INTEREST RATE SWAPS REPORT

For the Year Ended June 30, 2018

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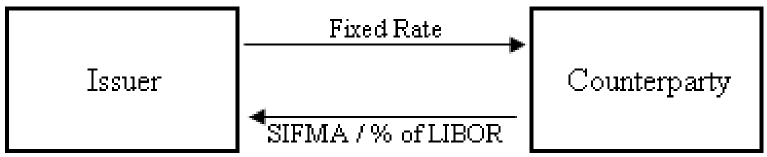
General Information – Interest Rate Swaps

An interest rate swap is a contract between two parties to exchange certain cash flows for a defined period of time related to an underlying asset or liability without actually exchanging the underlying principal amount. The computational base on which the swapped payments are calculated is referred to as the "notional amount." Interest rate swaps are used to convert one interest rate basis to a different basis (e.g., from floating to fixed or fixed to floating) and enable bond issuers to accomplish financial goals such as hedging variable rate exposure, improving asset/liability matches or reducing borrowing costs.

In the municipal marketplace, the two parties to a swap are called "counterparties" and consist of an agency, such as the City of Roseville, and a financial institution. The counterparties exchange interest payments on specific dates according to a predetermined formula. Only the net payment amount is exchanged. The floating rate resets are generally based on the LIBOR[1] or SIFMA[2] index.



Swap Risks

1. Basis Risk: (1) the degree to which the difference between two prices fluctuates; (2) the residual risk that remains after a hedge has been placed; (3) the risk from receiving one floating rate, such as SIFMA and paying another, such as the interest rate on your own obligations.

2. Counterparty Risk: The risk that the party on the other side of a swap transaction does not fulfill its obligations under the swap.

3. Rollover Risk: Rollover risk occurs when the term of the swap does not match the term of the asset or liability that the swap is intended to hedge.

4. Tax Risk: Tax risk arises since SIFMA is a tax-exempt index whereas LIBOR is a taxable index, implying that the ratio of SIFMA to LIBOR should approximately be 1-Marginal tax rate. As tax rates increase, SIFMA as a percent of LIBOR should decrease, whereas if tax rates decrease, the reverse would theoretically hold true. Historically the ratio has averaged at approximately 67% of 1-Month LIBOR. Simply stated, basis/tax law risk is the risk of a change in the SIFMA/LIBOR ratio.

5. Termination Risk: During the term of the swap either party may decide to terminate the swap or some contractual provisions may require the swap to be terminated. Unless the swap is at the market, upon termination one of the parties will need to make a termination payment depending upon market interest rates relative to the swap fixed rate. If market rates are higher than the swap fixed rate the party receiving the fixed rate will need to make the termination payment and vice versa.

[1] London Interbank Offered Rate (LIBOR) is a daily reference rate based on the interest rates at which banks offer to lend unsecured funds to other banks. LIBOR is currently scheduled to be phased out of use by the end of 2021. An interest rate swap that relies on LIBOR as a basis for rate calculation will need to seek a replacement rate index in accordance with the swap agreement.

[2] The Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Index is a 7-day high-grade market index comprised of tax-exempt VRDOs.

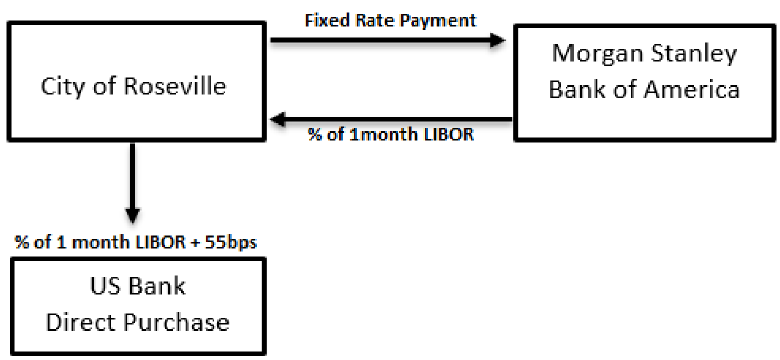
City of Roseville Interest Rate Swaps

The City's exposure to Electric System and South Placer Wastewater Authority (SPWA) variable rate debt has been hedged through interest rate swaps. An annual report on the SPWA interest rate swaps is presented each year at the June SPWA board meeting. Reports can be found on the South Placer Wastewater Authority page of the City of Roseville's website at https://roseville.ca.us/cms/One.aspx?portalId=7964922&pageId=9755408. Following is information on the City's Electric System interest rate swaps.

Structure of the City's Interest Rate Swaps Related to the 2012 Electric System Revenue Refunding Certificates of Participation

The City has interest rate swaps with Morgan Stanley and Bank of America (counterparties) that are structured as *floating-to-fixed rate* swaps. These swaps are based on the notional amount of the 2008A Electric System Revenue Refunding COPs (2008A COPs). The City makes fixed interest payments to the counterparties in exchange for floating rate interest payments (SIFMA or percent of LIBOR) made by the counterparties. A floating-to-fixed rate swap enables the City to structure a synthetic fixed rate liability.

The 2008A COPs were refunded by the 2012 Electric System Revenue Refunding Certificates of Participation (2012 COPs) and the 2012 COPs were purchased by U.S. Bank through a direct purchase agreement.



Background

Due to the liquidity crunch in early 2008, the auction-rate market began to fail. The City took quick action to resolve the high reset rates and downgrade of the bond insurer (FGIC) by terminating the 2005 Electric swap and refunding the outstanding par. On May 13, 2008 the City issued the 2008 Electric System Revenue Certificates of Participation Series A (2008A COPs) and Series B (2008B COPs) in the original principal amounts of $90,000,000 and $64,500,000 respectively, to defease the 2005 Electric COPs Series B and C.

The 2008A COPs were issued as variable rate securities (VRDOs) with interest calculated weekly. The rate fluctuated according to the market conditions but was capped at 12%. The City entered into a 27-year interest rate swap agreement with Morgan Stanley (60%) and Bank of America (40%) for the entire amount of the 2008A COPs. The combination of the variable rate 2008A COPs and a floating-to-fixed rate swap creates a synthetic fixed rate debt for the City.

In November 2012 the 2008A COPs were refunded by the 2012 Electric System Revenue Refunding Certificates of Participation (2012 COPs) and the 2012 COPs were purchased by U.S. Bank through a direct purchase agreement. The direct purchase agreement acts similar to a loan and was analyzed as the most cost effective option regarding the refunding of the 2008A COPs. The direct purchase option removed the liquidity bank trading risk, remarketing risk, and any LIBOR manipulation. Risks associated with the viability of a Letter of Credit provider are essentially removed. U.S. Bank offered a 3.5 year term based on 70.5% of one-month LIBOR plus 62.5 basis points (bps).

In May 2016 U.S. Bank renewed the terms of the direct purchase agreement with a 3.5 year term based on 70.5% of one-month LIBOR plus 55 bps.

Interest Rate Swaps Related to the 2012 Electric System Revenue Refunding Certificates of Participation

Annual Reporting Requirements

Description	
Original notional amount - Total	$90,000,000
Original notional amount – Morgan Stanley	$54,000,000
Original notional amount – Bank of America	$36,000,000
Type of swaps	Variable-to-fixed rate swap
Variable rate debt type	Variable rate demand obligation (VRDOs)

Payment and Swap Terms	
Interest Rate Swaps with Morgan Stanley and Bank of America	
Fixed swap rate – Morgan Stanley	3.321%
Fixed swap rate – Bank of America	3.364%
Floating swap rate – Morgan Stanley and Bank of America	70.5% of one-month LIBOR[1]
Pricing frequency of swap rate	Weekly
Payment frequency of swap agreement	Monthly
Average life of Morgan Stanley and Bank of America swaps	9.58 years
Effective date of Morgan Stanley and Bank of America swaps	May 13, 2008
Maturity of Morgan Stanley and Bank of America swaps	February 1, 2035
U.S. Bank Direct Purchase of 2012 COPs	
Interest rate	70.5% of one-month LIBOR + 55 basis points
Payment frequency	Monthly
Term of U.S. Bank direct purchase agreement	3.5 years
Maturity of U.S. Bank direct purchase agreement	November 1, 2019

Details for the Year Ended June 30, 2018 (FY18)	
Notional amount at June 30, 2018 - Total	$90,000,000
Notional amount at June 30, 2018 – Morgan Stanley	$54,000,000
Notional amount at June 30, 2018 – Bank of America	$36,000,000
Notional amount retired FY18	$0
Average floating rate received from counterparties	1.097%
Average interest rate paid to U.S. Bank for direct purchase	1.642%
Synthetic fixed rate for FY18	3.873%

Swap Counterparties Information	
Morgan Stanley credit rating[1]	BBB+
Bank of America credit rating[1]	A-
Fair value of swap at June 30, 2018 – Morgan Stanley	($6,538,828)
Fair value of swap at June 30, 2018 – Bank of America	($4,502,258)
Material changes to report for FY18	None
Defaults (City or counterparty) to report for FY18	None

[1] Credit rating by Standard & Poor's Agency

Interest Rate Swaps Related to the 2012 Electric System Revenue Refunding Certificates of Participation

Amortization Schedule of Interest Rate Swaps Notional Amounts

From (and including)	To (but excluding)	Morgan Stanley Notional Amounts	Bank of America Notional Amounts	Total Notional Amounts
2/1/2018	2/1/2019	54,000,000	36,000,000	90,000,000
2/1/2019	2/1/2020	54,000,000	36,000,000	90,000,000
2/1/2020	2/1/2021	54,000,000	36,000,000	90,000,000
2/1/2021	2/1/2022	54,000,000	36,000,000	90,000,000
2/1/2022	2/1/2023	54,000,000	36,000,000	90,000,000
2/1/2023	2/1/2024	51,075,000	34,050,000	85,125,000
2/1/2024	2/1/2025	47,655,000	31,770,000	79,425,000
2/1/2025	2/1/2026	44,100,000	29,400,000	73,500,000
2/1/2026	2/1/2027	40,410,000	26,940,000	67,350,000
2/1/2027	2/1/2028	36,570,000	24,380,000	60,950,000
2/1/2028	2/1/2029	32,595,000	21,730,000	54,325,000
2/1/2029	2/1/2030	28,455,000	18,970,000	47,425,000
2/1/2030	2/1/2031	24,150,000	16,100,000	40,250,000
2/1/2031	2/1/2032	19,680,000	13,120,000	32,800,000
2/1/2032	2/1/2033	15,045,000	10,030,000	25,075,000
2/1/2033	2/1/2034	10,215,000	6,810,000	17,025,000
2/1/2034	2/1/2035	5,205,000	3,470,000	8,675,000

Summary of Payments

2012 Electric Swaps and related U.S. Bank Direct Purchase Agreement
$90,000,000 Swap: 60% Morgan Stanley - 40% Bank of America

		MORGAN STANLEY			BANK OF AMERICA			U.S. BANK	
		$54,000,000 Notional Amount			$36,000,000 Notional Amount			$90,000,000 Principal Amount	
Month	Due	3.321% Fixed Rate Amount	70.5% of 1-Month LIBOR Floating Rate Amount	Net Swap Payment	3.364% Fixed Rate Amount	70.5% of 1-Month LIBOR Floating Rate Amount	Net Swap Payment	Direct Purchase Agreement 70.5% of 1-Month LIBOR + 55 bps	TOTAL PAYMENTS
Sep-17	8/1/2017	$ 139,482	$ (37,625)	$ 101,857	$ 94,192	$ (25,102)	$ 69,090	$ 109,663	$ 280,610
Aug-17	9/1/2017	149,445	(40,369)	109,076	100,920	(26,913)	74,007	109,895	292,978
Sep-17	10/1/2017	154,426	(40,491)	113,935	104,284	(26,994)	77,290	106,650	297,875
Oct-17	11/1/2017	144,463	(39,227)	105,236	97,556	(26,152)	71,404	110,127	286,767
Nov-17	12/1/2017	149,445	(40,200)	109,245	100,920	(26,800)	74,120	106,950	290,315
Dec-17	1/1/2018	154,426	(49,491)	104,935	104,284	(32,950)	71,334	117,025	293,294
Jan-18	2/1/2018	144,463	(49,477)	94,986	97,556	(32,985)	64,571	128,340	287,897
Feb-18	3/1/2018	149,445	(47,065)	102,380	100,920	(31,376)	69,544	116,270	288,194
Mar-18	4/1/2018	154,427	(59,910)	94,517	104,284	(39,940)	64,344	133,610	292,471
Apr-18	5/1/2018	144,464	(58,034)	86,430	97,556	(38,689)	58,867	141,000	286,297
May-18	6/1/2018	149,445	(63,504)	85,941	100,920	(42,336)	58,584	146,863	291,388
Jun-18	7/1/2018	154,426	(67,181)	87,245	104,284	(44,788)	59,496	150,970	297,711
	Totals	**$ 1,788,357**	**$ (592,574)**	**$ 1,195,783**	**$ 1,207,676**	**$ (395,025)**	**$ 812,651**	**$ 1,477,363**	**$ 3,485,797**

Total Floating Rate Amounts[1]	**$ (987,599)**
Total Variable Rate Amounts[2]	**1,477,363**
Net Variable Rate Amounts	**$ 489,764**
Fixed Rate Amounts[3]	**$ 2,996,033**
Total Net Variable Rate + Fixed Rate Amounts	**$ 3,485,797**

[1]Amount due from swap counterparties to the City

[2]Amount due from the City to U.S. Bank as bondholder of the 2012 Electric System Revenue Refunding COPs

[3]Amounts due from the City to the swap counterparties

Interest Rate Swaps Related to the 2012 Electric System Revenue Refunding Certificates of Participation

Fiscal Impact

The following chart details the 2008A COPs and 2012 Direct Purchase Bonds savings when compared to a conventional fixed rate issue. For the year ended June 30, 2018 the 2008A/2012 bonds had savings of $1,031,538 and have achieved total savings of over $10.9 million compared to a conventional fixed rate issue.

June 30th	Planned 2008 Debt Service	Conventional Fixed Debt Service	Planned Savings		Actual 2008 Debt Service	Actual Savings
2006 [1]	$ 3,217,723	$ 4,098,280	$ 880,557		$ 3,082,768	$ 1,015,512
2007	3,480,935	4,457,344	976,409		3,033,424	1,423,920
2008	3,439,643	4,321,714	882,072		4,206,828	114,887
2009	3,557,232	4,517,335	960,103		4,604,131	(86,796)
2010	3,628,393	4,517,335	888,942		3,774,816	742,519
2011	3,628,393	4,517,335	888,942		3,782,223	735,112
2012	3,629,892	4,517,335	887,443		3,924,644	592,691
2013	3,628,374	4,517,335	888,961		3,277,866	1,239,469
2014	3,628,393	4,517,335	888,942		3,574,621	942,714
2015	3,628,393	4,517,335	977,044		3,422,447	1,094,888
2016	3,629,892	4,517,335	972,599		3,425,498	1,091,837
2017	3,628,374	4,517,335	977,679		3,483,903	1,033,432
2018	3,628,393	4,517,335	976,409		3,485,797	1,031,538
	$ 46,354,030	**$ 58,050,688**	**$ 12,046,100**		**$ 47,078,965**	**$ 10,971,723**

Actual savings to date	**$ 10,971,723**
Actual versus planned savings variance to date	**$ (724,935)**
Actual versus planned savings - percent of savings	**91.08%**

Notes

1. Savings carried over from 2005 bond issue
2. Price date of 5/13/2008
3. Fixed swap rate of 3.321% ($54M) & 3.364% ($36M) (70.5% of 1-month LIBOR)
4. Assumption that Roseville Electric VRDOs trade at 70.5% of LIBOR (no trading differential)
5. Conventional fixed rate estimated as of 5/13/2008 (arbitrage yield of 4.80%)