

New Issue: [Massachusetts Water Resources Authority](#)

MOODY'S ASSIGNS Aa3/VMIG 1 RATINGS TO MWRA'S (MA) \$1.16 BILLION MULTI-MODAL SUBORDINATED GENERAL REVENUE REFUNDING BONDS, 2008 SERIES A, B, C, D, E, AND F

SENIOR LIEN DEBT AFFIRMED AT Aa2, TOTAL OF \$4.3 BILLION IN RATED DEBT OUTSTANDING,

Water/Sewer
 MA

Moody's Rating

ISSUE	RATING
Multi-Modal Subordinated General Revenue Refunding Bonds, 2008 Series A	Aa3/VMIG 1
Sale Amount	\$338,005,000
Expected Sale Date	05/28/08
Rating Description	Revenue
Multi-Modal Subordinated General Revenue Refunding Bonds, 2008 Series B	Aa3/VMIG 1
Sale Amount	\$124,595,000
Expected Sale Date	05/29/08
Rating Description	Revenue
Multi-Modal Subordinated General Revenue Refunding Bonds, 2008 Series C	Aa3/VMIG 1
Sale Amount	\$199,400,000
Expected Sale Date	06/01/08
Rating Description	Revenue
Multi-Modal Subordinated General Revenue Refunding Bonds, 2008 Series D	Aa3/VMIG 1
Sale Amount	\$83,615,000
Expected Sale Date	06/01/08
Rating Description	Revenue
Multi-Modal Subordinated General Revenue Refunding Bonds, 2008 Series E	Aa3/VMIG 1
Sale Amount	\$224,770,000
Expected Sale Date	05/29/08
Rating Description	Revenue
Multi-Modal Subordinated General Revenue Refunding Bonds, 2008 Series F	Aa3/VMIG 1
Sale Amount	\$191,705,000
Expected Sale Date	05/29/08
Rating Description	Revenue

Opinion

NEW YORK, Jun 11, 2008 -- Moody's Investors Service has assigned Aa3/VMIG 1 ratings to the Massachusetts Water Resources Authority's (MWRA, the authority) \$1.16 billion Multi-Modal Subordinated General Revenue Refunding Bonds, 2008 Series A, B, C, D, E and F. Concurrently, Moody's has affirmed the Aa2 rating assigned to the authority's \$3.08 billion of outstanding senior lien General Revenue bonds; MWRA's outlook remains stable. The refunding bonds are secured by a subordinated net revenue pledge of the authority and are issued to refund the MWRA's Series 1997 A and B, 1998 D, 1999 A, C, and D, 2000 B and C, 2001 A and B, 2002 E, F and G Subordinated General Revenue Bonds. The 2008 Series A-F bonds will be issued in weekly reset mode and are enhanced by standby purchase agreements with five providers. A portion of the bonds are hedged with previously-established swap agreements with Citigroup, Morgan Stanley, Lehman Brothers and Goldman Sachs (all senior unsecured rated Aa3).

The long-term Aa3 portion of the rating reflects the bonds' subordinate position relative to MWRA's \$3.08 billion in senior lien debt, the solid credit strength of the authority's service area, a well-managed but high debt burden and the authority's well-managed financial position despite anticipated future reserve reductions under its recently amended bond resolution. Also incorporated in the long-term rating are a complex debt structure with a sizable swap portfolio and significant exposure to variable rate debt, satisfactory legal covenants which require rate revenue coverage of 1.1 times on combined senior and subordinated debt service but do not call for a debt service reserve, MWRA's strong historical collection of assessments bolstered by its ability to intercept the majority of the members' quarterly state aid payments, stable membership with lack of alternative sources as well as the essential nature of the services provided. Moody's also notes the authority's ability to react effectively to operational stresses, including recent spikes in variable rate interest costs, which mitigates some of the risks in MWRA's complex debt profile.

The short-term portion of the rating, VMIG 1, is derived from the credit quality of five standby purchase agreement (SBPA) providers: Dexia Credit Local, Bank of America N.A., Bayerische Landesbank, JP Morgan Chase Bank N.A. and Bank of Nova Scotia. Provider ratings and rationale are detailed below.

SIZABLE AND COMPLEX DEBT STRUCTURE; SIGNIFICANT VARIABLE RATE AND SWAP EXPOSURE

MWRA's outstanding debt totals a sizable \$5.7 billion, below its legislatively established debt limit of \$6.1 billion, reflecting completion in the last decade of \$6 billion in water and wastewater treatment facilities. The authority's debt ratio of 73.7% is well above norms for utilities rated by Moody's but not unusual for systems providing wholesale operations. Debt burden is expected to remain elevated for the long term as principal is amortized slowly, at 20% in ten years, reflecting the useful life of the system's recently completed treatment plants. The authority plans to issue roughly \$200 million in debt annually in support of its \$1.2 billion five-year capital improvement program; the majority of projects focus on control of combined sewer overflows and maintenance of existing system assets as well as upgrades to improve water quality and system reliability and redundancy. MWRA plans to issue approximately \$200 million in senior lien fixed-rate bonds and \$100 million in state loans in the fall of 2008 to retire approximately \$77 million of the \$191 million in outstanding commercial paper and provide new money financing for fiscal 2008 and 2009 capital projects.

Prior to this refunding the authority's debt portfolio comprised over \$3 billion in senior lien, fixed-rate bonds, roughly \$1 billion in fixed-rate subordinated loans from the state revolving fund (SRF) Massachusetts Water Pollution Abatement Trust (MWPAT, rated Aaa/stable outlook), \$233 million in variable rate demand bonds (VRDBs) supported by letters of credit issued by Helaba (senior unsecured rated Aaa) and Landesbank Baden-Wuerttemberg (LBBW) Capital Markets (senior unsecured rated Aa1), approximately \$166 million in outstanding commercial paper and \$1.2 billion in subordinated insured variable rate debt. Of the variable rate bonds \$407 million were auction rate securities, which were insured by Ambac (financial strength rating Aaa/watchlist for downgrade) or FGIC (financial strength rating Baa3/under review for further downgrade), and \$791 million in VRDBs, also insured by Ambac or FGIC.

MWRA's post-refunding debt portfolio includes no insured VRDB or auction rate securities; all such outstanding bonds were refunded with the current issues of variable rate demand bonds which are supported by standby purchase agreements (SBPA). All senior lien debt, subordinated SRF loans, unrated VRDBs supported by letters of credit and commercial paper are unaffected by the refunding. Of the \$1.16 billion refunding bonds a sizable \$739 million (64%) are hedged with interest rate swaps while the \$421 million remainder is unhedged. Current borrowing plans indicate future borrowings of fixed-rate senior lien debt and SRF loans. However, management reports that the authority's variable rate and hedged debt structures have produced aggregate savings estimated at \$238 million since 1997 when compared to historical fixed-rate interest costs. Moody's has subjected MWRA's debt portfolio to various stress scenarios reflecting market dislocations resulting in increased interest and swap payment expense as well as accelerated principal repayments, demonstrating that, relative to the authority's resources and operational flexibility, its significant 25% exposure to variable rate debt and derivatives does not significantly impair its underlying credit strength. Furthermore MWRA's current debt profile is structured so that inherent risks are mitigated by the authority's solid cash position and its remaining commercial paper capacity. Also offsetting debt structure risk is management's demonstrated ability to monitor debt portfolio performance and act effectively to generate additional assessment revenue and curtail operating expenditures to maintain the authority's sound financial position and debt service coverage. In addition, the current restructuring has effectively reduced MWRA's exposure to external credit risk associated with rating downgrades of insurers that provided enhancement to approximately \$1.3 billion of variable rate debt.

EXISTING SWAP PORTFOLIO EXTENDED TO CURRENT ISSUES; INSURANCE CANCELED

MWRA entered into four floating-to-fixed swap agreements covering variable rate bonds issued between 1998 and 2002 with a total notional amount of \$815 million. All of the agreements have been amended to cover the current refunding series, and the refunding bonds have been structured to match maturity with the original swap termination dates. The swap agreements provide partial protection to the authority against interest rate fluctuations arising from the variable interest rate borne by the bonds. Obligations of the swap provider and termination payments were originally insured by FGIC for the Citibank, Morgan Stanley and Lehman swaps; however concurrent with this refunding FGIC has agreed to cancel associated insurance agreements and swap documents were amended to remove termination provisions after an insurer downgrade and related insurance language. Swap and termination payments are on parity with subordinated debt service payments. Most recent mark-to-market valuations indicate an aggregate liability to MWRA of

approximately \$95 million. Early termination events are triggered if MWRA's underlying senior lien rating falls below Baa3 and although that risk is remote at this time payments could be funded with capacity in MWRA's commercial paper program, which currently has \$109 million available.

The 2008 Series C bonds are issued to refund Series 1998 D and are hedged by two interest rate swaps, one with the former Salomon SWAPCO, now Citigroup (notional amount \$119 million) and one with Morgan Stanley Derivative Products (notional amount \$80 million). The swap agreement with Citibank provides that Citibank is obligated to pay the authority a variable interest rate equal to the SIFMA Municipal Swap Index rate while the authority is obligated to pay Citibank a fixed interest rate of 3.994%. Morgan Stanley is obligated to pay the authority a variable interest rate equal to SIFMA Municipal Swap Index rate and the authority is obligated to pay Morgan Stanley a fixed rate of 4.03275% (an increase negotiated concurrently with this refunding from the original fixed rate of 3.994%). The Citibank and Morgan Stanley swaps have an expiration date of November 1, 2026.

The 2008 Series A and 2008 Series E bonds are issued to refund the Series 2000 B and Series 2000 C bonds and are hedged by an interest rate swap with Lehman Brothers Financial Products, Inc. (notional amount \$266 million). Lehman is obligated to pay the authority a variable interest rate equal to the SIFMA Municipal Swap Index rate while the authority is obligated to pay Lehman fixed interest rates ranging from 5.13% to 6.94% over the life of the bonds and swap agreement. The Lehman swap has an expiration date of August 1, 2037.

The Series 2008 A, 2008 Series D and Series E bonds are issued to refund Series 2002 E, Series 2002 F and Series 2002 G bonds. Together with Series 2002 D, which is supported by a LBBW letter of credit and is not being refunded, portions of the Series 2008 A, 2008 Series D and Series F bonds are hedged by an interest rate swap with Goldman Sachs Capital Markets, LP (notional amount \$350 million). Goldman is obligated to pay the authority a variable interest rate equal to 67% of one-month LIBOR while MWRA is obligated to pay Goldman a fixed interest rate of 4.127%. The Goldman swap has an expiration date of August 1, 2015.

HEALTHY FINANCIAL POSITION AND SOUND COVERAGE MAINTAINED DESPITE MARKET DISRUPTIONS

MWRA is expected to maintain a healthy financial position, which has been sustained by frequent and sizable rate increases necessitated by significant debt obligations incurred in the last decade. The authority's primary revenue source is rates and charges assessed to 61 member communities (weighted average G.O. rating Aa3); assessments grew by an average annual rate of 4.4% between fiscal 2004 and fiscal 2008, and account for a projected 92% of fiscal 2008 revenues. Senior and total debt service coverage have comfortably exceeded covenants of 1.2 and 1.1 times, respectively. Senior lien coverage was ample at 2.1 times in fiscal 2007 while total debt service coverage was a narrower 1.2 times. Prior to this refunding, MWRA experienced several months of elevated 2008 variable rate interest costs when most auctions failed for its formerly outstanding \$407 million auction rate securities and remarketing offerings were unsuccessful for its formerly outstanding \$791 million insured VRDBs. Year-end totals for variable rate interest are projected to exceed fiscal 2008 budget by approximately \$4.7 million (6% of budgeted variable rate interest costs), however management implemented sufficient expenditure controls and senior lien and total debt service coverage are projected for fiscal 2008 at satisfactory levels of 2.25 times and 1.16 times, respectively. Although MWRA's coverage is lower than that of comparably-rated utilities the authority's credit profile is strengthened by historical 100% collection rates and the availability of the commonwealth's local aid intercept program for assessments. Furthermore Moody's notes that since 1989 management has transferred nearly \$250 million to various reserve accounts and used roughly \$96 million to defease outstanding debt as part of the authority's long-term strategy to smooth the impact of rate increases.

The authority maintains several reserve accounts totaling roughly \$430 million in fiscal 2007, including an unrestricted operating reserve of \$36.1 million. MWRA's cash position is satisfactory representing roughly 18% of O&M or 66 days of operations. Reserves are projected to total approximately \$408 million at fiscal 2008 year end, reflecting the release of \$36 million in debt service reserves in conjunction with this sale (formerly associated with bonds being refunded that were originally issued as senior lien; MWRA's subordinated bonds do not require a debt service reserve). Moody's expects that MWRA will maintain its solid financial position given its conservative budgeting, planned regular rate increases and the anticipated maintenance of satisfactory reserve levels. Additional credit factors are expected reductions in liquidity as the authority utilizes its rate stabilization and bond redemption funds in the medium term to smooth future rate increases and reduce outstanding debt associated with the highly-leveraged system.

For more detailed information on MWRA's long-term credit profile, including system description, please refer to our new issue report dated January 16, 2007.

SHORT-TERM RATING RATIONALE

The short-term rating on the Series 2008 bonds is derived from (i) the credit quality of the providers of the standby bond purchase agreements (SBPAs) which are Dexia Credit Local for Series 2008 A; Bank of America, N.A for 2008 B; Bayerische Landesbank, acting through its New York branch for 2008 C and D; JP Morgan Chase Bank, N.A. for 2008 E and Bank of Nova Scotia, acting through its New York agency for 2008

F and (ii) the likelihood of premature termination of the facility without a mandatory tender. Events which would cause the liquidity facility to terminate without a mandatory purchase of the Bonds are directly related to the credit quality of the Massachusetts Water Resources Authority (MWRA). Accordingly, the likelihood of any such events occurring is reflected in the long-term rating assigned to the bonds.

The following is a summary of the par amounts, the SBPA providers and the ratings of each SBPA provider for each series:

Series 2008A: \$338 million; Dexia Credit Local; Aa1/P-1

Series 2008B: \$125 million; Bank of America, N.A.; Aaa/P-1

Series 2008C: \$199 million; Bayersische Landesbank; Aa2/P-1

Series 2008D: \$84 million; Bayersische Landesbank; Aa2/P-1

Series 2008E: \$225 million; JP Morgan Chase Bank, N.A.; Aaa/P-1

Series 2008F: \$192 million; Bank of Nova Scotia; Aa1/P-1

Each series will initially bear interest in a weekly rate mode and pay interest on the first day of each month. The bonds may be converted in whole by series to the daily, commercial paper and term rate modes. Upon any such conversion the bonds will be subject to mandatory tender at a purchase price of par plus accrued interest. The VMIG 1 rating will cover bonds bearing interest in the weekly rate mode.

Purchase price payments for bonds will be paid from a draw under the applicable SBPA, to the extent that remarketing proceeds are insufficient.

Substitution of each SBPA is permitted under the applicable supplemental resolutions. The SBPAs with Bank of America N.A. (BofA), JP Morgan Chase Bank N.A. (JPM Chase) and Bank of Nova Scotia (BNS) terminate on the business day following the substitution date of the SBPA and the SBPAs with Dexia Credit Local (Dexia) and Bayersische Landesbank (BLB) will terminate on the day of substitution of the SBPA.

Bondholders may optionally tender their bonds in the weekly rate mode on any business day with 7 days prior written notice to the tender agent and remarketing agent. Bonds which are purchased by the SBPA provider due to a failed remarketing may not be released until the liquidity facility has been reinstated in the amount of the purchase price drawn for such bonds.

The bonds will be subject to mandatory tender: (i) at the end of the commercial paper mode interest period; (ii) upon any mode change date; (iii) at the end of the term rate period; (iv) five days preceding the liquidity facility expiration date; (v) five days preceding any liquidity facility termination date; (vi) on the substitution date of the liquidity facility.

The SBPAs will cover full principal plus 34 days' interest at 12%, the maximum rate on the bonds. The SBPAs will be available to pay purchase price to the extent remarketing proceeds are insufficient. The SBPAs provide sufficient coverage for the bonds while they bear interest in the weekly rate mode.

Draws made on the SBPA received at or prior to 11:00 a.m. (New York time) will be honored by 2:00 p.m. (New York time) on the same business day. Draws made under the SBPA will be reinstated upon reimbursement of such drawings.

The Standby Bond Purchase Agreements with Dexia and BLB will terminate upon the earliest to occur of: (i) expiration date of the SBPA, May 20, 2011; (ii) upon conversion of all the bonds to an interest rate mode other than the weekly rate; (iii) the date on which no eligible bonds are outstanding; (iv) upon substitution of the liquidity facility; (v) on the date which is 30 days following receipt by the trustee of notice of termination of the SBPA as a result of an event of default under such SBPA.

Dexia and BLB may automatically terminate or suspend their respective obligations to purchase the series of bonds pursuant to the applicable liquidity facility upon any of the following: (1) an event of insolvency with respect to the issuer; (2) failure to make on time, whole or partial payment required to be made on the bonds or on debt which is senior to or on parity with the bonds; (3) the issuer claims that any provision of the resolution, bonds, or SBPA that provide for the payment of principal or interest on the bonds are not valid or binding; (4) any court or governmental entity with jurisdiction to rule on the validity of the SBPA, bonds or resolution finds or rules that these documents are not valid or binding on the issuer; (5) the rating on the bonds is downgraded below investment grade by each of the rating agencies then rating the bonds and (6) a final nonappealable judgment in excess of \$25 million shall remain unpaid by the authority and such judgment shall continue unsatisfied and unstayed for a period of 60 days.

The Standby Bond Purchase Agreements with BofA, JPM Chase and BNS will each terminate upon the earliest to occur of: (i) stated expiration date (BofA and BNS, May 28, 2011; JPM Chase, May 28, 2009); (ii) the date on which no bonds are outstanding; (iii) the business day immediately succeeding date which all bonds have been converted to an interest rate mode other than the weekly rate; (iv) on the date which is 30 days following receipt by the trustee of a notice of termination of the SBPA as a result of an event of default under such SBPA; (v) the business immediately succeeding the liquidity facility substitution date; or (vi) the date on which available commitment has been reduced to zero.

Bank of America, JPM Chase and BNS may automatically terminate or suspend their respective obligations to purchase the series of bonds pursuant to the applicable liquidity facility upon any of the following: (1) principal and interest on the bonds is not paid when due; (2) failure to make payment on principal or interest on any indebtedness that is on parity with the bonds; (3) certain bankruptcy and insolvency events of the authority; (4) a debt moratorium with respect to repayment when due an payable of the principal or interest of any indebtedness by the authority; (5) a final non-appealable judgment determining any provision of the SBPA, bonds or resolutions related to the payment of principal or interest on the bonds or the security pledge cease to be valid, binding or fully enforceable on the authority; (6) the rating on the Bonds is downgraded below investment grade by each of the rating agencies then rating the Bonds and (7) a final nonappealable judgment in excess of \$25 million shall remain unpaid by the authority and such judgment shall continue unsatisfied and unstayed for a period of 60 days.

KEY DATA AND RATIOS

Type of System: Water and Sewer Treatment and Transmission

Population of Service Area: 2.7 million

Local Bodies assessed wholesale rates and charges (fiscal 2008): 61

Rate Revenue Collections within 30 days of due dates (fiscal 2007): 100%

Total Revenues (fiscal 2007): \$551 million

Debt Ratio (fiscal 2007): 73.7%

Amortization of Principal:

10 years 20%

20 years 66%

30 years 92%

Legal Coverage of Senior Debt (fiscal 2007): 2.1x

Legal coverage of Senior & Subordinated Debt (fiscal 2007): 1.2x

Operating Ratio (fiscal 2007): 47%

Rate Revenue Increase (fiscal 2008): 4.5%

Average Annual Rate Revenue Increase (fiscal 2004-2008): 4.4%

Senior Lien Debt Outstanding (Senior Lien): \$3.08 billion

Post-Sale Variable Rate Subordinated Debt Outstanding: \$1.4 billion

State Revolving Fund Subordinated Debt Outstanding: \$996 million

Outlook

Outlook

The stable outlook reflects the authority's sound financial position with a history of steady rate revenue increases to meet the authority's substantial capital improvement program, as well as the service area's strong credit profile and 100% collection history with strong enforcement provisions. The stable outlook also

incorporates management's demonstrated ability to act effectively, by managing expenditures or raising additional revenue, to address unanticipated expenditure or revenue fluctuations.

What could change the rating - UP

*Significant enhancement of service area's composite credit strength

*Improved coverage for subordinated debt

*Reduced debt ratios

What could change the rating - DOWN

*Significant reduction of reserves and liquidity beyond adopted bond resolution requirements

*Failure to reduce debt burden as planned

*Higher debt ratios or increased exposure to variable rate debt

*Deterioration of service area's composite credit strength

*Reduction in debt service coverage

*Failure to effect mid-year rate adjustments, if necessary

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