CITY OF OAKLAND

AGENDA REPORT

TO: DEANNA J. SANTANA
CITY ADMINISTRATOR

FROM: Katano Kasaine

SUBJECT: Supplemental Report
Goldman Sachs Interest Rate Swap

DATE: June 8, 2012

City Administrator Approval Deanna Santana Date 6/14/12

COUNCIL DISTRICT: City-Wide

RECOMMENDATION

Staff recommends that the City Council adopt a resolution authorizing the City Administrator to negotiate and terminate the City's interest rate Swap Agreement with Goldman Sachs & Co., to the extent that the City is able to do so, at a below market value cost no later than the end of the next Fiscal Year, June 30, 2013, and report back to the City Council with the tinal results of the termination.

OUTCOME

Approval of this recommendation will result in authorizing the City Administrator to negotiate and terminate the City's Interest Rate Swap Agreement with Goldman Sachs at a below market value cost, to the extent the City is able to do so, by the end of FY 2012-13 and report back to the City Council with the final results of the termination. By terminating the Swap today or in the near future at a below market value, the City will realize economic savings.

REASON FOR SUPPLEMENTAL

At the May 8, 2012 meeting, the Finance and Management Committee asked staff to provide the following additional information regarding the Swap:

1. Submit full BLX Group LLC's Interest Rate Swap Analysis and Report (Attachment A)
2. Information on swap terminations by other public entities
3. New legislation from other municipalities for sound financial management on their swap program.
4. City Attorney to present legal analysis on options to be scheduled and discussed at closed session.

Item: _____
Finance and Management Committee
June 26, 2012

ANALYSIS

During the 2008 mortgage credit crisis and associated financial market turmoil, both municipal-bond insurers and the largest banks (the entities that typically provide the guarantees on short-term floating rate tax exempt debt) suffered rating downgrades and financial collapse or near collapse. Among other things, this caused the interest rates of issuers of short term tax exempt debt to increase dramatically, while long term taxable rates actually fell to record lows in an investor flight to safety. These events had a dramatic impact on the interest rate swap market. As a result, many issuers' (who had interest rate swap agreements) interest payments on floating-rate bonds exceeded payments they received under swap agreements causing them to become concerned about the ability to remarket short term debt. As a result, many issuers of short term variable rate debt including those with swap agreements proceeded in restructuring their variable debt portfolios, including swap transactions. Each tax-exempt issuer who terminated their swap had their distinctive situation, and each restructuring varied case by case. Staff has found no evidence that any public entity terminated their swap at a discount, unless it was due to the downgrade and bankruptcy of the counterparty or the ability of the public entity to make the swap payments. All other public entities not in the categories stated above terminated their swaps at market value.

Case Study No. 1: Swap Termination due to Credit Downgrade and Bankruptcy

In some cases, through no fault of their own, the issuer determined to terminate their swaps due to the credit downgrade of the swap counterparty, or its guarantor. These issuers can effectively receive a discount because the issuer has the right to replace the counterparty at no cost to the issuer under the swap agreement. If the issuer chooses to terminate in lieu of replacing, the issuer effectively realizes as savings, or cost avoidance, the costs that would have been incurred on the replacement. The discount varies for each issuer because it is determined by the cost of replacing the troubled counterparty with a healthy counterparty.

For example, The New York Metropolitan Transportation Authority (MTA) was required to pay $9.4 million to terminate two swaps when Lehman Brothers declared bankruptcy in 2008. In July 2009, Metro Transportation Commission (MTC) terminated their swaps with Ambac for $104 million due to Ambac's bankruptcy. The bonds associated with these swaps were refunded in August 2009.

The San Francisco International Airport ("SF Airport") terminated three (3) swaps in the fall of 2008 for a notional amount of $200 million with Bear Steams and Lehman (as the swap counterparties) for a discount of approximately twenty-three percent (23%) due to the bankruptcies of the counterparties. In December 2010, the SF Airport also terminated one (1) swap with DEPFA for $71 million and received a discount of approximately twenty-seven percent (27%) when DFPFA was downgraded and wanted out of the swap agreement.

Case Study No. 2: Swap Termination when Public Entity Defaulted

The Asian Art Museum (the "Museum") in San Francisco was in the middle of a financial crisis which included a technical defauh on a $120 million bond debt to J.P. Morgan Chase ("JP Morgan") and faced bankruptcy. In 2008, when MBIA was downgraded due to their investments in mortgage-backed securities, the Museum's bonds lost their protection, and the interest rate soared above 10% before settling at about 7.5%. In December 2009 the Museum was able to secure a one-year letter of credit from JP Morgan, which brought the interest rate down to 3.4%. However, the letter was set to expire in December 2010. In January 2011, JP Morgan agreed to restructure the Museum's bonds by replacing the variable rate debt with fixed rate debt and terminated the swap associated with the bonds. As a result, the Museum was able to terminate the swap by restructuring their debt under certain criteria presented by JP Morgan (i.e., City of San Francisco now guarantees the debt).

Case Study No. 3: Swap Termination at Market Value

Staff has spoken to numerous public entities that have outstanding swaps and all currently have a negative mark to market value which is the fair value of the swap based on the current market price. Some public entities indicated that they are comfortable with the performance of the swap and that their swap is functioning as expected, hedging against variable rate debt. For those public entities that terminated their swaps, but not in connection with a credit downgrade, bankruptcy or default, staff found no evidence that these public entities received any type of concessions. The table below presents public entities who have terminated their swap at market value.

Issuer	Counterparty	Date of Termination
City of Los Angeles	Natixis/Societe Generale	Sep-08
Alameda Joint Powers Financing Authority	Merrill Lynch/Lehman/Bear Stearns	Apr-08
Sacramento County	Morgan Stanley	Apr-08
San Dieguito Public Facilities Authority	Morgan Stanley	May-08
Val Verde Unified School District	Bank of America	May-08
Municipal Electric Authority of GA	Merrill Lynch	Jun-08
Chapman University	Bank of America	Jul-08
City of Aurora, CO	JPMorgan/Morgan Stanley	Sep-09
Sacramento County	Bank of America	Mar-10
Albuquerque Academy	JPMorgan	Sep-10
University of La Verne	Allied Irish Bank	Dec-10
Metropolitan Transportation Commission	JPMorgan	Apr-11
Sacramento County	Deutsche Bank	Sep-11
San Francisco International Airport	JPMorgan	Sep-11
Sacramento County	Morgan Stanley	Oct-11

New Legislation From Other Municipalities for Sound Financial Management on Their Swap Program

The bursting of the housing bubble in 2008 caused the values of securities tied to real estate pricing to plummet, damaging financial institutions globally. The financial crisis resulted in the collapse of large financial institutions, the bailout of banks by governments, and downturns in stock markets. As a result, the derivatives market, including swaps, experienced dramatic impacts. Staff has inquired to see if other municipalities have revised their swap program with any new legislation as a result of the fall out of the swap market. Staff did not find any new legislation or policy change from other municipalities in regard to their swap policy. However, new legislation was adopted by other municipalities lo provide "responsible banking" as presented below.

Legislation Type	Purpose	Action
Ordinance No. 182138 Responsible Banking Investment Monitoring Program (City of Los Angeles)	Primary requirement is additional disclosure for banks: a statement of "community reinvestment activities" specific to the City of Los Angeles which includes: • the number, size and type of small business loans; home mortgages; home improvement loans; community development loans; and investments within the City by census tract during the preceding year; • a description of the institution's participation in the City's foreclosure prevention and home loan principal reduction programs and any other similar programs, reported by census tract; and • the institution's Community Reinvestment Act (CRA) score	Adopted by Council on May 15, 2012
Responsible Banking Act (New York City)	A bill that will monitor the banks and provide transparency on how the funds are allocated throughout communities: • Create a new advisory council to	Passed by Council on May 15, 2012 Vetoed by the Mayor on May 30, 2012

	oversee all banks doing business with the City and require the banks to publish an annual report on their practices. • Increase transparency by requiring all banks to disclose how they meet the credit needs of New York City neighborhoods: small business lending, homeowner mortgage payments, their activity in lending to affordable housing projects and how they handle foreclosures (preventing the disrepair of foreclosed properties)	
Resolution No. 36926 Responsible Banking (City of Portland)	The resolution serves the following purposes: • Creates more flexibility for deposits by the City's Treasurer by allowing deposits in smaller institutions, including credit unions; • Aims to increase competition in the market for the City's banking services and include social responsibility practices of banks as part of the bid evaluation criteria; and • Increases transparency by reaffirming the City's commitment to take in public input on its Investment Policy on an annual basis and publishing online where City funds are invested or deposited on a monthly basis.	Adopted by Council on May 16, 2012

COST SUMMARY/IMPLICATIONS

Terminating the Swap at a below market value will generate savings to the City.

SUSTAINABLE OPPORTUNITIES

There are no economic, environmental or social equity opportunities associated with this report.

For questions regarding this report, please contact Katano Kasaine, Treasury Manager, at (510) 238-2989.

Respectfully submitted,

KATANO KASAINE
Treasury Manager

Prepared by:
Dawn Hort, Financial Analyst
Treasury Division

Attachment(s):
Attachment A: Interest Rate Swap Analysis and Report (BLX)

BLX

ADVISORS • ASSET MANAGEMENT • BOND LOGISTIX

CITY OF OAKLAND, CALFORNIA

TREASURY DIVISION

INTEREST RATE SWAP ANALYSIS AND REPORT

April 2, 2012

BLX Group LLC
777 S. Figueroa St., Suite 3200
Los Angeles, CA 90017
213 612 2200 PH
213 612 2499 FX
WWW.BLXGROUP.COM

BLX
ADVISORS · ASSET MANAGEMENT · COMPLIANCE

April 2, 2012

Katano Kasaine, Treasury Manager
Treasury Division
150 Frank H. Ogawa Plaza, Suite 5330
Oakland, CA 94612

Re: City of Oakland
Interest Rate Swap Analysis and Report

Dear Ms. Kasaine:

At the request of the Treasury Division, City of Oakland (the "City"), BLX Group LLC ("BLX") has prepared the following report (the "Report") in connection with the currently outstanding interest rate swap by and between the City and Goldman Sachs Mitsui Marine Derivative Products, L.P. ("GS") originally dated January 9, 1997, and amended and restated March 21, 2003 (the "Swap"). The Report was prepared pursuant to our engagement to provide the City with an independent review of the facts and circumstances relating to the Swap and an evaluation of the City's options for terminating the Swap.

The Report consists of three sections:

In Part I of the Report, we provide an overview of the Swap and the relevant bond transactions pertaining to the Swap, which collectively provides the context for our analysis. More specifically, we have prepared debt service, swap, and other relevant cash flows, both retrospectively and prospectively, for the purpose of providing a complete financial picture for the City. Key data, including present value savings are included.

In Part II of the Report, we provide our findings on the Swap, including current market value (i.e., termination cost), cash flow projections, and other relevant data. In addition, using historical end of day market data as of the trade dates, we determine the amounts (I.e., spreads) charged by the counterparty on both the original execution date and the restructuring date as more fully described herein. Finally, we identify the City's options for terminating the Swap, and the expected cash flow and present value impact of each option, and some potential strategies to negotiate more favorable terms with the counterparty.

Part III contains the supporting schedules and calculations prepared by BLX in connection with this Report.

We look forward to the opportunity to discuss the enclosed with you and your staff.

Sincerely,

Craig Underwood
President

Eric H Chu
Managing Director

PART I: REFUNDING OVERVIEW AND ANALYSIS

BACKGROUND

The Swap is related to one in a series of refunding bond issues related to the $221,540,000 Redevelopment Agency of the City of Oakland, California 1985 Series A Bonds (the "1985A Bonds"). The primary purpose of the 1985A Bonds was to purchase life insurance annuity contracts, the receipts of which were to be applied toward pension obligations. The 1985A Bonds were fixed rate bonds.

On January 11, 1989, the City advance refunded the 1985A Bonds through the issuance of the $209,835,000 City of Oakland, California Special Refunding Revenue Bonds (Pension Financing) 1988 Series A (the "1988A Bonds"). The 1988A Bonds were fixed rate bonds.

On January 9, 1997, the City executed the Swap as a hedge against changes in short terms rates in connection with the then anticipated $187,500,000 Oakland Joint Powers Financing Authority 1998 Series A-1 and A-2 Lease Revenue Bonds (the "1998A Bonds"), which were issued as variable rate demand obligations on July 16, 1998. Under the Swap, the City received floating amounts based on the SIFMA Index and paid fixed amounts based on a rate of 5.6775%. In addition, one-time upfront payments totaling $617,174.18 (for structuring and insurance) were made by GS on behalf of the City.

On April 25, 2000, we believe the Swap was assigned from GS Financial Products, U.S., L.P. to Goldman Sachs Mitsui Marine Derivative Products, L.P.

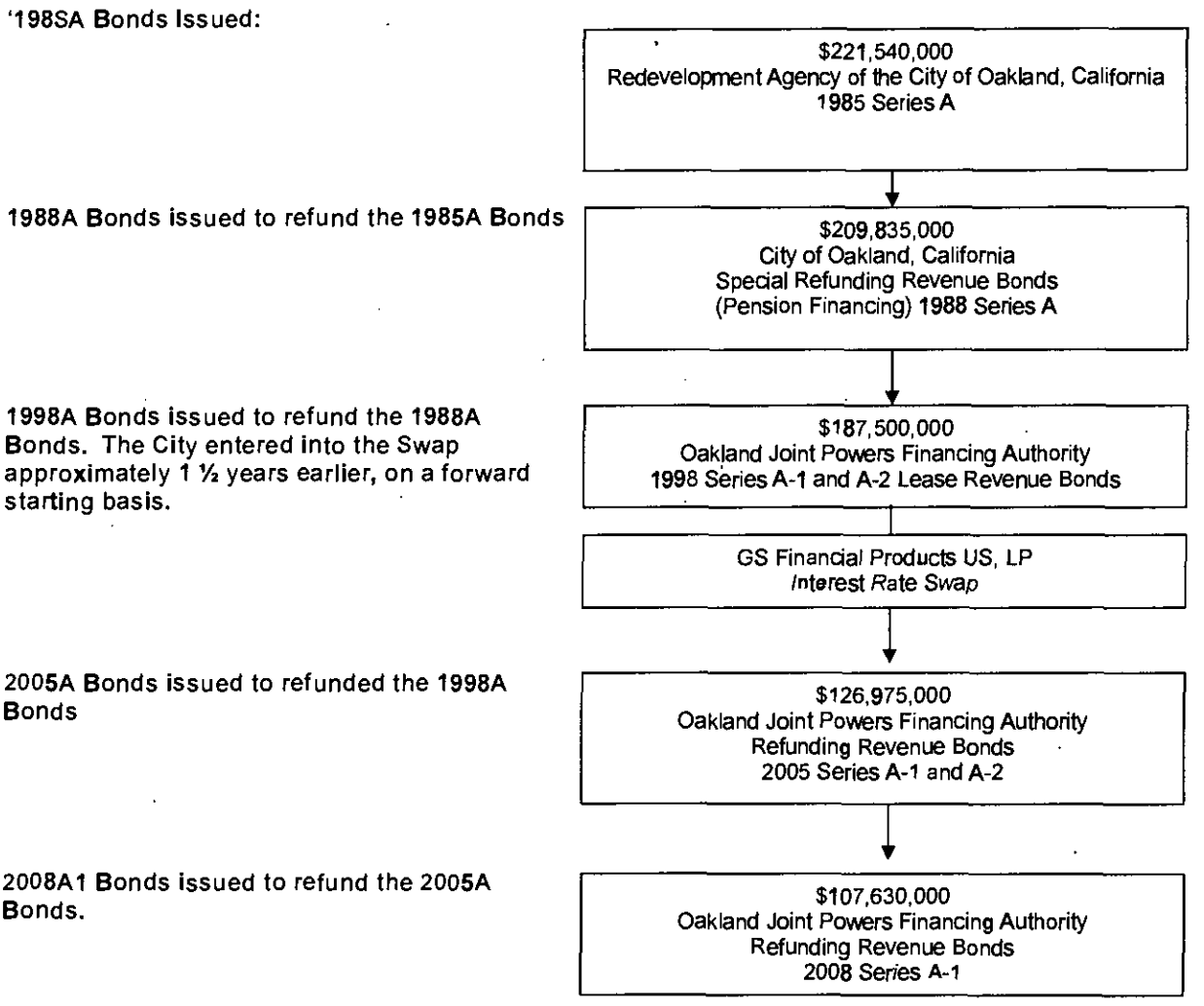
On March 21, 2003, the City restructured the Swap by changing the formula for the floating amounts from the SIFMA Index to 65% of One-Month LIBOR and in consideration for such change, received a one-time upfront payment of $6,062,500 (of which $87,500 was paid to the swap advisor). The Swap would continue to act as a hedge on the 1998A Bonds.

On June 21, 2005, the City refunded the 1998A Bonds with the $126,975,000 Oakland Joint Powers Financing Authority Refunding Revenue Bonds 2005 Series A-1 and A-2 Auction Rate Securities (the "2005A Bonds"). Contemporaneously with the Series 2005A Bonds, the City also issued its 2005 Series B Auction Rate Bonds. The Swap hedged the floating rate interest of the 2005A Bonds.

On April 16, 2008, the City refunded the 2005A Bonds with the $107,630,000 Oakland Joint Powers Financing Authority Refunding Revenue Bonds 2008 Series A-1 (the "2008A1 Bonds"). The 2005A Bonds were redeemed early due to the collapse of auction rate market and to achieve interest rate savings. Contemporaneously with the Series 2008A1 Bonds, the City also issued its 2008 Series A-2 bonds, which along with the 2008A1 Bonds were fixed rate bonds. As of such date, the Swap was no longer serving as a hedge since the related debt was fixed rate.

Figure 1 below summarizes the financing timeline.

Figure 1. 1985A Bonds and Refinancings (1988A, 1998A, 2005A, 2008A1)



Savings Analysis and Conclusion

There can be many reasons why a city or other governmental entity chooses to refinance (or 'refund' in public finance terms), bonds, including to achieve economic savings, change the source of payment and/or security of the bonds, extend or shorten the maturity date, restructure the shape of the debt service cash flows, etc. Economic savings are measured simply by comparing the original annual debt service requirements of the bonds with the debt service requirements of the refunding bonds. In each annual period, on a net basis, there are either positive savings (i.e. lower debt service) or negative savings (i.e. higher debt service). In order to appropriately consider the time value of money, the annual savings amounts are then present valued to the date of measure. The sum of the present valued amounts is known as the 'net present value savings' or 'NPV Savings'. A positive NPV Savings amount would indicate positive savings for the city/governmental entity.

As shown on Schedule A hereof, we prepared comprehensive debt service schedules for each of the bond issues shown above. These schedules take into account actual and projected bond debt service, debt service reserve fund cash flows, issuance costs, carrying costs, net swap payments, and monies received by the City as part of certain of the financings. The purpose of this analysis is to determine if the City has realized a positive NPV Savings from the bond refinancings, including the impact of the Swap. Our analysis indicates that, taken together, the various re-financings of the 1985A Bonds will result in the City realizing approximately $37.5 million in NPV Savings. In other words, had the City simply left the 1985A Bonds outstanding, its overall financing cost would have been $37.5 million greater, expressed in today's dollars.

PART II: INTEREST RATE SWAP ANALYSIS

CURRENT SWAP VALUE

As of March 27, 2012, the outstanding Restructured Swap had a market value of $15.1 million as indicated below. This is approximately the amount that would be required to be paid by the City to terminate the swap if computed as an Optional Termination, as that term is used in the relevant documents

Swap Value as of March 27, 2012	
Swap Principal Value	($14,532,184.14)
Accrued Interest	($602,283.44)
Swap Market Value	($15,134,467.58)

ECONOMICS OF TERMINATION VS. REFINANCING

As mentioned, in order to terminate the Swap, the City will be required to make a cash payment. While the City may be able to finance the payment (to avoid spending cash on-hand), the costs of financing would likely be greater than if the City continued the Swap until its scheduled maturity date.

Consider that a swap's value is defined as (1) the present value of the future net cash flows (i.e. the amount received less the amount paid on each exchange date) under the swap. The future fixed cash flows are known and computed directly from the fixed rate and the notional schedule. The future floating cash flows are determined by computing the "forward rates" from the current LIBOR swap curve using a method known as "bootstrapping". In the case of the Swap, given the current low interest rate environment, the City can be expected to be a net payer on all future exchange dates. All future net cash flows are individually present valued to today using the same LIBOR swap curve to arrive at the market value, or termination cost, of a swap. Hence, so long as the City continues to make the future net payments in lieu of terminating the Swap, the City in effect will be financing a loan (i.e., the termination amount) at rates expressed by the LIBOR swap curve. Given current LIBOR swap rates, the implied loan rate is approximately 1.45%.

Therefore if the City were to actually finance the termination amount (e.g., borrow money through a bond issue or private placement), the borrowing rate would need to be less than 1.45% to be economically advantageous over keeping the Swap in place.

Termination Amount Financing Costs	
Continued Swap Payments	(Implied) 1.45%
Finance Termination Amount with New Source	Unlikely to be less than 1.45%

However, as the City is aware, the floating amounts determined from the forward rates are based on current market expectations (implied by the LIBOR swap curve), but each actual floating amount will be determined by the then one-month LIBOR rate. Therefore, the amount financed, or equivalently the financing rate of continuing the Swap may be higher or lower than 1.45% depending on whether actual one-month LIBOR rates are higher or lower than the forward rates determined today.

Deviation from Implied Financing Rate of 1.45%	
Current One-Month LIBOR (3/27/2012)	.24%
Forward Rates	.24% (current) - 3.63% (2021)
Weighted Average Forward	1.56%

Hence, if the Swap remains in place and the one-month LIBOR rate is, on average, lower than the forward rates computed today, the effective financing rate will be higher than 1.45%. More specifically, one-month LIBOR would need to be less than 1.56%, on a notional amount weighted average basis. However, assuming one-month LIBOR cannot fall beiow 0%, the City's downside would be limited. For example, if one-month was 0% for entire remaining term of the Swap, the financing cost would increase to approximately 2.40%.

The uncertainty of leaving the swap in place as described above can be eliminated by entering into a new, off-setting mirror swap. Under the mirror swap, the City would pay a floating rate equal to the floating rate under the Swap and receive a fixed rate that less than the fixed rate paid on the Swap. The differential in fixed rates between the mirror swap and the Swap is itself a fixed rate creating a fixed cash flow payment stream. Economically, the mirror swap would be expected to be the lowest cost among the fixed cash flow options, e.g., bond issuance, private placement note, etc.

Alternatively, financing the termination amount through further fixed debt will be more expensive than allowing the Swap to remain in place or entering into a mirror swap unless a discounted termination amount can be negotiated with GS.

Swap Refinancing Breakeven Analysis

In order to evaluate the economics of a potential refinancing structure, the City should consider whether the refinancing will be more or less expensive, on a present value basis, as compared to leaving the Swap in place. We first prepared various hypothetical loan schedules (3 year and 5 year terms) with level payments that are economically equivalent to the Swap (i.e., the present value of the loan payments equals the present value of the future Swap payments, or termination amount). Present value discount factors were derived from the LIBOR swap curve. For each level payment loan schedule, we determined loan sizes at various hypothetical loan rates (e.g., 3%, 3.5%, etc.). For example, we computed that a 3 year loan in the amount of $12,556,646 at a rate of 3% is economically equivalent to the Swap. Therefore, the termination amount on the Swap must be no greater than $12,556,646 to breakeven, and to the extent the termination amount is below such amount, the City would be realizing a present value benefit. The results are summarized below.

Discount Required to Breakeven with Swap		
Loan Rate	3 Yr Loan	5 Yr Loan
3.0%	$509,044	$1,005,606
3.5%	615,254	1,161,843
4.0%	720,092	1,315,105

Original Swap and Restructured Swap Pricing Levels

As part of our review, we have independently modeled the Swap and using historical market data as of the trade dates (both the original execution date and the restructuring date), have determined the 'mid-market' rate for the Swap. The mid-market rate as of a date is the hypothetical fixed rate such that the

value of the swap on such date is S0. In reality, in order to transact a swap, the value of the swap will necessarily be a value other than $0 to reflect transactional costs, and the fixed rate will be higher (or lower if entering into a receive fixed rate swap) than the mid-market rate. In industry pariance, this is often referred to as the 'spread' and is typically either negotiated upfront or determined via competitive bidding. The purpose for determining the mid-market rate of the Swap as of the trade dates is to confirm that the spreads charged by GS were reasonable, given the facts and circumstances on those dates. Factors would have included the 'bid-ask' quotes, the credit of the City, the potential cost to GS to collateralize its offsetting swap[1], and revenue for the swap desk.

Based on our independent valuation of the Swap as of January 9, 1997, the spread charged by GS was 0.246%, which had a present value of $2,819,790.

Original Swap Pricing Details	
Spread (%)	0.246%
1bp (.01%)	$114,545.86
Spread ($)	$2,819,790

Based on our independent valuation of the Swap restructuring as of March 21, 2003, the spread charged by GS was approximately 0.146%, which had a present value of $1,446,000. While further study of the facts and circumstances is required, our initial view is the spread by charged GS was reasonable and within customary ranges.

Restructuring Details as of 3/21/03 Restructuring Date		
Original SWap Value		($20,179,504.27)
Cash Payment to the City		$6,062,500.00
GS Restructuring Spread	14.58 bps x $99,162.64	$1,445,825.03
Restructured SWap Value		($27,687,829.30)

Based on the calculations above, the total spread charged by GS was .392%.

Negotiating Improved Termination Cost

Since the value of the Swap is purely driven by market data under a contractual obligation, there are limited avenues to pursue negotiating a lower termination amount. In some cases, an end user such as the City can successfully obtain a discount to the market value by persuading the counterparty to concede an adjustment for the end-user's credit quality (or more specifically, since the Swap is out of the money and represents a liability to the City, the likelihood of the City defaulting on what is essentially an unsecured obligation). This is often called the Credit Valuation Adjustment, or CVA. The premise is that the counterparty has already reflected the CVA loss on their books and therefore will not realize any incremental loss as a result of cash settling the termination at the discounted value. In the case of the City, this may be difficult given the City's relatively strong ratings in the current environment.
Outside of the CVA, any discount on the termination amount would be expected to create a loss for GS. Since the City has no apparent contractual leverage, any discount offered would be the result of intangible and/or qualitative arguments not specifically related to the Swap. The City may wish to

[1] Counterparties typically always enter offsetting swaps in order to have 'matched books'. In this way, they minimize interest rate risk and earn the spread amount. Typically, their offsetting swaps have 100% bi-lateral collateral requirements. Since there is an incremental cost to posting collateral, the expected value of this cost is passed through to the end user, in this case the City.

consider any leverage that can be derived from its relationship with GS in the context of future business or more generally, the cost to GS of continued negative publicity.

MARKET TIMING AND TERMINATION COST

As the City is aware, interest rate swaps change in value over time as interest rates (i.e., the LIBOR swap curve) change for the same reasons that the value of a bond changes in response to changes in interest rates. While interest rates (i.e., the LIBOR swap curve) can change by a substantive amount (e.g., 0.10% shifts are not that uncommon, which translates to approximately $240,000) on any given day, there is nothing to suggest that the value will change, positive or negative, by a meaningful amount in the near to medium term. In that regard, any ability for the City to achieve a better termination cost would be primarily driven by negotiating improved terms with GS, as opposed to market timing.

Schedule A

Total Annual Debt Service / Savings Comparison

Period Ending	1986A D/S	Refunding Bonds Series	Refunding Bonds Debt Service	1998A Swap	DSRF	Total Adj Refunding DS	Gross Savings	FV'd Cumulative Savings	PV of Future Savings
06/01/85									
08/01/86	22,872,792	1985A	25,107,888		(2,235,096)	22,372,792	-	-	
08/01/87	23,054,581	1985A	24,706,363		(1,651,781)	23,054,591	-	-	
08/01/88	22,352,044	1985A	24,286,988		(1,934,944)	22,352,044	-	-	
08/01/89	21,609,613	1988A	10,288,575		-	10,298,575	11,321,239	11,321,238	
08/01/90	21,321,206	1988A	15,432,863		-	15,432,963	5,888,344	13,136,508	
08/01/91	20,883,700	1988A	15,432,863		-	15,432,963	5,450,838	25,036,266	
06/01/92	20,741,919	1988A	15,432,863		-	15,432,863	5,309,056	31,990,459	
06/01/93	20,900,394	1988A	21,947,863		-	21,947,863	(1,047,469)	32,162,626	
08/01/94	20,374,705	1988A	21,409,388		-	21,409,388	(1,034,683)	32,334,042	
08/01/95	19,313,706	1988A	20,831,988		-	20,631,988	(1,513,261)	32,654,759	
08/01/96	21,119,413	1988A	22,683,573		-	22,683,573	(1,564,160)	33,009,066	
06/01/97	20,427,956	1988A	22,074,553		-	22,074,553	(1,646,596)	33,404,906	
08/01/98	19,870,397	–	6,502,044		-	6,502,044	13,368,353	48,746,236	
08/01/99	19,239,994	1998A	5,454,654	4,250,734	(1,031,463)	8,673,925	10,566,069	62,151,393	
08/01/00	18,566,172	1996A	13,299,558	3,157,390	(1,043,334)	15,413,614	3,152,558	68,965,445	
08/01/01	17,587,362	1998A	15,789,682	3,386,799	(1,255,410)	17,921,071	(333,709)	73,520,524	
08/01/02	17,724,561	1998A	12,460,421	6,392,293	(672,645)	18,180,069	(455,509)	75,857,420	
08/01/03	17,480,407	1998A	12,179,050	622,157	(349,549)	12,451,659	5,028,749	82,383,404	
08/01/04	16,905,767	1998A	11,267,897	6,788,102	(254,801)	17,801,197	(895,431)	82,673,265	
08/01/05	15,937,938	–	3,126,267	5,190,760	(431,014)	7,886,013	8,051,925	92,737,250	
08/01/06	14,765,576	2005A	12,624,648	3,217,506	-	15,842,154	(1,076,578)	95,574,195	
08/01/07	13,722,219	2005A	13,423,056	2,445,721	-	15,869,777	(2,146,558)	98,716,260	
09/01/08	13,092,875	–	14,474,969	3,210,909	(115,924)	17,569,955	(4,477,080)	99,361,573	
08/01/09	12,886,197	2008A1	13,621,400	4,524,972	(174,366)	17,972,006	(5,095,909)	97,477,696	
08/01/10	12,629,354	2008A1	14,365,400	4,673,584	(160,736)	18,878,249	(6,243,994)	92,669,530	
08/01/11	12,066,940	2008A1	14,479,650	4,227,675	(111,274)	18,596,051	(6,527,111)	87,122,312	
08/01/12	11,431,024	2008A1	14,571,300	3,775,076	(81,515)	18,264,860	(6,793,936)		(6,769,789)
08/01/13	10,790,088	2008A1	14,697,750	3,322,854	(107,630)	17,912,974	(7,122,987)		(7,033,164)
08/01/14	10,174,700	2008A1	14,820,750	2,847,274	(107,336)	17,560,688	(7,385,988)		(7,220,743)
08/01/15	9,592,925	2008A1	14,935,550	2,334,541	(107,336)	17,162,755	(7,569,830)		(7,327,200)
08/01/16	2,076,525	2008A1	15,073,350	1,830,011	(107,336)	16,796,025	(14,719,500)		(14,106,257)
03/01/17		2008A1	15,095,950	1,403,435	(10,870,630)	5,628,755	(5,628,755)		(5,340,941)
08/01/18			-	1,023,953	-	1,023,958	(1,023,958)		(961,963)
08/01/19			-	725,509	-	725,509	(725,509)		(674,935)
08/01/20			-	466,037	-	466,037	(466,037)		(429,182)
08/01/21			-	227,785	-	227,785	(227,785)		(207,695)
	521,565,247		491,899,108	70,045,081	(22,804,119)	639,140,070	(17,574,823)		(50,971,669)

Current FV'd Cumulative Savings As of 04/23/12 87,603,840

Current FV'd Cumulative Savings + PV of Future Savings 37,532,171