The bond market has entered into a rather unusual phase whereby long-term interest rates are very close to short-term interest rates. The result of this “spread narrowing” between short-term and long-term interest rates is a “flat” yield curve.

During 2005, the Federal Reserve raised the Federal Funds rate a total of eight times to 4.25 percent. However, long-term interest rates did not increase at the same level. Therefore, as short-term interest rates increased and long-term interest rates stayed relatively stable, the yield curve flattened during the year. In fact, in December 2005, the yield on the ten-year United States Treasury bond declined to a level that was equal to or below yields on shorter-term Treasury securities (such as the two-year Treasury yield). This is a relatively rare occurrence in the bond market known as an inverted yield curve. With a flattening (or inversion) of the yield curve, the forward premium associated with forward interest rate swaps is reduced offering Metropolitan the potential to take advantage of today’s low interest rates to fund a portion of future borrowings. That is, the flatter the yield curve, the lower the cost to Metropolitan of a forward premium. The U.S. Treasury yield curve in January 2005 was a more typical interest rate market with a slightly upward sloping curve. Therefore, investors received more yield to bear the risks of owning longer-term fixed rate bonds relative to short-term instruments. As the following chart illustrates, the relationship between short-term and long-term interest rates has changed dramatically from January 2005 to January 2006:

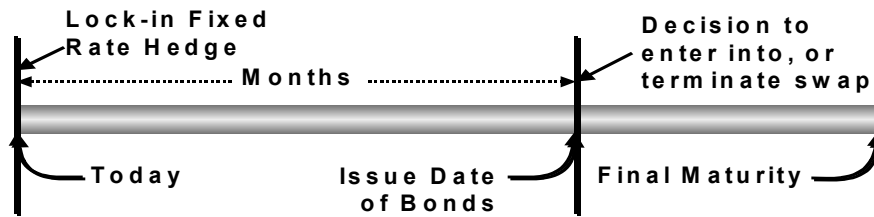
**U.S Treasury Yield Curve
January 2005 vs. January 2006**



If the expectation in the financial markets continues to be higher short-term interest rates, then it may be appropriate for Metropolitan to consider hedging a portion of its future financing requirements with a hedging strategy guaranteeing that Metropolitan will be able to fund a portion of the CIP funding requirements at today’s rates.

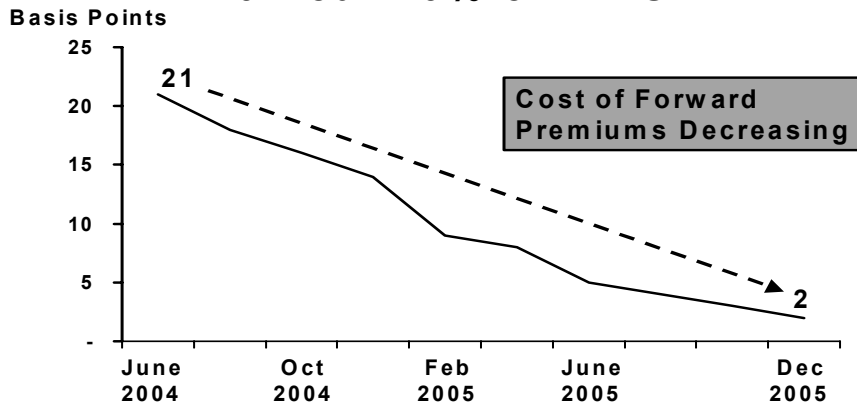
Metropolitan may either use (1) a forward fixed payer interest rate swap with a future borrowing of water revenue bonds to hedge interest rate risk in the future; or (2) use a forward interest rate swap that may be terminated in the future, upon the issuance of fixed rate water revenue bonds. In either case, a typical hedging strategy timeline is illustrated as follows:

Hedging Strategy Timeline



As illustrated in the graphic, Metropolitan would decide today to execute a hedging strategy by entering into a forward starting interest rate swap to effectively “hedge” the current low interest rate environment. The swap rate would be established by using current market rates then adding a “forward” premium. Forward premiums are currently at historically low levels. For example, since June 2004, the cost of a one-year forward premium on a 20-year, 70 percent of LIBOR swap decreased from 21 basis points to about 2 basis points by the end of December 2005. The following graphic illustrates the decreasing costs of forward premiums:

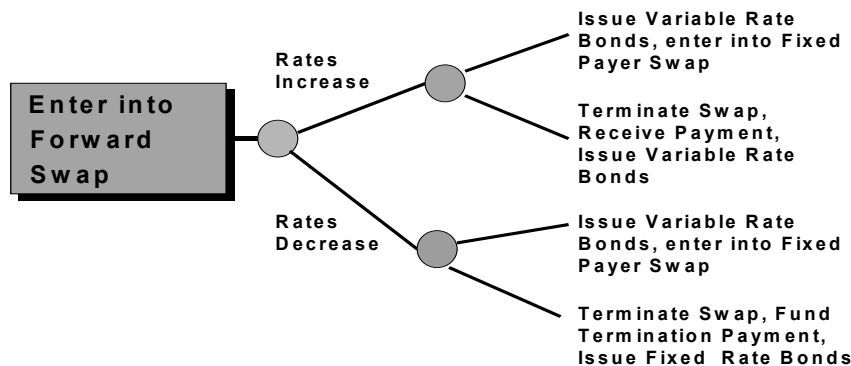
Forward Premiums – One Year 20 Year 70% of LIBOR



The swap would become effective at or near the issue date of the bonds (six to nine months in the future) at which time Metropolitan has a number of options to consider:

- Issue variable rate bonds (either variable rate demand obligations or auction rate securities to fund the CIP); and commence fixed rate swap payments (fixed payer swap)
- Unwind the interest rate swap(s), receive a payment from the swap counterparty(s), and issue either variable rate demand obligations or auction rate securities to fund the CIP
- Unwind the interest rate swap(s), receive a payment from the swap counterparty(s), and issue fixed rate bonds to fund the CIP

Settlement Decisions



The cost to Metropolitan of the forward hedge depends on the length of time of the forward period, and the index used for the hedge (tax-exempt or taxable market). For example, the following table compares the cost to Metropolitan of a six-month forward hedge and a nine-month forward hedge in the Bond Market Association tax-exempt market (BMA), and the taxable market (LIBOR).

Rate Lock Structure	Spot Rate	Forward Period	Forward Rate	Forward Premium
BMA	4.08%	6 months	4.120%	4.0 basis points
		9 months	4.135%	5.5 basis points
Percent of LIBOR ⁽¹⁾	3.21%	6 months	3.220%	1.0 basis points
		9 months	3.225%	1.5 basis points

(1) Assumes a 63 percent of LIBOR transaction.

The rates and forward premiums in the above table are representative of the relative cost to Metropolitan of each of the structures. Actual rates and forward premiums available to Metropolitan would be determined at the time of pricing of the swap. Staff has examined a number of other rate lock alternatives such as index put options and swaptions, but has decided that the relative merits and risks of such alternatives do not warrant additional consideration at this time.

As with any financing decision at Metropolitan, there are various risks that must be taken into consideration before making a decision to move forward with a particular financing strategy. Hedging strategies also include a number of risks Metropolitan must be aware of before reaching a decision to use or not to use this strategy. In particular, Metropolitan will incur interest rate risk with a hedge, as the fixed hedge rate may be higher or lower than market rates at the end of the hedge period (or issuance date of the bonds). In addition, Metropolitan will have all the risks associated with any interest rate swap transaction such as tax risk (should the hedge use a taxable index), basis risk, counterparty risk, and termination risk.

A number of factors must be considered in determining whether or not to proceed with an interest rate hedging strategy. Such factors include the following:

- The relative mix of fixed rate debt to variable rate debt (currently variable rate debt is 27 percent of total revenue bond debt outstanding) and Metropolitan’s capacity to increase variable rate exposure;
- The portion of the future CIP to be financed with fixed rate obligations (whether fixed rate revenue bonds, or variable rate revenue bonds swapped to a fixed rate);

- Metropolitan's termination strategy from the time of the interest rate swap pricing up to and including the issue date of the bonds (with a swap market hedge, Metropolitan may terminate the swap at any time, and realize an economic gain before issuing variable rate bonds to fund the CIP);
- Metropolitan's appetite for termination and pricing risk at the issuance date of the prospected bond sale;
- A "rate decrease strategy" should interest rates at the time of issuance of a bond sale be lower than the rate set at the time of the interest rate swap.

The following graphic illustrates the possible economic outcomes to Metropolitan of a termination of a \$150 million interest rate swap at settlement (or on the date of issuance of revenue bonds to be used to finance the CIP). The termination matrix is for illustrative purposes only, and represents possible economic outcomes to Metropolitan of entering into a BMA forward swap with an equal upward or downward shift in the swap curve:

Shift in Basis Points	Amount Received / Paid if Swap is Terminated
+150	\$14.2M received
+100	\$7.6M received
+50	\$2.6M received
+25	\$600,000 received
0	\$3.9M payment
- 25	\$7.3M payment
- 50	\$10.8M payment
- 100	\$18.1M payment
- 150	\$26.1M payment

As illustrated in the above graphic, should interest rates shift upward from the time of the rate lock pricing to the date of issue of the bonds, Metropolitan has a decision to:

- (1) Pay the fixed rate on the swap to the counterparty(s) over the life of the swap, and issue variable rate bonds to fund the CIP; or
- (2) Terminate the swap; receive a payment from the counterparty(s), and issue variable rate revenue bonds to fund the CIP.

Should interest rates shift downward from the time of the swap pricing to the date the bonds are issued, Metropolitan has a decision to:

- (1) Pay the fixed rate on the swap to the counterparty(s) over the life of the swap, and issue variable rate bonds to fund the CIP; or
- (2) Terminate the swap, make a termination payment to the counterparty(s), and issue variable rate revenue bonds to fund the CIP; or
- (3) Terminate the swap, and issue fixed rate revenue bonds to fund the CIP thereby decreasing the net cost to Metropolitan of the financing (whereby the cost of the fixed rate bonds would be less than the cost of the "original" fixed swap rate from the hedge).

In summary, Metropolitan may be able to take advantage of historically low interest rate levels and the flat yield curve to lock in today's low interest rates to fund a portion of the CIP by using an interest rate swap as part of a hedging strategy.