

## OFFICIAL STATEMENT

### NEW ISSUE - BOOK-ENTRY-ONLY

### RATINGS: (See "RATINGS" herein)

*In the opinion of Hiscock & Barclay, LLP, Bond Counsel, under existing law and assuming compliance with the tax covenants described herein, interest on the Series 2003 Bonds is excluded from gross income for federal income tax purposes and is not an "item of preference" for purposes of the federal alternative minimum tax imposed on individuals and corporations. Such interest is, however, taken into account in determining adjusted current earnings of certain corporations for purposes of computing the alternative minimum tax imposed on such corporations. Bond Counsel is further of the opinion that interest on the Series 2003 Bonds is exempt from personal income taxes of the State of New York and its political subdivisions including The City of New York and the City of Yonkers. See "TAX EXEMPTION" herein.*

**\$70,350,000  
ALBANY MUNICIPAL WATER FINANCE AUTHORITY  
(NEW YORK)  
SECOND RESOLUTION REVENUE BONDS**

<b>\$46,745,000</b>	<b>\$23,605,000</b>
<b>Second Resolution Revenue Bonds, Series 2003A</b>	<b>Second Resolution Revenue Bonds, Series 2003B</b>

**Dated Date: Date of Delivery**

**Due: December 1, as shown on inside cover**

The Albany Municipal Water Finance Authority's \$46,745,000 Second Resolution Revenue Bonds, Series 2003A (the "Series 2003A Bonds") and \$23,605,000 Second Resolution Revenue Bonds, Series 2003B (the "Series 2003B Bonds" and, together with the Series 2003A Bonds, the "Series 2003 Bonds") are being issued under and pursuant to a Water and Sewer System General Revenue Bond Resolution adopted by the Authority in 1988 (the "First General Resolution"), a Second Water and Sewer System General Revenue Bond Resolution adopted in 2003 (the "Second General Resolution") and a First Supplemental Resolution to the Second General Resolution, also adopted in 2003 (the "First Supplemental Resolution"). Capitalized terms used herein have the meanings ascribed to such terms in Appendix D unless otherwise specified herein.

The Series 2003 Bonds are special obligations of the Authority, payable solely from and secured by a pledge of and lien on the gross revenues of the System. The Series 2003 Bonds constitute Subordinated Indebtedness under the First General Resolution and are subject and subordinate to certain prior obligations issued by the Authority under the First General Resolution. See "SOURCE OF PAYMENT AND SECURITY FOR THE SERIES 2003 BONDS - Subordinated Indebtedness." The scheduled payment of the principal of and interest on the Series 2003 Bonds when due will be guaranteed by a municipal bond insurance policy to be issued concurrently with the delivery of the Series 2003 Bonds by MBIA Insurance Corporation (the "Insurer").



Interest on the Series 2003 Bonds will be payable on June 1 and December 1, in each year, commencing December 1, 2003. Manufacturers and Traders Trust Company will serve as trustee, registrar and paying agent (the "Trustee").

The Series 2003 Bonds will be issued as fully registered bonds without coupons and, when issued, will be registered in the name of Cede & Co., as Holder and nominee for The Depository Trust Company ("DTC"), New York, New York. Purchases of beneficial interests in the Series 2003 Bonds will be made in book-entry-only form, in the denomination of \$5,000 or any integral multiple thereof. Purchasers of beneficial interests will not receive certificates representing their interest in the Series 2003 Bonds. See "THE SERIES 2003 BONDS — Book-Entry-Only System."

The Series 2003 Bonds are subject to optional redemption and the Series 2003B Bonds are subject to sinking fund redemption prior to maturity. See "Redemption Provisions" herein.

The Series 2003 Bonds involve risk and should be purchased only by persons who are able to evaluate and understand such risk and who can afford to assume such risk. See "CERTAIN INVESTMENT CONSIDERATIONS AND BONDHOLDERS' RISKS" herein.

THE SERIES 2003 BONDS ARE NOT AND SHALL NOT BE A DEBT OF THE STATE OF NEW YORK OR THE CITY OF ALBANY, NEW YORK AND NEITHER THE STATE OF NEW YORK NOR THE CITY OF ALBANY, NEW YORK SHALL BE LIABLE THEREON. THE SERIES 2003 BONDS DO NOT GIVE RISE TO A PECUNIARY LIABILITY OR CHARGE AGAINST THE GENERAL CREDIT OR TAXING POWERS OF THE STATE OF NEW YORK OR THE CITY OF ALBANY, NEW YORK. NO RECOURSE SHALL BE HAD FOR THE PAYMENT OF THE PRINCIPAL OR PREMIUM, IF ANY, OR THE INTEREST ON ANY BOND AGAINST ANY MEMBER, OFFICER, EMPLOYEE OR AGENT OF THE AUTHORITY. THE AUTHORITY HAS NO TAXING POWER.

#### SEE INSIDE FRONT COVER PAGE FOR MATURITY SCHEDULE, INTEREST RATES AND PRICES OR YIELDS

*The Series 2003 Bonds are offered when, as and if issued by the Authority and received by the Underwriter, subject to the approval of legality of Hiscock & Barclay, LLP, Albany, New York, Bond Counsel, and certain other conditions. Certain legal matters will be passed upon for the Authority and the Board by their counsel, Gary F. Stiglmeier, Esq., Albany, New York; for the City by its Corporation Counsel, Gary F. Stiglmeier; for the Trustee by its counsel, Bond Schoeneck & King, PLLC, Albany, New York, and for the Underwriter by its counsel, Hodgson Russ LLP, Albany, New York. It is expected that the Series 2003 Bonds will be delivered in book-entry-only form through the facilities of DTC on or about September 3, 2003.*

*First Albany*  
CORPORATION

**MATURITIES, PRINCIPAL AMOUNTS, INTEREST RATES AND PRICES**

**ALBANY MUNICIPAL WATER FINANCE AUTHORITY  
SECOND RESOLUTION REVENUE BONDS**

**\$46,745,000  
Second Resolution Revenue Bonds, Series 2003A**

**Dated: Date of Delivery  
First Interest Payment: December 1, 2003**

<b>Maturity (December 1)</b>	<b>Amount</b>	<b>Interest Rate</b>	<b>Price or Yield</b>	<b>Maturity (December 1)</b>	<b>Amount</b>	<b>Interest Rate</b>	<b>Price or Yield</b>
2004	\$ 300,000	2.500%	1.100%	2014	\$3,550,000	5.000%	3.950%
2005	\$ 600,000	4.000%	1.570%	2015	\$3,715,000	5.000%	4.030%
2006	\$ 600,000	4.000%	2.050%	2016	\$3,865,000	5.250%	3.850%
2007	\$ 600,000	4.250%	2.460%	2017	\$3,365,000	5.250%	3.950%
2008	\$ 600,000	2.750%	2.910%	2018	\$2,665,000	5.250%	4.050%
2009	\$2,320,000	5.000%	3.050%	2019	\$2,775,000	5.250%	4.150%
2010	\$2,555,000	5.000%	3.380%	2020	\$2,915,000	5.250%	4.250%
2011	\$3,115,000	5.000%	3.620%	2021	\$3,040,000	5.250%	4.300%
2012	\$3,260,000	5.000%	3.760%	2022	\$3,500,000	5.250%	4.350%
2013	\$3,405,000	5.000%	3.860%				

**\$23,605,000  
Second Resolution Revenue Bonds, Series 2003B**

**Dated: Date of Delivery  
First Interest Payment: December 1, 2003**

<b>Maturity (December 1)</b>	<b>Amount</b>	<b>Interest Rate</b>	<b>Price or Yield</b>	<b>Maturity (December 1)</b>	<b>Amount</b>	<b>Interest Rate</b>	<b>Price or Yield</b>
2009	\$540,000	3.500%	3.230%	2015	\$670,000	4.000%	4.310%
2010	\$560,000	3.250%	3.560%	2016	\$700,000	4.250%	4.400%
2011	\$580,000	3.500%	3.800%	2017	\$730,000	4.375%	4.490%
2012	\$600,000	3.750%	3.960%	2018	\$760,000	4.375%	4.580%
2013	\$620,000	4.000%	4.090%	2019	\$795,000	4.500%	4.660%
2014	\$645,000	4.000%	4.210%				

\$3,590,000 5.25% Term Series 2003B Bonds Due December 1, 2023, Yield 4.40%

\$12,815,000 5.00% Term Series 2003B Bonds Due December 1, 2033, Yield 4.95%

**ALBANY MUNICIPAL WATER FINANCE AUTHORITY**  
**City Hall**  
**Albany, New York 12207**

**MEMBERS**

JOSEPH T. MONTIMURRO, *Chairman*  
GARDNER D. LERNER, *Vice Chairman*  
PATRICIA SHULTIS, *Secretary*  
DALE A. GETTO, *Treasurer*  
WILLIAM MEREDITH  
MICHAEL A. NARDOLILLO  
FOWLER J. RIDDICK

**ALBANY WATER BOARD**  
**City Hall**  
**Albany, New York 12207**

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JOSEPH BOGDANOWICZ, *Assistant Secretary*

**CONSULTANTS**

INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS, *Urbach Kahn & Werlin LLP*  
BOND COUNSEL, *Hiscock & Barclay, LLP*  
CONSULTING ENGINEER, *Smith & Mahoney, PC*  
RATE CONSULTANT, *Urbach Kahn & Werlin LLP*  
FINANCIAL ADVISOR, *Fiscal Advisors & Marketing, Inc.*

This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy the Series 2003 Bonds in any jurisdiction to any person to whom it is unlawful to make such offer in such jurisdiction. No dealer, salesperson or any other person has been authorized to give any information or make any representation, other than those contained herein, in connection with the offering of the Series 2003 Bonds and, if given or made, such information or representation must not be relied upon. The information set forth herein has been provided by the Authority, the Board, the City and the Insurer, but it is not guaranteed as to its accuracy or completeness.

IN CONNECTION WITH THIS OFFERING, THE UNDERWRITER MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE SERIES 2003 BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME. THE UNDERWRITER MAY OFFER AND SELL THE SERIES 2003 BONDS TO CERTAIN DEALERS AND CERTAIN DEALER BANKS AND BANKS ACTING AS AGENTS AT PRICES LOWER THAN THE PUBLIC OFFERING PRICES STATED ON THE COVER PAGE HEREOF AND SAID PUBLIC OFFERING PRICES MAY BE CHANGED FROM TIME TO TIME BY THE UNDERWRITER.

The information and expressions of opinion set forth herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale hereunder shall, in the circumstances, create any implication that there has been no change in the affairs of the Authority or the Board or in any other matter described herein since the date hereof.

The Underwriter has provided the following sentence for inclusion in this Official Statement: the Underwriter has reviewed the information in this Official Statement in accordance with, and as a part of, its responsibilities to investors under Federal securities laws, but the Underwriter does not guarantee the accuracy or completeness of such information.

Capitalized terms used herein have the meanings ascribed to such terms in Appendix D hereto, unless otherwise specified herein.

The factors affecting the Authority's financial condition are complex. This Official Statement, including the appendices hereto, should be considered in its entirety, and no one factor should be considered less important than any other by reason of its position in this Official Statement. The information set forth in the appendices hereto constitutes an integral part of this Official Statement and must be read by each investor for a complete understanding of the issuance of the Series 2003 Bonds. Where agreements, reports or other documents are referred to herein, reference should be made to such agreements, reports or other documents for more complete information regarding the rights and obligations of parties thereto, facts and opinions contained therein and the subject matter thereof.

UPON ISSUANCE, THE SERIES 2003 BONDS WILL NOT BE REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR UNDER ANY STATE SECURITIES LAW AND THE RESOLUTION HAS NOT BEEN QUALIFIED UNDER THE TRUST INDENTURE ACT OF 1939, AS AMENDED IN RELIANCE UPON THE EXEMPTIONS CONTAINED IN SUCH ACTS. THE SERIES 2003 BONDS WILL NOT BE LISTED ON ANY STOCK OR OTHER SECURITIES EXCHANGE. NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY OTHER FEDERAL, STATE, OR GOVERNMENTAL ENTITY OR AGENCY WILL HAVE PASSED UPON THE ACCURACY OR ADEQUACY HEREOF.

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## **OFFICIAL STATEMENT**

**\$70,350,000**

### **ALBANY MUNICIPAL WATER FINANCE AUTHORITY (NEW YORK) SECOND RESOLUTION REVENUE BONDS**

**\$46,745,000**

**Second Resolution Revenue Bonds, Series 2003A**

**\$23,605,000**

**Second Resolution Revenue Bonds, Series 2003B**

## **INTRODUCTORY STATEMENT**

### **Purpose of Official Statement**

The purpose of this Official Statement, which includes the cover page and Appendices hereto, is to provide certain information concerning the Albany Municipal Water Finance Authority (the "Authority") in connection with the sale and delivery by the Authority of its \$46,745,000 aggregate principal amount Second Resolution Revenue Bonds, Series 2003A (the "Series 2003A Bonds") and \$23,605,000 aggregate principal amount Second Resolution Revenue Bonds, Series 2003B (the "Series 2003B Bonds"). The Series 2003A Bonds and the Series 2003B Bonds are collectively referred to herein as the "Series 2003 Bonds". Capitalized terms used in this Official Statement and not otherwise defined herein are defined in Appendix D.

### **Authorization of Issuance**

The Series 2003 Bonds will be issued by the Authority pursuant to the Authority Act, its Water and Sewer System General Revenue Bond Resolution (the "First General Resolution") adopted on January 22, 1988, its Second Water and Sewer System General Revenue Bond Resolution (the "Second General Resolution") adopted on June 20, 2003, and its First Supplemental Resolution adopted June 20, 2003 (the "First Supplemental Resolution"). The Authority has appointed Manufacturers and Traders Trust Company, Buffalo, New York to act as trustee (the "Trustee") under the First General Resolution and the Second General Resolution. The Series 2003 Bonds, together with any additional bonds issued on a parity therewith under the Second General Resolution, are hereinafter referred to collectively as the "Bonds".

### **Purpose of Issuance**

The Series 2003A Bonds are being issued by the Authority for the purposes of (A) refunding a portion of the Authority's outstanding Water and Sewer System Revenue Bonds, Series 1993A (the "Series 1993A Bonds"), (B) refunding the outstanding Water and Sewer System Revenue Bonds, Series 2000A (the "Series 2000A Bonds"), (C) funding certain reserves of the Authority, and (D) paying the costs of issuance of the Series 2003A Bonds. See "ESTIMATED SOURCES AND USES OF FUNDS — Series 2003A Bonds".

The Series 2003B Bonds are being issued by the Authority for the purposes of (A) funding certain capital projects undertaken or to be undertaken by the Albany Water Board (the "Board"), (B) funding certain reserves of the Authority, and (C) paying the costs of issuance of the Series 2003B Bonds. See "ESTIMATED SOURCES AND USES OF FUNDS — Series 2003B Bonds".

### **Subordinated Indebtedness**

The Series 1993A Bonds and the Series 2000A Bonds were issued by the Authority pursuant to the Authority Act, the First General Resolution and corresponding supplemental resolutions. Any Bonds, including the Series 2003 Bonds, issued by the Authority under the Second General Resolution constitute Subordinated Indebtedness under the First General Resolution and will be subject and subordinate to any outstanding obligations issued by the Authority under its First General Resolution. See "SOURCE OF PAYMENT AND SECURITY FOR THE SERIES 2003 BONDS — Series 2003 Bonds Constitute Subordinated Indebtedness".

Following the issuance of the Series 2003 Bonds, the only obligations that will remain outstanding under the First General Resolution will be the Authority's Series 1993A Bonds maturing on June 1, 2004 through June 1, 2009 (the "Series 1993A Capital Appreciation Bonds") and certain obligations incurred by the Authority in connection with financings undertaken by the Authority with the New York State Environmental Facilities Corporation maturing annually on several dates through January 15, 2028 (the "SRF Obligations"), and, collectively with the Series 1993A Capital Appreciation Bonds, "Priority Indebtedness"). The Authority has covenanted in the Second General Resolution not to issue any further obligations under the First General Resolution or extend the maturities of the Priority Indebtedness, without the consent of the holders of one hundred percent (100%) of the Series 2003 Bonds and any potential issuer of municipal bond insurance. Upon final payment by the Authority of the Series 1993A Capital Appreciation Bonds on June 1, 2009 and the SRF Obligations on January 15, 2028, any Bonds issued pursuant to the Second General Resolution, including the Series 2003 Bonds, will no longer be subject and subordinate to any obligations issued by the Authority under its First General Resolution and the Bonds shall then be entitled, pursuant to the Second General Resolution, to a first priority lien on the Revenues received by the Board with respect to the System. See "SOURCE OF PAYMENT AND SECURITY FOR THE SERIES 2003 BONDS — Series 2003 Bonds Constitute Subordinated Indebtedness".

### **Plan of Finance**

As bonds issued under the Second General Resolution, the Series 2003 Bonds constitute Subordinated Indebtedness under the First General Resolution. The Series 2003 Bonds are not being issued as additional bonds under the First General Resolution on a parity with the Priority Indebtedness because the Authority is currently unable to satisfy the conditions relating to the issuance of additional Bonds contained in the First General Resolution. In particular, the Authority is currently unable to certify that Revenues in Fiscal Year 2001 and Fiscal Year 2002 exceeded the sum of (a) 115% of the Aggregate Debt Service, and (b) 100% of the Operating Expenses and the Required Deposits for such fiscal years (the "1988 Rate Covenant"). During March 2002 and March, 2003, the Board implemented a 15% and 9.5% rate increase, respectively, in order to ensure future compliance with the 1988 Rate Covenant and the revised rate covenant (the "2003 Rate Covenant") approved as part of amendments to the Financing Agreement in connection with the adoption of the Second General Resolution. See "MANAGEMENT'S DISCUSSION OF CURRENT OPERATIONS" and "Appendix B-2 — Combined Financial Report of the Board and the Authority — Note 11."

## **The Authority and the Board**

The Authority was established in 1986. It has the power under the Authority Act and the Financing Agreement described below (A) to issue bonds for any of its corporate purposes, including the financing of the acquisition of and renovations and improvements to the System by the Albany Water Board (the "Board"), (B) to require the Board to fix rates sufficient to pay the costs of operating and financing the System, and (C) to require the Board to adequately maintain the System. The Authority has no taxing power. The Board, a separate legal entity also established in 1986, is authorized to fix and collect rates, fees and charges adequate to pay the cost of operating and financing the System. See "THE AUTHORITY" and "THE BOARD".

## **Water System and Sewer System**

Pursuant to an acquisition agreement (the "Acquisition Agreement") by and between the Board and the City of Albany (the "City"), dated as of October 1, 1987, the Board acquired title to the City's facilities for the collection, transmission and distribution of water (the "Water System") and for the collection and conveyance of waste water (the "Sewer System" and, together with the Water System, the "System").

The Water System provides an average of 21 million gallons per day (mgd) of water to approximately 29,000 accounts. The Water System supplies water to the City and consists of 376 miles of pipe, 8,695 valves, 2,981 fire hydrants, two raw water supply reservoirs, a water filtration plant, three distribution reservoirs, two pumping stations and two elevated storage tanks. The Board also provides water from the Water System to the Village of RAVENA and the Towns of Bethlehem and Guilderland.

The Sewer System is comprised of a network of 22 pumping stations and approximately 350 miles of sewer pipes. Approximately two-thirds of the Sewer System is a combined system designed to carry both storm and sanitary flows.

Pursuant to an operation agreement (the "Operation Agreement") by and between the City and the Board dated as of October 1, 1987, the Board delegated to the City its general power to operate and maintain the System.

The Board also entered into a financing agreement dated as of October 1, 1987, and amended as of June 20, 2003 (the "Financing Agreement"), with the Authority and the City to provide for the financing of capital improvements to the System through the issuance of bonds or other obligations of the Authority. The Board has covenanted in the Financing Agreement to maintain rates, fees and charges at sufficient levels so that Operating Revenues received by the Board in each Fiscal Year will be at least equal to 115% of the principal and interest coming due and projected to become due in such Fiscal Year on the Priority Indebtedness and the Bonds, plus 100% of the operation and maintenance expenses of the System and 100% of the Required Deposits. See "SOURCE OF PAYMENT AND SECURITY FOR THE SERIES 2003 BONDS" and "APPENDIX E — SUMMARY OF CERTAIN PROVISIONS OF THE FINANCING AGREEMENT, THE FIRST GENERAL RESOLUTION, THE SECOND GENERAL RESOLUTION AND THE OPERATION AGREEMENT".

## **Payment of Series 2003 Bonds**

The Series 2003 Bonds are special obligations of the Authority, payable solely from and secured by a pledge of the gross revenues of the System, including all rates, rents, fees, charges, payments and other income received by the Board from users of the System and all investment proceeds received by the

Board (the "Revenues"), the proceeds from the sale of the Series 2003 Bonds, all moneys or securities in any of the Funds and Accounts established under the Second General Resolution (other than the Rebate Fund) and all other moneys and securities to be received, held or set aside pursuant to the Second General Resolution, subject only to provisions of the First General Resolution, the Second General Resolution, the Act and the Financing Agreement relating to the use and application thereof. The Series 2003 Bonds constitute Subordinated Indebtedness for purposes of the First General Resolution and are subject and subordinate to the Priority Indebtedness.

### **Security for the Series 2003 Bonds**

The Series 2003 Bonds will be on a parity with Bonds issued pursuant to the Second General Resolution and are payable from and secured by a pledge of (i) all Revenues, (ii) the proceeds from the sale of the Bonds, (iii) all moneys or securities in any of the Funds and Accounts established under the Second General Resolution (other than the Rebate Fund), and (iv) all other moneys and securities to be received, held or set aside pursuant to the Second General Resolution, subject only to the provisions of the First General Resolution, the Second General Resolution, the Act and the Financing Agreement permitting the application thereof for the purposes and on the terms and conditions set forth therein. See "APPENDIX E — SUMMARY OF CERTAIN PROVISIONS OF THE FINANCING AGREEMENT, THE FIRST GENERAL RESOLUTION, THE SECOND GENERAL RESOLUTION AND THE OPERATION AGREEMENT — Summary of the Second General Resolution" and "— Summary of the Financing Agreement".

To provide additional security for the Priority Indebtedness and the Series 2003 Bonds, the Board shall grant the Authority and the Trustee a lien on and security interest in the System pursuant to a mortgage to be dated as of June 1, 2003 (the "Mortgage"). It should be noted that, due to the nature of the property subject to the Mortgage, the exercise of certain remedies provided thereunder, such as foreclosure, may not be feasible.

### **Municipal Bond Insurance**

The scheduled payment of the principal of and interest on the Series 2003 Bonds when due will be guaranteed by a municipal bond insurance policy (the "Policy") to be issued concurrently with the delivery of the Series 2003 Bonds by MBIA Insurance Corporation (the "Insurer").

### **Redemption of Series 2003 Bonds**

The Series 2003 Bonds are subject to redemption prior to maturity, as more fully described herein. See "THE SERIES 2003 BONDS — General", "— Series 2003A Bonds Redemption Provisions" and "— Series 2003B Bonds Redemption Provisions."

### **Limited Obligation of Authority**

THE SERIES 2003 BONDS ARE NOT AND SHALL NOT BE A DEBT OF THE STATE OF NEW YORK OR THE CITY OF ALBANY, NEW YORK AND NEITHER THE STATE OF NEW YORK NOR THE CITY OF ALBANY, NEW YORK SHALL BE LIABLE THEREON. THE SERIES 2003 BONDS DO NOT GIVE RISE TO A PECUNIARY LIABILITY OR CHARGE AGAINST THE GENERAL CREDIT OR TAXING POWERS OF THE STATE OF NEW YORK OR THE CITY OF ALBANY, NEW YORK. NO RE COURSE SHALL BE HAD FOR THE PAYMENT OF THE PRINCIPAL OR PREMIUM, IF ANY, OR THE INTEREST ON ANY BOND AGAINST ANY

MEMBER, OFFICER, EMPLOYEE OR AGENT OF THE AUTHORITY. THE AUTHORITY HAS NO TAXING POWER.

### **Capital Improvements Program**

A five year capital improvements program (the "Capital Improvements Program") has been approved by the Authority and the Board for the period through 2007, and is designed to permit the System to maintain a satisfactory level of service. Pursuant to the Second General Resolution and Financing Agreement, the Board expects to apply proceeds of the Series 2003B Bonds in an amount sufficient to fund \$4,000,000 of System improvements in furtherance of the Capital Improvements Program through 2005. In addition, \$2,000,000 of proceeds of the Series 2003B Bonds will be applied to fund additional costs of the Board's ongoing radio-read meter conversion program, \$7,227,500 of proceeds of the Series 2003B Bonds will be applied to finance the costs of the Board's acquisition from the City of the Six Mile Waterworks property (Rensselaer Lake) as a potential emergency water supply, and \$6,768,000 of proceeds of the Series 2003B Bonds will be applied to pay the City amounts owed under the Operation Agreement for capital improvements made by the City over the past four years. See "THE SYSTEM — Approved Capital Expenditures".

### **Rates, Fees and Charges**

Rates, fees and charges are established by the Board and are not subject to regulatory approval nor are they subject to other regulations under current law, except as provided by law with respect to the supply of water to certain users outside the City. See "GOVERNMENTAL REGULATION" and "RATES AND BILLINGS".

### **Financial Forecasts**

The estimates, forecasts and projections contained in this Official Statement are based on, among other factors, evaluations of historical revenue and expenditure data and analyses of economic trends. The financial forecasts contained herein and in Appendix B-I hereto are subject to certain contingencies which cannot be quantified and are subject to the uncertainties inherent in any attempt to forecast the results of future operations; accordingly, such financial forecasts are subject to periodic revision which may involve substantial change. Consequently, the Authority makes no representation or warranty that these estimates and projections will be realized.

### **Descriptions of Documents**

This Official Statement contains brief descriptions of the Series 2003 Bonds, the Authority, the Board, the City and the System, together with other information including summaries of the terms of the Series 2003 Bonds, the First General Resolution, the Second General Resolution, the Financing Agreement, the Operation Agreement and the Policy. Such descriptions and summaries do not purport to be comprehensive or definitive. All references herein to the First General Resolution, the Second General Resolution, the Financing Agreement, the Operation Agreement, the Series 2003 Bonds and the Policy are qualified by reference to such documents or instruments in their entirety. Copies of the First General Resolution, the Second General Resolution, the Financing Agreement and the Operation Agreement are available from the Authority at 35 Erie Boulevard, Albany, New York 12204, (518) 434-5300.

## THE MUNICIPAL BOND INSURANCE POLICY

### **The Policy**

The following information has been furnished by MBIA Insurance Corporation ("MBIA") for use in this Official Statement. Reference is made to Appendix I for a specimen of MBIA's policy.

MBIA's policy unconditionally and irrevocably guarantees the full and complete payment required to be made by or on behalf of the Authority to the Paying Agent or its successor of an amount equal to (i) the principal of (either at the stated maturity or by an advancement of maturity pursuant to a mandatory sinking fund payment) and interest on, the Series 2003 Bonds as such payments shall become due but shall not be so paid (except that in the event of any acceleration of the due date of such principal by reason of mandatory or optional redemption or acceleration resulting from default or otherwise, other than any advancement of maturity pursuant to a mandatory sinking fund payment, the payments guaranteed by MBIA's policy shall be made in such amounts and at such times as such payments of principal would have been due had there not been any such acceleration); and (ii) the reimbursement of any such payment which is subsequently recovered from any owner of the Series 2003 Bonds pursuant to a final judgment by a court of competent jurisdiction that such payment constitutes an avoidable preference to such owner within the meaning of any applicable bankruptcy law (a "Preference").

MBIA's policy does not insure against loss of any prepayment premium which may at any time be payable with respect to any Series 2003 Bond. MBIA's policy does not, under any circumstance, insure against loss relating to: (i) optional or mandatory redemptions (other than mandatory sinking fund redemptions); (ii) any payments to be made on an accelerated basis; (iii) payments of the purchase price of Series 2003 Bonds upon tender by an owner thereof; or (iv) any Preference relating to (i) through (iii) above. MBIA's policy also does not insure against nonpayment of principal of or interest on the Series 2003 Bonds resulting from the insolvency, negligence or any other act or omission of the Paying Agent or any other paying agent for the Series 2003 Bonds.

Upon receipt of telephonic or telegraphic notice, such notice subsequently confirmed in writing by registered or certified mail, or upon receipt of written notice by registered or certified mail, by MBIA from the Paying Agent or any owner of a Series 2003 Bond the payment of an insured amount for which is then due, that such required payment has not been made, MBIA on the due date of such payment or within one business day after receipt of notice of such nonpayment, whichever is later, will make a deposit of funds, in an account with U.S. Bank Trust National Association, in New York, New York, or its successor, sufficient for the payment of any such insured amounts which are then due. Upon presentment and surrender of such Series 2003 Bonds or presentment of such other proof of ownership of the Series 2003 Bonds, together with any appropriate instruments of assignment to evidence the assignment of the insured amounts due on the Series 2003 Bonds as are paid by MBIA, and appropriate instruments to effect the appointment of MBIA as agent for such owners of the Series 2003 Bonds in any legal proceeding related to payment of insured amounts on the Series 2003 Bonds, such instruments being in a form satisfactory to U.S. Bank Trust National Association, U.S. Bank Trust National Association shall disburse to such owners or the Paying Agent payment of the insured amounts due on such Series 2003 Bonds, less any amount held by the Paying Agent for the payment of such insured amounts and legally available therefor.

### **MBIA**

MBIA Insurance Corporation ("MBIA") is the principal operating subsidiary of MBIA Inc., a New York Stock Exchange listed company (the "Company"). The Company is not obligated to pay the

debts of or claims against MBIA. MBIA is domiciled in the State of New York and licensed to do business in and subject to regulation under the laws of all 50 states, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, the Virgin Islands of the United States and the Territory of Guam. MBIA has three branches, one in the Republic of France, one in the Republic of Singapore and one in the Kingdom of Spain. New York has laws prescribing minimum capital requirements, limiting classes and concentrations of investments and requiring the approval of policy rates and forms. State laws also regulate the amount of both the aggregate and individual risks that may be insured, the payment of dividends by MBIA, changes in control and transactions among affiliates. Additionally, MBIA is required to maintain contingency reserves on its liabilities in certain amounts and for certain periods of time.

MBIA does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding the policy and MBIA set forth under the heading "THE MUNICIPAL BOND INSURANCE POLICY". Additionally, MBIA makes no representation regarding the Series 2003 Bonds or the advisability of investing in the Series 2003 Bonds.

The Financial Guarantee Insurance Policies are not covered by the Property/Casualty Insurance Security Fund specified in Article 76 of the New York Insurance Law.

#### **MBIA Information**

The following documents filed by the Company with the Securities and Exchange Commission (the "SEC") are incorporated herein by reference:

- (1) The Company's Annual Report on Form 10-K for the year ended December 31, 2002; and
- (2) The Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2003.

Any documents filed by the Company pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act of 1934, as amended, after the date of this Official Statement and prior to the termination of the offering of the Series 2003 Bonds offered hereby shall be deemed to be incorporated by reference in this Official Statement and to be a part hereof. Any statement contained in a document incorporated or deemed to be incorporated by reference herein, or contained in this Official Statement, shall be deemed to be modified or superseded for purposes of this Official Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Official Statement.

The Company files annual, quarterly and special reports, information statements and other information with the SEC under File No. 1-9583. Copies of the SEC filings (including (1) the Company's Annual Report on Form 10-K for the year ended December 31, 2002, and (2) the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2003,, are available (i) over the Internet at the SEC's web site at <http://www.sec.gov>; (ii) at the SEC's public reference room in Washington D.C.; (iii) over the Internet at the Company's web site at <http://www.mbia.com>; and (iv) at no cost, upon request to MBIA Insurance Corporation, 113 King Street, Armonk, New York 10504. The telephone number of MBIA is (914) 273-4545.

As of December 31, 2002, MBIA had admitted assets of \$9.2 billion (audited), total liabilities of \$6.0 billion (audited), and total capital and surplus of \$3.2 billion (audited) determined in accordance with

statutory accounting practices prescribed or permitted by insurance regulatory authorities. As of March 31, 2003 MBIA had admitted assets of \$9.3 billion (unaudited), total liabilities of \$6.1 billion (unaudited), and total capital and surplus of \$3.2 billion (unaudited) determined in accordance with statutory accounting practices prescribed or permitted by insurance regulatory authorities.

### **Financial Strength Ratings of MBIA**

Moody's Investors Service, Inc. rates the financial strength of MBIA "Aaa."

Standard & Poor's, a division of The McGraw-Hill Companies, Inc. rates the financial strength of MBIA "AAA."

Fitch Ratings rates the financial strength of MBIA "AAA."

Each rating of MBIA should be evaluated independently. The ratings reflect the respective rating agency's current assessment of the creditworthiness of MBIA and its ability to pay claims on its policies of insurance. Any further explanation as to the significance of the above ratings may be obtained only from the applicable rating agency.

The above ratings are not recommendations to buy, sell or hold the Series 2003 Bonds, and such ratings may be subject to revision or withdrawal at any time by the rating agencies. Any downward revision or withdrawal of any of the above ratings may have an adverse effect on the market price of the Series 2003 Bonds. MBIA does not guaranty the market price of the Series 2003 Bonds nor does it guaranty that the ratings on the Series 2003 Bonds will not be revised or withdrawn.

## **THE SERIES 2003 BONDS**

### **General**

*Payment Terms.* The Series 2003 Bonds will be issued as fully registered bonds in the aggregate principal amounts as set forth on the inside cover page hereof, will be dated as described on the inside cover hereof and will bear interest from such dates to their respective maturities as set forth on the inside cover page hereof, subject to optional and sinking fund redemption prior to maturity as described below. Ownership interests in the Series 2003 Bonds will be available in denominations of \$5,000 and integral multiples thereof. Interest on the Series 2003 Bonds will be payable on December 1, 2003 and on each June 1 and December 1 thereafter.

So long as Cede & Co. is the registered owner of the Series 2003 Bonds, all payments of principal and interest on the Series 2003 Bonds are payable by wire transfer by the Trustee to Cede & Co. as nominee for The Depository Trust Company ("DTC"), New York, New York, which will, in turn, remit such amounts to the DTC participants for subsequent disposition to Beneficial Owners. See "Book-Entry-Only System" below.

*Redemption.* The Series 2003 Bonds will be subject to redemption prior to maturity as described below.

*Redemption Procedures.* Notice of redemption is to be given by first class mail, postage prepaid, mailed at least 30 days and not more than 60 days prior to the date fixed for redemption, to the registered owners of Series 2003 Bonds to be redeemed at their addresses shown on the books of registry. The Trustee will mail an additional notice to each registered owner of Series 2003 Bonds called for

redemption that has not surrendered such Series 2003 Bonds for payment of the Redemption Price within 120 days following the redemption date.

In the event that less than all of the Series 2003 Bonds are redeemed at the option of the Authority, the Authority shall select the maturity or maturities to be redeemed and, if less than all of the Series 2003 Bonds of like maturity are to be redeemed, the Trustee shall select, by lot, the particular Series 2003 Bonds or portions thereof to be redeemed.

*Partial Redemptions.* In the event of any partial redemption, the particular Series 2003 Bonds or portions thereof to be redeemed shall be selected by the Trustee by lot. The Trustee may provide for the selection for redemption of portions (equal to \$5,000 or any whole multiple thereof) of Outstanding Series 2003 Bonds.

*Notice of Redemption.* Each notice of redemption will specify the Redemption Price, the principal amount of the Series 2003 Bonds to be redeemed, the numbers of the Series 2003 Bonds to be redeemed if less than all of the Series 2003 Bonds are to be redeemed, the redemption date and the place or places where amounts due upon such redemption will be payable, and that the Series 2003 Bonds or portions thereof so called for redemption will be deemed redeemed and will cease to bear interest on the specified redemption date. The failure to give any such notice, or any defect therein, will not affect the validity of any proceeding for the redemption of any Series 2003 Bond with respect to which no such failure to give notice, or defect therein, has occurred.

### **Series 2003A Bonds Redemption Provisions**

The Series 2003A Bonds will be subject to redemption prior to maturity as described below.

*Optional Redemption.* The Series 2003A Bonds maturing on or before December 1, 2007 will not be subject to optional redemption prior to their respective maturity dates. The Series 2003A Bonds maturing on or after December 1, 2008 may be redeemed prior to their respective maturity dates at the option of the Authority from any moneys available therefor on and after June 1, 2008, in whole or in part on any date, at a redemption price of par, plus accrued interest to the redemption date.

### **Series 2003B Bonds Redemption Provisions**

The Series 2003B Bonds will be subject to redemption prior to maturity as described below.

*Optional Redemption.* The Series 2003B Bonds may be redeemed prior to their respective maturity dates at the option of the Authority from any moneys available therefor on and after June 1, 2008, in whole or in part on any date, at a redemption price of par, plus accrued interest to the redemption date.

*Sinking Fund Redemption.* The Series 2003B Bonds due December 1, 2023 will be subject to mandatory redemption prior to maturity in part, by lot, at a redemption price of 100% of the principal amount thereof plus accrued interest to the redemption date, on December 1 in each of the years and in the respective principal amounts as follows:

<b>Year</b>	<b>Amount</b>
2020	\$830,000
2021	875,000
2022	920,000
2023 <sup>1</sup>	965,000

The Series 2003B Bonds due December 1, 2033 will be subject to mandatory redemption prior to maturity in part, by lot, at a redemption price of 100% of the principal amount thereof plus accrued interest to the redemption date, on December 1 in each of the years and in the respective principal amounts as follows:

<b>Year</b>	<b>Amount</b>
2024	\$1,020,000
2025	1,070,000
2026	1,120,000
2027	1,180,000
2028	1,240,000
2029	1,300,000
2030	1,365,000
2031	1,435,000
2032	1,505,000
2033*	1,580,000

### **Book-Entry-Only System**

DTC will act as securities depository for the Series 2003 Bonds. The Series 2003 Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee), or such other name as may be requested by an authorized representative of DTC. One fully-registered bond certificate will be issued for each maturity of each Series of the Series 2003 Bonds, each in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds securities that its participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC, in turn, is owned by a number of Direct Participants of DTC and Members of the National Securities Clearing Corporation, Government Securities Clearing Corporation, MBS Clearing Corporation, and Emerging Markets Clearing Corporation, (NSCC, GSAC, MBSCC and EMCC, also subsidiaries of DTCC), as well as by the New York Stock Exchange, Inc., the American Stock Exchange LLC, and the National Association of Securities Dealers, Inc. Access to the DTC system is also available to others such as both U.S. and non-

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<sup>1</sup> Maturity.

U.S. securities brokers and dealers, banks, trust companies and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). The DTC Rules applicable to its Direct Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at [www.dtcc.com](http://www.dtcc.com).

Purchases of Series 2003 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2003 Bonds on DTC's records. The ownership interest of each actual purchaser of each Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2003 Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Series 2003 Bonds, except in the event that use of the book-entry system for the Series 2003 Bonds is discontinued.

To facilitate subsequent transfers, all Series 2003 Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Series 2003 Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2003 Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2003 Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Redemption notices shall be sent to Cede & Co. If less than all of the Series 2003 Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. (not any other DTC nominee) will consent or vote with respect to the Series 2003 Bonds unless authorized by a Direct Participant in accordance with DTC's Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Authority as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2003 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments on the Series 2003 Bonds will be made to Cede & Co., such other nominee as may be requested by an authorized representative of DTC. Upon receipt of moneys, DTC's practice is to credit the accounts of the Direct Participants on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Direct Participants and Indirect Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is now the case with securities held for the accounts of customers in bearer form or registered in "street name", and will be the responsibility of such Participant or Indirect Participant and not of DTC, the Trustee or the Authority, subject to any statutory or regulatory requirements as may be in effect from time to time.

Payment of principal and interest to DTC shall be the responsibility of the Authority or the Trustee, disbursement of such payments to Direct Participants shall be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners shall be the responsibility of Direct and Indirect Participants.

The Authority and the Trustee may treat DTC (or its nominee) as the sole and exclusive registered owner of the Series 2003 Bonds registered in its name for the purposes of payment of the principal and redemption premium, if any, of, or interest on, the Series 2003 Bonds, giving any notice permitted or required to be given to registered owners under the Resolution, registering the transfer of the Series 2003 Bonds, or other action to be taken by registered owners and for all other purposes whatsoever. The Authority and the Trustee shall not have any responsibility or obligation to any Direct or Indirect Participant, any person claiming a beneficial ownership interest in the Series 2003 Bonds under or through DTC or any Direct or Indirect Participant, or any other person which is not shown on the registration books of the Authority (kept by the Trustee) as being a registered owner, with respect to the accuracy of any records maintained by DTC or any Direct or Indirect Participant; the payment by DTC or any Direct or Indirect Participant of any amount in respect of the principal, redemption premium, if any, or interest on the Series 2003 Bonds; any notice which is permitted or required to be given to registered owners thereunder or under the conditions to transfers or exchanges adopted by the Authority; or other action taken by DTC as registered owner. Interest, redemption premium, if any, and principal will be paid by the Trustee to DTC, or its nominee. Disbursement of such payments to the Direct or Indirect Participants is the responsibility of DTC and disbursement of such payments to the Beneficial Owners is the responsibility of the Direct or Indirect Participants.

For every transfer and exchange of beneficial ownership of any of the Series 2003 Bonds, a Beneficial Owner may be charged a sum sufficient to cover any tax, fee or other governmental charge that may be imposed in relation thereto.

DTC may discontinue providing its services as securities depository with respect to the Series 2003 Bonds at any time by giving reasonable notice to the Authority and the Trustee, or the Authority may terminate its participation in the system of book-entry transfer through DTC at any time by giving notice to DTC. In either event, the Authority may retain another securities depository for the Series 2003 Bonds or may direct the Trustee to deliver bond certificates in accordance with instructions from DTC or its successor. If the Authority directs the Trustee to deliver such bond certificates, such Series 2003 Bonds may thereafter be exchanged for an equal aggregate principal amount of Series 2003 Bonds in any other authorized denominations and of the same maturity as set forth in the Resolution, upon surrender thereof at the principal corporate trust office of the Trustee, who will then be responsible for maintaining the registration books of the Authority.

Unless otherwise noted, certain of the information contained in the preceding paragraphs of this subsection "Book-Entry Only System" has been extracted from information given by DTC. Neither the Authority, the Trustee nor the Underwriter make any representation as to the completeness or the accuracy of such information or as to the absence of material adverse changes in such information subsequent to the date hereof.

NEITHER THE AUTHORITY NOR THE TRUSTEE WILL HAVE ANY RESPONSIBILITY OR OBLIGATIONS TO SUCH DTC PARTICIPANTS, INDIRECT PARTICIPANTS, OR THE PERSONS FOR WHOM THEY ACT AS NOMINEES WITH RESPECT TO THE PAYMENTS TO OR THE PROVIDING OF NOTICE FOR SUCH DTC PARTICIPANTS, INDIRECT PARTICIPANTS, OR THE BENEFICIAL OWNERS. PAYMENTS

MADE TO DTC OR ITS NOMINEE SHALL SATISFY THE AUTHORITY'S OBLIGATION UNDER THE ACT AND THE RESOLUTION TO THE EXTENT OF SUCH PAYMENTS.

So long as Cede & Co. is the registered owner of the Series 2003 Bonds as nominee of DTC, references herein to the Holders or registered owners of the Series 2003 Bonds shall mean Cede & Co. and shall not mean the Beneficial Owners of the Series 2003 Bonds.

#### **Transfer of Series 2003 Bonds**

So long as Cede & Co., as nominee for DTC, is the Holder of record of the Series 2003 Bonds, beneficial ownership interests in the Series 2003 Bonds may be transferred only through a Direct Participant or Indirect Participant and recorded on the book-entry system operated by DTC. In the event the book-entry-only system is discontinued, bond certificates will be delivered to the Beneficial Owners as described in the Second General Resolution. Thereafter, the Series 2003 Bonds, upon surrender thereof at the principal office of the Trustee with a written instrument of transfer satisfactory to the Trustee, duly executed by the Holder thereof or such Holder's duly authorized attorney, may be exchanged for an equal aggregate principal amount of Series 2003 Bonds of the same series and maturity and of any Authorized Denominations.

In all cases in which the privilege of exchanging or transferring Series 2003 Bonds is exercised, the Authority shall execute and the Trustee shall authenticate and deliver the Series 2003 Bonds in accordance with the provisions of the Second General Resolution. For every such exchange or transfer of Series 2003 Bonds, the Authority or the Trustee may make a charge sufficient to reimburse it for any tax, fee or other governmental charge required to be paid with respect to such exchange or transfer, but may impose no other charge therefor. Neither the Authority nor the Trustee shall be required to make any such exchange or transfer of Series 2003 Bonds during the fifteen (15) days next preceding an Interest Payment Date or, in the case of any proposed redemption, during the fifteen (15) days next preceding the first publication or mailing of notice of redemption.

### **ESTIMATED SOURCES AND USES OF FUNDS**

#### **Series 2003A Bonds**

The estimated sources and uses of funds (exclusive of investment earnings) for the Series 2003A Bonds are as follows:

##### **Sources:**

Par Amount of Series 2003A Bonds	\$46,745,000.00
Original Issue (Discount)/Premium	\$ 2,396,284.15
Transfers from Debt Service Funds of Series 1993A Bonds and Series 2000A Bonds	\$ 1,583,827.63
Transfer from Reserve Funds of Series 1993A Bonds and Series 2000A Bonds	<u>\$ 5,083,527.64</u>
Total Sources	<u>\$55,808,639.42</u>

**Uses:**

Deposit to Defeasance Escrow Fund	\$51,306,993.38
Deposit to Debt Service Reserve Fund	\$ 3,396,066.59
Costs of Issuance <sup>2</sup>	<u>\$ 1,105,579.45</u>
Total Uses	<u>\$55,808,639.42</u>

**Series 2003B Bonds**

The estimated sources and uses of funds (exclusive of investment earnings) for the Series 2003B Bonds are as follows:

**Sources:**

Par Amount of Series 2003B Bonds	\$23,605,000.00
Original Issue (Discount)/Premium	<u>\$ 41,131.50</u>
Total Sources	<u>\$23,646,131.50</u>

**Uses:**

Deposit to Project Construction Fund	\$19,995,500.00
Deposit to Debt Service Reserve Fund	\$ 1,714,924.63
Deposit to Capitalized Interest Fund	\$ 1,284,713.17
Costs of Issuance*	<u>\$ 650,993.70</u>
Total Uses	<u>\$23,646,131.50</u>

**SOURCE OF PAYMENT AND SECURITY FOR THE SERIES 2003 BONDS**

**Revenues**

The Act empowers the Board to establish and collect rates, fees and charges for the use of, or services provided by, the System in order to receive Revenues sufficient to place the System on a self-sustaining basis. All Revenues of the System will be deposited by the Board in the Local Water Fund held by the Board. The Authority holds a statutory lien on the Revenues for the payment of all amounts due to the Authority under the Financing Agreement. In the event that the Board fails to make any required payment to the Authority, the Authority or the Trustee may petition for the appointment, by any court having jurisdiction, of a receiver to administer the affairs of the Board, and, with court approval, establish rates and charges to provide Revenues sufficient to make required payments. The statutory lien, however, does not give any holder or owner of any Bond issued by the Authority, or any receiver of the System, power to compel the sale of any part of the System.

The City and the Board have covenanted in the Financing Agreement and the Operation Agreement to operate and maintain the System. Such obligation to operate and maintain the System may be enforced by the Authority in accordance with the provisions of the Act and the terms of the Financing Agreement and the Operation Agreement. Pursuant to the Operation Agreement, the City certifies to the Board the amounts expected to be required to operate and maintain the System. The Board pays such

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<sup>2</sup> Includes Underwriter's Discount and Bond Insurance Premium.

amounts, as described below, after receipt by the Board of a certificate of the Consulting Engineer or the Rate Consultant to the effect that such amounts are reasonable and appropriate.

Beginning on the first day of each month, the Board is required to transfer the Revenues in the General Account of the Local Water Fund to the Trustee for deposit in the First General Resolution Revenue Fund, until the amount on deposit equals the Minimum Monthly Balance and the amounts required by the First General Resolution and the Second General Resolution to be deposited in the Authority Expense Fund, the Debt Service Reserve Fund and the Subordinated Indebtedness Fund for such month. The Minimum Monthly Balance is the amount required to provide for timely payment of all debt service on outstanding Priority Indebtedness and, if there is not Priority Indebtedness outstanding, the Bonds. While any Priority Indebtedness remains outstanding, amounts required to pay the Bonds will be deposited in the Subordinated Indebtedness Fund under the First General Resolution from which it will be transferred through the Second General Resolution Revenue Fund to the Second General Resolution Debt Service Fund and the Second General Resolution Debt Service Reserve Fund. See "APPENDIX E - SUMMARY OF CERTAIN PROVISIONS OF THE FINANCING AGREEMENT, THE FIRST GENERAL RESOLUTION, THE SECOND GENERAL RESOLUTION AND THE OPERATION AGREEMENT — Summary of the Financing Agreement — Minimum Monthly Balance." Thereafter in such month, from the balance remaining in the General Account of the Local Water Fund, the Board is required, after transferring budgeted money to the Board Expense Account in the Local Water Fund to pay monthly Board Expenses, to transfer to the Operation Account in the Local Water Fund, for credit against the amount due from the Board to the City for Operating Expenses,  $1/12^{\text{th}}$  of the Operating Expenses for such Fiscal Year. After making such transfer, any amounts remaining in the General Account of the Local Water Fund in each month are paid to the Operation and Maintenance Reserve Account and the Ongoing Project Account in the Local Water Fund. For a more complete description of the required payments from the General Account of the Local Water Fund, see "APPENDIX E - SUMMARY OF CERTAIN PROVISIONS OF THE FINANCING AGREEMENT, THE FIRST GENERAL RESOLUTION, THE SECOND GENERAL RESOLUTION AND THE OPERATION AGREEMENT — Summary of the Financing Agreement — Establishment of Certain Accounts and Application of Revenues in the Local Water Fund." For more information regarding the flow of funds under the First General Resolution and the Second General Resolution, see "APPENDIX F - DIAGRAM OF FLOW OF FUNDS UNDER THE FIRST GENERAL RESOLUTION AND THE SECOND GENERAL RESOLUTION".

For so long as there is any Priority Indebtedness Outstanding, all Revenues received by the Authority from the Board will be deposited promptly in the Revenue Fund created under the First General Resolution. As soon as practicable in each month after the deposit of Revenues, the Trustee will, from the amounts in the Revenue Fund, make the deposits in the Funds and Accounts established under the First General Resolution, including the Subordinated Indebtedness Fund, from which amounts shall be transferred to the funds and accounts established under the Second General Resolution. At such time as there is no Priority Indebtedness Outstanding, the Authority shall cause all Revenues received from the Board to be paid to the Trustee, who shall promptly upon receipt deposit such Revenues in the Revenue Fund created under the Second General Resolution. See "APPENDIX E - SUMMARY OF CERTAIN PROVISIONS OF THE FINANCING AGREEMENT, THE FIRST GENERAL RESOLUTION, THE SECOND GENERAL RESOLUTION AND THE OPERATION AGREEMENT — Summary of the Second General Resolution — Payments Into Certain Funds".

#### **Series 2003 Bonds Constitute Subordinated Indebtedness**

Any obligations issued by the Authority under the Second General Resolution constitute "Subordinated Indebtedness" under the First General Resolution. Therefore, the Series 2003 Bonds

issued by the Authority under the Second General Resolution are subject and subordinate to any outstanding obligations issued by the Authority under the First General Resolution and referred to herein as "Priority Indebtedness".

Following the issuance of the Series 2003 Bonds, the only obligations that will remain outstanding under the First General Resolution will be the Priority Indebtedness, consisting of the Authority's Series 1993A Capital Appreciation Bonds and the SRF Obligations. The outstanding Series 1993A Capital Appreciation Bonds mature on June 1, 2004 through June 1, 2009. The outstanding SRF Obligations mature on various dates through January 15, 2028. The Authority has covenanted in the Second General Resolution not to issue any further obligations under the First General Resolution or extend the maturities of the Priority Indebtedness, without the consent of the holders of one hundred percent (100%) of the Series 2003 Bonds and any potential issuer of municipal bond insurance. Upon final payment by the Authority of the Series 1993A Capital Appreciation Bonds on June 1, 2009 and the SRF Obligations on January 15, 2028, any Bonds issued pursuant to the Second General Resolution, including the Series 2003 Bonds, will no longer be subject and subordinate to any obligations issued by the Authority under its First General Resolution. The Bonds shall then be entitled, pursuant to the Second General Resolution, to a first priority lien on the Revenues received by the Board with respect to the System.

The Series 2003 Bonds will be on a parity with Bonds issued pursuant to the Second General Resolution and are payable from and secured by a pledge of (i) all Revenues, (ii) the proceeds from the sale of the Bonds, (iii) all moneys or securities in any of the Funds and Accounts established under the Second General Resolution (other than the Rebate Fund), and (iv) all other moneys and securities to be received, held or set aside pursuant to the Second General Resolution, subject only to the provisions of the Second General Resolution, the Act and the Financing Agreement permitting the application thereof for the purposes and on the terms and conditions set forth therein. See "APPENDIX E - SUMMARY OF CERTAIN PROVISIONS OF THE FINANCING AGREEMENT, THE FIRST GENERAL RESOLUTION, THE SECOND GENERAL RESOLUTION AND THE OPERATION AGREEMENT — Summary of the Second General Resolution" and "— Summary of the Financing Agreement".

### **The Policy**

To provide security for the payment of the Series 2003 Bonds, the Authority will cause the Insurer to deliver the Policy to the Trustee. The Policy guarantees the scheduled payment of the principal of and interest on the Series 2003 Bonds when due. See "THE MUNICIPAL BOND INSURANCE POLICY".

### **The Mortgage**

Pursuant to the Mortgage, the Board has granted the Authority and the Trustee a security interest in and lien on the System to provide additional security for the Bonds. Due to the nature of the property comprising the System, the exercise of certain remedies provided by the Mortgage, such as foreclosure, may not be feasible.

### **Debt Service Reserve Fund**

The Second General Resolution establishes a Debt Service Reserve Fund and a Common Account therein. The Second General Resolution requires that upon the issuance of each series of Bonds there shall be deposited into the Common Account (unless the Supplemental Resolution for a Series of Bonds establishes a special account for such Series) an amount necessary to make the amount on deposit equal to

the Debt Service Reserve Requirement for all Bonds Outstanding after giving effect to the issuance of such Bonds. The Debt Service Reserve Requirement for any series of Bonds is an amount equal to the lesser of (i) maximum Adjusted Aggregate Debt Service in the then current or any future Fiscal Year on such series of Bonds or (ii) an amount equal to 10% of the net proceeds of the sale of the Bonds of such Series, (iii) an amount equal to 125% of the average of the principal, whether at maturity or on mandatory redemption and interest becoming due in any one fiscal year on the Bonds of such Series or (iv) for each series of Bonds the interest on which, in the opinion of Bond Counsel at the time of the issuance of such series, is not includable in gross income for Federal income tax purposes, the maximum amount of the proceeds of such series which, in the opinion of Bond Counsel, can be deposited in the Debt Service Reserve Fund under the Code without having an adverse effect on the exclusion of interest on such series of Bonds from gross income for Federal income tax purposes. Amounts on deposit in the Common Account will be applied, to the extent Revenues are not available, to pay Principal Installments and interest on the Bonds (except Bonds secured by a Special Credit Facility). The Second General Resolution also provides that any Supplemental Resolution providing for a Special Credit Facility to secure the payment of any Bonds may establish one or more "Special Accounts" in the Debt Service Reserve Fund. The Debt Service Reserve Requirement for Bonds secured by a Special Credit Facility may be an amount not in excess of the amounts described in clauses (i) through (iv) above. Amounts in any Special Account may not be applied to pay the Principal Installments of, or interest on, any Bonds for which such payments may be made from the Common Account. No Special Credit Facility has been established for the Series 2003 Bonds.

A portion of the proceeds of the Series 2003 Bonds will be used to make a cash deposit with the Trustee to satisfy the Debt Service Reserve Requirement for the Series 2003 Bonds.

In lieu of making cash deposits to the Debt Service Reserve Fund, the Authority may satisfy the Debt Service Reserve Requirement by depositing Financial Guaranties into the Debt Service Reserve Fund. See "APPENDIX E - SUMMARY OF CERTAIN PROVISIONS OF THE FINANCING AGREEMENT, THE FIRST GENERAL RESOLUTION, THE SECOND GENERAL RESOLUTION AND THE OPERATION AGREEMENT — Summary of the Second General Resolution".

#### **Rate Covenant**

The Board has covenanted in the Financing Agreement to establish, fix and revise, from time to time, fees and charges for the use of, or the services furnished by, the System to provide, together with any other available funds, for (i) the timely payment of debt service on the Bonds and the principal of and interest on any other indebtedness of the Authority payable from Revenues, (ii) the proper operation and maintenance of the System, (iii) all other payments required for the System not otherwise provided for, and (iv) all other payments required pursuant to the Financing Agreement and the Operation Agreement.

Without limiting the generality of the foregoing, the Board has covenanted to establish and collect rates, fees and charges sufficient in each Fiscal Year so that Operating Revenues collected in such Fiscal Year will be at least equal to the sum of (i) 115% of Aggregate Debt Service and Projected Debt Service payable in such Fiscal Year on all Bonds and Priority Indebtedness Outstanding and on any series of Bonds expected to be Outstanding during such Fiscal Year, (ii) 100% of the Operating Expenses and Authority Expenses for such Fiscal Year, and (iii) 100% of the amount necessary to pay the Required Deposits for such Fiscal Year. As a condition to the issuance of the Series 2003 Bonds, the Rate Consultant is required to deliver a certificate showing for each of the five Fiscal Years following the issuance of the Series 2003 Bonds that the estimated Operating Revenues for such Fiscal Year will be at least equal to the sum of (a) 115% of the maximum estimated Adjusted Aggregate Debt Service in any future Fiscal Year on all Bonds and Priority Indebtedness Outstanding (including the Series 2003 Bonds)

and (b) 100% of the sum of the projected Operating Expenses and Required Deposits. A failure to generate Operating Revenues as set forth in this paragraph shall not constitute an “event of default” under the Financing Agreement if the Board takes timely action to correct any such deficiency as described in the following paragraph.

The Board has covenanted in the Financing Agreement to review the adequacy of rates, fees and charges at least annually. If such annual review, or the report of the Rate Consultant required pursuant to the Financing Agreement, indicates that the rates, fees and charges are or will be insufficient to meet the requirements of the rate covenant, the Board shall issue a corrective measures report to the Authority within 20 days detailing the methods by which and time frame within which it shall cause compliance. In the event such report includes a recommended increase in rates, fees, rents or other charges, the Board covenants to meet within 45 days and formally consider a resolution to increase such rates, fees, rents or other charges in amounts necessary to cause compliance. In addition, under the Operation Agreement, the City, which is responsible for billing, collecting and enforcing collections of rates and charges established by the Board, has agreed that it will diligently pursue all actions necessary to cure or avoid any such deficiency.

The Second General Resolution requires that earnings on amounts on deposit in all Funds established under the Second General Resolution, except the Debt Service Fund, Construction Fund and the Rebate Fund, be transferred by the Trustee to the Board for deposit in the General Account of the Local Water Fund, except that with respect to the Debt Service Reserve Fund such earnings shall be paid to the Board only to the extent that the amount on deposit therein exceeds the Debt Service Reserve Requirement. Amounts so transferred constitute Revenues under the Financing Agreement but do not constitute part of the Operating Revenues and therefore would not be considered for purposes of compliance by the Board with the rate covenant described above.

Except to the extent required by law or by existing agreements (including any successor agreements) with the Village of Renna, the Board has covenanted in the Financing Agreement that it will not furnish or supply or cause to be furnished or supplied any product, use or service of the System free of charge or at a nominal charge, and will enforce (or cause the City to enforce) the payment of any and all amounts owing to the Board for use of the System. Notwithstanding the foregoing, the Financing Agreement provides that the City shall not be charged for its use of the System in pursuance of its governmental functions or for services rendered to the City for its use of the System. See “RATES AND BILLINGS.”

#### **NO FURTHER PRIORITY INDEBTEDNESS**

The Authority has covenanted in the Second General Resolution not to adopt any further supplemental resolutions under the First General Resolution or to issue any further Priority Indebtedness or extend the maturity of any Outstanding Priority Indebtedness under the First General Resolution without the consent of one hundred percent (100%) of the holders of all Bonds issued under the Second General Resolution and any potential issuer of municipal bond insurance.

#### **ADDITIONAL BONDS**

The Second General Resolution provides that the Authority may issue additional Bonds on a parity with all Outstanding Bonds only upon satisfaction of certain requirements, including receipt by the Trustee of:

(a) a certificate by an Authorized Representative of the Authority to the effect that the Operating Revenues for either of the last two full Fiscal Years immediately preceding the Fiscal Year in which such Bonds are to be issued were at least equal to the sum of (i) 115% of the Aggregate Debt Service on all Priority Indebtedness and Bonds during such Fiscal Year (excluding from Aggregate Debt Service any Principal Installments, or portion thereof, paid from a source other than Operating Revenues), and (ii) 100% of the sum of the Operating Expenses and the Required Deposits for such Fiscal Year, and

(b) a certificate of the Rate Consultant to the effect that the estimated Operating Revenues for each of the five Fiscal Years following the issuance of such series of Bonds (plus the Fiscal Year in which such Bonds are issued), after giving effect to any increases or decreases in rates, fees and charges projected for such Fiscal Years, will be at least equal to the sum of (i) 115% of the maximum estimated Adjusted Aggregate Debt Service on all Priority Indebtedness and Bonds then Outstanding including the Bonds to be issued, and (ii) 100% of the sum of the projected Operating Expenses and Required Deposits for such Fiscal Years, as shown on the certificates delivered by the Consulting Engineer and the Authority delivered pursuant to the Second General Resolution.

See "APPENDIX E - SUMMARY OF CERTAIN PROVISIONS OF THE FINANCING AGREEMENT, THE FIRST GENERAL RESOLUTION, THE SECOND GENERAL RESOLUTION AND THE OPERATION AGREEMENT — Summary of the Second General Resolution."

### **REFUNDING PLAN**

Upon delivery of the Series 2003A Bonds, a portion of the proceeds of the Series 2003A Bonds will be used to acquire non-callable direct obligations of the United States of America constituting Defeasance Obligations, the principal of and interest on which, when due, together with any initial cash deposit, will provide moneys sufficient to pay, when due, the interest on, principal of and premium, if any, on a portion of the outstanding Series 1993A Bonds (excluding only the Series 1993A Capital Appreciation Bonds) and all of the outstanding Series 2000A Bonds through and including their stated maturity or until their prior redemption. The Series 1993A Bonds (but not including the Series 1993A Capital Appreciation Bonds) and the Series 2000A Bonds are collectively referred to as the "Refunded Bonds".

The Defeasance Obligations will be deposited with the Trustee under an Escrow Deposit Agreement dated as of September 1, 2003 between the Authority and the Trustee (the "Escrow Agent") upon the issuance and delivery of the Series 2003A Bonds and will be held in trust solely for the payment of debt service on the Refunded Bonds. In the opinion of Bond Counsel, upon making such deposits with the Trustee and issuance of certain irrevocable instructions to the Trustee, the Refunded Bonds will, under the terms of the First General Resolution, be deemed to have been paid and will no longer be Outstanding and the pledge of all other rights granted by the First General Resolution as to the Refunded Bonds will be discharged and satisfied.

### **FORECASTED DEBT SERVICE COVERAGE**

The following table shows the forecasted debt service coverage ratio of the System. See Appendix B-1 hereto for more information relating to the System's forecasted cash flow, including a description of the assumptions upon which forecasted revenues and expenses are based and the method upon which the debt service coverage ratio is computed. See Appendix B-2 hereto and

**“MANAGEMENT’S DISCUSSION OF CURRENT OPERATIONS”** for information relating to the System’s current cash flow and debt service coverage ratio.

The data in the following table relating to the System have been derived by review of the historical operations of the System.

**Forecasted Debt Service Coverage  
(in thousands)**

	For the years ending December 31,				
	2003	2004	2005	2006	2007
<b>Operating Revenues</b>					
System Collections	\$19,800	\$22,700	\$24,700	\$25,900	\$27,500
Interest Income	250	250	300	300	300
<b>Total Operating Revenues</b>	<b>\$20,050</b>	<b>\$22,950</b>	<b>\$25,000</b>	<b>\$26,200</b>	<b>\$27,800</b>
<b>Operating Expenses</b>					
Board/Authority Expenses	\$ 200	\$ 200	\$ 210	\$ 220	\$ 220
Water System Operation and Maintenance	7,750	8,140	8,560	8,980	9,420
Sewer System Operation and Maintenance	6,960	7,170	7,400	7,630	7,870
Administration and Other Costs	1,730	1,780	1,820	1,860	1,910
<b>Total Operating Expenses</b>	<b>\$16,640</b>	<b>\$17,290</b>	<b>\$17,990</b>	<b>\$18,690</b>	<b>\$19,420</b>
<b>Cash Flows From Operations Available for Debt Service</b>	<b>\$ 3,410</b>	<b>\$ 5,660</b>	<b>\$ 7,010</b>	<b>\$ 7,510</b>	<b>\$ 8,380</b>
<b>Debt Service on Notes and Bonds</b>	<b>2,270</b>	<b>3,160</b>	<b>4,490</b>	<b>4,470</b>	<b>4,440</b>
<b>Cash Flows From Operations, After Debt Service</b>	<b>\$ 1,140</b>	<b>\$ 2,500</b>	<b>\$ 2,520</b>	<b>\$ 3,040</b>	<b>\$ 3,940</b>
<b>Debt Service Coverage Ratio<sup>3</sup></b>	<b>1.39</b>	<b>1.71</b>	<b>1.49</b>	<b>1.61</b>	<b>1.82</b>

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<sup>3</sup> The “Debt Service Coverage Ratio” has been calculated by dividing (a) “Cash Flows From Operations Available for Debt Service” less “Interest Income” by (b) “Debt Service on Notes and Bonds”.

## DEBT SERVICE REQUIREMENTS

The following schedule sets forth the Authority's annual debt service requirements, assuming both the issuance of the Series 2003 Bonds as contemplated herein and the defeasance of the Refunded Bonds.

<b>Year End</b>	<b>1993A Capital Appreciation Issue</b>	<b>Series 1999 SRF Obligations <sup>(a)(b)(c)</sup></b>	<b>Series 2003 SRF Obligations <sup>(a)(b)(c)</sup></b>	<b>Series 2003 Bonds</b>	<b>Total Annual Debt Service <sup>(b)</sup></b>
2003	\$520,000	\$23,381	\$ 70,757	\$ 848,784	\$1,462,922
2004	520,000	23,085	137,070	3,772,300	4,452,455
2005	520,000	22,777	136,156	4,064,800	4,743,733
2006	525,000	22,462	135,205	4,040,800	4,723,467
2007	525,000	22,140	134,122	4,016,800	4,698,061
2008	525,000	21,810	132,895	3,991,300	4,671,004
2009	525,000	26,472	136,520	6,234,800	6,922,792
2010		26,017	139,853	6,354,900	6,520,770
2011		25,547	138,013	6,788,950	6,952,510
2012		25,067	136,085	6,777,900	6,939,052
2013		24,582	139,089	6,757,400	6,921,071
2014		24,092	141,890	6,732,350	6,898,332
2015		23,597	139,503	6,719,050	6,882,150
2016		23,092	146,993	6,686,500	6,856,585
2017		22,582	144,242	5,983,838	6,150,661
2018		22,069	141,448	5,105,238	5,268,755
2019			138,617	5,077,075	5,215,692
2020			145,666	5,070,613	5,216,278
2021			152,430	5,044,000	5,196,430
2022			148,825	5,343,463	5,492,288
2023			155,103	1,656,413	1,811,515
2024			151,114	1,660,750	1,811,864
2025			177,096	1,659,750	1,836,846
2026			172,071	1,656,250	1,828,321
2027			97,173	1,660,250	1,757,423
2028			162,522	1,661,250	1,823,772
2029				1,659,250	1,659,250
2030				1,659,250	1,659,250
2031				1,661,000	1,661,000
2032				1,659,250	1,659,250
2033				1,659,000	1,659,000
<b>Total</b>	<b>\$3,660,000</b>	<b>\$378,770</b>	<b>\$3,650,458</b>	<b>\$123,663,272</b>	<b>\$131,352,501</b>

- (a) SRF Obligations include obligations of the Authority to the New York State Environmental Facilities Corporation as administrator of the revolving fund established by the State under the Clean Water Act.
- (b) The above schedule reflects future debt service requirements for SRF obligations of the Authority as of March 31, 2003.
- (c) Obligations under the SRF program are reflected net of anticipated interest subsidies.

## FINANCIAL OPERATIONS

The following table presents certain historical data relating to the System which have been derived from the annual financial statements of the Board and the Authority.

### Comparative Financial Information and Illustrative Debt Coverage Ratios 1996 - 2002

	1996	1997	1998	1999	2000	2001	2002
<b>Operating Revenues</b>							
Water/Sewer	\$16,131	\$16,283	\$16,531	\$17,044	\$16,014	\$16,280	\$18,065
Interest Income	<u>1,245</u>	<u>1,187</u>	<u>1,082</u>	<u>1,025</u>	<u>1,160</u>	<u>750</u>	<u>545</u>
Total	<b>\$17,376</b>	<b>\$17,470</b>	<b>\$17,613</b>	<b>\$18,069</b>	<b>\$17,174</b>	<b>\$17,030</b>	<b>\$18,610</b>
<b>Operating Expenses</b>							
Water system operation/maintenance	\$ 4,446	\$ 5,256	\$ 5,229	\$ 5,849	\$ 6,107	\$ 6,574	\$ 7,150
Sewer system operation/maintenance	5,857	5,776	5,618	5,609	5,700	6,273	6,362
Administration and other costs	<u>1,007</u>	<u>1,304</u>	<u>1,088</u>	<u>1,072</u>	<u>1,194</u>	<u>2,002</u>	<u>2,438</u>
Total	<b>\$11,310</b>	<b>\$12,336</b>	<b>\$11,935</b>	<b>\$12,530</b>	<b>\$13,001</b>	<b>\$14,849</b>	<b>\$15,950</b>
<b>Net Operating Revenue</b>	<b>\$ 6,066</b>	<b>\$ 5,134</b>	<b>\$ 5,678</b>	<b>\$ 5,539</b>	<b>\$ 4,173</b>	<b>\$ 2,181</b>	<b>\$ 2,660</b>
<b>Debt Service Costs</b>	<b>\$ 4,499</b>	<b>\$ 4,622</b>	<b>\$ 5,303</b>	<b>\$ 5,190</b>	<b>\$ 4,663</b>	<b>\$ 4,731</b>	<b>\$ 4,693</b>
<b>Debt Coverage Ratio</b>	<b>2.65</b>	<b>2.76</b>	<b>2.42</b>	<b>2.51</b>	<b>1.69</b>	<b>1.04</b>	<b>0.59</b>

NOTE: The above financial information has been obtained from the Board and Authority's audited financial statements and, as such, reflects accrual (rather than cash) basis revenues, expenses, and other information. The debt coverage ratio is computed by dividing the excess of revenues (including interest income) over expenses, by annual debt service. For the years 1996, 1997, 1998, 1999, 2000, 2001 and 2002, the computation of net operating revenue includes undesignated cash balances available in the Board's operation and maintenance reserve fund of approximately \$5,860,000, \$7,650,000, \$7,160,000, \$7,500,000, \$3,690,000, \$2,740,000 and \$210,000, respectively. Accordingly, this illustrative debt coverage ratio analysis is intended for comparative trend analysis only.

Additional financial information regarding the Board and the Authority is provided in Appendix B-2.

## MANAGEMENT'S DISCUSSION OF CURRENT OPERATIONS

Under the Financing Agreement, the Board has covenanted to establish and collect rates, fees and charges sufficient in each Fiscal Year so that the 115% rate covenant contained in the Financing Agreement is satisfied. As described in the "Combined Financial Report of the Board and the Authority" in Appendix B-2, the 115% rate covenant was not satisfied in Fiscal Years 2001 and 2002.

The failure by the Board to satisfy the rate covenant was due to a number of factors. The factors include the following:

- (a) Significantly increased security costs relating to increased security concerns stemming from the September 11 disaster. Little or no federal or state aid was available to assist the Board in the funding of such increased costs.

(b) Federal and state budget cutbacks resulting in reductions in, or elimination of, federal and state aid to assist in the financing of capital improvements to the System, or, in the alternative, the failure of the Federal government or the State government to provide funding to assist in the financing of capital improvements to the System.

(c) Cost overruns with respect to certain capital projects undertaken by the Board.

(d) Failure of the Board on a timely basis to adopt rate increases to increase revenues.

The Board has since implemented a 15% rate increase in April 2002 and a 9.5% rate increase in April 2003 to ensure future compliance with the 115% rate covenant. As in the past, the Board is committed under the Financing Agreement to implement periodic future rate increases in order to ensure future compliance.

In addition, the Board expects that the completion of the conversion of the existing metering system to a radio frequency automated meter reading system will result in increased revenues.

The Board is required under the Financing Agreement to review, on at least an annual basis, the adequacy of rates, fees and charges. If such annual review, or the report of the Rate Consultant required pursuant to the Financing Agreement, indicates that the rates, fees and charges are or will be insufficient to meet the requirements of the rate covenant, the Board is required to issue a corrective measures report to the Authority within 20 days of such annual review or report of the Rate Consultant.

The corrective measures report must detail the methods by which and time frame within which the Board shall cause compliance with the covenant. In the event such report includes a recommended increase in rates, fees, rents or other charges, the Board is required to meet within 45 days and formally consider a resolution to increase such rates, fees, rents or other charges in amounts necessary to cause compliance.

## **THE AUTHORITY**

### **Purpose and Powers**

The Albany Municipal Water Finance Authority is a public benefit corporation created by the Act. Among its powers under the Act, the Authority may borrow money, issue debt and enter into the Financing Agreement. Additionally, the Authority has the power to require that the Board charge and collect sufficient rates to pay the costs of operating and financing the System and to enforce the obligation of the City to adequately operate and maintain the System.

Pursuant to the Act, there is a statutory lien upon the Revenues in favor of the payment of all amounts due to the Authority under the Financing Agreement. The Revenues will remain subject to this lien until provision for payment of all indebtedness issued by the Authority has been made.

### **Membership**

The Authority consists of seven members. Two members of the Authority are appointed by the Governor of the State from a list of names submitted by the Mayor of the City and five members of the Authority are appointed by the Mayor. Pursuant to the Act, all members continue to hold office until their successors are appointed and qualified.

The current members of the Authority are:

Member	Occupation	Term Expires
Joseph T. Montimurro, Chairman	Retired, Educational Administration/Director	December 31, 2004
Gardner D. Lerner, Vice Chairman	Retired, Small Restaurant Chain Owner/Food Consultant	December 31, 2005
Patricia Shultis, Secretary	Data Processing Clerk, NYS Comptroller's Office	December 31, 2004
Dale A. Getto, Treasurer	Behavior Management Specialist, City School District of Albany	December 31, 2004
William Meredith	Retired, Antique Dealer	December 31, 2005
Michael A. Nardolillo	Director of Operations, Trinity Institute/Homer Perkins, Inc.	December 31, 2005
Fowler J. Riddick	Retired, Deputy Treasurer, City of Albany Member, County Legislature	December 31, 2004

## THE BOARD

### Purpose and Powers

The Board is a corporate municipal instrumentality of the State created by the Act. The primary responsibility of the Board is to fix, revise, charge, collect and enforce rates and other charges for the System.

The Board is required under the Act to establish rates that will provide adequate funds to pay the debt service on outstanding Authority indebtedness and amounts to be paid by the Board to the City under the Operation Agreement. Any surplus of funds remaining after these and certain other payments are made will be deposited to the Operation and Maintenance Reserve Account.

Pursuant to the Operation Agreement, the City will operate and maintain the System. The Board is required to compensate the City for the cost of these services. In addition, pursuant to the Operation Agreement, the City is required to provide billing, collection and enforcement to the Board. The Board supplies the City with free use of the System for governmental purposes in lieu of payment for certain of these services. See "RATES AND BILLINGS — Billing and Collection."

### Membership

The Board consists of five members who are appointed by the Mayor. The Act provides that the terms of the members of the Board will be three years except that the initial members will have staggered terms of two, three or four years. The Act also provides that no member of the Board will be a member of the Authority. Pursuant to the Act, all members continue to hold office until their successors are appointed and qualified.

The current members of the Board are:

Member	Occupation	Term Expires
Anthony J. Ferrara, Chairman	Retired, Senior Vice President, Fleet Bank	December 31, 2005
David R. McGuire, Vice Chairman	Principal, Christian Brothers Academy	December 31, 2004
Leo P. Dean, Secretary	Insurance Executive, Norwest Financial Services, Inc.	December 31, 2003
John M. Prenderville, Treasurer	Retired, Chairman, State Athletic Commission, Deputy Commissioner, New York State Office of Parks, Recreation and Historic Preservation	December 31, 2004
Joseph Bogdanowicz, Assistant Secretary	Retired, Albany City School District Teacher	December 31, 2004

## THE SYSTEM

Set forth below is a summary description of the System and its physical facilities. For more information regarding the System, see Appendix A hereto.

### The Water System

*Service Area.* The Water System supplies water to the City, which had a reported population of 95,658 in 2000. Water service is provided to approximately 29,000 accounts. The Water System is the sole source of water for consumption and fire protection in the City. In addition to supplying water to residents and businesses located in the City, the System also supplies treated water to the CSX Rail Yard at Selkirk, PSEG Power of New York Inc. and supplemental quantities of treated water to the Town of Bethlehem and the Town of Guilderland. Untreated water from the Alcove Reservoir is supplied to the Village of Ravena and surrounding hamlets that are within the Village service area.

The contract with the Village of Ravena requires that the Board, upon request and at no cost, release up to 2 million gallons of untreated water per day from the Alcove Reservoir for supply to the Village of Ravena.

The Board's contract with the Town of Bethlehem provides that the Board will supply treated water to the Town of Bethlehem at normal billing rates. The initial rate under the contract was \$1.81 per thousand gallons. The current rate under the contract is \$2.42 per thousand gallons (the rate is \$3.20 per thousand gallons for water purchased over the minimum). Under the contract, the Board is required to maintain facilities to deliver up to 600,000 gallons per day at the Creble Road and Kenwood Avenue connections. The contract provides that Bethlehem will purchase a minimum of 14.5 million gallons per month for the period of May, 2003 through October, 2003. The minimum increases periodically to a minimum of 18 million gallons per month for those months in 2006. Bethlehem may purchase water without a minimum from November through April of each year.

The Town of Bethlehem purchased 221,310,760 million gallons of water in calendar year 2001 and 502,604,880 million gallons of water in calendar year 2002. The significantly higher amount of water purchased by the Town of Bethlehem in calendar year 2002 reflects the impact of a drought and

other supply issues confronted by the Town in 2002. The Board expects that the amount of water to be purchased by the Town of Bethlehem in calendar year 2003 will be equivalent to the amount purchased in calendar year 2001.

The Board entered into a contract with the Town of Guilderland in 1997 which provides that the Board will supply up to 2 million gallons per day of treated water to Guilderland to supplement its water supply. In consideration for the Board's agreement to provide Guilderland with a 2 million gallon per day reserve capacity, Guilderland paid the Board an upfront payment of \$2,300,000 and agreed to purchase water at an initial rate of \$1.25 per thousand gallons (the rate is subject to the same percentage increases and penalties set by the Board for water furnished to residential customers within the City). The current water rate for the Town of Guilderland is \$1.675 per thousand gallons. The upfront payment is being amortized over the twenty year term of the contract. The contract may be terminated at any time by mutual consent of the parties. If the contract is terminated, Guilderland will receive a prorated refund of its upfront payment based upon the years remaining on the contract. Under this contract, the Town of Guilderland purchased 253,030,000 million gallons of water in calendar year 2001 and 240,940,000 million gallons of water in calendar year 2002.

Average daily water consumption within the City peaked in the late 1950's and early 1960's at approximately 25 mgd. Average consumption remained steady through the late 1960's and early 1970's despite slight declines in the City's population. Largely as a result of conservation measures and a leak detection and repair program undertaken in the early 1980's, daily consumption within the City was reduced. In 2002, daily consumption has averaged approximately 21.3 mgd.

*Water Supply.* The Water System's source of supply is obtained from the waters of the Hannacrois and Basic Creeks, located approximately 20 miles southwest of the City in the Helderberg Mountains. A retention dam was built across the Hannacrois Creek near the Village of Alcove which stores the water of this creek and forms the Alcove Reservoir. The Alcove Reservoir is the main supply reservoir for the System. Located in the Town of Coeymans, the Alcove Reservoir contains 13.5 billion gallons of water, of which approximately 12.1 billion gallons are considered available for use. The safe-yield (i.e., long-term safe withdrawal) of the Alcove-Basic Reservoir System is 28.6 mgd.

The Alcove Dam, constructed in 1928-1930, is a rolled earthen embankment with a reinforced concrete corewall center. The Alcove Dam is approximately 2,117 feet long, which includes a 300-foot concrete spillway. The maximum height of the Alcove Dam is 81 feet and the base of the Dam is 485 feet wide.

In order to augment the supply from Hannacrois Creek, the City built a diversion dam across the Basic Creek in 1929, forming the Basic Reservoir. The Basic Reservoir is located in the Town of Westerlo. At times of maximum capacity, water can be diverted from the Basic Reservoir to the Alcove Reservoir. The capacity of the Basic Reservoir is 716 million gallons.

In 2002, the Board acquired from the City a fifty-year leasehold interest in Rensselaer Lake and surrounding properties located in the City and the Towns of Colonie and Guilderland, also known as Six Mile Waterworks. The Board acquired an interest in the Six Mile Waterworks for possible future use as a supplemental emergency water supply in the event of a disruption of water supply from the Alcove Reservoir and the Basic Reservoir.

The City created Rensselaer Lake in 1851 and 1852 by the construction of a low earth dam across the Patroon Creek. The dam is an earthen embankment with a top width of approximately 10 feet. Rensselaer Lake served the water needs of the City from 1852 to 1909, at which time it was placed in

reserve status. Rensselaer Lake is approximately 43.4 acres in size and has a watershed of approximately 2.8 square miles. The current estimate for safe yield of the lake is 2.4 – 3.9 mgd. A complete water quality analysis of this supply was performed, for all regulated drinking water parameters, and it was concluded that this source can be treated by conventional methods to meet all current standards.

*Water Treatment.* Water is carried by a 48-inch diameter cast iron pipe (the “Supply Conduit”) to a filtration plant located in the Feura Bush region of the Town of Bethlehem, approximately half-way between the Alcove Reservoir and the City water distribution system. The filtration plant is a full conventional treatment plant with aeration, rapid mixing, flocculation, sedimentation and rapid sand filtration. Chemicals used in the process are chlorine, polyaluminum chloride, acidified liquid alum, potassium permanganate, and hydrated lime. The total plant capacity is 32 mgd.

Recent improvements at the filtration plant include: filter turbidimeters and changes to chemical coagulants for compliance with EPA Enhanced Surface Water Treatment regulations; a chlorine scrubber to comply with EPA Risk Management Plan requirements; and upgrades to the controls, operator interface software, and radio telemetry.

Improvements to the filtration plant are among the Projects included in the Capital Improvements Program. See “THE SYSTEM — Approved Capital Expenditures” for a summary of the repairs and improvements expected to be made and the amounts authorized therefor. Additional improvements will continue in response to meeting goals of safety, operation efficiencies, and regulatory compliance.

*Water Transmission.* The water supplied from the Alcove Reservoir is delivered to the City entirely by gravity through the Supply Conduit. The Supply Conduit, constructed in 1930-1932, is approximately 20 miles long and traverses the Towns of Coeymans and Bethlehem, from the Alcove Reservoir to the Loudonville Reservoir. Water is transmitted by the Supply Conduit to the filtration plant and subsequently to the City and the Loudonville Reservoir. The Supply Conduit is equipped with air release valves at the highpoints and blow-off valves at the low points, which facilitates draining and filling operations.

There have been a number of recent improvements to the Supply Conduit. These improvements include the construction of a new single span steel bridge supporting the Supply Conduit at the Onesquethaw Creek. Other improvements have included the reconstruction of the stream crossing at the Normans Kill as part of emergency highway repairs to Delaware Avenue after a major landslide, flood protection for the 36” transmission main at the Patroon Creek at Tivoli Park, replacement of a 42” valve and vault on North Lake Avenue, and replacement of 48” transmission main at Elsmere Avenue in conjunction with road paving.

Improvements to the Supply Conduit are among the Projects included in the Capital Improvements Program. See “THE SYSTEM — Approved Capital Expenditures” for a summary of the repairs and improvements expected to be made and the amounts authorized therefor. The Engineering Report describes the Supply Conduit as sound and capable of adequate service for the System. See “WATER SYSTEM — Water System Evaluation — Transmission” in Appendix A.

*Water Distribution.* Water from the Supply Conduit is distributed to the City through a series of feeder mains. The distribution system carries water from the feeder mains to the consumers. The distribution system consists of approximately 370 miles of pipes which range in size from 4-inch diameter to 36-inch diameter. There are over 8,700 valves in the distribution system to provide flow control during system maintenance. The distribution system includes approximately 3,000 fire hydrants.

Much of the distribution pipe mileage in the System is unlined cast iron, the primary construction material used before 1930. Since 1973, the installed distribution pipe material has been cement-lined ductile iron.

The distribution system is the oldest part of the Water System, with mains constructed as early as 1851 still in use. Approximately 27% of the existing distribution system was placed in service prior to 1900. Pipe is replaced on the basis of frequency of repairs, or in conjunction with street reconstruction projects. Recent distribution main improvements included rehabilitation or replacement of mains in conjunction with the Pearl Street Reconstruction Project.

Improvements to the distribution system are among the Projects included in the Capital Improvements Program. See "THE SYSTEM — Approved Capital Expenditures" for a summary of the repairs and improvements expected to be made and the amounts authorized therefor and "THE WATER SYSTEM — Water System Evaluation — Distribution System" in Appendix A for the information regarding the condition of the distribution system.

*Water Service Meters.* The Water System has approximately 25,000 metered connections and approximately 29,000 billed customers. Non-metered includes approximately 500 flat rate users and 4500 properties without connections charged on a front footage rate.

A current capital improvement program being undertaken is the conversion of the water service meters to a radio frequency automated meter reading system. The conversion program was initiated in 1999 and to date approximately 3,700 meters have been installed. The Board has contracted with an outside vendor to undertake the conversion program and the program is expected to be completed in 2004.

The conversion of the metering system will result in the elimination of estimated billing and the replacement of aged and/or defective meters. The new metering system will also reduce customer tampering and provide the Board with the ability to increase billing and collecting frequency.

*Water Storage/Loudonville Reservoir* — The Loudonville Reservoir serves two functions: (a) distribution storage and (b) back-up supply. The Loudonville system consists of three concrete lined basins with a total capacity of 211 million gallons, representing an approximately 8 to 10-day water supply to the City during an emergency or planned outage, one requiring shutdown of the Feura Bush filtration plant or the shutdown of the Supply Conduit. The storage basins are uncovered. In accordance with New York State Department of Health requirements the discharge of Loudonville Reservoir is chlorinated.

In 2002 and 2003, an ultraviolet (UV) light treatment system was constructed at the Loudonville Reservoir. The UV system has four 10 mgd units with a total capacity of 40 mgd. The UV system has been in operation since April 1, 2003 and equipment validation testing is expected to be completed in 2003. The objectives of the UV project were to provide the best available disinfection at this location and to comply with proposed EPA regulations for uncovered finished water storage.

Improvements to the Loudonville Reservoir are included in the Capital Improvements Program. See "THE SYSTEM — Approved Capital Expenditures" for a summary of the repairs and improvements expected to be made and the amounts authorized therefor. For information regarding the condition of the Loudonville Reservoir, see "THE WATER SYSTEM — Water System Evaluation — Treated Water Storage Facilities" in Appendix A and "WATER SYSTEM — Capital Improvement Program — Loudonville Reservoir" in Appendix A.

*Pump Stations and Elevated Tanks.* The majority of the City is served as one pressure zone from the Loudonville Reservoir. The downtown portion, which is at a lower elevation along the Hudson River, is served through pressure reducing valves. The western portion of the City, beyond Fuller Road, is served by the Pine Bush Pump Station and the Pine Bush Tank (1 mg). Properties in the vicinity of the Loudonville Reservoir are served by the Upper Service Pump Station and Upper Service Tank (150,000 gallons).

*Department of Water and Water Supply.* The operation and maintenance of the City's Water System are under the jurisdiction of the Department of Water and Water Supply (the "Water Department"). The Water Department will continue to operate and maintain the Water System on behalf of the Board in accordance with the provisions of the Operation Agreement.

The Water Department operates under the authority of a Commissioner, an Assistant Commissioner and a Chief Plant Operator. The Water Department has complete responsibility for the administration and operation of the Water System, including meter readings and billings. The Water Department's operations and staffing are divided into four divisions: administration; source of supply, power and pumping; purification; and transmission and distribution.

The Administration Division, currently staffed with 19 persons, has the primary responsibility for the Water System. The division also handles billing, finance, meter reading, and consumer services. The Source of Supply, Power and Pumping Division is responsible for the efficient and continuous operation, and security of the Basic and Alcove Reservoirs. This division has a staff of 31 persons. The Purification Division, with a current staff of 21, is responsible for operating the Feura Bush filtration plant and laboratory. Maintenance of the transmission, distribution, treated water storage, and pumping systems as well as installation and repair of water meters, are responsibilities of the Transmission and Distribution Division, which has 50 personnel positions.

*Expenditures.* The Water System's forecasted Fiscal Year 2003 expenditures for operation and maintenance are approximately \$7,750,000. This amount reflects the cost to the Board for the City's operation and maintenance of the Water System.

**Fiscal Year 2003**  
**Forecasted Operation and Maintenance Expenses — Water**

	<b>Total Expenses (1)</b>
Personal Service Costs(2)	\$4,190,000
Other Than Personal Service Costs (3)	3,560,000
<b>Total</b>	<b>\$7,750,000</b>

- (1) Amounts shown are consistent with the forecasted cash flows in Appendix B-1.  
(2) "Personal Service Costs" include salaries, fringe benefits and pension costs.  
(3) "Other than Personal Service Costs" include real estate taxes on property outside the City, electricity, chemicals and all other operational and maintenance expenses.

### **The Sewer System**

*General.* The Albany County Sewer District ("ACSD") was formed in 1967 and the City signed an agreement for ACSD participation on December 3, 1970. Under the agreement, the City is responsible for operating and maintaining the collection system within its boundaries. The Sewer System connects

with the ACSD facilities at the South Plant and the Patroons Creek Trunk Sewer, both of which are owned and operated by ACSD. The ACSD operates the overflow regulators which control the amount of sewage bypassed to the Hudson River during storms, and owns and operates two (North and South) treatment plants which treat sewage from the Sewer System as well as the other municipalities in ACSD. See "SEWER SYSTEM — Description of the Sewer System" in Appendix A hereto for more information regarding the treatment plants.

*Collection Systems.* The Sewer System is divided into eight drainage districts within the corporate boundaries of the City. ACSD's North Plant treats sewage from three of the drainage districts, which have an average daily flow of 3.4 mgd, and the ACSD's South Plant treats sewage from the remaining five districts, with an average daily flow of 23.3 mgd.

The Patroons Creek Trunk Sewer and the Hudson River Interceptor South are the two main conveyance facilities which connect with the collection and trunk sewers of the Sewer System. The Patroons Creek Trunk Sewer was constructed between 1969 and 1974 by ACSD. The ACSD monitors flow in this trunk sewer through the use of remote flow metering stations.

The Hudson River Interceptor South lies entirely within the City and is owned by the City and operated by ACSD. The Sewer System connects to the interceptor through eight small collector sewers and 21 trunk sewer connections. Each of the 21 trunk sewer connections has an intercepting manhole and flow regulator to control the flow of sewage to the interceptor and to provide for the diversion of excessive flows to the Hudson River.

The sewage collection system includes 22 pumping stations and approximately 350 miles of sewer pipes of varying sizes. Approximately 240 miles of collector and trunk sewers carry both sanitary sewage and storm water runoff ("combined sewers") and 110 miles of collector and trunk sewers carry sanitary sewage only. Major separation of storm sewers has occurred as part of the Pearl Street Reconstruction Project over the last 5 years, with Federal Highway funding. Additional improvements include the completion of five phases of the Beaver Creek Sewer District Improvements, which have substantially mitigated street flooding and sewer backup problems in the largest of the City districts.

As more fully described in Appendix A hereto, problems such as flooding and overflows from combined sewers may arise during periods of heavy rainfall. Funding for the continuation of the ongoing sewer separation project is included in the Capital Improvement Program. See "THE SYSTEM — Approved Capital Expenditures" herein.

*Department of General Services.* The Department of General Services presently administers the operation and maintenance of the Sewer System through its Division of Engineering. The Commissioner of the Department of General Services is in direct charge of the Sewer Maintenance and Pumping Stations.

The Department of General Services has two groups dedicated to the Sewer System, one responsible for the operation and maintenance of the collector and trunk sewers and the other in charge of operation and maintenance of the pumping stations. In addition to the sewage pipes, the sewer group maintains catch basins in the combined sewers. The sewer group has 6 positions and the pumping station group has 3 positions.

*Expenditures.* The Sewer System's forecasted Fiscal Year 2003 expenditures for operation and maintenance are approximately \$6,960,000. This amount reflects the cost to the Board for the City's operation and maintenance of the Sewer System.

**Fiscal Year 2003**  
**Forecasted Operation and Maintenance Expenses — Sewer**

	<b>Total Expenses (1)</b>
Personal Service Costs (2)	\$ 900,000
Other Than Personal Service Costs (3)	6,060,000
<b>Total</b>	<b>\$6,960,000</b>

- (1) Amounts shown are consistent with the forecasted cash flows in Appendix B-1.
- (2) "Personal Service Costs" include salaries, fringe benefits and pension costs.
- (3) "Other than Personal Service Costs" include costs of participating in the Albany County Sewer District and all other operational and maintenance expenses.

#### **Approved Capital Expenditures**

A five-year Capital Improvements Program for the System has been approved by the Authority and the Board for the period ending December 31, 2007, as described in Appendix A. The Board expects to use approximately \$4,000,000 of the proceeds of the Series 2003B Bonds to fund System Improvements under the Capital Improvements Program through 2005. Planned capital expenditures which are not funded with proceeds of the Series 2003B Bonds are expected to be funded through (1) the current operations and cash flow of the Board, (2) borrowings from the New York State Environmental Facilities Corporation as administrator of the State Revolving Fund established under the Clean Water Act and (3) state and federal funding. In accordance with the provisions of the Financing Agreement, the City, the Authority and the Board may, by resolution, amend the Financing Agreement to add a Project or delete a Project or to change the scope or cost of a Project listed thereon. (See "CERTAIN DOCUMENTS — Summary of the Financing Agreement"). The following table describes the approved capital improvements to the Water System:

#### **General Description Of Water System Capital Improvements Program**

<b>System Component</b>	<b>Description of Improvement</b>
Supply Reservoirs:	Investigation, surveys and design of construction details for earthen dam stabilization
	Investigation, surveys and design of emergency water supply improvements to connect existing distribution system to Rensselaer Lake
	Alcove Reservoir Gatehouse structural and roof repairs
	Emergency Action Plan ("EAP") for Alcove and Basic Creek Reservoirs
	Communication System conversion
	Completion of engineering/construction response to Alcove and Basic Reservoirs EAP
	Engineering inspection of Alcove and Basic Creek Dams
Feura Bush Filtration Plant:	Equipment installation for conversion to acidified liquid alum coagulant aide
	Replacement of plant emergency power generator
	Design of miscellaneous building upgrades
	Construction of miscellaneous building upgrades
Supply Conduit:	Installation of telemetry system from a meter located in Selkirk Tunnel Access Building
	Construction of building to house pressure relief valve chamber
	Rehabilitation of miscellaneous valves, operators and funnel structures
Distribution System:	Installation of pressure regulating valve telemetry equipment
	Implementation of recommendations of Emergency Response Plan in regard to water service interconnections with Towns of Bethlehem and Guilderland, Village of Colonie and Latham Water District

<b>System Component</b>	<b>Description of Improvement</b>
Loudonville Reservoir:	Miscellaneous repairs Completion of equipment installation and construction of new ultraviolet (UV) disinfection systems
Pumping Station:	Miscellaneous joint repair and perimeter fence replacement Acquisition of new pumping equipment Installation of instrumentation upgrades Conduct hydraulic evaluation of Pine Bush Pumping Station and perform engineering study of Washington Avenue system demands Miscellaneous improvements at USWD and Pine Bush Pumping Station
Erie Boulevard Facility:	Perform survey and design work for miscellaneous renovations to Department Headquarters Construction of miscellaneous improvements to Department Headquarters
Computer Systems:	Installation of software and hardware upgrades
Miscellaneous:	Miscellaneous inspections, surveying, mapping, drafting and other consulting services

In accordance with the Capital Improvements Program approved by the Authority and the Board, the capital improvements to the Water System described above are scheduled to be undertaken as described as follows:

#### **Timetable Of Water System Capital Improvements**

<b>Project</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Supply Reservoirs	Investigation, surveys and design of construction details for earthen dam stabilization  Investigation, surveys and design of emergency water supply improvements to connect existing distribution system to Rensselaer Lake	Alcove Reservoir Gatehouse structural and roof repairs		Emergency Action Plan ("EAP") for Alcove and Basic Creek Reservoirs  Communication System conversion	Completion of engineering/construction response to Alcove and Basic Reservoirs EAP  Engineering inspection of Alcove and Basic Creek Dams
Feura Bush Filtration Plant	Equipment installation for conversion to acidified liquid alum coagulant aide  Replacement of plant emergency power generator			Design of miscellaneous building upgrades	Construction of miscellaneous building upgrades

<b>Project</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Supply Conduit	Installation of telemetry system from a meter located in Selkirk Tunnel Access Building			Construction of building to house pressure relief valve chamber	Rehabilitation of miscellaneous valves, operators and tunnel structures
Distribution System	Installation of pressure regulating valve telemetry equipment	Implementation of recommendations of Emergency Response Plan in regard to water service interconnections with Towns of Bethlehem and Guilderland, Village of Colonie and Latham Water District		Miscellaneous repairs	Miscellaneous repairs
Loudonville Reservoir	Completion of equipment installation and construction of new ultraviolet (UV) disinfection systems			Miscellaneous joint repair and perimeter fence replacement	Miscellaneous joint repair and perimeter fence replacement
Pumping Stations	Acquisition of new pumping equipment		Installation of instrumentation upgrades	Conduct hydraulic evaluation of Pine Bush Pumping Station and perform engineering study of Washington Avenue system demands	Miscellaneous improvements at USWD and Pine Bush Pumping Station
Erie Boulevard Facility	Perform survey and design work for miscellaneous renovations to Department Headquarters	Construction of miscellaneous improvements to Department Headquarters		Construction of miscellaneous improvements to Department Headquarters	Construction of miscellaneous improvements to Department Headquarters
Computer Systems	Installation of software and hardware upgrades	Installation of software and hardware upgrades	Installation of software and hardware upgrades	Installation of software and hardware upgrades Meter Radio Read System	Installation of software and hardware upgrades
Miscellaneous	Miscellaneous inspections, surveying, mapping, drafting and other consulting services	Miscellaneous inspections, surveying, mapping, drafting and other consulting services	Miscellaneous inspections, surveying, mapping, drafting and other consulting services	Miscellaneous inspections, surveying, mapping, drafting and other consulting services	Miscellaneous inspections, surveying, mapping, drafting and other consulting services

The costs of the capital improvements to the Water System to be undertaken in accordance with the Capital Improvement Program are described as follows:

### Water System Capital Expenditures<sup>4</sup>

<b>Proposed Projects</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Supply Reservoirs	\$ 375,000	\$ 75,000	\$ 0	\$ 60,000	\$ 60,000
Feura Bush Filtration Plant	621,000	0	0	100,000	100,000
Supply Conduit	15,000	0	0	50,000	60,000
Distribution System	110,000	300,000	0	125,000	125,000
Loudonville Reservoir	430,000	0	0	50,000	60,000
Pumping Stations	50,000	0	0	50,000	50,000
Erie Boulevard Facility	50,000	350,000	0	230,000	210,000
Computers	30,000	25,000	25,000	30,000	30,000
Water Service Meters	3,000,000	2,300,000	0	0	0
Miscellaneous Engineering	18,500	18,500	18,500	55,000	55,000
Contingency Allocation	16,500	16,500	16,500	50,000	50,000
<b>Totals</b>	<b>\$4,716,000</b>	<b>\$3,085,000</b>	<b>\$60,000</b>	<b>\$800,000</b>	<b>\$800,000</b>

A general description of the capital improvements to the Sewer System to be undertaken, as approved by the Authority and the Board in the Capital Improvements Program, is contained in the following table:

#### **General Description Of Sewer System Capital Improvements Program**

<b>System Component</b>	<b>Description of Improvement</b>
Sewer Separation	Construct storm water separation from portion of Academy Road combined sewers Undertake detention and sewer separation projects Evaluation of new regulatory requirements and engineering studies
Sewer Rehabilitation	Rehabilitation of existing sewers on Lark Street, South Swan Street and North Pine Street Rehabilitation of existing sewers on New Scotland Avenue Rehabilitation of existing sewers in Central Avenue corridor between North Allen Street and City of Albany/Town of Colonie boundary Miscellaneous sewer collection system improvements
Sewage Pumping Stations	Replacement of valve and control equipment in Woodville Pumping Station Install MOSCAD radio system and improvements to station controls of McCormack Road Pumping Station Miscellaneous pumping station improvements
Overflows	Conduct overflow monitoring studies Design and construct improvements relating to overflow monitoring studies
Equipment	Acquire equipment for cleaning combined sewer system catch basin and manhole structures Miscellaneous equipment upgrades
Miscellaneous Engineering	Miscellaneous inspections, surveying, mapping, drafting and other consulting services

<sup>4</sup> Note: Expenditures shown for 2003 do not include approximately \$2.5 million in carryover payments made in 2003 but accrued prior to 2003 for projects initiated prior to 2003.

In accordance with the Capital Improvements Program approved by the Authority and the Board, the capital improvements to the Sewer System described above are scheduled to be undertaken as described as follows:

#### **Timetable Of Sewer System Capital Improvements**

<b>Project</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Sewer Separation	Construct storm water separation from portion of Academy Rod combined sewers			Undertake detention and sewer separation projects	Evaluation of new regulatory requirements and engineering studies
Sewer Rehabilitation.	Rehabilitation of existing sewers on Lark Street, South Swan Street and North Pine Street	Rehabilitation of existing sewers on New Scotland Avenue	Rehabilitation of existing sewers in Central Avenue corridor between North Allen Street and City of Albany/Town of Colonie boundary	Miscellaneous sewer collection system improvements	Miscellaneous sewer collection system improvements
Sewage Pumping Stations	Replacement of valve and control equipment in Woodville Pumping Station	Install MOSCAD radio system and improvements to station controls of McCormack Road Pumping Station		Miscellaneous pumping station improvements	Miscellaneous pumping station improvements
Overflows	Conduct overflow monitoring studies	Conduct overflow monitoring studies	Conduct overflow monitoring studies	Design and construct improvements relating to overflow monitoring studies	Design and construct improvements relating to overflow monitoring studies
Equipment	Acquire equipment for cleaning combined sewer system catch basin and manhole structures			Miscellaneous equipment upgrades	Miscellaneous equipment upgrades
Miscellaneous Engineering	Miscellaneous inspections, surveying, mapping, drafting and other consulting services	Miscellaneous inspections, surveying, mapping, drafting and other consulting services	Miscellaneous inspections, surveying, mapping, drafting and other consulting services	Miscellaneous inspections, surveying, mapping, drafting and other consulting services	Miscellaneous inspections, surveying, mapping, drafting and other consulting services

The costs of the capital improvements to the Sewer System to be undertaken in accordance with the Capital Improvement Program are described as follows:

#### **Sewer System Capital Expenditures**

<b>Proposed Projects</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Sewer Separation	\$ 80,000	\$ 0	\$ 0	\$150,000	\$100,000
Sewer Rehabilitation	144,000	100,000	900,000	250,000	300,000
Pumping Stations	10,000	15,000	0	50,000	50,000
Overflows	3,000	3,000	3,000	150,000	150,000
Equipment	130,000	0	0	20,000	20,000
Miscellaneous Engineering	3,500	3,500	3,500	30,000	30,000
Contingency Allocation	13,500	13,500	13,500	50,000	50,000
<b>Totals</b>	<b>\$384,000</b>	<b>\$135,000</b>	<b>\$920,000</b>	<b>\$700,000</b>	<b>\$700,000</b>

## **ENGINEERING REPORT**

Smith & Mahoney, P.C., Albany, New York, the Board's Consulting Engineer, has found all major elements of the System to be in generally sound condition. The quality of the City's treated water has consistently complied with regulatory standards, and the capacity of the Water System is projected to exceed the demand through the year 2010. The Consulting Engineer has also concluded that the capital expenditures approved in the Capital Improvements Program described herein under "THE SYSTEM — Approved Capital Expenditures" will be sufficient to maintain the present level of service provided by the System for the next five years. See Appendix A hereto.

## **GOVERNMENTAL REGULATION**

The System is subject to Federal, State and Municipal regulation. At the Federal level, regulatory jurisdiction is vested in the United States Environmental Protection Agency ("USEPA"); at the State level in the New York State Departments of Environmental Conservation ("NYSDEC") and Health ("NYSDOH") and at the municipal level in the Albany County Health Department, the Water Department and the Department of General Services. The System currently meet the requirements of all applicable regulations, permits and licenses. For a complete description of compliance by the System see "APPENDIX A - ENGINEERING REPORT ON THE WATER AND SEWER SYSTEMS SERVING THE CITY OF ALBANY, INCLUDING FIVE YEAR CAPITAL IMPROVEMENTS PROGRAM."

### **Water Supply Regulation**

*Federal.* All water supply systems in the United States which provide water to at least 15 service connections or 25 individuals are subject to the provisions of and to regulation by USEPA under the Safe Drinking Water Act ("SDWA"). USEPA has promulgated nationwide drinking water regulations which specify the maximum level of harmful contaminants allowed in drinking water and which govern the construction, operation, and maintenance of water supply systems as required by SDWA.

Under 1986 amendments to SDWA, the USEPA was directed to promulgate filtration treatment regulations "relevant to the protection of health" which are used by the State to identify public water systems supplied by surface water sources which must initiate filtration measures. The regulations prescribe guidelines that may be imposed concerning studies to be performed, programs to be implemented, time tables to be met and any other actions necessary to insure compliance with the regulations' terms.

In the Summer of 2002 the President signed the Bio-Terrorism Preparedness Act, requiring water systems serving more than 3,300 people to perform a vulnerability assessment of the water system. The Authority has been awarded \$115,000 from the USEPA to conduct the vulnerability assessment which includes specialized training for various Water Department personnel.

*State.* In 1977, enforcement of SDWA and its related regulations was delegated by USEPA to the State. Under the terms of SDWA, a state has primary enforcement responsibility for public water systems if USEPA determines that the State's drinking water regulations are at least as stringent as the Federal drinking water regulations. Consequently, regulation of the Water System is primarily under the jurisdiction of the State.

Water quality standards are enforced through a network of overlapping governmental jurisdictions. NYSDEC approves the raw water supply within the reservoirs, checks the adequacy,

sufficiency and quality of the water and issues the original permit for water withdrawal. Once the water is withdrawn from the reservoirs, NYSDOH assumes responsibility for the quality of the water at the tap pursuant to regulations promulgated under the State Sanitary Code (the "Sanitary Code"). The Sanitary Code also sets forth the surveillance, quality testing and water treatment requirements and procedures for planning, facility siting, facility operation and the granting by NYSDOH of variances and exemptions. In counties that have established a county health department, such as Albany County, NYSDOH delegates responsibility for the enforcement of the Sanitary Code Regulations to the county.

*Municipal.* To comply with federal and State Standards, the Water Department routinely collects water samples throughout the Water System for laboratory analysis. Current regulations require approximately 100 samples per month; this requirement has consistently been met. Reports on such water samples are sent to and monitored by the Albany County Health Department.

Security and surveillance of the reservoirs is maintained by the Source of Supply, Power and Pumping Division of the Water Department. The safety and integrity of the Water System are continuously monitored by Water Department inspectors and technical personnel and by the Albany County Health Department.

Regulatory enforcement within City limits is almost exclusively accomplished through City-employed personnel. Provisions incorporating and augmenting the substance of SDWA, related regulations and the Sanitary Code are contained in the City's Health Code, Water Supply Regulations and Building and Building Construction Codes. These provisions are enforced by personnel from the County Health Department and Water Department.

### **Waste Water Regulation**

*Federal.* The provisions of the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (the "Clean Water Act") and the Water Quality Act of 1987, and related regulations affect the Sewer System. Federal enforcement of this act is entrusted to USEPA.

Under the Clean Water Act, USEPA administers an extensive program of Federal capital construction grants (the "Construction Grants Program") and oversees compliance with regulations and guidelines promulgated by it concerning (i) sewer and sewage treatment plant construction, operation, maintenance, upgrading and rehabilitation, (ii) introduction of toxins and other pollutants into sewer and sewage treatment facilities, and (iii) pollutant discharges from all point sources. Included in that regulatory framework is the National Pollutant Discharge Elimination System ("NPDES") permit program and the issuance of sewage treatment plant operating permits. As authorized by the Clean Water Act, enforcement of the permit's program has been delegated to the State.

In 1970, the City agreed to become a participant in the Albany County Sewer District ("ACSD") which has constructed two treatment plants and a network of interceptor sewers which operate in conformance with the requirements of the Clean Water Act. Funding for the major portion of the costs of construction of the treatment plants was received through the Construction Grants Program. Administration of the grants has been delegated to the State by USEPA.

The Clean Water Act also directs USEPA to address the problem of discharges of toxins and other pollutants into publicly owned treatment works. USEPA has promulgated effluent limits for toxic and other substances that must be met by specific industries ("Categorical Standards") and has directed that publicly-owned treatment works establish and enforce industrial pretreatment programs. ACSD has undertaken such a program. Pursuant to this program, ACSD delegates responsibility for enforcement of

its industrial pretreatment program to the individual municipalities comprising the ACSD. The City has incorporated these Categorical Standards in its sewer use regulations ("Sewer Use Regulations") and has assigned personnel to monitor and enforce compliance by industries located within its boundaries.

*State.* Under authority delegated by USEPA, the State established the State Pollutant Discharge Elimination System ("SPDES") and has assumed jurisdiction over point source discharges and wastewater treatment plant operating permits. The State's requirements are enforced by NYSDEC, which also administers the Construction Grants Program. NYSDEC, therefore, has regulatory power with respect to the construction and operation of the sewage treatment plants by ACSD pursuant to two SPDES permits and regulatory power with respect to the operation of the City-owned overflow points pursuant to a SPDES permit issued to the City. The City's SPDES permit was assigned to the Board upon the transfer of the System from the City to the Board. In addition, NYSDEC monitors compliance with the conditions of the Construction Grants Program, and ACSD's adherence to the terms of the State Construction and Operations Reimbursements Grants under the State's Pure Waters Bond Act of 1965 and Environmental Quality Bond Act of 1972.

## RATES AND BILLINGS

The System has approximately 29,000 water and sewer accounts. Approximately 80% of the System's water and sewer customers are residential. The Board's customer accounts are in two categories: approximately 5,000 annual flat-rate accounts and 24,000 metered accounts. Virtually all of the metered accounts receive both water and sewer service. Only water service is metered. Charges are established for both flat-rate and metered customers with sewer charges computed as a percentage of water charges. The System's rates, fees and charges are established by the Board and are exempt from Federal or State regulation.

There are now approximately 25,000 meters in use. The meters are read every four months and bills are sent out three times a year, except for large users (greater than 4,000 cubic feet/day) who are billed monthly. The Board is currently undertaking a capital project consisting of the conversion of all meters to a radio frequency automated meter reading system. See "THE SYSTEM — The Water System — *Water Service Meters*". The conversion project is expected to be completed in mid-2004. The new metering system will eliminate estimated billing and, further, provide the Board with the ability to increase billing and collecting frequency.

There are approximately 30 large users who are billed at rates higher than the rates billed to all other customers. These 30 large users provide approximately 25% of the System's revenues. Data compiled from meter readings by Water Department inspectors are used for both billing and for determining the effectiveness of conservation measures mandated by the City. Statistics generated from meter readings are also employed in long-range water supply planning. The City requires all new commercial and residential water accounts to be metered.

At the present time, there are approximately 5,000 accounts which are billed through the flat-rate system. Of the 5,000 accounts, approximately 10% are attributable to customers who are connected to and use the Water System ("unmetered"). The remaining 90% are accounts related to vacant properties, which are not connected to the Water System or do not use water. The unmetered customers are billed flat-rate water and corresponding sewer charges three times per year. Vacant properties are billed annually based on frontage of the lot.

Customers are charged based on water usage. Customers who use less than 1,300 cubic feet per four month billing period are charged a minimum charge of \$20.44 plus a sewer charge which is

equivalent to 100 percent of the water charge. Customers who use up to 4,000 cubic feet of water per day are charged \$1.71 per 100 cubic feet, plus a sewer charge. Customers who use more than 4,000 cubic feet of water per day are charged \$2.40 per 100 cubic feet for that portion over the 4,000 cubic feet, plus a sewer charge.

One hundred cubic feet of water is equivalent to 748 gallons. The average customer uses about 93,000 gallons of water per year.

**Water And Sewer Rates - Ten Year Comparative Analysis\***  
**Residential/Commercial Users**

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Water	\$1.24	\$1.28	\$1.28	\$1.28	\$1.28	\$1.36	\$1.36	\$1.36	\$1.56	\$1.71
Sewer	<u>1.24</u>	<u>1.28</u>	<u>1.28</u>	<u>1.28</u>	<u>1.28</u>	<u>1.36</u>	<u>1.36</u>	<u>1.36</u>	<u>1.56</u>	<u>1.71</u>
Combined	<u>\$2.48</u>	<u>\$2.56</u>	<u>\$2.56</u>	<u>\$2.56</u>	<u>\$2.56</u>	<u>\$2.72</u>	<u>\$2.72</u>	<u>\$2.72</u>	<u>\$3.12</u>	<u>\$3.42</u>

**Water And Sewer Rates - Ten Year Comparative Analysis\***  
**Large Users**

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Water	\$1.74	\$1.79	\$1.79	\$1.79	\$1.79	\$1.90	\$1.90	\$1.90	\$2.19	\$2.40
Sewer	<u>1.74</u>	<u>1.79</u>	<u>1.79</u>	<u>1.79</u>	<u>1.79</u>	<u>1.90</u>	<u>1.90</u>	<u>1.90</u>	<u>2.19</u>	<u>2.40</u>
Combined	<u>\$3.48</u>	<u>\$3.58</u>	<u>\$3.58</u>	<u>\$3.58</u>	<u>\$3.58</u>	<u>\$3.80</u>	<u>\$3.80</u>	<u>\$3.80</u>	<u>\$4.38</u>	<u>\$4.80</u>

\* Rates are stated in 100 cubic feet billing units.

*Basic Sewer Charge.* All properties connected to the Sewer System are charged a fixed percentage of the property's water charge. The sewer charge is an additional 100% of the water charge. Users receiving water from other sources are charged for sewer service at a rate equal to 100% of the dollar amount that would be charged for water usage if it were supplied by the Water System.

*Billing and Collection.* Pursuant to the Operation Agreement, the Board has contracted with the City's Water Department for billing and collection services. Currently, the Water Department's procedures include collecting the data used to generate bills to customers. The Water Department is responsible for the reading of meters and checking of meter accuracy as well as the maintenance of current information for those customers on the flat-rate system of billing. Data files for flat-rate customers are updated through inspections by Water Department personnel.

The Water Department organizes the metered consumption data and flat-rate information and prepares and mails bills to customers for water and sewer services. Each customer's account is identified by a unique parcel number which is also utilized with the City's property tax records. The Water

Department is responsible for the collection process, including procedures for handling delinquent accounts, administering billing adjustments and handling customer inquiries.

Delinquent water and sewer accounts are assessed a 5% penalty after they are past due for 30 days and a 1% penalty per month thereafter. If a bill remains delinquent at the end of the City's fiscal year, an additional 5% of the original outstanding amount is levied and the debt is placed on the City's tax rolls. An outstanding debt which remains on the City's tax rolls for over a year is purchased by the County and becomes subject to the County's collection procedures. This practice is currently performed by the City on behalf of the Board.

The City has implemented certain improvements to the billing and collection system, including increased automation which permits better analysis of customer data and facilitates error recognition.

The following table lists the ten largest System customer accounts based on water and sewer billings for the period January 1, 2002 through December 31, 2002.

#### **Ten Largest System Customers**

<b>Customer</b>	<b>Approximate Amount Billed January 1, 2002 to December 31, 2002</b>
SUNY at Albany	\$1,154,000
New York State Harriman Office Campus	\$1,117,000
Albany Medical Center	\$ 559,000
Empire State Plaza and Governor's Mansion	\$ 550,000
Veterans' Administration Hospital	\$ 268,000
St. Peter's Hospital	\$ 250,000
Crowley Foods	\$ 145,000
Ultrapet	\$ 130,000
Albany Housing Authority	\$ 120,000
PSEG Power of New York Inc.	\$ 107,000

Pursuant to the Financing Agreement and the Operation Agreement, the City is not charged for use of the System for governmental purposes in exchange for providing certain services to the Board. See "APPENDIX E - SUMMARY OF CERTAIN PROVISIONS OF THE FINANCING AGREEMENT, THE FIRST GENERAL RESOLUTION, THE SECOND GENERAL RESOLUTION AND THE OPERATION AGREEMENT".

#### **LABOR RELATIONS**

Approximately 109 of the System's 141 active employees are members of the American Federation of State, County and Municipal Employees Union (AFL-CIO), the labor union which represents such employees in collective bargaining with the City. While there has been some litigation relative to certain union contracts, there are no records of strikes against the City.

Under applicable law, the City may not make unilateral changes during the effective period of a contract or during collective bargaining in wages, hours, or working conditions.

There are 30 employees who are not members of the union and who are not covered by the collective bargaining agreement. The wages of such employees are set in the yearly City budget. The budget for the City's 2003 fiscal year provides a 3% increase in salary for such employees.

### **CERTAIN INVESTMENT CONSIDERATIONS AND BONDHOLDERS' RISKS**

*Prospective purchasers of the Series 2003 Bonds should be aware of certain investment considerations and risk factors in evaluating an investment in the Series 2003 Bonds. Prospective purchasers should consider carefully the following investment considerations in addition to the other information concerning the Authority, the Board and the System contained in this Official Statement before purchasing the Series 2003 Bonds offered hereby.*

#### **Series 2003 Bonds Not General Obligations of Authority**

The Series 2003 Bonds are not general obligations of the Authority. The Series 2003 Bonds are special obligations of the Authority, payable solely from and secured by a pledge of the gross revenues of the System, including all rates, rents, fees, charges, payments and other income received by the Board from users of the System and all investment proceeds received by the Board, the proceeds from the sale of the Series 2003 Bonds, all moneys or securities in any of the Funds and Accounts established under the Second General Resolution (other than the Rebate Fund) and all other moneys and securities to be received, held or set aside pursuant to the Second General Resolution, subject only to provisions of the First General Resolution, the Second General Resolution, the Act and the Financing Agreement relating to the use and application thereof.

#### **No Obligation of the State or the City**

The Series 2003 Bonds are not obligations of the State or the City and neither the State nor the City has any liability thereunder. The Series 2003 Bonds are special revenue bonds payable solely from the sources described in this Official Statement and the Second General Resolution. The Authority has no taxing power.

#### **Subordinate Lien Position**

The Series 2003 Bonds constitute Subordinated Indebtedness under the First General Resolution. Accordingly, the repayment of the Series 2003 Bonds is subject and subordinate to the repayment of any outstanding obligations issued by the Authority under the First General Resolution and referred to herein as "Priority Indebtedness".

#### **Future Federal or State Mandates**

The operation of the System and the sewage treatment facility owned and operated by Albany County Sewer District to which sewage from the System is discharged are subject to various federal and state law and regulations. See "GOVERNMENTAL REGULATION". Any changes in such law or regulations to impose additional requirements, restrictions or mandates on the operation of the System or such sewage treatment facility could result in increased costs in the operation of the System. Any such increase in costs in the operation of the System or such sewage treatment facility could materially reduce the funds available to pay debt service on the Series 2003 Bonds.

### **Absence of Reserves**

Other than the Debt Service Reserve Funds, neither the Authority nor the Board currently has any funds reserved for unanticipated operating expenses or required capital expenditures. There can be no assurance that any such reserves will be accumulated or maintained in the future.

### **Natural Disaster, Terrorist Acts or Other Extraordinary Events**

The Board believes the System to be in good condition and will, with proper maintenance, operate for a period much longer than the term of the Series 2003 Bonds. However, there can be no assurance that the occurrence of one or more natural disasters, mechanical or structural failures, terrorist acts or other extraordinary events that will significantly disrupt the operation of the System and the collection of Revenues will not occur. Any such disruption, and any expenditure of funds or issuance of obligations to address such disruption, could materially reduce the funds available to pay debt service on the Series 2003 Bonds.

### **Weather or Other Ordinary Events**

The weather or other ordinary events could have an impact on the operation of the System and the collection of Revenues. For example, the occurrence of a rainy summer could result in lower Revenues due to reduced water usage and higher expenses due to increased sewage disposal costs. The occurrence of any such event could materially reduce the funds available to pay debt service on the Series 2003 Bonds.

### **Future Financial Operations of System**

The Board failed to satisfy the 115% rate covenant in Fiscal Years 2001 and 2002. The future successful operation of the System is based on periodic rate increases and improvements to the System. Improvements to the System include the conversion of the existing metering system to a radio frequency automated meter reading system. See "MANAGEMENT'S DISCUSSION OF CURRENT OPERATIONS". Failure by the Board to implement periodic rate increases or to realize increased revenues from improvements to the System, could materially affect the amount of funds available to pay debt service on the Series 2003 Bonds.

### **Real Property Tax Liability**

Major components of the Water System, including the Water System's source of supply, the primary Water System filtration plant, and most of the Water System supply conduit are located outside the City and are subject to real property tax imposed by the host municipalities. Historically, this real property tax liability has been in excess of ten percent (10%) of the Board's operating expenses. Any material increase in such real property tax liability could materially reduce funds available to pay debt service on the Series 2003 Bonds.

### **Forward Looking Statements**

Written or oral statements made by the Authority, the Board or their respective representatives, including statements describing their respective objectives, projections, estimates, expectations or predictions of the future may be "forward-looking statements" which can be identified by the use of forward-looking terminology such as "believes", "expects", "may", "will", "should", "estimates", "anticipates" or the negative thereof or other variations thereon. The Authority and the Board caution

that, by their nature, forward-looking statements involve risk and uncertainty and that the actual results attained by the System could differ materially from those expressed or implied in such forward-looking statements or could affect the extent to which a particular projection is realized.

#### **Trading Market for Series 2003 Bonds**

There can be no assurance that there will be a secondary market for the purchase or sale of the Series 2003 Bonds. From time to time there may be no market for them depending upon prevailing market conditions, including the financial condition or market position of firms who may constitute the secondary market, the evaluation of the capabilities of the Board's management, and the financial condition and results of operations of the Board and the System.

#### **Enforceability of Remedies**

The remedies available to the Trustee or the registered owners of the Series 2003 Bonds upon an event of default under the Second General Resolution, are in many respects dependent upon judicial and administrative actions which are often subject to discretion and delay. Under existing constitutional and statutory law and judicial decisions, including, specifically, the United States Bankruptcy Code, the remedies provided in the Second General Resolution, may not be readily available or may be limited. The various legal opinions to be delivered concurrently with the delivery of the Series 2003 Bonds and the delivery of the Second General Resolution, will be qualified as to enforceability of the various legal instruments by limitations imposed by general principles of equity and by bankruptcy, reorganization, insolvency or other similar laws affecting the rights of creditors generally.

#### **Limited Nature of Rating; Reduction, Suspension or Withdrawal of Rating**

Any rating assigned to the Series 2003 Bonds by a Rating Agency will reflect such Rating Agency's assessment of the likelihood that such Series 2003 Bonds will receive payments of interest and principal when due. The rating of the Series 2003 Bonds will not be a recommendation to purchase, hold or sell such Series 2003 Bonds and such rating will not address the marketability of such Series 2003 Bonds, any market price or suitability for a particular investor. There is no assurance that any rating will remain for any given period of time or that any rating will not be lowered, suspended or withdrawn entirely by a Rating Agency if, in such Rating Agency's judgment, circumstances so warrant based on factors prevailing at the time. Any such reduction, suspension or withdrawal of a rating, if it were to occur, could adversely affect the availability of a market for or the market price of the Series 2003 Bonds.

### **COVENANT OF THE STATE**

Section 1115-s of the Act constitutes a pledge of the State to the holders of Bonds not to limit or alter the rights vested in the Authority or the Board by the Act to fulfill the terms of any agreement made with or for the benefit of the holders of the Bonds until such obligations together with the interest thereon are fully met and discharged.

### **LITIGATION**

There is no action, suit, proceeding or investigation, at law or in equity, before or by any court, public board or body pending or, to the best knowledge of the Authority, threatened against or affecting the Authority to restrain or enjoin the issuance, sale or delivery of the Series 2003 Bonds, or in any way contesting or affecting the validity of the Series 2003 Bonds or any proceedings of the Authority, the Board or the City taken with respect to the issuance or sale of the Series 2003 Bonds or with respect to the

Second General Resolution, the pledge or application of any money or security provided for the payment of the Series 2003 Bonds, or the existence or powers of the Authority or the Board.

Pursuant to the Operation Agreement and the Financing Agreement, the City has agreed, subject to certain conditions, to indemnify the Authority and the Board against any and all liability in connection with any act done or omitted in the exercise of their powers which is taken or omitted in good faith in pursuance of their purposes under the Act. The City, however, is entitled to reimbursement by the Board for the amount of any judgment or settlement paid by the City (and not otherwise reimbursed from any other source) arising out of a tort claim to the extent that the City's liability therefor is related to the construction of a Project or the operation and maintenance of the System or arising out of a contract claim to the extent that the City's liability therefor is related to the construction of the Project.

There are no legal proceedings or claims involving the System, other than routine litigation incidental to the collection of rates, fees and charges, certain other litigation arising out of alleged constitutional violations, torts, breaches of contract and other violations of law, tax certiorari litigation commenced by the Board relating to portions of the System located outside the City and condemnation proceedings, none of which, singly or in the aggregate, are expected to have a material adverse effect upon the forecasted cash flows of the System, as set forth in Appendix B-1.

Upon delivery of the Series 2003 Bonds, counsel to the Authority and the Board will deliver a certificate, dated the date of delivery of the Series 2003 Bonds to the effect that there is no litigation of any nature pending or to his knowledge threatened to restrain or enjoin the issuance, sale, or execution for delivery of the Series 2003 Bonds, in any way contesting or affecting the validity of the Series 2003 Bonds or any of the proceedings taken with respect to the issuance and sale thereof or the application of moneys to the payment of the Series 2003 Bonds. In addition, such certificate shall state that there is no litigation of any nature now pending or threatened by or against the City, the Board or the Authority in which an adverse judgment or ruling could have a material adverse impact on the financial condition of the Authority or the Board or adversely effect the power of the Board to levy, collect and enforce the collection of rates and other charges for the payment of the Authority's obligations, which has not been disclosed in this Official Statement.

## **UNDERWRITING**

First Albany Corporation (the "Underwriter") has agreed, subject to certain conditions, to purchase the Series 2003 Bonds from the Authority at an aggregate purchase price of \$72,254,161.57, representing the aggregate principal amount of the Series 2003 Bonds, less an Underwriter's discount of \$533,254.08, plus a reoffering premium of \$2,437,415.65. The Underwriter will be obligated to purchase all of the Series 2003 Bonds if any Series 2003 Bonds are purchased. The Series 2003 Bonds may be offered and sold to certain dealers (including the Underwriter and other dealers depositing Series 2003 Bonds into investment trusts) at prices lower than the offering prices appearing on the inside cover page of this Official Statement. After the initial public offering, the public offering prices may be changed from time to time by the Underwriter.

First Albany Corporation also renders investment management services to the Authority and is paid a separate fee for such services.

## **VERIFICATION OF MATHEMATICAL COMPUTATIONS**

Causey Demgen & Moore Inc., a firm of independent accountants, upon delivery of the Series 2003 Bonds, will deliver a report on the mathematical accuracy of certain computations contained in

schedules provided to them which were prepared by the Underwriter on behalf of the Authority, relating to (A) the sufficiency of the anticipated receipts from the investment securities deposited under the Second General Resolution to pay when due the debt service requirements on all outstanding Refunded Bonds through and including the maturity date of the Refunded Bonds, and (B) the "yield" on such investment securities and the Series 2003 Bonds considered by Bond Counsel in connection with the opinion that such Series 2003 Bonds are not "arbitrage bonds" within the meaning of Section 148 of the Code.

### **APPROVAL OF LEGAL PROCEEDINGS**

The issuance of the Series 2003 Bonds is subject to the approval of legality by Hiscock & Barclay, LLP, Albany, New York, Bond Counsel. Certain legal matters will be passed upon for the Authority and the Board by Gary F. Stiglmeier, Esq., Albany, New York, for the City by Gary F. Stiglmeier, Esq., the City's Corporation Counsel, for the Trustee by Bond Schoeneck & King, PLLC, Albany, New York and for the Underwriter by Hodgson Russ LLP, Albany, New York.

### **LEGALITY FOR INVESTMENT AND DEPOSIT**

Under the Act, the Series 2003 Bonds are made securities in which all public officials and bodies of the State and all municipalities, all insurance companies and associations and other persons carrying on an insurance business, all banks, bankers, trust companies, savings banks and savings associations, including savings and loan associations, investment companies and other persons carrying on a banking business, and administrators, guardians, executors, trustees and other fiduciaries and all other persons whatsoever, who are now or may hereafter be authorized to invest in bonds or other obligations of the State, may properly and legally invest funds, including capital in their control or belonging to them. The Act further provides that the Series 2003 Bonds are securities which may be deposited with and may be received by all public officers and bodies of the State and all municipalities for any purposes for which the deposit of bonds or other obligations of the State is or hereafter be authorized.

### **EXPERTS AND INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS**

The Engineering Report in Appendix A has been prepared by Smith & Mahoney, P.C., and is based on studies by Smith & Mahoney, P.C. The financial forecast in Appendix B-1 and the financial report in Appendix B-2 have been prepared by Urbach Kahn & Werlin LLP, Independent Certified Public Accountants to the Board and the Authority. The Authority has included the Engineering Report in reliance upon the authority of Smith & Mahoney, P.C. as an expert in its field.

### **RATINGS**

Standard & Poor's Corporation and Moody's Investors Service have assigned ratings of "AAA" and "Aaa", respectively, to the Series 2003 Bonds, with the understanding that, upon delivery of the Series 2003 Bonds, the Policy will be issued by the Insurer. Such ratings reflect only the views of such organizations and any desired explanation of the significance of such ratings should be obtained from the rating agency furnishing the same, at the following addresses: Standard & Poor's Corporation, 25 Broadway, New York, New York 10004 and Moody's Investors Service, 99 Church Street, New York, New York 10007. Generally, a rating agency bases its rating on the information and materials furnished to it and on investigations, studies and assumptions of its own. There is no assurance such ratings will continue for any given period of time or that such ratings will not be revised downward or withdrawn entirely by the rating agencies, if in the judgment of such rating agencies, circumstances so warrant. The Underwriter has undertaken no responsibility either to bring to the attention of the Holders of the Series

2003 Bonds any proposed revision or withdrawal of the ratings on the Series 2003 Bonds or to oppose any such proposed revision or withdrawal. Any such downward revision or withdrawal of such ratings may have an adverse effect on the market price of the Series 2003 Bonds.

## **TAX EXEMPTION**

In the opinion of Bond Counsel, under existing law and assuming compliance by the Authority and the Board with certain tax covenants and the accuracy of certain representations of the Authority and the Board, interest on the Series 2003 Bonds is excluded from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax on individuals and corporations. However, interest on the Series 2003 Bonds is taken into account in determining adjusted current earnings of certain corporations (as defined for federal income tax purposes) for purposes of computing the alternative minimum tax imposed on such corporations, but not individuals. Corporate purchasers of the Series 2003 Bonds should contact their tax advisers concerning the computation of any alternative minimum tax.

The Internal Revenue Code of 1986, as amended to the date hereof (the "Code"), imposes various requirements that must be met at and subsequent to the issuance and delivery of the Series 2003 Bonds in order that interest on the Series 2003 Bonds will be and remain excluded from gross income for federal income tax purposes. Included among these requirements are restrictions on the investment and use of proceeds of the Series 2003 Bonds and the rebate of certain earnings in respect of such investments to the United States. Failure to comply with the requirements of the Code may cause interest on the Series 2003 Bonds to be includable in gross income for purposes of federal income tax from the date of issuance of the Series 2003 Bonds.

The Authority and the Board have covenanted to comply with the requirements of the Code. The opinion of Bond Counsel assumes compliance with such covenants.

The Series 2003A Bonds maturing December 1, 2008 and the Series 2003B Bonds maturing December 1, 2010 through 2019 have been initially offered to the public at prices less than the amount payable with respect to such Bonds at maturity (the "Discount Bonds"). The difference between the stated principal amount of the Discount Bonds and the initial offering price to the public (excluding bond houses, brokers, or similar persons acting in the capacity of underwriters or wholesalers) at which price a substantial amount of Discount Bonds of the same maturity is sold constitutes original issue discount which (to the extent allocable to the owners of the Discount Bonds) is excluded from gross income for federal income tax purposes to the same extent as interest on the Discount Bonds. Further, original issue discount with respect to the Discount Bonds accrues actuarially on a constant yield basis over the term of each Discount Bond and the basis of each Discount Bond acquired at such initial offering price by an initial purchaser of each Discount Bond will be increased by the amount of such accrued discount.

The Series 2003A Bonds maturing December 1, 2004 through 2007 and December 1, 2009 through 2022 and the Series 2003B Bonds maturing December 1, 2009, December 1, 2023 and December 1, 2033 have been initially offered to the public at prices greater than the amount payable with respect to such Bonds at maturity (the "Premium Bonds"). As a result of requirements under the Code relating to tax cost reduction associated with the amortization of bond premium, under certain circumstances the initial owner of a Premium Bond may realize taxable gain upon disposition thereof even though sold or redeemed for an amount less than or equal to such owner's original acquisition cost. The amortization requirements may also result in the reduction of the amount of stated interest, which an owner of a Premium Bond is treated as having received for federal tax purposes. Owners of Premium Bonds are

advised to consult with their own tax advisers with respect to the tax consequences of owning such Premium Bonds.

Certain requirements and procedures contained or referred to in the Resolutions and other relevant documents may be changed, and certain actions may be taken or omitted under the circumstances and subject to the terms and conditions set forth in such documents, upon the advice or with the approving opinion of bond counsel. Bond Counsel expresses no opinion as to any Series 2003 Bond or the interest thereon if any such change occurs or action is taken upon the advice or approval of bond counsel other than Hiscock & Barclay, LLP, Albany, New York.

Prospective purchasers of the Series 2003 Bonds should be aware that ownership of, accrual or receipt of interest on, or disposition of the Series 2003 Bonds may have collateral federal income tax consequences for certain taxpayers, including financial institutions, insurance companies, S Corporations, certain foreign corporations, individual recipients of Social Security or Railroad Retirement benefits, individuals benefiting from the earned income credit and taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry such obligations. Prospective purchasers should consult their tax advisers as to any possible collateral consequences of their ownership of, accrual or receipt of interest on, or disposition of the Series 2003 Bonds. Bond Counsel expresses no opinion regarding any such collateral federal income tax consequences.

In the opinion of Bond Counsel interest on the Series 2003 Bonds is exempt under existing statutes, from personal income taxes of the State of New York and its political subdivisions, including The City of New York and the City of Yonkers.

The proposed form of the approving opinion of Bond Counsel regarding the Series 2003 Bonds is attached to this Official Statement as Appendix G.

#### **CONTINUING DISCLOSURE**

In order to assist the Underwriter in complying with the provisions of paragraph (b)(5) of Rule 15c2-12 promulgated by the Securities and Exchange Commission ("Rule 15c2-12"), the Authority and the Board will undertake in a written agreement for the benefit of the holders of the Series 2003 Bonds (the "Agreement") to provide to each Nationally Recognized Municipal Securities Information Repository (as referred to in Rule 15c2-12), and if, and when one is established, the New York State Information Depository, on an annual basis not later than the later to occur of one hundred eighty (180) days following the end of each fiscal year, or sixty (60) days after receipt of their annual audited financial statements (but in no event later than the last business day of the following fiscal year) financial and operating data concerning the Authority and the Board of the type included in this Official Statement, referred to herein as "Annual Information" and described in more detail below.

The Annual Information shall consist of (a) financial and operating data of the type included in the Annual Financial Statements of the Authority and the Board set forth in Appendix B-2 hereto, including, more specifically, information consisting of (1) presentation of the Authority's and the Board's results in accordance with GAAP for at least the two most recent fiscal years for which information is currently available; and (2) for financing activities, a presentation of the outstanding debt issued by the Authority and the Board, as well as information concerning debt service requirements on that debt; together with such narrative explanation as may be necessary to avoid misunderstanding and to assist the reader in understanding the presentation of financial and operating data concerning the Authority and the Board.

The notices that the Authority and the Board will undertake to provide as described above, include, notices of any of the following events with respect to the Series 2003 Bonds, if material (each of which is described in the Agreement): (1) principal and interest payment delinquencies; (2) non-payment related defaults; (3) unscheduled draws on debt service reserves reflecting financial difficulties; (4) unscheduled draws on credit enhancements reflecting financial difficulties; (5) substitution of credit or liquidity providers, or their failure to perform; (6) adverse tax opinions or events affecting the tax-exempt status of the security; (7) modifications to the rights of the security holders; (8) bond calls; (9) defeasances; (10) release, substitution, or sale of property securing repayment of the securities; and (11) rating changes. In addition, the Authority and the Board will undertake, for the benefit of the holders of the Series 2003 Bonds, to provide to each such repository or the MSRB, and to the State Information Depository, if any, in a timely manner, notice of any failure by the Authority or the Board to provide the Annual Information and financial statements by the date required in the Authority's and the Board's undertaking described above.

The sole and exclusive remedy for breach or default under the Agreement described above is an action to compel specific performance of the undertakings of the Authority and the Board and no person, including a holder of the Series 2003 Bonds, may recover monetary damages thereunder under any circumstances. A breach or default under the Agreement shall not constitute an Event of Default under the Second General Resolution. In addition, if all or part of Rule 15c2-12 ceases to be in effect for any reason, then the information required to be provided under the Agreement, insofar as the provision of Rule 15c2-12 no longer in effect required the provision of such information, shall no longer be required to be provided.

The proposed form of the Agreement is attached as Appendix H.

Copies of the Agreement will be on file at the office of the Authority.

#### **FURTHER INFORMATION**

The references herein to and summaries of Federal, State and local laws, including but not limited to the Code, the Constitution and laws of the State, the Act and documents, instruments and agreements, including but not limited to the Operation Agreement, the Financing Agreement, the First General Resolution and the Second General Resolution, are summaries of certain provisions thereof. Such summaries do not purport to be complete and are qualified in their entirety by reference to such acts, laws, documents, agreements or instruments. Copies of the Operation Agreement, the Financing Agreement, the First General Resolution and the Second General Resolution are available for inspection during normal business hours at the office of the Authority.

Any statements in this Official Statement involving matters of opinion, whether or not expressly so stated are intended as such and not as representations of fact. Neither this Official Statement nor any statement which may have been made orally or in writing shall be construed as a contract or as a part of a contract with the original purchasers or any holders of the Series 2003 Bonds.

**ALBANY MUNICIPAL WATER  
FINANCE AUTHORITY**

By: /s/Joseph T. Montimurro  
*Chairman*

**APPENDIX A**

**ENGINEERING REPORT ON THE WATER AND SEWER SYSTEMS  
SERVING THE CITY OF ALBANY, INCLUDING  
FIVE YEAR CAPITAL IMPROVEMENTS PROGRAM**

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**CITY OF ALBANY, NEW YORK**

**WATER AND SEWER SYSTEMS**

**ENGINEERING REPORT**

PREPARED FOR:

**ALBANY WATER BOARD  
AND  
ALBANY MUNICIPAL WATER FINANCE AUTHORITY  
ALBANY, NEW YORK**

**JULY 2003**



**SMITH & MAHONEY, P.C.**  
ENGINEERS • PLANNERS • SCIENTISTS • SURVEYORS  
382 BROADWAY, ALBANY, NEW YORK 12207

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# **Introduction**

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Under Title 6-A of Article 5 of the Public Authorities Law the New York State Legislature created the Albany Water Board (the “Board”) in 1987 and, subsequently, the City of Albany, New York (the “City”) transferred ownership of the City water and sewer systems to the Board.

The following report has been prepared for the Albany Water Board and the Albany Municipal Water Finance Authority. The report presents a description of the water and sewer systems, a general evaluation of the current conditions of the systems, and a discussion of the capital improvements program for each system. The report is divided into two parts; Part I - WATER SYSTEM and Part II – SEWER SYSTEM.

## **1.0 Executive Summary: The Water System**

---

In 2002, the water system provided an average of 19.2 million gallons per day (MGD) of treated water to the City, 0.6 MGD to the Town of Guilderland, 1.4 MGD to the Town of Bethlehem, and 0.1 MGD to two commercial accounts outside the City.

The system consists of two supply reservoirs with a combined capacity of 13.8 billion gallons; a 48-inch diameter raw water system conduit, 8.3 miles in length; a filtration plant with a design capacity of 32 MGD; a treated water supply conduit, 48 inches in diameter and 11.1 miles long; a distribution system containing approximately 370 miles of pipe of various diameters; and treated water storage facilities consisting of an open reservoir and two elevated storage tanks charged by pumping stations. The supply reservoirs, raw water conduit, filtration plant, a portion of the treated water conduit, and a portion of the treated water storage reservoir lie outside the City.

In 2002, the Board acquired from the City a fifty-year leasehold interest in Rensselaer Lake and surrounding properties owned by the City, also known as Six Mile Waterworks, for possible future discretionary use as a supplemental emergency water. Recent evaluations have determined that the total volume of the lake is approximately 110 MG and that the safe yield of the lake is between 2.4 and 3.9 MGD.

The water system operates under Water Supply Permits and a State Pollutant Discharge Elimination System (SPDES) Permit, all of which are administered by the New York State Department of Environmental Conservation (NYSDEC).

Under an operation agreement, the water system is operated and maintained by the City Department of Water and Water Supply (Water Department), staffed by 121 people.

A five-year capital improvements program for the water system has been formulated based on recommendations provided by the City. A total of \$9.461 million is projected to be spent in connection with this program.

Major conclusions with respect to the water system are as follows:

- All major elements of the water system are in generally adequate condition.
- The quality of treated water has consistently complied with regulatory standards.
- The capacity of the water system is projected to exceed the demand of the service area through the year 2015.
- The Water Department has historically provided adequate service at staffing levels equivalent to those currently in effect.
- Timely completion of the capital improvements program, along with adequate maintenance, should be sufficient to maintain the present level of service provided by the water system for the next five years.

## **2.0 Executive Summary: The Sewer System**

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The sewer system consists of a network of sewers and sewage pumping stations that receive approximately 26.7 MGD of sewage per day from the City for conveyance to two treatment facilities owned and operated by the Albany County Sewer District (ACSD).

The sewer system includes 240 miles of collector and trunk sewers carrying both sanitary sewage and stormwater runoff, called “combined” sewers; 110 miles of collector and trunk sewers carrying only sanitary sewage; 22 sewage pumping stations; the Hudson River Interceptor South, which receives sewage from the collector and trunk sewers; and 22 overflows which carry excess flow from combined sewers to the Hudson River during periods of heavy storm runoff. The system is divided into eight districts and lies entirely within City limits.

The interactions between the Board and ACSD are governed by an agreement between the City and ACSD, executed in 1970 and assigned to the Board in 1987. Average flows to the two ACSD treatment facilities for 2002 were within permitted limits.

The sewer system operates under an SPDES Permit for the overflows to the Hudson River. The Permit also governs overflows from the two largest pumping stations in the system. The Board’s SPDES Permit was issued on October 1, 2000 and expires on May 1, 2006. A Notice of Intent to modify the SPDES Permit was received from New York State Department of Environmental Conservation (NYSDEC) in May 2001. The Board responded to the Notice of Intent in August 2001, and is currently negotiating the final modifications to the SPDES Permit with NYSDEC.

Under an operation agreement, the City Department of General Services administers the operation and maintenance of the sewer system through the Division of Streets and Sewers. The Division has 9 nine staff positions.

A five-year capital improvements program for the sewer system has been formulated based on recommendations provided by the City. A total of \$2.839 million is projected to be spent in connection with this program.

Major conclusions with respect to the sewer system are as follows:

- All major elements of the sewer system are in generally adequate condition.
- The sewer system should be capable of handling anticipated sanitary sewage flows through the year 2015.
- The City Department of General Services has historically provided adequate service at staffing levels equivalent to those current in effect.
- Timely completion of the capital improvements program, along with adequate maintenance, should be sufficient to maintain the present level of service provided by the sewer system for the next five years.

## **Methodology**

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In preparing this report, Smith & Mahoney has relied upon information presented in existing reports, records, and maps, and elicited through interviews with administrative, regulatory, and operating personnel. This baseline information was augmented by limited field observations.

The findings, opinions, conclusions and recommendations presented in this report are based solely on those source documents and personnel contacts and are subject to the accuracy of the information gained therefrom.

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# **PART I**

# **WATER SYSTEM**

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# **1.0 Description of Water System**

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The City's first public water system was initiated in 1798. This simple system was created and maintained by a small private company of public-spirited citizens. A source of pure water to the north of the City was utilized and wooden pipes formed the distribution system. Continuous growth of the City's population made constant expansions necessary.

In 1851, the City purchased the private company. Various surface sources provided an adequate supply of water for several decades. By 1874, however, it became clear that a larger supply was necessary. A pumping engine was constructed to pump water from the Hudson River into the Bleecker Reservoir. In 1877, the Prospect Hill Reservoir was created to increase the City's storage capacity and to provide adequate water for this expanding area of the City.

In 1899, a new "slow-sand filter" filtration plant was placed in service. This new plant passed filtered water to the Quakenbush Pumping Station, where the water was pumped to the Bleecker and Prospect Hill Reservoirs.

Increased pollution of the Hudson River made it necessary to abandon the river as a source of supply. Several years of studies and testing concluded that surface supplies in the Helderberg Mountains would be the most appropriate.

Construction of the present water supply system was completed in 1932. The river source was subsequently placed on emergency standby status until the new system had been tested. The Hudson River is no longer used as a source of water for the City.

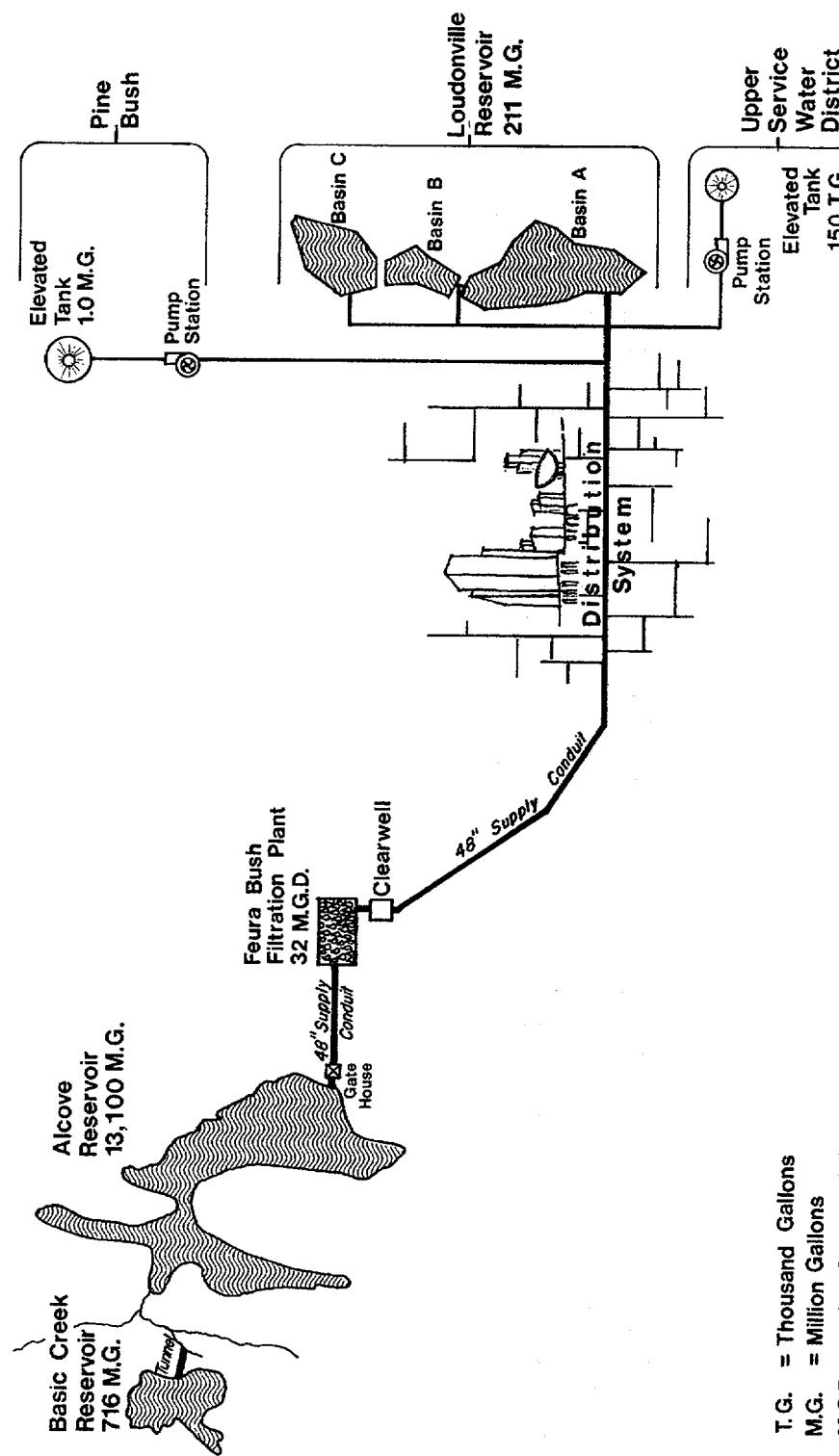
The City's current water system (the "Water System") consists of the following elements: supply reservoirs, transmission conduits, a filtration plant, a distribution network, and treated water storage facilities. The relationship of these elements is shown schematically in Figure I-1.

## **1.1 Existing Service Area**

The Water System currently provides treated water to the City, the CSX Yard at Selkirk, the PSEG power generation plant at Glenmont, and supplemental quantities to the Towns of Bethlehem and Guilderland. Raw water from the Alcove Reservoir is also released to the Hannacrois Creek for the Village of Ravena and surrounding hamlets. The Water System is the sole source for water consumption and fire protection in the City.

## **1.2 Inter-Municipal Connections**

Several communities adjacent to the City have either considered or requested emergency service connections to the Water System. Other water systems, including those of the Village of Menands and the Towns of Colonie and Guilderland, as well as the Water System, could feasibly benefit from such connections. These emergency supply connections could provide water service should any of the interconnected water systems be severely damaged for a period of time. At this time, there are connections between the Water System and the Towns of Bethlehem and



SCHEMATIC PLAN of the CITY of ALBANY  
WATER SUPPLY SYSTEM

T.G. = Thousand Gallons  
 M.G. = Million Gallons  
 M.G.D. = Million Gallons Daily

**FIGURE I-1**

Guilderland. Discussions with the Village of Menands and the Town of Colonie have been initiated, but no definitive schedule for connections has been reported.

## **1.3      System Facilities**

### **1.3.1    Supply Reservoirs**

The source of water for the Water System consists of two surface water supply reservoirs. The Alcove Reservoir is located on the Hannacrois Creek and the Basic Reservoir is located on Basic Creek. Both reservoirs are situated in the Helderberg Mountains, approximately 20 miles southwest of the City. Throughout this report, the Basic Reservoir, while substantially smaller than the Alcove, is discussed first because it is the most geographically remote from the City.

The City performs annual sanitary inspections for the enforcement of watershed rules and regulations to protect both reservoirs against contamination.

#### **1.3.1.1    Basic Reservoir**

The Basic Reservoir is an impoundment of 716 million gallons of water with a surface area of 265 acres. This reservoir was created in 1929 by the construction of a dam across the Basic Creek in the Town of Westerlo. The dam is of earthen embankment construction with a reinforced concrete core wall. Its 872-foot length includes a 100-foot concrete spillway. The maximum height of the dam is 26 feet, with a top width of 15 feet and a maximum width at the base of 183 feet. The top of the dam is at 946.5 feet above mean sea level and the spillway crest is at elevation 940.0 feet. The rainfall runoff and snowmelt catchment area (watershed) to this reservoir encompasses 16.37 square miles.

A rise in topography along New York State Route 32 divides the Basic Creek watershed from the Hannacrois Creek watershed. To bring Basic Reservoir water to the adjacent Hannacrois Creek (and thence to the Alcove Reservoir), a 12-inch thick, 5-foot wide, 6-foot high reinforced concrete tunnel was constructed. This tunnel is approximately 3,736 feet in length and extends from a control gatehouse on the easterly shore of the Basic Reservoir to a discharge basin near the head of Silver Creek, a small tributary of the Hannacrois. The tunnel's maximum depth below the surface is 90 feet. The reported capacity of this tunnel is 340 cubic feet per second (cfs) when the Basic Reservoir water surface elevation is at the spillway elevation of 940.0 feet.

#### **1.3.1.2    Alcove Reservoir**

The Alcove Reservoir serves as the main supply reservoir for the system. This 13.1 billion gallon reservoir, with a surface area of approximately 1,440 acres, is located primarily in the Town of Coeymans. A very small portion of the westerly edge is located in the Town of Westerlo. The dam, constructed between 1928 and 1930, is an earthen embankment with a reinforced concrete core wall center similar to the Basic Reservoir dam. Its 2,177-foot length includes a 300-foot concrete spillway. The maximum height of the dam is 81 feet with a 15-foot top width and a maximum width at the base of 485 feet. The top of the dam is 625 feet above mean sea level, while the spillway crest is at elevation 618.0 feet. The tributary area of the Alcove Reservoir is approximately 32.5 square miles.

Withdrawal of water is controlled from a gatehouse located in the dam. The gatehouse acts as the control point for water entering the raw water supply conduit. Four separate inlet points, each utilizing manually operated sluice gates, provide the ability to draw the best quality water from various depths of the reservoir.

### **1.3.1.3 Rensselaer Lake**

In 2002, the Albany Water Board acquired from the City of Albany a fifty-year leasehold interest in Rensselaer Lake and surrounding properties owned by the City of Albany, also known as Six Mile Waterworks, for possible future discretionary use as a supplemental emergency water supply.

Rensselaer Lake, approximately 43.4 acres in size, was created in 1851 and 1852 to serve as a water supply for the City through the construction of a low earth dam across the Patroon Creek. The dam was constructed of an earthen embankment with an 8-foot thick clay puddle core in its center. The top width of the dam is approximately 10 feet with an upstream slope of 1.5 vertical to 1.0 horizontal, and a downstream slope of 2.0 vertical to 1.0 horizontal.

The Lake actively served the City from 1852 to 1909, at which time it was placed in a reserve status. Intermittent use continued until its cessation in April 1926. In 1947, the City created the Six Mile Waterworks Picnic and Recreation Area. The 57-acre grounds, including the Lake, were opened to the public for fishing, non-motorized boating, and picnicking. Since then, the Lake has generally been used for such recreational purposes. The site is part of the Albany Pine Bush Preserve.

Rensselaer Lake is replenished by both surface water and groundwater flows. The Lake's watershed is about 2.8 square miles in size, and includes residential, commercial, industrial, and transportation land uses. A mass water balance analysis indicates that the estimated safe yield of Rensselaer Lake as an emergency water supply, based solely on the surface water inflow, is 1.7 million gallons per day.

The geology is characterized by thick sand deposits with high permeability containing large quantities of groundwater. A rough estimate of the groundwater inflow to the Lake was derived using a theoretical approximation. At the minimum level of the Lake used to determine the safe yield from surface water inflow, the estimated groundwater recharge or inflow to the Lake would be 0.7 to 2.2 million gallons per day. Combining the estimated surface water and groundwater inflows would indicate a total safe yield of the Lake as an emergency water supply of 2.4 to 3.9 million gallons per day.

The New York State Office Building Campus is connected to the Lake by piping constructed in the 1960's to provide cooling water to the Campus under an agreement with the City, although indications are that no water has been drawn from the Lake for this purpose for at least the last two years.

### **1.3.2      Transmission**

The transmission system consists of supply conduits that carry raw water from the Alcove Reservoir to the Feura Bush Filtration Plant and treated water from the Feura Bush Filtration Plant to the City's distribution system.

The first supply conduit section carries raw water from the Alcove Reservoir, through the Town of Coeymans and into the Town of Bethlehem. The conduit subsequently enters the water filtration plant located south of the hamlet of Feura Bush.

The raw water supply conduit consists of 43,965 feet of 48-inch diameter cast iron pipe. At a point approximately 12,000 feet downstream of the Alcove Dam, the supply conduit crosses a ravine in a reinforced concrete box shaped bridge. The three spans crossing the ravine are 25 feet, 28 feet, and 25 feet in length respectively. Approximately 4,500 feet upstream of the Feura Bush Plant, the conduit crosses the Onesquethaw Creek. At the Onesquethaw crossing, a new single span steel bridge, constructed in 2001, supports the 48-inch supply conduit and the 36-inch filtration plant process wastewater drain. New insulated ductile iron piping, control valves, and waste blowoffs were included in this construction.

From the Feura Bush Filtration Plant, the second supply conduit section traverses the Town of Bethlehem and enters the City through the southerly City limit near Delaware Avenue (N.Y.S. Rte. 443). This treated water supply conduit consists of 34,374 feet of 48-inch cast iron pipe. At the Selkirk Railroad Yard, southeast of Feura Bush, the conduit consists of parallel 42-inch pipes which are located within a 1,156 foot long reinforced concrete tunnel.

The supply conduit is also protected at other railroad crossings between the Feura Bush Filtration Plant and the City. Just below the Feura Bush Filtration Plant, under what was once the West Shore Railroad, the conduit is set in a rectangular reinforced concrete tunnel 61.5 feet in length. A similar tunnel structure exists at a single track crossing of the former Delaware and Hudson Railroad in Elsmere. This tunnel is 35.5 feet in length. At the Delmar Bypass, the supply conduit crosses the highway in a concrete tunnel.

The third section of the supply conduit continues from the Normans Kill crossing at the southerly City limit just north of Delaware Avenue, through the City, to the Loudonville Reservoir for a distance of approximately 24,000 feet. It consists of 48-inch cast iron pipe throughout its length, with the exception of a 42-inch section between Myrtle and Clinton Avenues, and the CSX crossing noted below.

In response to a major landslide in the spring of 2000, and a realignment of the Normans Kill Creek, a new creek crossing was constructed, financed by Federal Highway Emergency Funds. This resulted in approximately 3,000 linear feet of new 48-inch restrained joint ductile iron piping; blowoff drain piping; in-line butterfly control valves and valve chambers; steel h-pile/reinforced concrete pile cap pipe supports, and reinforced concrete pipe encasement systems for the stream crossing.

From the Normans Kill crossing, the supply conduit crosses the New York State Thruway in a reinforced concrete tunnel and continues northerly into the City crossing Whitehall Road, Hackett Boulevard and New Scotland Avenue, and runs along Lake Avenue, between New Scotland and Livingston Avenue. The conduit extends northerly from Livingston Avenue to the

Loudonville Reservoir. At Tivoli Hollow, the conduit crosses under CSX railroad tracks within a rectangular reinforced concrete tunnel 91 feet in length. The tunnel encloses two 36-inch water pipes. There are three 36-inch valves in valve pits at each end of the tunnel. From the northerly end of the tunnel, the 48-inch conduit continues to Albany Shaker Road to the Loudonville Reservoir. At the Interstate 90 (Crosstown Arterial) crossing, the conduit passes through a concrete tunnel.

Original construction of the supply conduit, from the Alcove Reservoir to the Loudonville Reservoir, provided for several types of appurtenances designed to ensure safe and continuous operation of the pipeline. Facilities were installed to allow the removal of accumulated air from summits, to permit rapid draining of pipeline sections, to provide convenient points of access for inspection and repair, and to allow the rapid refilling of conduit sections without damage to the pipe joints. At appropriate locations along the pipeline, these operations are accomplished through the use of automatic air/vacuum valves, various size blowoff valves, and pipeline entrance fittings. These appurtenances are located in manholes or vault structures.

Valves in the first and second sections of the supply conduit are located at the Alcove Dam, the Feura Bush Filtration Plant, the Selkirk Railroad Yard crossing, and the Normans Kill crossing.

Within the third section, that which traverses the City proper, the supply conduit has been provided with main line valves at regular intervals. These additional valves permit conduit repair without interrupting the delivery of water to the distribution system, either from the Feura Bush Filtration Plant or from the Loudonville Reservoir.

### **1.3.3 Treatment**

The Feura Bush Filtration Plant, located in the Town of Bethlehem, is approximately half way between the Alcove Reservoir and the City distribution system. The plant presently consists of one aeration room, three mixing basins, six settling basins, eight filters and a two million gallon final clearwell.

The Feura Bush Filtration Plant is the site of centralized facilities for monitoring and controlling the entire Water System. From the central monitoring system, operators can determine flow rates, pressures, water levels, and equipment status at various points in the Water System. Control functions provide the ability to start and stop pumps, position valves, and operate other equipment.

The raw water first enters the plant through aerators designed to project a spray into the air. The aeration process assists in the control of taste and odor. Water then flows through a rapid mixing channel where polyaluminum chloride and acidified alum are added. These coagulants form a floc that enmeshes and subsequently causes the settling of suspended organic matter. The water flows from the mixing basins to the settling basins.

The settling basins provide approximately 6 hours of settling time. The settled matter forms a sludge layer at the bottom of the basins. The sludge is discharged intermittently from the basins through a drain line to a wastewater treatment facility located adjacent to the Onesquethaw Creek and the raw water supply conduit. This facility utilizes sedimentation and natural freezing and thawing cycles in open, lined earthen lagoons to dewater the sludge. Effluent from the facility is

discharged to the Onesquethaw in compliance with and pursuant to a State Pollutant Discharge Elimination System (SPDES) permit.

After leaving the settling basins, water passes through dual-media filters. The filters remove small particles. The filters are regularly backwashed with treated water to remove entrapped solids. The backwash flows to the wastewater treatment facility described above.

Chlorine is added to the filtered water in order to kill microorganisms. The addition of lime reduces corrosion in the metal pipelines. Treated water is stored in the final plant clearwell from which it enters the supply conduit for transmission to the City.

A New York State certified water laboratory is maintained at the plant for both chemical and microbiological analysis of water. The laboratory is periodically modernized to provide an efficient sampling and testing program.

The superstructure of the plant consists of reinforced concrete, red brick and limestone trim construction. The buildings are covered with membrane roofing. Over the period of service, the buildings and equipment have been periodically updated or rehabilitated.

The plant has a design capacity of 32 MGD at a filter loading rate of 2 gallons per square foot of filter area per day. (This is a very conservative rating, as the dual-media filters are capable of sustained loading rates of up to 4 gallons per minute per square foot, which would equate to a plant capacity of 64 MGD.) However, normal operation of the plant is through a pressure reducing valve permitting low flows of approximately 15 MGD to pass through the main control valve without cavitation; this procedure reduces the maximum normal flow to 26 MGD. The full design capacity can be realized, however, by bypassing the pressure-reducing valve.

### **1.3.4 Pumping Stations**

With the exception of the Loudonville area Upper Service Water District (U.S.W.D.) and the Pine Bush area, the entire City distribution system is served by gravity flow. Because of their higher elevation, the Pine Bush and U.S.W.D. require pumping to elevated storage tanks to provide adequate pressure for domestic and fire service.

The Pine Bush Pumping Station, located near Rensselaer Lake, pumps water to this westerly section of the City that is also the zone from which water is supplied to the Town of Guilderland. The station contains three pumps rated at 1,800 GPM and generates sufficient head to fill the elevated tank at Karner Road in the most westerly end of the City. The pumping station is of steel frame and metal panel construction. An auxiliary generator allows continuous operation of the pumping station in case of a power failure.

The U.S.W.D. Pumping Station, located within the property limits of the Loudonville Reservoir, boosts pressure to the section of the City adjacent to the Loudonville Reservoir. This station contains two pumps each rated at 540 GPM at 150 feet of total dynamic head. Water is also lifted to the nearby elevated storage tank. The pumping station, housed in a masonry building, has been recently updated with new pumps, controls, and a generator for auxiliary power.

### **1.3.5 Treated Water Storage Facilities**

The Water System contains four treated water storage facilities. As previously noted, the Feura Bush Filtration Plant contains a final clearwell with a capacity of 2 million gallons. The Loudonville Reservoir, located on high ground in the northerly portion of the City, serves as a balancing reservoir. It "floats" on the distribution system and supplies the City during high demand periods and acts as a storage facility during lower demand periods. The U.S.W.D. is provided pressure by an elevated tank. The Pine Bush area of the city is served with a pedestal supported tank.

#### **1.3.5.1 Loudonville Reservoir**

The Loudonville Reservoir consists of three on-ground, uncovered, irregularly shaped reinforced concrete basins, generally referred to as Basins "A", "B", and "C". The total holding or storage capacity of the three basins is approximately 211 million gallons. This storage may provide 8 to 10 days of supply to the City during an emergency, such as a supply conduit failure.

Water flow at the reservoir is controlled by valve units located in control houses of masonry construction. As mentioned above, the basins flow or ride on the distribution system under gravity flow from the Feura Bush Filtration Plant. Capacity and elevation data for the basins are as follows:

	<b>Basin "A"</b>	<b>Basin "B"</b>	<b>Basin "C"</b>
Storage Capacity (thousands of gallons)	79,531	27,415	103,932
Maximum Water Depth (feet)	42.5	27.5	43.2
Normal Surface Elevation	352.5	352.5	353.2

Because these finished water storage basins are uncovered, the discharge from the basins must be chlorinated.

In 2002 and 2003 a new facility was constructed to treat water at the discharge of Loudonville Reservoir using ultraviolet (UV) light. This facility has a capacity of 40 MGD, with four 10 MGD UV units. The facility is now operating and will go through validation testing in 2003. This project was undertaken to provide the best available disinfection and in anticipation of expected changes to the Federal EPA Enhanced Surface Water Treatment Rule and disinfection by-products (DBP) regulations. One objective of the Albany Water Board is to avoid covering the finished water reservoirs by complying with alternative regulatory rules. Another objective is to minimize the use of chlorine while providing superior disinfection capabilities, so that disinfection by-products are minimized.

#### **1.3.5.2 U.S.W.D. Elevated Tank**

The U.S.W.D. elevated tank is located in the southeasterly section of the Loudonville Reservoir site. The 150,000-gallon storage tank operates with a normal high water level of 472.5 feet above mean sea level. The water level is controlled through tank level telemetry.

### 1.3.5.3. Pine Bush Elevated Tank

The Pine Bush Elevated Tank is sited just off Karner Road at the head of Washington Avenue Extension and provides one million gallons of water storage for this section of the City. Normal operating high water level of the tank is 470.5 feet above mean sea level. The single pedestal tank support provides a ground level storage enclosure for materials and equipment.

### 1.3.6 Distribution System

When the Board took over the water systems in 1986, approximately 370 miles of pipe were in use in the water distribution system. The pipe diameters and linear footage are summarized in Table I-1.

Feeder mains, ranging in size from 16 to 36 inches in diameter and comprising a total length of approximately 80 miles, carry water from the supply conduit to the smaller distribution mains. The distribution system, consisting mostly of 12-inch diameter and smaller pipes, carries water from the feeder mains to the individual neighborhoods and City blocks.

The 8,700 valves in the distribution system provide a means of flow control during times of system maintenance and serve to isolate minimum areas of shutdown necessitated by pipe failures. Table I-2 identifies system valves.

**Table I-1  
Water Mains in Use \***

Size	Footage	Size	Footage	Size	Footage
3"	300	12"	267,700	30"	29,050
4"	31,400	16"	51,300	36"	20,500
6"	947,200	18"	4,200	42"	7,700
8"	347,600	20"	71,250	48"	108,100
10"	12,200	24"	69,750	60"	600

\*Approximate lengths derived from reports and Water System Atlas.

**Table I-2  
Valves in Operation**

Size	Type	No.	Size	Type	No.	Size	Type	No.	Size	Type	No.	Size	Type	No.
3"	Gate	30	8"	Gate	1000	16"	Cone	28	20"	Bfly	15	30"	Gate	21
4"	Gate	500	10"	Gate	50	16"	Ball	6	24"	Gate	30	30"	Cone	2
4"	Gate	130	12"	Gate	660	16"	Bfly	20	24"	Cone	5	36"	Gate	35
(hydrant)*														
6"	Gate	3160	14"	Gate	2	20"	Gate	70	24"	Ball	2	36"	Bfly	1
6"	Gate	2860	16"	Gate	55	20"	Cone	1	24"	Bfly	30	48"	Gate	10
(hydrant)*														

\*Each system hydrant is protected by a gate valve installed on the hydrant branch piping.

Of the approximately 3,000 fire hydrants in the system, 2,860 are 6-inch diameter valve opening hydrant units with three-way nozzle patterns. The remaining hydrants are 4-inch valve opening units, 120 with a single nozzle pattern and 10 with three-way pattern.

### **1.3.6.1 Water Service Meters**

The Water System has 29,000 billed customers. Metered connections account for 25,000 of this total, while 500 are non-metered water consumers. The remaining 3,500 customers are charged a front footage rate for vacant land or buildings. All new service connections to the System must be metered.

The Board has embarked on a program to convert all meters to a radio frequency automated meter reading system by mid-2004. The conversion is currently about 12 percent complete.

### **1.3.7 Pressure Control of System**

The Water System contains automatic pressure control valves for the purpose of regulating water pressure. These valves are of two types – pressure reducing and pressure relief.

There are 21 pressure-reducing valves in the distribution system. Pressure regulator valve No. 10 is no longer required and has been set in the open (i.e., bypass) position.

In addition, there is a pressure-reducing valve on the raw water supply conduit at its entrance to the Feura Bush Filtration Plant, with a normal outlet pressure setting of 23 psi.

The pressure relief valves release water from the system to relieve excessive pressure in the piping system. Without a release, excessive pressures could cause joint or pipe failures. The relief valves are located on the raw water supply conduit at the Feura Bush Filtration Plant, on the treated water supply conduit at the Normans Kill crossing, and on the distribution system at Corning Park on the Hudson River.

## **1.4 Regulatory Permits**

The Water System is operated under permits administered by the New York State Department of Environmental Conservation (NYSDEC).

Plans for system improvements and expansions are also subject to technical review and permits issued by the New York State and Albany County Departments of Health. These permits are processed on a project-by-project basis. Once construction is certified as complete and in accordance with the issued permit, the improvement may be put into service and the permit process is complete.

On September 26, 1927, the New York Department of Conservation (the predecessor to NYSDEC), acting through the Water Power and Control Commission (“Commission”), approved *Water Supply Application (WSA) No. 445 for The Acquisition of Water Supply and Financial and Engineering Plans*. The subject of the application was the proposed abandonment of the Hudson River water supply and development of the upland supply, treatment, and transmission system currently used today.

The approval also stipulated that the Water System was to release water to the Hannacrois Creek for the purposes of supplying water to the Village of RAVENA and surrounding hamlets. The

amount of water that the Water System must make available to RAVENA, and the cost thereof, was left to conditions of a contract between the two parties.

The contract was entered into on September 21, 1927. It assures RAVENA and surrounding hamlets a water flow of up to two million gallons per day, at no cost. The contract allows RAVENA to purchase additional water at a rate of \$18 per million gallons.

Other than possible negotiations for updating the Albany/RAVENA Contract, there are no actions required to maintain the validity of WSA No. 445.

WSA No. 2179 was approved by the Commission on October 2, 1951. This permit approved an agreement for supply of water to the PSEG power plant located in the Town of Bethlehem. Service facilities include an underground valve pit with a flow meter and an 8-inch main extended to the facility. This permit is still in effect and has no renewal requirements.

The Water System is also subject to WSA No. 7061, dated January 4, 1980. It provides for the supply of supplemental and emergency water to Bethlehem. The City has entered into a contract to supply water at two locations. One connection exists at Long Lane, east of the hamlet of Feura Bush, and the other is at Kenwood Avenue in Elsmere. The contract allows for periodic increases in water usage up to a maximum quantity of 2 million gallons per day.

Three other water supply applications were approved by the Commission. WSA No. 2180, dated October 2, 1951 and WSA No. 3699, dated October 6, 1959 were approved for the provision of water service to the Roman Catholic Diocese, and the Albany Jewish Community Center, respectively. Both areas of service were subsequently annexed by the City making the permits unnecessary. The third application, WSA No. 3369, dated March 11, 1958 approved the use of water from the Hudson River for industrial supply. Cessation of this practice renders this approval obsolete.

The Water System is also subject to WSA No. 9717 and WSA No. 8193, which are dated May 17, 1989. WSA No. 9717 provides for the delivery of up to 2 MGD of supplemental water to Guilderland and WSA No. 8193 provides for the delivery of up to 1.3 MGD of emergency water to Guilderland. The City has entered into a contract to supply the water at locations at common boundaries in Albany's Pine Bush area.

A State Pollutant Discharge Elimination System (SPDES) Permit authorizes discharge of wastewater from the Feura Bush Filtration Plant wastewater treatment facility to the Onesquethaw Creek. This SPDES Permit, issued for Facility ID No. N4-0100145, last became effective on May 11, 1998 and expires on July 31, 2003. The permit has been renewed and the effective date and expiration date of the renewed permit are August 1, 2003 and August 1, 2008, respectively. Through the effective period of the permit, the discharge must be monitored on a monthly basis to assure conformation with permit discharge limitations. Applications for permit renewals must be initiated 180 days prior to the current expiration date. Such applications must be in the form designated by the NYSDEC and must include any fees or supplemental information requested by the Department.

## **1.5 Department Organization and Staffing**

The City Department of Water and Water Supply (Water Department) operates under the authority of a Commissioner. The Water Department operations and staffing are divided into the four divisions including administration; source of supply, power and pumping; purification; and transmission and distribution.

The Administration Division has the primary responsibility for the Water System. The division also handles billing, finance, meter reading, and consumer services. The 19 personnel positions are distributed as follows:

Commissioner's Office	9 positions
Billing	1 position
Finance	1 position
Meter Reading	5 positions
Consumer Services	3 positions

The Source of Supply, Power and Pumping Division is responsible for the operation of Basic and Alcove Reservoirs. This division has 31 personnel positions:

Labor Foreman	1 position
Forester	1 position
Laborers/Security	24 positions
Laborers/Security PT	5 positions

The Purification Division is responsible for the operation of the filtration plant and disinfection systems. An individual that is licensed under the rules and requirements of New York State Department of Health holds the position of Chief Plant Operator. The division has 21 personnel:

Chief Plant Operator	1 position
Assistant Chief Operator	1 position
Senior Operator	1 position
Instrument Technician	1 position
Senior Lab Technician	2 positions
Operator	4 positions
Assistant Operator	5 positions
Lab Technician	1 position
Lab Director	1 position
Building Maintenance Worker	2 positions
Maintenance Mechanic	2 positions

Maintenance of the transmission, distribution, treated water storage, and pumping systems as well as installation and repair of water meters are responsibilities of the Transmission and Distribution Division. The 50 personnel positions are divided as follows:

Water System General Maintenance	45 positions
Water Meter Installation & Repair	5 positions

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The work force operates under the Albany Municipal Civil Service Commission – *Position Description and Classification Plan*. The plan provides job descriptions and specifications which include class title; distinguishing class features; examples of work; required knowledge, skills, abilities and personal characteristics; minimum qualifications; and special requirements.

## 2.0 Water System Evaluation

### 2.1 Supply Reservoirs

#### 2.1.1 Normal Supply Reservoirs

The upland supply reservoirs, on Basic Creek and at Alcove Dam, were constructed in the late 1920's and early 1930's. These reservoirs continue to function as the sole normal source of water supply for the City.

Generally, the reservoir dams and appurtenances are in adequate condition. Over the years of service, the facilities have been well maintained through regular upkeep and periodic rehabilitation work. In 1978 and 1980, the dam at Alcove was investigated as part of the National Dam Safety Program. The investigations did not reveal any major structural problems relative to the integrity of the structure. The Phase II investigation in 1980 recommended installation of a series of relief wells along the toe of the dam to relieve hydrostatic pressure on the underlying rock fissures. The wells, together with lower slope surface drainage blankets of stone, were installed. Monitoring of the wells has shown no deleterious changes since the installation.

Raw water quality is constantly monitored through measurement of water temperature and physical and chemical analyses. Copper sulfate is periodically added to the reservoirs to control algal population. Table I-3 summarizes the physical and chemical analyses of the raw water.

**Table I-3**  
**Summary of Physical and Chemical Analyses of Raw Water**

	Maximum	Minimum	Average
Color, Units	15.0	7.0	8.9
Turbidity, N.T.U.	2.60	0.35	0.73
Total Hardness mg/l CaCO <sub>3</sub>	64.0	48.0	55.5
Total Alkalinity mg/l CaCO <sub>3</sub>	39.9	29.4	38.2
Hydrogen Ion Concentration (pH)	8.0	7.14	7.52
Dissolved Oxygen mg/l O <sub>2</sub>	13.0	4.5	9.3
Iron mg/l Fe	0.06	<0.03	<0.03
Manganese mg/l Mn	0.03	<0.03	<0.03
Total Residue mg/l	119.0	88.5	90.4
Fixed Residue mg/l	64.5	45.5	53.7
Kjeldahl Nitrogen mg/l N	<0.01	<0.01	<0.01
Ammonia Nitrogen mg/l N	0.30	0.10	0.21
Nitrite Nitrogen mg/l N	0.008	0.001	0.003
Nitrate Nitrogen mg/l N	0.07	0.03	0.03
Chloride mg/l Cl	40.2	25.5	34.2
Threshold Odor (60°C)	DF <sub>3</sub>	M <sub>1</sub> /DF <sub>1</sub> /G <sub>1</sub>	DF <sub>2</sub>
Temperature °C	25.0	1.5	11.6
Specific Conductance m-mhos/cm	226	159	193.5

The rural nature of the watershed greatly reduces the potential of raw water contamination. Distance from the metropolitan area, as well as other characteristics of the watershed, has resulted in minimal population growth within the watershed.

### **2.1.2 Emergency Supply Reservoir**

In 2002, the Board acquired a leasehold interest in Rensselaer Lake and surrounding properties owned by the City for use as an emergency water supply.

The earthen dam impounding Rensselaer Lake is over 150 years old. A number of improvements required to maintain the safety of the dam were identified in a 1996 engineering report. It does not appear that any of these improvements have been implemented.

Based on a limited water quality sampling and testing program undertaken in 2002, it appears the existing Lake water is of sufficient quality to meet current drinking water standards after treatment by conventional, readily available mobile treatment equipment. A suitable area exists at the site that would allow ready ingress of the mobile equipment and would provide good access to the required electrical power and interconnecting piping.

The environmental setting of the Lake's watershed gives rise to a number of issues regarding the protection of water quality in the Lake. Much of the land comprising the watershed is outside of the City's and Board's control and much of it is highly developed for commercial, industrial, and transportation uses. The watershed also contains one of the region's largest landfills. The *Phase 1 Environmental Site Assessment* for the site identified a number of existing or potential conditions within the watershed that could result in adverse impacts to the quality of water in the Lake.

The Board could do a number of things to mitigate such impacts, such as routinely patrolling the watershed area, enforcing existing environmental regulations, preparing an emergency response plan, and routinely testing the Lake water and adjacent groundwater. All of these activities should be described in detail in a watershed management plan for this facility.

## **2.2 Transmission**

The supply conduit is in adequate condition. Ongoing maintenance, repairs, and rehabilitations of supply conduit appurtenances, mainly the air-release/vacuum valves and their enclosures, have reduced the frequency of sudden joint failures. Recurrent minor joint leaks throughout the total length of the conduit can be expected, given the age and size of the pipe. The occurrence and repair of these leaks has been, and should be, considered a normal maintenance requirement that does not adversely affect the overall integrity of the transmission system.

Flow tests and interior pipe inspections performed in past years have indicated that the interior of the transmission main is in good condition.

Large gate valves in the conduit are an ongoing maintenance item. Some of these valves have been replaced with more modern and easily operated cone or butterfly valves.

## **2.3 Filtration Plant**

Since its construction in 1930, the Feura Bush Filtration Plant has been the subject of many improvement programs. Improvements have included the addition of coagulation basins, the installation of improved process hardware and software, and the construction of a wastewater treatment facility. Replacement of worn out equipment and the structural rehabilitation of tanks and buildings are ongoing maintenance requirements.

The enclosing structures at the plant are exposed not only to normal exterior exposure to the elements, but also to water submergence and high humidity in the interiors. As such, the buildings require constant maintenance and periodic rehabilitations.

The operation of the Feura Bush Filtration Plant is monitored through constant physical and chemical analyses of the treated water quality by both laboratory technicians and plant operators. These analyses result in process and chemical application rate changes as required. A summary analysis of treated water is presented in Table I-4.

Table I-5 summarizes miscellaneous chemical concentrations in both raw and treated water. The concentrations of organic chemicals are well within the Federal Drinking Water Standards. The total coliform bacteria count of City water conforms to the New York State and Federal Drinking Water Standards.

The quality of wastewater discharged from the Feura Bush Filtration Plant treatment facility is continually monitored to determine the effect of the discharge on the receiving waters of the Onesquethaw Creek. Parameters tested for include aluminum, soluble aluminum, color, pH, temperature, suspended solids, settleable solids, and chlorine residue. All of these are within the limits set in the SPDES permit.

The Feura Bush Filtration Plant is in generally adequate condition. The treated water has consistently complied with all regulatory water quality standards. Barring any substantive change in these standards or in the quality of the raw water, and with a continuing program of preventative maintenance, repair, and rehabilitation, the Feura Bush Filtration Plant should continue to produce water of acceptable quality for many years to come.

**Table I-4**  
**Summary of Physical and Chemical Analyses of Treated Water**

	<b>Maximum</b>	<b>Minimum</b>	<b>Average</b>	<b>Regulatory Limit</b>
Color, Units	3.0	1.0	1.0	15.0
Turbidity, N.T.U.	1.51	0.17	0.33	5.0
Total Hardness mg/l CaCO <sub>3</sub>	74.0	58.0	65.0	NL*
Total Alkalinity mg/l CaCO <sub>3</sub>	52.5	37.8	41.8	NL*
Hydrogen Ion Concentration (pH)	9.4	8.76	9.04	NL*
Dissolved Oxygen (mg/l O <sub>2</sub> )	14.0	7.2	10.8	NL*
Iron mg/l Fe	0.05	<0.03	<0.03	0.3
Manganese mg/l Mn	<0.03	<0.03	<0.03	0.3
Total Residue mg/l	170.0	124.0	149.0	NL*
Fixed Residue mg/l	117.0	58.0	81.9	NL*
Kjeldahl Nitrogen mg/l N	<0.01	<0.01	<0.01	NL*
Ammonia Nitrogen mg/l N	0.10	0.20	0.18	NL*
Nitrite Nitrogen mg/l N	0.0028	0.001	0.0012	1.0
Nitrate Nitrogen mg/l N	0.04	<0.01	0.02	10.0
Chloride mg/l Cl	45.1	29.4	38.9	250.0
Threshold Odor (60°C)	Cc <sub>3</sub>	Cc <sub>1</sub>	Cc <sub>2</sub>	NL*
Chloride Residual mg/l	0.9**	0.5**	0.75**	NL*
Temperature °C	25.0	2.8	12.0	NL*
Specific Conductance m-mhos/cm	262	187	220	NL*

\*NL No Limit Designated

\*\*Estimated

**Table I-5**  
**Summary of Miscellaneous Chemical Analyses of Treated Water**

	Raw	Treated	Regulatory Limit
Aluminum mg/l Al	0.02	0.05	NL*
Arsenic mg/l As	<0.005	<0.005	0.05
Barium mg/l Ba	<0.50	<0.50	1.00
Bromodichlormethane ppb	<0.50	5.9	80**
Bromoform ppb	<0.50	<0.50	80**
Cadmium mg/l Cd	<0.001	<0.001	0.010
Calcium mg/l Ca	16.8	20.7	NL*
Dibromochloromethane ppb	<0.50	<0.50	80**
Chloroform ppb	<0.50	34.6	80**
Chromium mg/l Cr	<0.01	<0.01	0.05
Copper mg/l Cu	<0.01	<0.01	1.0
Detergents mg/l	0.01	0.01	NL*
Flouride mg/l F	0.14	0.18	4.0
Iron mg/l Fe	<0.03	<0.03	0.30
Lead mg/l Pb	<0.005	<0.005	0.05
Magnesium mg/l Mg	9.2	10.0	NL*
Manganese mg/l Mn	<0.03	<0.03	0.30
Mercury mg/l Hg	<0.0002	<0.0002	0.002
Nickel mg/l Ni	<0.01	<0.01	NL*
Selenium ppb Se	<0.005	<0.005	0.05
Silica mg/l SiO <sub>2</sub>	2.6	2.8	NL*
Silver mg/l Ag	<0.005	<0.005	0.05
Sodium mg/l Na	16.6	17.7	20.0***
Sulfate mg/l SO <sub>4</sub>	12.5	14.2	250
Zinc mg/l Zn	<0.01	<0.01	5.0

\*NL No Limit Designated

\*\*Total Trihalomethane Limit is 80 ug/l

\*\*\* Limit for people on a salt restricted diet

## 2.4 Pumping Stations

The pumping station servicing the U.S.W.D. has been the subject of periodic capital improvements to the building, the replacement of worn pumps, and the installation of station status sensors that report operation modes to the centralized control facility at the Feura Bush Filtration Plant.

The Pine Bush Pumping Station has been well maintained since its construction in 1969. With the addition of service to the Town of Guilderland, pumping units are being modified such that three pumps will be operating at the same delivery rate. The pumping units, valves, piping, and other components, together with the station enclosure building, are in good condition.

## **2.5 Treated Water Storage Facilities**

### **2.5.1 Feura Bush Filtration Plant – Final Clearwell**

The two-million gallon capacity final clearwell is part of the Feura Bush Filtration Plant. There are no current problems with the structural integrity or operation of the clearwell.

### **2.5.2 Loudonville Reservoir**

Reservoir basins “A” and “B”, the associated piping, the control buildings and other appurtenances were constructed in 1930. Basin “C” was constructed in 1936. These reinforced concrete basins have been maintained with annual cleaning, surface condition inspections, spot damage removal and surface patches, and valve repairs.

In recent years each of the Basins has been provided with vehicle access ramps to facilitate the mechanical cleaning that is done each year for all basins.

The Reservoir basins are uncovered impoundments of treated water and are vulnerable to contamination. Covering of the basins is judged impractical due to their size and irregular shape. Therefore, other efforts have been initiated to assure sanitary protection. Perimeter site drainage structures and perimeter security fencing must be periodically rehabilitated and maintained. A system of wires has been installed over the basins to discourage gulls and geese from setting on water surfaces; pyrotechnics are also used, as required.

As discussed in Section 1.3.5.1, ultraviolet light (UV) equipment has been installed to provide the best available disinfection and reduction of disinfection by-products. The system is currently in operation and will undergo validation in 2003.

### **2.5.3 U.S.W.D. Elevated Storage Tank**

The U.S.W.D. elevated storage tank, with a capacity of 150 thousand gallons, is in good condition and stores adequate water for service to the district. The tank was cleaned and painted in the late 1980's and has been periodically inspected. Booster pumping station and water main connection modifications have also been completed in recent years.

### **2.5.4 Pine Bush Elevated Storage Tank**

The one-million gallon water storage tank for the Pine Bush area was also cleaned and painted in the late 1980's. The tank is in good condition and stores adequate water for service to the area.

## **2.6 Distribution System**

With some of the smaller diameter mains in the downtown area dating back to pre-1851, the distribution system is the oldest segment of the Water System. Many of these early pipes have been replaced over the years, but some are still in use and function adequately as part of today's system.

Extensions of the distribution system in the past involved the installation of unlined cast iron piping. Most recent installations, however, have utilized ductile iron piping with cement lining.

Valves in the distribution system are now being operated and inspected on a regular basis. Inspection and repair logs are being maintained. Defective or inoperable valves are repaired or replaced as they are identified.

Fire hydrants in the system are periodically inspected and serviced as required for full operational condition. The City Fire Department has not reported having had problems with obtaining adequate fire flows from the Water System.

The distribution system is in generally adequate condition and, with appropriate ongoing maintenance, repair, and rehabilitation measures, capable of providing adequate service to the City.

### **2.6.1      Water Service Meters**

The Board has embarked on a program to convert all meters to a radio frequency automated meter reading system by mid-2004. Radio read meters will greatly enhance the ability to accurately monitor water usage, detect meters which have been tampered with, eliminate estimated bills, and streamline the process of entering readings into the billing system. Water revenues should increase, since the new system will replace older meters in the Water System that may not be accurately registering all the water being used (as water meters age and lose accuracy, they *under* register consumption).

### **2.7      Pressure Control of System**

All pressure control valves in the system are functioning adequately and are being fitted with sensors for operation status reporting to the centralized control system located at the Feura Bush Filtration Plant.

### **2.8      Capacity of Water System**

The capacity of the Water System as a whole is a measure of the dependable quantities of water that can be provided. The capacity of the Water System is determined by the lowest of the capacities of the supply, treatment, and transmission systems.

The combined watersheds and impoundments of the Basic Creek Reservoir and the Alcove Reservoir are often jointed referred to as the Alcove Reservoir System. The system has a combined total storage capacity of 13.2 billion gallons of water, available or usable storage of 12.8 billion gallons, and a safe yield, as determined by accepted engineering practice, of 28.6 MGD. Up to 2 MGD of the safe yield is available to the Town of Ravana under a contract commitment. That leaves 26.6 MGD safe yield available to the Water System. The actual maximum average daily Ravana use in the last ten years has been 0.35 MGD.

As discussed in Section 1.3.3, the Feura Bush Filtration Plant has a design capacity of 32 MGD.

In recent years the capacity of the raw water transmission main from Alcove reservoir to the Feura Bush Filtration Plant was estimated to be 34.3 MGD when the reservoir water surface elevation was at 604.0 feet above mean sea level. The capacity of the treated water transmission main from the Feura Bush Filtration Plant to the Loudonville Reservoir is estimated to be at least 31 MGD. Current capacity estimates are 31.9 MGD for the raw water conduit and 29.4 MGD for the treated water conduit.

Based upon these considerations, the overall safe yield of the Water System is 26.6 MGD as determined by the lowest capacity component, the supply system.

## **2.9      Projected Demand of Existing Service Area**

In 2002, the average daily consumption was reported to be approximately 21.3 MGD based on the measure of treated water produced at the Feura Bush Filtration Plant. Included in this figure were the flows provided by contract agreements to the Town of Bethlehem, the Town of Guilderland, and two commercial accounts outside the City (CSX and PSEG). These average daily flows were 1.4 MGD, 0.6 MGD, 0.1 MGD (combined for the two accounts), respectively. Based on these numbers, the average daily consumption of the City in 2002 was approximately 19.2 MGD.

The census population of the City was 100,031 in 1990 and 95,658 in 2000. Over roughly the same period, the average daily water consumption increased from about 18.0 MGD in 1990 to the above referenced 19.2 MGD. This increase in water consumption in the face of a slightly declining population can be attributed to the commercial development that has taken place in the City during that period. The population of the City is not expected to change greatly in the near future. Assuming a rate of increase in water consumption in the City over the next 13 years similar to the increase experienced over the last 13 years (due to continued commercial growth) would result in a projected consumption in the City of about 20.4 MGD in 2015.

The water agreements with Bethlehem and Guilderland require the City to provide up to 0.6 MGD and 2.0 MGD, respectively, to these two towns. Assuming these agreements are renewed through 2015 and that water is provided at the maximum rate, together with service to CSX and PSEG at historic rates, the total average daily demand on the Water System in 2015 would be about 23.1 MGD, which is below the capacity of 26.6 MGD.

## **2.10     Adequacy of Current Organization and Staff**

The City Water Department has historically provided adequate service at staffing levels equivalent to those currently in effect.

Table I-6 compares the City Water Department personnel with those in departments of comparable water supply systems in New York State. City staffing, in terms of number of employees per million gallons per day of consumption, lies at the upper end of the range of cities surveyed. The City of Syracuse, which lies at the lower end of the range of cities surveyed, does not operate a filtration process.

**Table I-6**  
**Water System Staffing Comparisons**

	<b>City of Albany</b>	<b>City of Troy</b>	<b>Town of Colonie</b>	<b>City of Syracuse</b>	<b>City of Binghamton</b>
<b><u>System Data</u></b>					
Population Served	99,000	50,000	78,000	200,000	48,000
Avg. Consumption (GPD)	21,250,000	14,000,000	11,000,000	40,000,000	8,000,000
Service Area (square miles)	22	10*	58	26.4	11
Water Source	2 Reservoirs	Reservoir	River/ Reservoir	Lake/ Reservoir	River
<b><u>Personnel Breakdowns</u></b>					
Administrative	19	10	13	11	3
Supply, Pumping and Purification	52	24	27	14**	15
Transmission and Distribution	50	23	22	83	20
<b>Total Personnel in Dept.</b>	<b>121</b>	<b>57</b>	<b>66</b>	<b>108</b>	<b>38</b>
Personnel per million gallons per day of consumption	5.7	4.1	5.6	2.7	4.8

\*Approximately 10 square miles are maintained by Troy personnel

\*\* The City of Syracuse does not operate a water filtration process

## **3.0 Capital Improvements Program**

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A five-year capital improvements program for the Water System has been formulated based on recommendations provided by the Water Department. The cost estimates associated with the specifically identified projects in the program are reasonable. The timely completion of the program should be sufficient to maintain the present level of service provided by the Water System for the next five years. The schedule for forecasted capital expenditures is shown in Table I-8. A description of the included projects follows.

### **3.1 Prior Capital Improvements**

Since its formation 15 years ago, the Board has completed a large number of capital improvement projects involving every component of the Water System. A list of the more significant projects is shown in Table I-7.

**Table I-7**  
**Summary of Significant Water System Improvements**  
**1988 through 2002**

#### **Supply Reservoirs**

- Alcove spillway crest and downstream face rehabilitation
- Alcove venturi meter vault and building reconstruction
- Alcove gatehouse intake screen reconstruction
- Alcove storage barn rehabilitations
- Alcove chemical storage building construction
- Alcove bathymetric survey
  
- Basic Creek spillway crest rehabilitation
- Basic Creek discharge channel bridge replacement
- Basic Creek tunnel control building rehabilitations
- Basic Creek gate house rehabilitation
  
- Watershed properties identification mapping
- Sanitary inspections
- Communications improvements
- Emergency Action Plans
- Security improvements

#### **Supply Conduit**

- Condition report of conduit corridor and system appurtenances
- Structural repairs at Stream 9 bridge crossing
- Onesquethaw Creek stream crossing bridge replacement
- Improvements to Elsmere Avenue crossing
- CSX (Selkirk Yard) tunnel access building rehabilitations
- CSX tunnel improvements

**Table I-7 (cont.)**

**Feura Bush Filtration Plant**

- Rehabilitation of plant buildings
- Replacement of all doors, windows, roofing materials, miscellaneous masonry repair, aeration room ventilation, new filter under drains with addition of blowers, new multi-media filter material
- New filter plant office and laboratory facilities
- Rehabilitation of Sedimentation Basin building
- Replacement of doors, windows, roofing materials, ventilation systems, removal of lead base paint and repaint of structural steel members
- Elimination of confined space of basement shop area
- Boiler replacement
- Filter control valve replacements, computerized filter backwash systems
- Miscellaneous brick repair/repointing
- Installation of chlorine gas scrubbers
- Installation of systems sensors/alarms for connection to centralized computer monitor
- Installation of a centralized water systems computer control center

**Distribution System**

- Distribution main replacements in portions of the following streets:
- Orange St, Morris St, Buchanan, Sherman St, Sheridan Ave, S. Lark St, Wellington Ave, New Scotland Ave, N&S Pearl St, State St, Albany St, Columbia St, Elk St
- Rehabilitation of automatic pressure regulator valves and vaults
- Installation of sensors and telemetry equipment to monitor valve operation at the central computer facilities located at Feura Bush
- Addition of pressure regulators in Upper Service Water District

**Loudonville Reservoirs**

- Installation of a re-chlorination station to ensure disinfection of the water that reenters the distribution system
- Installation of a wire grid to divert waterfowl away from the water surfaces thereby improving the quality of reservoir water
- Structural rehabilitation of the valve control buildings and concrete repairs to the three basin structures
- Installation of permanent access ramps to facilitate cleaning and repair operations
- Improvements to operating condition sensors and telemetry systems to the central computer facilities at Feura Bush
- Installation of ultraviolet systems for improved disinfection
- Improvements to security perimeter fencing
- Installation of site security systems

**Water Pumping Stations**

- Upgrades to the pumps and controls of the Upper Service Water District and Pine Bush stations
- Installation of emergency power generator at Upper Service Water District
- Installation of sensors and telemetry equipment to monitor station operations at the central computer facilities located at Feura Bush

**Table I-7 (cont.)**

**Elevated Water Storage Tanks**

- Inspections and repainting of both Pine Bush and Upper Service Water District tanks
- Installation of sensors and telemetry equipment to monitor station operations at the central computer facilities located at Feura Bush

**Erie Boulevard Headquarters**

- Miscellaneous structural and interior repairs to the headquarters facilities at Erie Boulevard
- Assessment of space needs and development of concepts for building expansions and/or replacements
- Removal of old fuel oil storage tanks
- Provisions for emergency power generation

**Computer Equipment**

- Upgrades to billing and central accounting computer equipment and software
- Installation of PC stations throughout department

**Metering**

- Installation of radio read meter conversions for automated readings and billing process
- Installation of new meters at all large water user sites

## **3.2 Five-Year Capital Improvements Program**

The projected expenditures over the next five years under the current Capital Improvements Program are shown in Table I-8, followed by descriptions of identified projects.

**Table I-8**  
**Schedule of Forecasted Water System Capital Expenditures**

<b>Proposed Projects</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Supply Reservoirs	375,000	75,000	0	60,000	60,000
Feura Bush Filtration Plant	621,000	0	0	100,000	100,000
Supply Conduit	15,000	0	0	50,000	60,000
Distribution System	110,000	300,000	0	125,000	125,000
Loudonville Reservoir	430,000	0	0	50,000	60,000
Pumping Stations	50,000	0	0	50,000	50,000
Erie Boulevard Facility	50,000	350,000	0	230,000	210,000
Computers	30,000	25,000	25,000	30,000	30,000
Water Service Meters	3,000,000	2,300,000	0	0	0
Miscellaneous Engineering	18,500	18,500	18,500	55,000	55,000
Contingency Allocation	16,500	16,500	16,500	50,000	50,000
<b>Totals</b>	<b>\$4,716,000</b>	<b>\$3,085,000</b>	<b>\$60,000</b>	<b>\$800,000</b>	<b>\$800,000</b>

*Note: Expenditures shown for 2003 do not include approximately \$2.5 million in carryover payments made in 2003 but accrued prior to 2003 for projects initiated prior to 2003.*

### **3.3 Supply Reservoirs**

In 2003, \$100,000 is allocated for investigations, surveys, and design of construction details for the earthen dam stabilization and miscellaneous improvements to meet current dam safety regulations at the Six Mile Reservoir. An allocation of \$200,000 will provide for surveys, investigations, and designs for emergency water supply improvements to connect the Six Mile Reservoir to the existing distribution system.

For each of the program years 2003 and 2004, \$75,000 is being allocated for structural and roof repairs at the Alcove Reservoir Gatehouse.

In 2006, \$40,000 is allocated for the initiation of the Emergency Action Plans (EAP), for Alcove and Basic Creek Reservoirs. An additional \$20,000 is allocated in the program year for the conversion of communications systems to MOSCAD equipment.

In 2007, \$30,000 is allocated for completion of an engineering/construction response to the Alcove and Basic Creek Reservoir EAP.

In 2007, \$30,000 is allocated for the engineering inspection of buildings and spillway structures at the Alcove and Basic Creek Dams, and for the designs for necessary improvements.

### **3.4 Feura Bush Filtration Plant**

In 2003, \$621,000 is allocated for the installation of equipment and bulk chemical storage enclosures for conversion to an acidified liquid alum coagulant aide. The plant emergency power generator will also be replaced.

In 2006, \$100,000 is allocated for evaluations, designs, and initiation of construction for miscellaneous building upgrades.

In 2007, \$100,000 is allocated for construction of building upgrades.

### **3.5 Supply Conduit**

In 2003, \$15,000 is allocated for the installation of a telemetry system from a meter located in the Selkirk Tunnel Access Building.

In 2006, \$50,000 is allocated for the construction of a building over the pressure relief valve chamber located adjacent to the Normans Kill near the City boundary with Bethlehem.

Improvements for the rehabilitation of valves, operators and tunnel structures are allocated \$60,000 for 2007.

### **3.6 Distribution System**

In 2003 \$110,000 is allocated for the installation of pressure regulating valve telemetry equipment.

In 2004 \$300,000 is allocated to implement recommendations of the Emergency Response Plan in regard to water service inter-connections between the distribution system and the adjacent facilities of the Towns of Bethlehem and Guilderland, the Village of Menands, and Latham Water District (Town of Colonie).

Annual funds for water distribution system improvements will concentrate on areas that are frequently repaired and areas with major street reconstruction projects. The distribution system will be continually monitored by the City Water Department for the areas in need of rehabilitation or replacement and the highest priority sections will be improved.

In 2006 and 2007, annual allocations will be \$125,000.

### **3.7 Loudonville Reservoir**

In 2003, \$430,000 of the Capital Program funds will be allocated to fund remaining equipment and construction costs of the new ultraviolet (UV) disinfection systems.

In 2006 and 2007, \$50,000 and \$60,000, respectively, are allocated for continuing the joint repair work and perimeter fence replacements.

### **3.8 Pumping Stations**

In 2003, funds allocated for the Pine Bush Pumping Station improvements include \$50,000 for the purchase of new pumping equipment.

In 2006, \$50,000 is allocated for instrumentation upgrades.

In 2007, \$10,000 is allocated to conduct a hydraulic evaluation of the Pine Bush Pumping Station zone and to perform an engineering study of the increased system demands along Washington Avenue.

In 2007 an allocation of \$40,000 will be directed at miscellaneous station improvements at both the USWD and Pine Bush Pumping Stations.

### **3.9 Erie Boulevard Facility**

In 2003, \$50,000 is allocated to initiate the investigations, surveys, and designs for renovations and alterations of the existing structures at the Department's headquarters.

An allocation if \$350,000 is programmed to construct the improvements in 2004.

In 2006 and 2007, \$230,000 and \$210,000, respectively, are allocated for continuing building improvements.

### **3.10 Computers**

In 2003, \$30,000 is allocated for software and hardware upgrades to continually improve the computer facilities of the DW/WS.

In 2004 and 2005, \$25,000 will be allocated annually for continuing upgrades.

In 2006 and 2007, \$30,000 will be allocated annually for continuing upgrades.

### **3.11 Water Service Meters**

The Board has embarked on a program to convert all meters to a radio frequency automated meter reading system by mid-2004. This will involve an allocation of \$3.0 million in 2003 and \$2.3 million in 2004.

### **3.12 Miscellaneous Engineering**

In 2003 through 2005 miscellaneous inspections, surveying, mapping, drafting, and other consulting services will be required. An annual allocation of \$18,500 is programmed.

An annual allocation of \$55,000 is programmed for the years 2006 and 2007.

### **3.13 Contingency Allocation**

To provide for the unforeseen conditions that may be encountered as the projects are designed and constructed, an annual amount of \$16,500 is allocated in each of the program year budgets of 2003, 2004, and 2005. In the program years of 2006 and 2007 the annual allocation will be \$50,000.

### **3.14 Emergency Repairs**

It has been assumed in this report that funds to included in the capital improvements program will not be used for emergency repairs and other unforeseeable requirements.

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## **PART II**

## **SEWER SYSTEM**

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# **1.0 Description of Sewer System**

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## **1.1 General**

Sanitary sewer systems have served the City since the Civil War. The original treatment facility, located in the Westerlo Island section of Albany, was built in 1920. Over the years, however, the plant deteriorated and was unable to treat the increasing amounts of influent sewage.

In 1964, a committee was established representing the major municipalities in Albany County. The committee commissioned a comprehensive sewage study for the purpose of investigating new wastewater treatment alternatives for the County. The resulting report recommended the formation of a County sewer district, encompassing the construction of two treatment plants and a network of interceptor sewers.

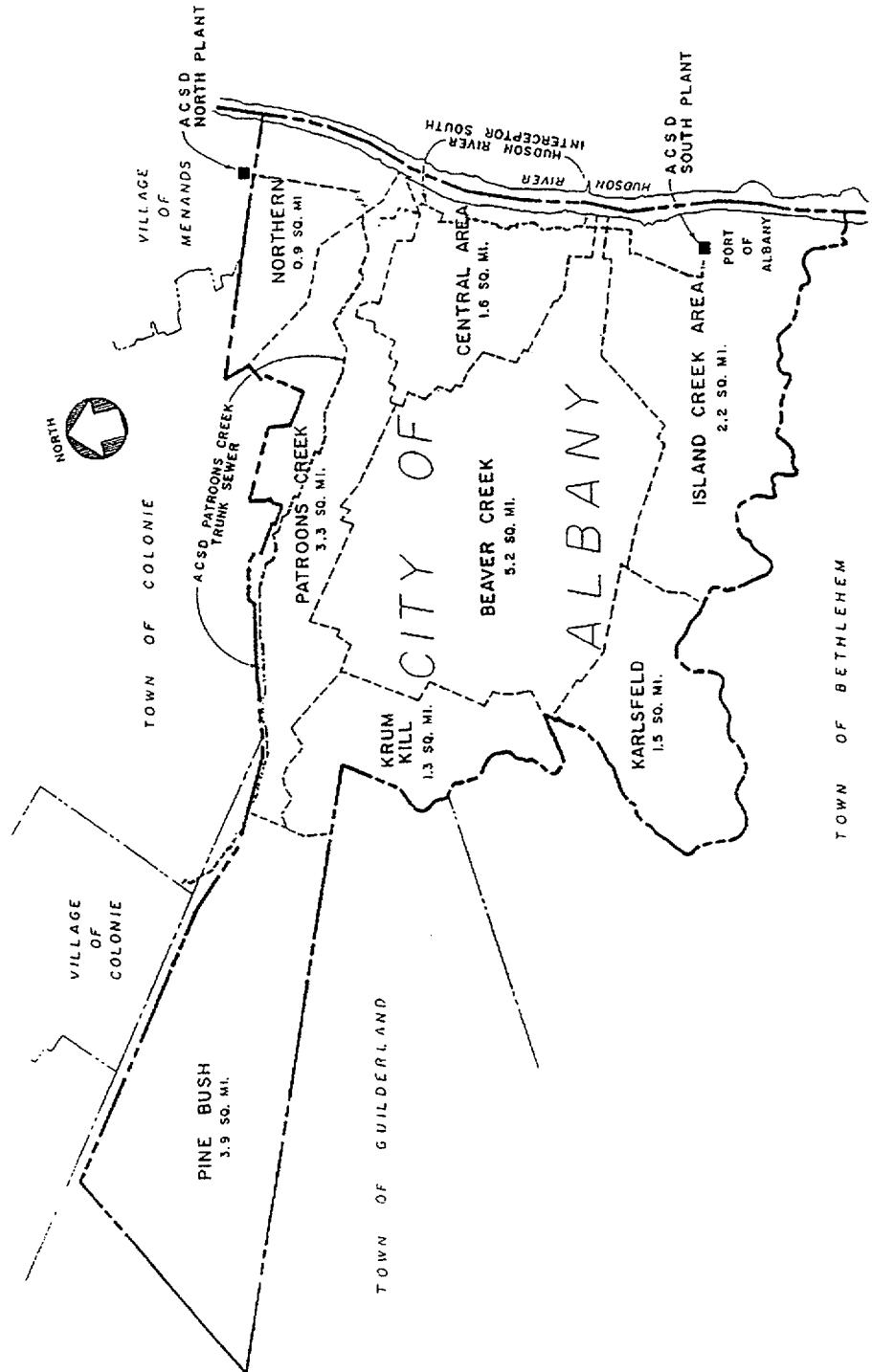
The municipalities implemented this recommendation and formed the Albany County Sewer District (ACSD) in 1967.

The City signed the agreement for ACSD participation on December 3, 1970. Under the agreement, which was assigned to the Board, the City or its assigns, owns, operates, and maintains the sewer collection system within its boundaries. It is this system (the "Sewer System") that is the subject of this report. The Sewer System connects with the ACSD facilities at the Patroons Creek Trunk Sewer and at the South Plant, which are owned, operated, and maintained by ACSD. The South Plant is one of two treatment plants that receive sewage from the Sewer System as well as the other municipalities in ACSD. The ACSD also owns, operates, and maintains overflow regulators, which control the amount of sewage bypassed to the Hudson River.

The Sewer System consists of the following major components:

- Approximately 240 miles of collector and trunk sewers carrying both sanitary sewage and stormwater runoff, commonly referred to as "combined" sewers.
- Approximately 110 miles of collector and trunk sewers carrying only sanitary sewage.
- Twenty-two sewage pumping stations.
- The Hudson River Interceptor South, which runs parallel and adjacent to the Hudson River and receives sewage from the collector and trunk sewers.
- Twenty-two overflows which carry excess combined flow in the Sewer System to the Hudson River during periods of heavy storm runoff or snow melt. (The overflow *regulators* are the responsibility of ACSD.)

The Sewer System is further divided into eight drainage districts within the City. These districts include the Northern, Patroons Creek, Pine Bush, Krum Kill, Beaver Creek, Central Area, Island Creek, and Karlsfeld Districts. The districts are shown in Figure II-1.



**CITY OF ALBANY  
SEWER DISTRICTS**

**FIGURE II-1**

Sewage from the Northern, Patroons Creek, and Pine Bush Districts ultimately flows to the ACSD owned and operated North Wastewater Treatment Plant (the “North Plant”). The North Plant serves these City Districts as well as the remainder of the ACSD outside of the City. The remaining City Districts flow to the ACSD South Wastewater Treatment Plant (the “South Plant”), which serves only the City. Flows to the two ACSD Plants from the Sewer System are as follows:

Average 2002 Flow to North Plant:	3.4 MGD	( 13%)
Average 1986 Flow to South Plant:	<u>23.3 MGD</u>	( 87%)
Total Average Flow:	26.7 MGD	(100%)

## **1.2 ACSD Facilities Serving the Sewer System**

Although not a part of the Sewer System, several major components of the ACSD are integrally connected with and serve the System, and are briefly described here.

### **1.2.1 Patroons Creek Trunk Sewer**

The Patroons Creek Trunk Sewer was constructed between 1969 and 1974 by ACSD. Most of it is located within the northern boundary of the City. The sewer serves three City Districts as well as the Town and Village of Colonie and the Town of Guilderland. It begins at a point in the Town of Colonie in the vicinity of the southernmost reach of the Village of Colonie and terminates at the North Plant. ACSD monitors flows in this trunk sewer through the use of sixteen ACSD owned and operated meter units and a telemetering system. A special ACSD crew monitors this measurement system and calibrates each meter on a monthly basis.

### **1.2.2 North and South Plants**

The North and South Plants are virtually identical in process design, differing only in installed capacities. Both plants employ a conventional activated sludge treatment process to achieve secondary treatment levels (85% reduction of the influent biochemical oxygen demand and suspended solids levels). Sludge at both plants is dewatered prior to incineration, with the resultant ash being landfilled. The North and South Plants were constructed during the period from 1969 to 1974.

The North Plant is located in the Village of Menands on a 28-acre site adjacent to the Hudson River. The South Plant is located in the City on a 32-acre site just north of the Port of Albany (See Figure II-1).

The permitted capacities of the plants are as follows:

	<u>30-Day</u>	<u>Average Flow</u>
North Plant	35 MGD	
South Plant	25 MGD	

Actual flows to the plants during 2002 were as follows:

	Daily Minimum	Daily Average	Daily Maximum	Annual Total
North Plant	13.8 MGD	22.1 MGD	59.1 MGD	8,067 MG
South Plant	16.5 MGD	23.3 MGD	43.8 MGD	8,505 MG

## **1.3 System Facilities**

### **1.3.1 Description of District**

#### **1.3.1.1 Northern District**

The Northern District includes the northeast section of Albany and has an area of 0.9 square mile. The District is heavily developed east of Van Rensselaer Blvd. Industrial development predominates along Broadway. Although the sanitary sewers are now reported to be separate, they were originally constructed as a combined sewer system.

The collector sewers generally range from 10 to 12 inches in diameter. The downstream collectors connecting to trunk sewers are primarily 15-inch, 18-inch, or 20-inch diameter pipes. The major trunk sewer in the District is along Broadway and is 42 and 54 inches in diameter. The trunk sewers carry flow to the Patroons Creek Trunk Sewer through two meters and ultimately to the North Plant.

#### **1.3.1.2 Patroons Creek District**

This 3.3 square mile district is located along the Patroons Creek and includes the Tivoli Lake area. Development has been mostly urban residential, and is generally confined to the south side of the creek. Originally, the area was served by a combined sewer system that discharged directly into Patroons Creek. Separation programs, however, have provided facilities allowing sanitary wastes to flow to the Patroons Creek Trunk Sewer while stormwater flows to the creek.

The collector sewers in this District vary in diameter from 8 to 20 inches. Trunk sewers in the District, ranging from 24 to 36 inches in diameter, are mostly confined to the southeastern portion of the District. These sewers discharge to the Patroons Creek Trunk Sewer for transport to the North Plant.

#### **1.3.1.3 Pine Bush District**

The Pine Bush District is situated in the westerly section of the City. It is almost entirely separated from the eastern sections of Albany by the Adirondack Northway (Interstate Route 87). The District includes 3.9 square miles with Fuller Road as its easterly boundary. Sewer service demand has increased due to commercial and residential development. Commercial development along Washington Avenue Extension and NYS Route 155 has accelerated in recent years. Several residential developments have been built in the areas of Gipp Road, Rapp Road, Route 155 and the connector roads leading to Washington Avenue Extension.

Separate sanitary sewers have been installed throughout the District. Collector sewers, mostly 8 to 12 inches in diameter, discharge to a 30-inch diameter trunk sewer, along the south side of Washington Avenue Extension. This trunk sewer carries all of the District wastewater to the Patroons Creek Trunk Sewer. An ACSD meter at the end of the trunk sewer, near Fuller Road and Rensselaer Lake, measures the flow from the District.

The Town of Guilderland discharges to the Patroons Creek Trunk Sewer at the terminus of Madison Avenue, west of Fuller Road. An ACSD meter monitors the Town's sewage flow. Sewer System flows are obtained by subtracting Town readings from those readings at the Fuller Road ACSD meter.

#### **1.3.1.4 Beaver Creek District**

This District extends 3.5 miles west from the Hudson River and encompasses an area of 5.2 square miles. A large part of Albany's urban development during the 20<sup>th</sup> century has occurred here. A combined sewer system serves most of the District with only a small portion served by separate sewers.

Most of the collector sewers are 12-inch diameter vitrified clay pipe. Large trunk sewers, constructed of concrete, brick or stone, accept sewage from the collectors for discharge to the Arch Street trunk sewer. These trunk sewers range in diameter from 24 inches to 84 inches. The Arch Street trunk sewer enters the Hudson River Interceptor South through the ACSD sewage regulator at South Pearl Street. During heavy rainstorms, the trunk sewer discharges excess flow into the Hudson River.

In recent years significant efforts have been made to detain storm water for slower release to the system after rainfall events. In the upper portions of the District, in the sub-district area known as the Washington Branch, large underground tanks and oversized piping has been installed. Significant storm runoff volumes are held in these facilities and released gradually by flow control devices. This method of reducing large peak flows that used to surcharge or overflow the system has significantly reduced neighborhood flooding and combined sewage overflows to the Hudson River.

The storm drainage and the sanitary sewers of areas in the vicinity of Berkshire Boulevard were separated in the early to mid 1990's. As part of the project the Berkshire Boulevard Pumping Station and a stilling basin for storm water were constructed near the west end of Buckingham Pond. The Berkshire Boulevard Pumping Station pumps storm water from the stilling pond to a NYS drainage line that runs along NYS Route 85 to the Krum Kill.

#### **1.3.1.5 Krum Kill District**

Located just west of the Beaver Creek District, the Krum Kill encompasses an area of approximately 1.3 square miles. The District is primarily residential, consisting mostly of one and two-family homes.

Separate storm and sanitary sewers are present in this District with storm drainage discharging directly to the Krum Kill. While most sanitary collector sewers are 12-inch vitrified clay pipe, the diameters range from 8 to 20 inches. Sanitary sewage is conveyed through the Woodville

Pumping Station, to a 24-inch trunk sewer and subsequently to the Hackett Boulevard trunk sewer.

#### **1.3.1.6     Karlsfeld District**

Located in the southwest portion of the City, this District encompasses more than 1.5 square miles. The system serving this area was installed over the last 20 years and consists of separate sanitary sewers.

All sewers in the District are collectors and range in diameter from 8 to 12 inches. All wastewater from the District discharges into the Karlsfeld (McCormack Road) Pumping Station and is subsequently pumped to the Hackett Boulevard trunk sewer.

#### **1.3.1.7     Central District**

Consisting of 1.6 square miles, this District encompasses the City's "Central Business District". The State Capital, Empire State Plaza, City Hall, Court of Appeals Building, and County Courthouse are located within its boundaries. The District has a river frontage of approximately 1.5 miles.

This District is served by a combined sewer system. The collector and trunk sewers consist of vitrified clay pipe, brick, tile and natural stone facilities, some dating back to the Civil War era. The collectors range from 8 to 18 inches in diameter and discharge to trunk sewers ranging from 24 to 32 inches in diameter. Larger trunk sewers, including 54-inch circular and 48-inch by 32-inch elliptical, convey the sewage to the Hudson River Interceptor South through 14 ACSD regulators. During storms, the excess combined sewage discharges directly to the Hudson River through 10 overflow sewer outfalls.

#### **1.3.1.8     Island Creek District**

The Island Creek District is located in the southeastern section of the City adjacent to the Hudson River and includes two sub-areas, Island Creek and the Port of Albany. It has a total area of 2.2 square miles including 1.2 square miles in Island Creek and 1.0 square mile in the Port of Albany.

The Island Creek section has combined sewers that, during dry weather, discharge through three ACSD sewage regulators into the Hudson River Interceptor South. During heavy rainstorms, excessive flows are discharged directly to the Hudson River through two outfall sewers. Collector sewers, mostly 12 inches in diameter, carry sewage to a network of trunk sewers ranging from 24 to 54 inches in diameter.

The Port of Albany section is occupied almost exclusively by industrial and commercial facilities. A storm water system discharges to the Hudson River. The separate sanitary collector sewers discharge directly to the ACSD South Plant. Sanitary sewers in this district are mostly 12-inch and 15-inch vitrified clay pipes.

### 1.3.2 Sewage Pumping Stations

The two major pumping stations in the Sewer System are the Woodville and Karlsfeld Pumping Stations, which are discussed in sections 1.3.1.5 and 1.3.1.6, respectively. There are currently 20 smaller pumping stations in the System, serving limited residential, commercial, and industrial areas. The Berkshire Boulevard Pumping Station is one of the smaller Pumping Stations and pumps storm water only (see discussion in section 1.3.1.4). Data on all the stations is presented in Table II-1.

**Table II-1**  
**Sewage Pumping Stations Data**

<b>Sewer District &amp; Pump Station Name</b>	<b>Location</b>	<b>Pump Type</b>	<b>Type of Standby Power Generator</b>	<b>Outfall District</b>
<b>Beaver Creek</b>				
Berkshire Boulevard (Pumps storm water only)	Berkshire Boulevard & Davis Avenue	2-25 hp/Dry Pit	Mobile	N/A
<b>Central</b>				
Corning Preserve Park	Corning Preserve near Livingston Ave. RR Bridge	2-Submersibles	Mobile	Central
<b>Island Creek</b>				
Broadway	Broadway and Fourth Avenue	2-2 hp/Dry Pit	20kW Nat. Gas	Island Creek
Delaware Avenue No. 1	Lower End of Mill Road	2-Submersibles	Mobile	Island Creek
Delaware Avenue No. 2	Upper End of Mill Road	2-Submersibles	Mobile	Island Creek
Marlborough Court	End of Marlborough Court	2-Submersibles	Mobile	Island Creek
McAlpin Street	Near Intersect. of McAlpin St. & Delaware Ave.	2-5 hp/Dry Pit	Mobile	Island Creek
South Pearl	Intersection of So. Pearl St. & Old So. Pearl St.	2-3 hp/Dry Pit	50kW Diesel	Island Creek
<b>Karlsfeld</b>				
Golf Course	Albany Municipal Golf Course	2-Submersibles	Mobile	Beaver Creek
Karlsfeld (McCormack Road)	End of McCormack Road	2-7.5 hp/Dry Pit	Aux. Elect. Source	Beaver Creek
Meadow Lane	Meadow Lane near Normanskill	2-3 hp/Above Ground	15kW Diesel	Beaver Creek
New Scotland Woods	Woodside Drive	2-Submersibles	15kW Diesel	Beaver Creek
Olympian Acres	Olive Tree Lane	2-Submersibles	Mobile	Beaver Creek
Par Circle	Par Circle (between #33 and #35)	2-Submersibles	Mobile	Beaver Creek
Whitehall Station	Windsor Place	2-Submersibles	Mobile	Beaver Creek
<b>Krumkill</b>				
Woodville (13th Ward)	End of Woodville Avenue	3-50 hp/Dry Pit	230kW Diesel	Beaver Creek
<b>Northern</b>				
Northern Boulevard	Northern Boulevard, near University Heights	2-7½ hp/Dry Pit	Mobile	Northern
Saint Agnes	Greyledge Dr. off St. Agnes Lane	2-3 hp/Above Ground	Mobile	Northern
<b>Pine Bush</b>				
Corporate Circle	Corporate Circle & Route 155	2-15 hp/Dry Pit	75kW Nat. Gas	Pine Bush
Pinehurst	Woodridge Street & Aspen Circle	2-5 hp/Dry Pit	15kW Diesel	Pine Bush
Turning Point	West End of Point of Woods Dr. (Georgetown Ct.)	2-2 hp/Dry Pit	15kW Diesel	Pine Bush
Wilan Lane (Gipp Road)	Wilan Lane off of Gipp Road	2-Submersibles	Mobile	Pine Bush

### **1.3.3 Hudson River Interceptor South**

The Hudson River Interceptor South begins at the intersection of North Pearl and Tivoli Street and terminates at the South Plant. The line runs parallel and adjacent to the Hudson River (See Figure II-1). It is of reinforced concrete construction and varies in size from 24 inches to 66 inches.

Eight small collector sewers and twenty-one trunk sewers connect to the Hudson River Interceptor South. Each of the twenty-one trunk sewer connections has an intercepting manhole and 20 of these manholes have a flow regulator to control the flow of sewage to the interceptor and to provide for the diversion of excessive combined flows to the Hudson River. Sewer separation has eliminated the regulator and overflow in the remaining trunk sewer connection. At each of the regulated connections, it is the ACSD's responsibility to operate and maintain the regulator, while the City is responsible for the overflow to the Hudson River.

In actual practice, the ACSD currently maintains both the overflow (see Section 1.4) and the Hudson River Interceptor South.

### **1.3.4 Overflows**

The Sewer System includes 22 overflows, which are listed in Table II-2. Two of these overflows are from sewer system pumping stations and provide discharge to waterways should the pumping stations fail. The remaining 20 are combined sewer overflows that discharge to the Hudson River during wet weather conditions. These overflows minimize the potential for sewage backing up into basements and streets as a result of the storm water surcharge. The amount of overflow is governed by the ACSD regulators on the Hudson River Interceptor South.

It was discovered in the late 1980's that the Hudson River at high tides was backflowing to Hudson River Interceptor South through the overflow/outfall systems. A series of backflow devices were constructed in the early 1990's to prevent the backflow conditions.

**Table II-2**  
**Combined Sewer Overflow (CSO) Regulators**

<b><u>CSO No.</u></b>	<b><u>Location</u></b>	<b><u>Outfall</u></b>
012	Thirteenth Ward Pumping Station	To Krum Kill
013	Bouck Street & South Pearl Street	To Hudson River near Gansevoort Street extension
014	Gansevoort Street & Franklin Street	To Hudson River near Gansevoort Street extension
015	Dongan Avenue & Schuyler Street	To Hudson River near Schuyler St. via I-787 sewer
016	Rensselaer Street & Dongan Avenue	
017	Rensselaer Street & Dongan Avenue	Common outfall to Hudson River near Rensselaer Street extension
018	Rensselaer Street Green Street	
019	Arch Street & Green Street	
020	Dongan Street & South Ferry Street	Common outfall to Hudson River near Arch Street extension
021	Madison Avenue & Franklin Street	
022	Liberty Street & Hamilton Street	To Hudson River near Hamilton St. ext. via I-787 sewer
024	Broadway & Division Street	Common outfall to Hudson River near Division Street
025	State Street & Dean Street	Extension via I-787 sewer
026	Broadway & Maiden Lane	
027	Broadway & Steuben Street	Common outfall to Hudson River near Maiden Lane
028	Montgomery Street	extension via I-787 sewer
029	Montgomery Street & Orange Street	
030	Montgomery St. & Quackenbush St.	Common outfall to Hudson River near Spencer Street
031	Livingston Avenue & Jackson Street	extension via I-787 sewer
032	Thacher Street & Broadway	
033	North Pearl Street & Tivoli Street	Common outfall to Hudson River via Patroons Creek
034	Karlsfeld Sewage Pumping Station	To Normans Kill

## **1.4 City/ACSD Agreement**

All interactions between the Board and ACSD are governed by an Agreement executed by City and ACSD in 1970 and assigned to the Board in 1987.

The Board is responsible for enacting rules, regulations and ordinances regarding use of its Sewer System. These are not to conflict with the regulations established by the ACSD. The sewer ordinance regulating the use of the Sewer System is Local Law No. 1, enacted April 3, 1978 by the Common Council (see Section 1.5).

The Agreement stipulates that connection points between the Sewer system and ACSD facilities are to be established by mutual consent. The ACSD provides all services in connection with reading, operating and maintaining the meters and sampling devices located at each connection to its facilities. This includes calibration, repair and replacement of said equipment if necessary.

The separation of municipal responsibility lies between the regulatory chamber and the overflow units. The Agreement called for the City to rehabilitate the regulator chambers prior to

transferring ownership to the ACSD. All responsibility for operation and maintenance of the regulator chambers now lies with the ACSD.

The overflow units consist of weirs, pipework and appurtenances required for the diversion of excess flows to the Hudson River. If the nearby regulators detect more stormwater and sewage flowing into the Hudson River Interceptor South than can be conveyed, then excess flow is automatically diverted to the river. While these overflow units are officially the responsibility of the Board, the ACSD often maintains both the regulator chambers and the overflow units. This eliminates many scheduling and coordinating conflicts. If additional manpower or equipment is required, the City Department of General Services provides assistance.

The ACSD charges the Board semi-annually for its share of the cost to construct, operate and maintain the ACSD facilities. The bills consist of two charges, one for annual debt service and the other for operation and maintenance.

The Board's share of the ACSD annual debt service resulting from the construction of conveyance facilities is fixed at 47.3 percent. For annual debt service resulting from the construction of treatment facilities, the Board's share is fixed at 54.4 percent.

The Board's share of ACSD operation and maintenance costs is based on its share of the total actual metered flow.

Reserved capacities in the ACSD conveyance and treatment facilities were determined for the City and included in the Agreement. If the City delivers flow to the conveyance or the treatment facilities in excess of the reserved capacities, an additional charge is incurred. The surcharge is 0.62 percent of the annual ACSD debt service allocable to the conveyance facilities, per MGD of excess peak flow plus 1.8 percent of the annual ACSD debt service allocable to the treatment facilities, per MGD of excess average daily flow. Similarly, if excessive Biochemical Oxygen Demand (BOD) or suspended solids loadings enter the facility, the ACSD is allowed to impose a proportional surcharge.

## **1.5 Local Law No. 1 – 1978**

Local Law No. 1-1978 forms the basis of the City's current Sewer System regulations. It was enacted primarily to enhance the operation of the Sewer System, but also serves to satisfy requirements set forth by the NYSDEC and the ACSD. The ordinance defines acceptable Sewer System usage and outlines procedures for the administration of the System.

Specifically, Local Law No. 1 prohibits wastes that may cause maintenance difficulties in the transport system, cause operating difficulties at the ACSD treatment plants, require greater treatment expenditures, or pose hazards to sewer personnel. It prohibits excessive volumes and requires pre-treatment of wastes that interfere with the normal treatment process.

Administrative guidelines are set forth which impose sewer rents, govern the installation and connection of building sewers, establish penalties for violations, and encourage cooperation with other local governing agencies.

The ordinance is designed to ensure the protection of public health and restrict any actions that could hinder maintenance or operation of the System.

## **1.6 State Pollutant Discharge Elimination (SPDES) Permit**

Several Sewer System districts utilize combined sewers instead of separate sewers for sanitary sewage and storm water. These districts require overflow outlets to mitigate the flooding of streets and basements during periods of heavy rainfall. All overflows from these combined sewers are regulated by a SPDES Permit. Each of the outlets of the Sewer System's twenty-two (22) overflows is regulated by the New York State Department of Environmental Conservation (NYSDEC) pursuant to the Board's SPDES Permit.

The NYSDEC assigns Stream Classifications to all significant bodies of water within the State, including streams, rivers, and lakes. These classifications, which are based on an allowable use, consider such factors as potability, aquatic life, and water recreation. Local waterways that receive Sewer System overflows are classified as follows:

Krum Kill	Class A
Normans Kill	Class B
Hudson River	Class C

Twenty overflows discharge to the Hudson through 10 outfalls, one overflow discharges to the Normans Kill, and one discharges to the Krum Kill.

A SPDES Permit also describes several monitoring requirements and procedures required for general compliance. All practical measures must be taken to minimize the amount of sewer overflow and, whenever possible, separate storm and sanitary facilities should replace combined sewers as the combined sewers are repaired and replaced. The Board's SPDES Permit (No. NY0025747) was issued on October 1, 2000 and expires on May 1, 2006. A Notice of Intent to Modify SPDES Permit (Notice of Intent) was received from NYSDEC on May 17, 2001. The Notice of Intent required that the Board implement 13 Best Management Practices (BMP) and develop a Long-Term Control Plan (LTCP) for the city's combined sewer overflows. The Notice of Intent included guidance for the LTCP. The Board responded to the Notice of Intent in August 2001, and is currently negotiating the final modifications to the SPDES Permit with NYSDEC.

All discharges to the Hudson River originate from overflows connected to the Hudson River Interceptor South. Overflows at the Woodville Pumping Station cause discharge to the Krum Kill, while the Karlsfeld (McCormack Road) Pumping Station overflow is discharged to the Normans Kill. Operation of the overflows is not allowed during dry weather conditions except in emergency situations. In the event of a dry weather overflow, the Albany County Department of Health must be notified. Improvements have been made to the Karlsfeld Pumping Station in recent years to significantly reduce the chance of an overflow to the Normans Kill.

An "Interim Report", containing a description of overflow facilities and any problem areas, must be submitted annually, and inspection logs must be submitted semi-annually, to the NYSDEC regional office, Albany County Department of Health and United States Environmental Protection Agency regional office in New York City.

## **1.7 Current Organization and Staffing**

The City Department of General Services presently administers the operation and maintenance of the Sewer System through the Division of Engineering. The City Engineer is in direct charge of the Division of Streets and Sewers. The Division has two groups dedicated to the Sewer System, one responsible for the operation and maintenance of the collector and trunk sewers, the other in charge of operation and maintenance of pumping stations.

Staffing levels in these two groups are as follows.

Sewer Group	17 positions
Pumping Station Group	7 positions

The breakdown of positions in each group is as follows:

### **Sewer Group**

Supervisor	1 position
Jr. Engineer	1 position
Engineering Aide	1 position
Equip. Operator	4 positions
Laborer	8 positions
Mason	1 position
Clerical	1 position

### **Pumping Station Group**

Supervisor	1 position
Equip. Operator	1 position
Laborer	5 positions

## **2.0   Sewer System Evaluation**

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### **2.1   Collection, Trunk, and Interceptor Sewers**

#### **2.1.1   Structural Integrity**

Structural integrity (the ability to carry earth loads) is of the greatest concern with the older, built up structures in the Sewer System. Such structures, including brick arch sewers, exist in many sections of the City. Older sections of the Sewer System occasionally collapse and are repaired on an emergency basis. In-sewer television cameras are used in connection with such collapses to determine the extent of the problem and facilitate an effective repair.

#### **2.1.2   Infiltration and Inflow**

“Infiltration” and “inflow”, as used herein, refer to the entry of groundwater and surface water, respectively, into collector and trunk sewers intended to carry only sanitary sewage. Both are undesirable and can lead to unnecessary transmission (pumping) and treatment costs and overloaded treatment plans. Infiltration is most commonly a result of leaking through pipe and manhole joints and through mortar layers of built up structures. Inflow is commonly caused by manhole covers with vent holes lying in drainage depressions, and by illegal connection to sewers such as from roof gutters. Inflow is normally a result of rainfall; infiltration can be a continuous problem, depending on groundwater elevations.

With average flows to the North and South Plants historically being below permitted capacities, there had been no pressing need to correct infiltration/inflow sources. However, an analysis of the current economics of the situation should be performed, and those infiltration/flow correction projects for which the annualized capital cost is less than the projected savings in transmission and treatment costs should be undertaken.

#### **2.1.3   Separation of Combined Sewers**

As noted previously, combined sewers exist in several Sewer System districts, which cause overflows of sewage to the Hudson River during wet weather. Combined sewers can also back up and cause localized flooding conditions during heavy rainfalls. These situations can be corrected by continuing the work of separating combined sewers into sanitary and storm sewers.

There is no current regulatory requirement to separate combined sewers in the Sewer System, except in connection with planned sewer replacements (in conjunction with a major street rehabilitation, for instance) or new construction. However, three problem areas in the Beaver Creek, Central, and Krum Kill Districts have been identified and targeted by the Board for correction and substantial work has been completed in these areas in the last ten years.

## **2.2 Sewage Pumping Stations**

Thirteen of the small pumping stations in the Sewer System do not have on-site standby power. In the event of a power outage, the city has generator connection points at each of these pumping stations and two mobile generators, which can be transported to the pumping stations for standby power.

## **2.3 Overflows**

All overflows are reported to be in good working condition. Over the past few years inspection reports of regulators and overflows indicate the only corrective actions required have been flushing and the cleaning of floatables and grit. Some of the backflow devices, which prevent the backflow of the Hudson River to the Hudson River Interceptor South at high tides, have minor leakage at their seals. The ACSD monitors flows to the treatment plants to watch for any indications of a failed backflow device. Corrective action is taken when required.

## **2.4 Future Demands on Sewer System**

As noted in Part I, Section 2.9 of this report, the City's water use is projected to increase slightly through the year 2015. As such, base sewage flows in the Sewer System (i.e., flows not including infiltration and inflows) can be expected to increase slightly as well. Assuming that infiltration and inflow quantities are at least held in check by gradual corrective measures and that adequate maintenance is performed, it appears that the Sewer System will be capable of handling the anticipated sanitary sewage flows through the year 2015.

## **2.5 Adequacy of Current Organization and Staff**

The City's Department of General Services has historically provided adequate service at staffing levels equivalent to those currently in effect.

Table II-3 compares the number of City Department of General Services personnel involved with maintenance of the Sewer System with numbers in comparably sized cities in New York State. The comparison shows that City staffing is in line with staffing in the other cities, considering the differences in populations and system sizes.

**Table II-3  
Sewer System Staffing Comparisons**

<b>System Data</b>	<b>City of Albany</b>	<b>City of Troy</b>	<b>City of Binghamton</b>	<b>City of Utica</b>
Population	99,000	50,000	48,000	61,000
Area (square miles)	22	10	11	17
Separate Sanitary Sewers (miles)	240	25	147	102
Combined Sewers (miles)	110	125	42	110
Pumping Stations	3 large 19 small	2	4 large 13 small	2
<b>Total Personnel in Dept.</b>	<b>24</b>	<b>16</b>	<b>18</b>	<b>12</b>

## **3.0 Capital Improvement Program**

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A five-year capital improvements program for the Sewer System has been formulated based on recommendations provided by the City. The cost estimates associated with specifically identified projects are reasonable. It is anticipated that timely implementation of the capital improvements program will reduce the frequency of sewage backups in combined sewers, and otherwise maintain the current level of service provided by the Sewer System for the next five years.

The schedule of forecasted expenditures is shown in Table II-5. A description of the identified projects follows.

### **3.1 Prior Capital Improvements**

Since its formation 15 years ago, the Board has completed a large number of capital improvement projects involving every component of the Sewer System. A list of the more significant projects is shown in Table II-4.

**Table II-4  
Summary of Significant Sewer System Improvements  
1988 through 2002**

#### **Sewer Separation**

- Separation of storm and sanitary sewers in Berkshire Boulevard has eliminated contaminated overflows into Buckingham pond
- A deteriorated First Avenue trunk sewer under the old McCarty Avenue landfill has been replaced
- Portions of Washington Avenue sewers have been separated
- Significant portions of the upper collection systems of the Washington Park and Saint Mary's Branches of the Beaver Creek District have been separated and detention facilities in the storm sewers have greatly reduced the overflow occurrences
- Portions of South Pearl Street have been separated

#### **Sewer Rehabilitation**

- Various areas of deteriorated sewers have been rehabilitated with slip linings or replacement sections

#### **Sewer Pumping Stations**

- Provisions for emergency power sources have been made at all stations. Major stations are equipped with generators; all others have the ability to operate with connection of portable generators
- Northern Boulevard station has been replaced
- New pumps, valves, and controls have been installed in the Woodville Station. Site and building modifications have significantly reduced the occurrences of storm flooding
- Various improvements to the McCromack Road Station have eliminated the frequent overflows to the Normans Kill
- All stations have been updated with operation control improvements

**Table II-4 (cont.)**

**Sewer Equipment**

- Excavation equipment has been purchased for servicing the sewer systems
- Specialized equipment such as "Jet Trucks" for cleaning and inspections

**Combined Sewer Overflows**

- Improvement of tidal gates at Hudson River outfalls
- Creation of a Best Management Practice Plan for the reduction of storm water overflows
- Periodic identification and measurements of overflows in an established monitoring program

## **3.2 Five-Year Capital Improvements Program**

The projected expenditures over the next five years under the current Capital Improvements Program are shown in Table II-5, followed by descriptions of identified projects.

**Table II-5  
Schedule of Forecasted Capital Expenditures (\$)**

<b>Proposed Projects</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Sewer Separation	80,000	0	0	150,000	100,000
Sewer Rehabilitation	144,000	100,000	900,000	250,000	300,000
Pumping Stations	10,000	15,000	0	50,000	50,000
Overflows	3,000	3,000	3,000	150,000	150,000
Equipment	130,000	0	0	20,000	20,000
Miscellaneous Engineering	3,500	3,500	3,500	30,000	30,000
Contingency Allocation	13,500	13,500	13,500	50,000	50,000
<b>Totals</b>	<b>\$384,000</b>	<b>\$135,000</b>	<b>\$920,000</b>	<b>\$700,000</b>	<b>\$700,000</b>

## **3.3 Sewer Separation**

In 2003, \$80,000 is allocated for storm water separation from a portion of the combined sewers in Academy Road.

There are no planned program projects for the 2004 and 2005 years.

In 2006, \$150,000 is allocated for detention and sewer separation projects.

In 2007, \$100,000 is allocated for an evaluation of new regulatory requirements and engineering studies.

## **3.4 Sewer Rehabilitation**

In 2003, \$144,000 is allocated for rehabilitations for portions of the existing sewers on Lark Street, South Swan Street, and North Pine Street.

In 2004, \$100,000 is allocated for sewer rehabilitations in support of street reconstruction in portions of outer New Scotland Avenue.

In 2005, \$900,000 will be directed to the rehabilitation of sewers in the Central Avenue corridor between North Allen Street and the Albany/Colonie boundary

Annual funds for sewer collection system improvements will concentrate on areas that are frequently repaired and areas with major street reconstruction projects. The collection system will be continually monitored for the areas in need of rehabilitation and the highest priority sections will be improved. In 2006 and 2007, \$250,000 and \$300,000, respectively, are allocated for such work.

### **3.5 Sewage Pumping Stations**

In 2003, \$10,000 is allocated for valve and control equipment replacements in the Woodville Pumping Station.

In 2004, \$15,000 is allocated to install a MOSCAD radio system and improve station controls at the McCormack Road pump station.

Beginning in 2006 and continuing through 2007, \$50,000 is allocated annually for pumping station improvements that are to be identified by engineering inspections that will continue to be conducted at the pumping stations.

### **3.6 Overflows**

In 2003 through 2005, \$3,000 is allocated annually for overflow monitoring.

Annual budget allocations are planned for overflow monitoring as well as design and construction in response to new regulations. The projects will begin in 2006 with an allocation of \$150,000.

In 2007, \$150,000 is allocated for the continuation of the improvements.

### **3.7 Equipment**

In 2003, \$130,000 is allocated for the purchase of equipment that will facilitate the cleaning of the combined sewer system catch basin and manhole structures

Beginning in 2006 and continuing through 2007, \$20,000 is allocated annually for miscellaneous equipment upgrades.

### **3.8      Miscellaneous Engineering**

In 2003 through 2005 miscellaneous inspections, surveying, mapping, drafting, and other consulting services will be required. An annual allocation of \$3,500 is programmed.

An annual allocation of \$30,000 is programmed for the years 2006 and 2007.

### **3.9      Contingency Allocation**

To provide for the unforeseen conditions that may be encountered as the projects are designed and constructed, an annual amount of \$13,500 is allocated in each of the program year budgets of 2003, 2004, and 2005. In the program years of 2006 and 2007 the annual allocation will be \$50,000.

### **3.10     Emergency Repairs**

It has been assumed in this report that funds to included in the capital improvements program will not be used for emergency repairs and other unforeseeable requirements.

**APPENDIX B-1**  
**COMBINED FORECASTED CASH FLOWS**

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## **APPENDIX B-1**

**Albany Water Board  
and  
Albany Municipal Water Finance Authority**

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**Combined Forecasted  
Cash Flows From Operations  
and  
Summary of Significant  
Forecast Assumptions and Accounting Policies**

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**For the Years Ending  
December 31, 2003 to 2007**

**Urbach Kahn & Werlin LLP**

**Albany Water Board and  
Albany Municipal Water Finance Authority**  
**Combined Forecasted Cash Flows From Operations**  
**For The Years Ending December 31, 2003 To 2007**

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**APPENDIX B-1**

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Combined Forecasted Cash Flows From Operations	B-1.2
Summary of Significant Forecast Assumptions and Accounting Policies	B-1.3 to B-1.13

## **Report of Independent Certified Public Accountants**

To The Members  
Albany Water Board  
and  
Albany Municipal Water Finance Authority

We have examined the accompanying combined forecasted cash flows of the Albany Water Board (the "Board") and the Albany Municipal Water Finance Authority (the "Authority") for the years ending December 31, 2003 through December 31, 2007. This forecast is the responsibility of the Board and Authority. Our responsibility is to express an opinion on the forecast based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants and, accordingly, included such procedures as we considered necessary to evaluate both the assumptions used by the City of Albany (the "City"), the Board, and the Authority and the preparation and presentation of the forecast. We believe that our examination provides a reasonable basis for our opinion.

The water and sewer system and planned capital expenditures were evaluated by Smith & Mahoney PC (the Board and the Authority's independent consulting engineering firm) in a separate report. This forecast takes into account the conclusions of Smith & Mahoney PC regarding the adequacy of funding levels for planned capital expenditures.

In our opinion, the accompanying combined forecasted cash flows are presented in conformity with guidelines for presentation of a forecast established by the American Institute of Certified Public Accountants, and the underlying forecast assumptions provide a reasonable basis for the forecast. However, there will usually be differences between the forecasted and actual results, because events and circumstances frequently do not occur as expected, and those differences may be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

*Urbach Kahn & Werlin LLP*

Albany, New York  
August 1, 2003

**Albany Water Board and  
Albany Municipal Water Finance Authority**  
**Combined Forecasted Cash Flows From Operations**  
*(In Thousands)*

	<i>For the Years Ending December 31</i>				
	2003	2004	2005	2006	2007
<b>Operating Revenues (Note 3):</b>					
System Collections	\$ 19,800	\$ 22,700	\$ 24,700	\$ 25,900	\$ 27,500
Interest Income	250	250	300	300	300
<b>Total Operating Revenues</b>	<b>20,050</b>	<b>22,950</b>	<b>25,000</b>	<b>26,200</b>	<b>27,800</b>
<b>Operating Expenses (Note 6):</b>					
Board/Authority Expenses	200	200	210	220	220
Water System Operation and Maintenance	7,750	8,140	8,560	8,980	9,420
Sewer System Operation and Maintenance	6,960	7,170	7,400	7,630	7,870
Administration and Other Costs	1,730	1,780	1,820	1,860	1,910
<b>Total Operating Expenses</b>	<b>16,640</b>	<b>17,290</b>	<b>17,990</b>	<b>18,690</b>	<b>19,420</b>
<b>Cash Flows From Operations Available for Debt Service</b>	<b>3,410</b>	<b>5,660</b>	<b>7,010</b>	<b>7,510</b>	<b>8,380</b>
<b>Net Debt Service on Notes and Bonds (Note 5)</b>	<b>2,270</b>	<b>3,160</b>	<b>4,490</b>	<b>4,470</b>	<b>4,440</b>
<b>Cash Flows From Operations, After Debt Service (Note 4)</b>	<b>\$ 1,140</b>	<b>\$ 2,500</b>	<b>\$ 2,520</b>	<b>\$ 3,040</b>	<b>\$ 3,940</b>
<b>Debt Service Coverage Ratio (Note 2)</b>	<b>1.39</b>	<b>1.71</b>	<b>1.49</b>	<b>1.61</b>	<b>1.82</b>

*The accompanying summary of significant forecast assumptions and accounting policies is an integral part of the combined forecasted cash flows from operations.*

# **Albany Water Board and Albany Municipal Water Finance Authority**

## **Summary of Significant Forecast Assumptions and Accounting Policies**

**For the Years Ending December 31, 2003 to 2007**

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### **Note 1. *Introduction to Forecast***

The forecast provides for an estimate, based on assumptions of the Board, the Authority, and the City, of the expected conditions, circumstances and future events and the most likely actions to be taken by the Board and Authority relative to the administration and operation of the water and sewer system (the "System").

A summary of the revenue and expense assumptions are described in this report. If actual water and sewer rates, user consumption levels, or operation and maintenance expenses are different from those assumed, the amount of revenue would need to be adjusted from those indicated in the forecasted cash flows.

The planned capital expenditures and sources and uses of the proposed 2003 Bond proceeds are also described in this report and, more fully, in the related Official Statement. For purposes of this report, it is assumed that there will be no additional borrowings (except as disclosed under Note 5) during the five year forecast period.

The estimates in this forecast are based on, among other factors, evaluations of historical revenue and expenditure data, and analysis of economic trends affecting the Board and Authority's finances. Unanticipated circumstances may occur subsequent to the date of the forecast which may cause actual cash flows to be different from the forecasted cash flows. Such differences may be material. The significant assumptions used in preparing the accompanying forecasted cash flows, as described in the following notes, are an integral part of the forecast.

### **Note 2. *Organization and Summary of Significant Accounting Policies***

#### **Organization**

The Albany Municipal Water Finance Authority, a public benefit corporation, was established as a legal entity in 1986 for the purpose of issuing revenue bonds to pay for the purchase, future improvement and construction of the System. The Albany Water Board, a corporate municipal instrumentality, was established as a legal entity in 1986 with the power to set and collect water and sewer fees in amounts sufficient to pay the debt service on the bonds of the Authority as well as to provide for the costs of the operation and maintenance of the System. In February 1988, the Board and Authority acquired the System, from the City, through the Authority's issuance of \$46.7 million in Series 1988 Revenue Bonds.

A substantial portion of the Series 1988 Revenue Bonds were called and refunded through the Authority's issuance of \$47.6 million in Series 1993 Revenue Bonds. The remaining (previously non-callable) Series 1988 Bonds were called and refunded through the Authority's issuance of \$12.5 million in Series 2000 Revenue Bonds. As more fully described in the Official Statement, the Authority is proposing to issue approximately \$72.3 million in Series 2003 A and Series 2003 B Revenue Bonds for the purpose of refunding substantially all of the Series 1993 and 2000 Revenue Bonds, except for certain Series 1993 Capital Appreciation Bonds (see Note 5), to repay certain other obligations, and to finance a portion of future capital improvements (See Note 9).

**Albany Water Board and  
Albany Municipal Water Finance Authority**

**Summary of Significant Forecast Assumptions  
and Accounting Policies**

**For the Years Ending December 31, 2003 to 2007**

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**Note 2. *Organization and Summary of Significant Accounting Policies,  
Continued***

**Summary of Significant Accounting Policies**

**Combined Forecasted Cash Flows:** For the periods presented in the forecasted cash flows, the activities of the Board and Authority are accounted for as if they were one entity.

**Basis of Presentation:** The combined forecasted cash flows are presented on the cash basis. Revenues are shown net of the effect of receivables and expenses are shown net of the effect of prepaid expenses and liabilities. Depreciation and amortization are not provided for, as they have no effect on cash flows.

**Agreement With the City of Albany:** In February 1988, the City of Albany entered into an Operation Agreement with the Board, whereby the City provides the Board management and administrative services which cover substantially all of the administrative support necessary for the Board to operate the System. Direct services under this agreement are charged to the Board by the City as incurred. Indirect services provided by the City are charged to the Board as an annual fixed fee approximating \$275,000. These indirect services include budget preparation and review, accounting, purchasing, and certain internal legal support. Except for this annual fixed fee, neither the estimated revenues or expenses relating to these indirect services have been provided for in the forecast.

**Revenue from Operations:** For the purposes of this forecast, revenues reflect actual cash expected to be collected under the cash basis of accounting. For financial reporting purposes, however, the Board's policy is to record revenue, based on meter readings, at the time it is earned.

**Employee Benefit Plans:** Certain employee benefit plans are provided under the Operation Agreement between the City and the Board. In this regard, employees earn vacation time as they provide service. Pursuant to collective bargaining agreements, they may accumulate (subject to certain limitations) unused time earned and, upon retirement, termination, or death, may be compensated for such accumulated time. In addition, substantially all full-time employees of the City are members of the New York State Employees' Retirement System, a defined benefit pension plan, administered by a State Agency. Participant contributions are mandatory for those employed after June 1976. The majority of participants employed before that date do not contribute.

**Income Taxes:** Under current law, the Authority and the Board are not subject to any income taxes on the federal, state, and local levels.

# **Albany Water Board and Albany Municipal Water Finance Authority**

## **Summary of Significant Forecast Assumptions and Accounting Policies**

**For the Years Ending December 31, 2003 to 2007**

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**Note 2. Organization and Summary of Significant Accounting Policies,  
Continued**

**Summary of Significant Accounting Policies, Continued**

**Debt Service Coverage Ratio:** The combined forecasted cash flows present a computation of debt service coverage for each of the five years of the forecast period. The debt service coverage ratio is a measure of annual revenues (excluding interest income), net of expenses paid, which are available to provide for annual debt service requirements. In this regard, the Board is required to establish and collect rates, fees and charges sufficient, in each fiscal year, so that annual revenue collections, net of expenses, will be at least 115% of the annual debt service on all bonds outstanding (or a ratio of 1.15:1). The ratio is computed by dividing the excess of revenues (excluding interest income) over expenses, by annual debt service. (For the years 2003 and 2004, annual debt service is computed net of interest paid from the Capitalized Interest Fund in the approximate amounts of \$380,000 and \$1,020,000, respectively).

**Note 3. Operating Revenues**

**System Collections:** System collections include all water and sewer user payments received from customers of the system, the substantial portion of which are located within the City limits. In lieu of payments for usage by the City of Albany, the City provides certain managerial, administrative, and support services to the Board and Authority at an annual fixed fee (See Note 2). System collections also include interest and penalty collections related to late payments and certain other operating revenues such as service income from user fees, connections to the System, lateral repairs, plumbing contracts, and sales of scrap and surplus materials.

The System currently has approximately 29,500 customers, approximately 35 of which are large commercial customers who are billed at rates higher than the rates billed to all other customers. These 35 large commercial customers provide approximately 22% of the System's revenues. In excess of 90% of the System's water customers are metered. Other customers receive flat rate, demand or vacant property billings. Sewer charges are computed as a percentage (currently 100%) of the established water user charges for both metered and flat-rate customers.

Generally, forecasted revenues have been estimated based upon a user consumption base which increases approximately  $\frac{1}{2}$  of 1% annually. (The assumption of a minimally increasing user consumption base has been made, for revenue purposes, recognizing that the characteristics of the user base will undergo some degree of change as buildings are renovated and as new construction takes place). A more substantial increase in revenues (approximating 4% and 11% in 2004 and 2005, respectively) is forecast as a result of the installation of new electronic radio-read metering devices for all users of the System. The installation of new meters will also likely result in a one-time/non-recurring increase in cash collections during 2005 due to enhanced billing efficiencies in the mailing of customer invoices. This likely increase in cash collections, however, has not been factored into the revenue forecast.

**Albany Water Board and  
Albany Municipal Water Finance Authority**

**Summary of Significant Forecast Assumptions  
and Accounting Policies**

**For the Years Ending December 31, 2003 to 2007**

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**Note 3. *Operating Revenues, Continued***

Forecasted revenues provide for a 9.5% rate increase implemented in April 2003 and, in future years, rate increases to be implemented in April 2005, April 2006, and April 2007, approximating 6% in each year, for all System users. The actual System rate increases which have occurred to date, when combined with the aforementioned forecast assumptions, result in an average annualized increase in user rates approximating 3.5% for the 15 year period beginning in 1993, through the end of the forecast period in 2007.

The reasonableness of the assumption of the anticipated rate increases during the forecast period is predicated on the ability of the Board and the Authority to maintain operating costs and manage planned capital expenditures in accordance with the forecasted amounts.

**Interest Income:** Interest income results from investment of the balances in the Board and Authority's funds and accounts. Annual investment interest income has been assumed at rates approximating 1% to 2.5% annually. With the exception of the Construction Fund, interest income from funds and accounts established under the bond resolution is forecast to be transferred to the Board, as earned, so as to be available for annual cash flow operating purposes. Construction Fund earnings are forecast to remain in the Construction Fund. The Series 2003 Construction Fund, when combined with previously uncommitted funding available under the Series 2000 Construction Fund, has been forecasted to be adequate to fund approximately \$9.3 million in planned capital expenditures for 2003, 2004, and 2005.

**Billing and Collection Functions:** The billing and collection functions for the System are administered for the Board by the City's Water Department. The Water Department collects meter readings and other data used to generate bills to customers. It is responsible for the reading of meters and checking of meter accuracy, as well as the maintenance of current information for those customers on the flat-rate system of billing. Data files for flat-rate customers are updated through inspections by Departmental personnel.

The City's Water Department also organizes metered consumption data and flat-rate information, and prepares and mails bills to customers for water and sewer services. The Water Department is primarily responsible for the collection process, including procedures for handling delinquent accounts, billing adjustments, and customer inquiries.

Substantially all payments of bills are made to the Board's lockbox account at a local bank. The bank records payments and forwards the recorded customer and payment data to the Water Department.

If an account is delinquent in excess of 30 days, a penalty is assessed. Thereafter, if the account remains unpaid, interest is charged on a monthly basis. With the exception of certain tax-exempt customers of the System, if an account is still delinquent at the end of the City's fiscal year (December 31), the water/sewer bills are placed on the general property tax roles and become subject to the City's collection procedures (which provide for full collection by the County within a three year period).

# Albany Water Board and Albany Municipal Water Finance Authority

## Summary of Significant Forecast Assumptions and Accounting Policies

**For the Years Ending December 31, 2003 to 2007**

### **Note 3. Operating Revenues, Continued**

It is expected that continuing improvements to the Board's billing and collection system, including the planned installation of radio-read electronic meters for all customers of the System, will improve the accuracy of meter readings, accelerate cash collections, and enhance the overall efficiency of the System's billing and collection functions.

### **Note 4. Cash and Investments**

The following is an annual summary of the forecasted cash and investment account activity:

	<i>For the Years Ending December 31 (in thousands)</i>				
	2003	2004	2005	2006	2007
Cash flows from operations, after Debt Service (page B-1.2)	\$ 1,140	\$ 2,500	\$ 2,520	\$ 3,040	\$ 3,940
Funding of Construction Fund from issuance of Series 2003 Bonds, net of repayments to the City	6,000	-	-	-	-
Funding of Debt Service Reserve Fund from issuance of Series 2003 Bonds	5,500	-	-	-	-
Repayment to the City for capital projects funded in 2003 (Note 8)	-	-	-	-	(2,500)
Funding of Capitalized Interest Fund from issuance of Series 2003 Bonds	1,400	-	-	-	-
Interest payments funded from the Capitalized Interest Fund	(380)	(1,020)	-	-	-
Planned capital expenditures funded through Construction Fund (in 2003, 2004, and 2005) and cash flow (in 2006 and 2007) (Note B) <sup>(A)</sup>	(5,100)	(3,220)	(980)	(800)	(800)
Net cash flows	8,560	(1,740)	1,540	2,240	640
Cash and investments, beginning of year <sup>(B)</sup>	4,520	13,080	11,340	12,880	15,120
Cash and investments, end of year	\$ 13,080	\$ 11,340	\$ 12,880	\$ 15,120	\$ 15,760

<sup>(A)</sup> For the 2003 year, planned capital expenditures, in the amount of \$5,100, is presented net of \$2,500 advanced by the City and forecast to be repaid in 2007.

<sup>(B)</sup> Cash and investments for the year 2003 are stated as if the Series 2003 Bond issuance occurred January 1, 2003 and, as such, are stated net of certain Debt Service Funds, Debt Service Reserve Funds, and Construction Funds refunded under both the 2003 SRF bond issue and the proposed Series 2003 bond issue.

The cash and investments forecast at the end of each respective year are comprised as follows:

	<i>December 31 (in thousands)</i>				
	2003	2004	2005	2006	2007
Operation and Maintenance Reserve Account (A)	\$ 2,360	\$ 4,840	\$ 7,380	\$ 9,620	\$ 10,280
Debt Service Reserve Fund (B)	5,500	5,500	5,500	5,500	5,500
Construction Fund (C)	4,200	1,000	-	-	-
Capitalized Interest Fund (D)	1,020	-	-	-	-
	\$ 13,080	\$ 11,340	\$ 12,880	\$ 15,120	\$ 15,760

**Albany Water Board and  
Albany Municipal Water Finance Authority**

**Summary of Significant Forecast Assumptions  
and Accounting Policies**

**For the Years Ending December 31, 2003 to 2007**

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**Note 4. Cash and Investments, Continued**

- (A) Operation and Maintenance Reserve Account – This account is forecasted to be funded from revenues, with amounts budgeted by the Board on an annual basis, and with additional amounts available from current operations. This account will also be funded based on a Board determined budget to provide a reserve for additional capital expenditures for improvements to the System. Under the terms of the Bond Resolution, the funds in this account will not be less than 10% of the annual operating expense budget.
- (B) Debt Service Reserve Fund – This account will be funded with a deposit from the proceeds of the Series 2003 bond issue approximating \$5.5 million. When combined with amounts from the 1999 and 2003 SRF bond issues (see Note 5) and the remaining Series 1993 bond issue, this account will approximate the Authority's maximum aggregate annual debt service payments for such borrowings. These funds are restricted and shall be applied to debt service payments only to the extent other funds are not available.
- (C) Construction Fund – This account will be funded with approximately \$6 million from the Series 2003 Bonds and, when combined with previously uncommitted funding available under the Series 2000 Bond Construction Fund (approximating \$3.3 million), will support the funding of all planned capital expenditures for 2003, 2004, and 2005 (see Note 8).
- (D) Capitalized Interest Fund – This account will be funded with approximately \$1,400,000 from the Series 2003 Bonds and will fund, in part, certain interest payments due in 2003 and 2004 in the amounts of \$380,000 and \$1,020,000, respectively.

**Note 5. Debt Service on Notes and Bonds**

The Authority's Water and Sewer System Revenue Bonds are special obligations of the Authority, payable solely from and secured by a pledge of the gross revenues of the System prior to the payment of system operation and maintenance expenses or any other expenses. The Board has granted a security interest and mortgage in the System as additional collateral for the bonds.

The forecast assumptions take into account the terms of the remaining Series 1993 Capital Appreciation Bonds (CAB's), the proposed Series 2003 Bonds, and the various SRF notes which are summarized on page B-1.9 and more fully described in the Official Statement.

**1993/2000 Bond Issues:** The Series 2003 Bond refunding contemplates the repayment of all outstanding bonds under both the Series 1993 and Series 2000 bond issues except for certain Capital Appreciation Bonds. The debt service payments for the remaining Series 1993 CAB's reflect combined principal and interest debt service installments due June 1 of each year. Interest expense averages 5.7% annually. The total debt service payments, which approximates \$510,000 annually, is relatively level throughout the forecast period. Final payment is due in 2009.

# Albany Water Board and Albany Municipal Water Finance Authority

## Summary of Significant Forecast Assumptions and Accounting Policies

**For the Years Ending December 31, 2003 to 2007**

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### **Note 5. Debt Service on Notes and Bonds, Continued**

Additional debt service under the 1993 and 2000 bond issues relates to a June 1, 2003 interest payment approximating \$1,189,000.

**2003 Bond Issue:** The Series 2003 Bonds will be comprised of both Series 2003 A Second Resolution Revenue Refunding Bonds and Series 2003 B Second Resolution Revenue Bonds. The Series 2003 Bonds are being issued by the Authority for the purpose of both refunding and advance refunding certain portions of the Authority's outstanding 1993 and 2000 Bonds, funding certain capital projects, funding certain required reserves, and paying the costs of issuance of the Series 2003 Bonds. The Series 2003 Bonds will be subordinate to the remaining Series 1993 CAB's.

The debt service payments for the Series 2003 A and Series 2003 B Bonds reflect combined principal and interest debt service installments due June 1 and December 1 of each year, net of amounts forecast to be funded in 2003 and 2004 by the Capitalized Interest Fund (See Note 4). Interest expense averages 4.3% annually. The Series 2003 Bonds have been structured to minimize total debt service payments during the five year forecast period (see schedule on page B-1-10). In this regard, a Capitalized Interest Fund will be utilized to pay certain interest on the Series 2003 Bonds during both 2003 and 2004. In addition, in years subsequent to the 2003 to 2007 forecast period, annual debt service is forecast to increase significantly. In this regard, during the period 2010 through 2016, average debt service on the 2003 bond issue approximates \$6,000,000 to \$6,500,000 annually.

**State Revolving Fund Notes:** During 1996, 1997, 1998 and 1999, the Authority participated in pooled borrowings under the New York State Water Pollution Control Revolving Fund (SRF), a program administrated by New York State Environmental Facilities Corporation (EFC). The SRF provides municipalities and other issuers with funding, principally for sewer related projects, under a subsidized program funded by both the Federal government and the State of New York. Under the SRF program, EFC issues bonds which mirror the terms of notes issued by the Authority to EFC. Approximately one-half of the Authority's annual interest cost is subsidized by the SRF program.

The 1996, 1997, and 1998 SRF notes were refunded in March 2003. The refunded SRF notes require annual debt service, including interest (net of estimated subsidy), ranging from \$67,000 to \$140,000, through 2028. The 1999 SRF notes, which were not refunded, require annual debt service, including interest (net of estimated subsidy), ranging from \$22,000 to \$26,000, through 2018. All interest is payable semiannually. The SRF notes, similar to EFC's bonds, are callable depending on redemption dates and amounts redeemed.

During the forecast years, additional SRF program borrowings will be considered by the Authority. These borrowings, which are forecast to approximate \$440,000 in 2006 and \$440,000 in 2007, are reflected as a source of funding under Note 8.

**Albany Water Board and  
Albany Municipal Water Finance Authority**

**Summary of Significant Forecast Assumptions  
and Accounting Policies**

**For the Years Ending December 31, 2003 to 2007**

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**Note 5. Debt Service on Notes and Bonds, Continued**

The scheduled combined debt service requirements under all Authority notes and bonds are as follows (in thousands):

Fiscal Year Ending	Series 1993/2000		SRF Notes		Proposed Series		
	June 1, 2003 Interest	1993 CABs	Series 1999	Series 2003	2003 Bonds	Total	
2003	\$ 1,190	\$ 510	\$ 20	\$ 70	\$ 480	\$ 2,270	
2004	-	510	20	130	2,500	3,160	
2005	-	510	30	120	3,830	4,490	
2006	-	520	20	120	3,810	4,470	
2007	-	520	20	120	3,780	4,440	
2008 and thereafter	-	510	270	2,550	97,440	100,770	
	\$ 1,190	\$ 3,080	\$ 380	\$ 3,110	\$ 111,840	\$ 119,600	

The proposed Series 2003 Bond debt service is stated net of payments forecast to be funded from the Capitalized Interest Fund in the approximate amounts of \$380,000 and \$1,020,000 for 2003 and 2004, respectively.

**Note 6. Operating Expenses**

The operating costs of the System are forecast based on actual operating expenses of the Board through December 31, 2002, combined with budgeted costs and actual cost trends for the year ending December 31, 2003. The forecasted costs have been determined by the Board and the City based on an analysis of historical actual operating costs of the System.

**Water System Operation and Maintenance:** The operating costs of the water system include direct operation and maintenance costs applicable to one or more functional areas of the water system. Additionally, certain indirect operating costs are allocated, with amounts included in both the water system and the sewer system.

The operating costs of the water system are divided into Personal Service ("PS") costs and Other Than Personal Service ("OTPS") costs. PS costs include direct salary costs, plus fringe benefit and pension costs. PS costs are anticipated to rise in accordance with labor agreements at rates ranging from 3% to 5% per year for the forecast period.

OTPS costs include real property taxes paid to other local communities, principally for watershed properties, as well as chemicals, utilities, small equipment and other operation and maintenance expenses of the water system. OTPS costs are assumed to increase at an estimated rate approximating 4% to 6% per year for the forecast period, including real property taxes which are expected to increase approximately 5% per year for the forecast period. The following is a forecasted schedule of the estimated future costs of the water system (in thousands):

# Albany Water Board and Albany Municipal Water Finance Authority

## Summary of Significant Forecast Assumptions and Accounting Policies

**For the Years Ending December 31, 2003 to 2007**

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### **Note 6. Operating Expenses, Continued**

Category of Costs	Water System Forecasted Operating Costs				
	2003	2004	2005	2006	2007
Personal Service (PS)	\$ 4,190	\$ 4,400	\$ 4,600	\$ 4,820	\$ 5,020
Other Than Personal Service (OTPS)	3,580	3,740	3,960	4,160	4,400
	<b>\$ 7,750</b>	<b>\$ 8,140</b>	<b>\$ 8,560</b>	<b>\$ 8,980</b>	<b>\$ 9,420</b>

**Sewer System Operation and Maintenance:** The operating costs of the sewer system include direct operation and maintenance costs applicable to one or more functional areas of the sewer system. Additionally, certain indirect operating costs are allocated, with amounts included in both the water system and the sewer system.

The operating costs of the sewer system are divided into PS costs and OTPS costs. PS costs include direct salary costs, plus fringe benefit and pension costs. PS costs are anticipated to rise in accordance with labor agreements at rates ranging from 3% to 5% per year for the forecast period.

The principal component of OTPS costs is a contract with the Albany County Sewer District for the use of their sewer facilities (see Note 7). The cost of the County Sewer District contract is expected to remain relatively level through 2003, with future increases approximating 4% annually for the balance of the forecast period. Other OTPS costs include pump stations, service yards, electricity, chemicals, small equipment and other expenses which are assumed to increase at an estimated rate approximating 4% to 6% per year for the forecast period. The following is a forecasted schedule of the estimated future costs of the sewer system (in thousands):

Category of Costs	Sewer System Forecasted Operating Costs				
	2003	2004	2005	2006	2007
Personal Service (PS)	\$ 900	\$ 940	\$ 980	\$ 1,000	\$ 1,040
Other Than Personal Service (OTPS)	6,060	6,230	6,420	6,630	6,830
	<b>\$ 6,960</b>	<b>\$ 7,170</b>	<b>\$ 7,400</b>	<b>\$ 7,630</b>	<b>\$ 7,870</b>

**Administration and Other Costs:** Administration and other costs principally include general and administrative expenses of the City's Water Department. In addition, the forecasted cash flows assumes certain other costs, including contingencies (such as an allowance for unforeseen repairs, judgments and claims during each year). It is recognized that actual repair, judgment and claim payments will vary in each year depending upon the number of repairs, types of claims and other factors.

**Albany Water Board and  
Albany Municipal Water Finance Authority**

**Summary of Significant Forecast Assumptions  
and Accounting Policies**

**For the Years Ending December 31, 2003 to 2007**

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**Note 7. Agreement With the Albany County Sewer District**

The City, along with certain other municipalities, entered into an agreement with the Albany County Sewer District which, in 1988, was assumed by the Board. The Albany County Sewer District maintains and operates the District sewer system and waste treatment plants. The District currently bills the Board its full share of the costs of maintaining and operating the District, plus the Board's allocable share of the debt service on all sewer obligations issued by the County. As part of the agreement, the Board is liable for its allocable share of debt service whether or not the sewer system remains connected to the County system.

The contract may be terminated or amended by mutual consent of all municipalities, provided that the interests of the County bond holders are not prejudiced. The amounts forecasted are based on annual historical charges ranging from a decrease of 19% (in 2000) to an increase of 29% (in 2001), combined with the Board and the City's estimates of future contract charges. The following schedule provides a forecasted schedule of historical actual and estimated future contract charges for a seven year period:

Years Ending December 31	Annual Amount (in Thousands)	% Increase (Decrease) From Prior Year
2001 (Actual)	\$ 4,480	+29.2%
2002 (Actual)	\$ 4,760	+6.3%
2003 (Estimated based on March 2003 payment)	\$ 4,710	-1.1%
2004	\$ 4,900	+4.0%
2005	\$ 5,100	+4.0%
2006	\$ 5,300	+4.0%
2007	\$ 5,510	+4.0%

The forecasted contractual costs relating to the agreement with the Albany County Sewer District are included as forecasted OTPS costs of the sewer system.

**Note 8. Planned Capital Expenditures**

The following is a schedule (in thousands) of the forecasted improvements, major repairs, and the purchase and construction of property and equipment for the water and sewer system:

Years Ending December 31	Projects				Source of Funding			
	Water System			Total	Payments From 2000 and 2003 Construction Funds	Annual Borrowings From State Revolving Fund	Capital Expenditures Funded By System Cash Flow	Capital Expenditures Initially Funded By City
	Meter Project	Other Projects	Sewer System					
2003	\$3,000	\$4,210	\$ 354	\$ 7,500	\$5,100	\$ -	\$ -	\$2,500
2004	2,300	785	135	3,220	3,220	-	-	-
2005	-	80	920	980	980	-	-	-
2006	-	800	700	1,500	-	700	800	-
2007	-	800	700	1,500	-	700	800	-
Totals	\$5,300	\$6,681	\$2,839	\$14,800	\$9,300	\$1,400	\$1,600	\$2,500

**Albany Water Board and  
Albany Municipal Water Finance Authority**

**Summary of Significant Forecast Assumptions  
and Accounting Policies**

**For the Years Ending December 31, 2003 to 2007**

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**Note 8. *Planned Capital Expenditures, Continued***

In general, the portion of planned capital expenditures which is not funded under the Series 2000 and Series 2003 Construction Funds is expected to be funded, beginning in 2006 through borrowings under the State Revolving Fund and System cash flow. Certain other projects substantially completed in 2002, but paid by the City (on behalf of the Board) in 2003, approximating \$2,500,000, are forecast to be repaid to the City, dependent upon cash flow, in 2007.

In addition to the forecasted purchase and construction of property and equipment, as disclosed above, certain small equipment and vehicle purchases have been included under operation and maintenance expenditures in forecasted cash flows. Such expenditures, which approximate \$400,000 annually, are forecast as OTPS costs of both the water and sewer system.

Other capital expenditures, not forecast above, may be required to be completed by the Board in the years 2003 through 2007. Certain of these capital expenditures may be substantial in cost. Although the Board is seeking governmental grants to fund certain expenditures, such grants may not generate sufficient funding to provide for all such costs. As a result, System cash flow is likely to be utilized for funding of any additional capital expenditures. These funding requirements, including any cash flow or debt service requirements, are not expected to have a material impact on the system's overall cash flows.

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**APPENDIX B-2**

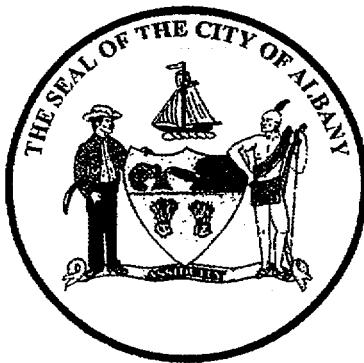
**COMBINED FINANCIAL REPORT OF THE BOARD AND THE AUTHORITY**

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# **ALBANY WATER BOARD**

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# **ALBANY MUNICIPAL WATER FINANCE AUTHORITY**



## **ANNUAL FINANCIAL AND COMPLIANCE REPORTS**

**December 31, 2002**

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**UK** 

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**&W** **Urbach Kahn & Werlin LLP**  
CERTIFIED PUBLIC ACCOUNTANTS

**Albany Water Board  
Albany Municipal Water Finance Authority**  
**Annual Financial and Compliance Reports**

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# **Albany Water Board**

## **Albany Municipal Water Finance Authority**

35 Erie Boulevard  
Albany, New York 12207  
(518) 434-5300

### **Board Members**

Anthony J. Ferrara, CHAIR  
David R. McGuire, VICE CHAIR  
John M. Prenderville, TREASURER  
Leo P. Dean, SECRETARY  
Joseph Bogdanowicz

### **Authority Members**

Joseph T. Montimurro, CHAIR  
Gardner D. Lerner, VICE CHAIR  
Dale A. Getto, TREASURER  
Patricia Shultis, SECRETARY  
Michael A. Nardolillo  
William Meredith  
Fowler J. Riddick

### **Management's Discussion and Analysis 2002**

The following Management Discussion and Analysis (MD&A) presents a brief narrative of the Board and Authority's financial performance for the year ended December 31, 2002. Management has prepared the financial statements and related footnote disclosures along with this MD&A. This information should be read in conjunction with the financial statements and accompanying notes.

In summary, the year ended December 31, 2002 was a challenging financial year. Yet, despite the challenges, the Board and Authority, working together with the City, remain focused on enhancing system revenues, controlling system costs, maintaining appropriate security measures, and refunding the Authority's debt to take advantage of the low interest rate environment. These actions will ensure the system's users have access to a clean, safe, plentiful and low cost water supply for many generations.

**Required Financial Statements:** The financial statements of the Board and Authority are prepared under generally accepted accounting principles and contain three statements that provide information on the Board and Authority's financial activities and results of the operations during the year ended December 31, 2002. A description of these statements follows:

- The Balance Sheet includes all assets and liabilities and provides information about the nature and amounts of investments in resources (assets) and the obligations to creditors (liabilities). The balance sheet presents the financial position of the Board and Authority at the end of its fiscal year.
- The Statement of Revenues, Expenses and Changes in Fund Equity report all of the current year's revenues and expenses and results of operations.
- The Statement of Cash Flows provides information about cash receipts and cash payments during the reporting period. The statement reports cash receipts, cash payments, and net changes in cash resulting from operating, capital, financing, and investing activities.

**Operating Revenues:** Operating Revenues for 2002 increased by approximately \$1,800,000 (or 11%), principally due to the April 2002 implementation of a 15% rate increase.

**Operating Expenses:** Operating expenses for 2002 increased by approximately \$1,100,000 (or 7.4%), reflecting increased costs in many areas of the system's operations. In taxes paid to municipalities, higher assessments in certain municipalities resulted in a \$88,000 (or 5.2%) increase. Costs associated with the County Sewer Contract increased by \$105,000 (or 2.3%). Other system operation and maintenance costs, including administration and general expenses, also increased due to enhanced security measures, contractual increases to payroll and payroll related costs, and other factors.

**Other Revenue and Expense Items:** Depreciation and amortization expenses increased from 2001 to 2002 principally reflecting increased non-cash write-offs associated with the Board and Authority's ongoing capital plan. Interest expense declined slightly as principal reduction payments reduced the Authority's outstanding long-term debt. Interest income, which declined by almost one-third, was impacted by both a decline in interest rates and a decline in Board/Authority assets available for investment. During 2002, the Board earned certain state assistance, in the amount of \$1,062,500, under the Clean Water Bond Act of 1996. This assistance was utilized, in part, to fund certain sewer improvements completed in 2002 and, as such, was recorded as revenue.

**Assets:** Capital assets increased significantly from December 31, 2001 to December 31, 2002 as the Board and Authority committed almost \$12 to capital projects. The principal components of this increase, at a total cost approximating 9.5 million, were the acquisition of the Six Mile Reservoir and the construction of a UV purification facility at the Loudonville Reservoir.

Cash and investments declined from 2001 to 2002 by approximately \$2.1 million as increased funds were committed to operations. Receivables, principally unbilled receivables, increased as the April 2002 rate increase was factored into accounts. Construction deposits declined by approximately \$2 million as the State of New York provided an accounting for certain work completed on a multi year capital project.

**Liabilities:** The only significant change in the area of liabilities related to obligations due to the City. In this regard, this obligation increased by approximately \$8 million from December 31, 2001 to December 31, 2002. This increase is attributable to amounts due the City on the December 2002 acquisition of Six Mile Reservoir (\$4,500,000, net of \$2,500,000 borrowed under the bond anticipation note) and the City's funding of various other system related capital projects (including approximately \$3,500,000 for the U.V. project).

**Looking Ahead to 2003:** In April 2003, the Board implemented a 9.5% rate increase for all system users. This rate increase, combined with a commitment to replace all existing water meters with new radio-read electronic meters, will significantly increase system revenues both in 2003 and into the future.

In May 2003, the Authority participated in a pooled refunding of certain of its State Revolving Fund notes to take advantage of the lower rate environment. In addition, the Authority is also in the process of completing a refunding of all existing Authority general revenue bond debt to take advantage of the lower rate environment, to repay the City for advances made on behalf of the Board and Authority, and to fund certain capital improvements for 2003, 2004, and 2005.

The Board and Authority are also actively reviewing alternatives for potential water sales to other municipalities and new commercial customers. These actions, along with a continuing commitment to control costs, position the Board and Authority to reestablish its sound financial footing in 2003.

*Questions about this report may be directed to the Board and Authority at 518-434-5300 or at 35 Erie Boulevard, Albany, New York 12204.*

## Independent Auditor's Report

To the Members  
Albany Water Board  
Albany Municipal Water Finance Authority

We have audited the accompanying combined balance sheets of Albany Water Board and Albany Municipal Water Finance Authority (a component reporting unit of the City of Albany) as of December 31, 2002 and 2001, and the related combined statements of revenues, expenses, and changes in fund equity, and cash flows for the years then ended. These financial statements are the responsibility of the Board and Authority. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the combined financial statements referred to above present fairly, in all material respects, the financial position of Albany Water Board and Albany Municipal Water Finance Authority as of December 31, 2002 and 2001, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

As described in Note 1 to the consolidated financial statements, effective January 1, 2002, the Board and Authority changed its accounting policies related to nonexchange transactions and financial statement presentation to comply with the provisions of Statement Nos. 33, 34, 36 and 37 of the Governmental Accounting Standards Board.

Management's discussion and analysis on pages 1 and 2 is not a required part of the basic financial statements but is supplementary information required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit the information and express no opinion on it.

In accordance with *Government Auditing Standards*, we have also issued our report dated April 25, 2003 on our consideration of the Board and Authority's internal control over financial reporting and on our tests of their compliance with certain provisions of laws, regulations, contracts and grants. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be read in conjunction with this report in considering the results of our audit.

*URBACH KAHN & WERLIN LLP*

Albany, New York  
April 25, 2003

**Albany Water Board  
Albany Municipal Water Finance Authority**

**Combined Balance Sheets  
December 31, 2002 and 2001**

	2002	2001
<b>Assets</b>		
Capital Assets, at cost, net of accumulated depreciation	\$ 41,066,915	\$ 30,401,180
Cash and Investments		
Cash and cash equivalents	617,423	496,769
Investments	11,152,266	13,377,720
Total cash and investments	11,769,689	13,874,489
Receivables		
Billed	4,921,423	4,998,293
Unbilled	3,618,565	3,199,147
Accrued interest	83,423	70,959
Total receivables	8,623,411	8,268,399
Prepaid Expenses	680,925	647,833
Construction Deposits	1,907,037	3,854,357
Other Assets	1,160,669	1,220,076
	<b>\$ 65,208,646</b>	<b>\$ 58,266,334</b>
<b>Liabilities and Fund Equity</b>		
Liabilities		
Bonds and notes payable	\$ 56,654,715	\$ 55,349,255
Accrued expenses	1,886,549	1,953,320
Obligations to the City of Albany	11,453,578	3,400,952
Deferred revenue	1,584,384	1,684,384
Total liabilities	71,579,226	62,387,911
Fund Equity (Deficiency)		
Invested in capital assets, net of related debt	(20,087,800)	(24,948,075)
Unrestricted fund equity	13,717,220	20,826,498
Total fund equity (deficiency)	(6,370,580)	(4,121,577)
	<b>\$ 65,208,646</b>	<b>\$ 58,266,334</b>

*See Notes to Combined Financial Statements.*

**Albany Water Board**  
**Albany Municipal Water Finance Authority**

**Combined Statements of Revenues,  
 Expenses, and Changes in Fund Equity  
 Years Ended December 31, 2002 and 2001**

	2002	2001
<b><i>Operating Revenues</i></b>	<b>\$ 18,065,198</b>	<b>\$ 16,279,837</b>
<b><i>Operating Expenses</i></b>		
<i>Operation and maintenance of water system:</i>		
Water supply, power and pumping	648,486	426,253
Water purification	1,678,222	1,616,656
Water transmission and distribution	3,039,312	2,835,180
Taxes paid to municipalities	1,784,516	1,696,667
<i>Operation and maintenance of sewer system:</i>		
Sewer services	1,264,139	1,361,352
Albany County sewer contract	4,701,491	4,596,529
Sewer pumping stations	395,724	315,459
<i>Administration and general</i>	2,438,083	2,001,240
Total operating expenses	15,949,973	14,849,336
<b><i>Operating Income, before depreciation and amortization</i></b>	<b>2,115,225</b>	<b>1,430,501</b>
Depreciation and amortization	(2,904,119)	(2,749,406)
<b><i>Operating Loss</i></b>	<b>(788,894)</b>	<b>(1,318,905)</b>
Interest expense	(3,067,569)	(3,154,063)
Interest income	544,960	749,582
<b><i>Decrease in Fund Equity Before Capital Contributions</i></b>	<b>(3,311,503)</b>	<b>(3,723,386)</b>
<b><i>Capital Contributions</i></b>	<b>1,062,500</b>	<b>-</b>
<b><i>Decrease in Fund Equity</i></b>	<b>(2,249,003)</b>	<b>(3,723,386)</b>
<b><i>Fund Equity (Deficiency), beginning of year</i></b>	<b>(4,121,577)</b>	<b>(398,191)</b>
<b><i>Fund Equity (Deficiency), end of year</i></b>	<b>\$ (6,370,580)</b>	<b>\$ (4,121,577)</b>

*See Notes to Combined Financial Statements.*

**Albany Water Board**  
**Albany Municipal Water Finance Authority**

**Combined Statements of Cash Flows**  
**Years Ended December 31, 2002 and 2001**

	2002	2001
<b>Cash Flows From Operating Activities</b>		
Cash received from customers	\$ 17,610,186	\$ 15,974,504
Cash payments to suppliers for goods and services	(13,834,872)	(15,324,300)
Net cash provided by operating activities	3,775,314	650,204
<b>Cash Flows From Noncapital Financing Activities</b>		
Interest income	544,960	749,582
Interest expense	(3,067,569)	(3,154,063)
Net cash provided by noncapital financing activities	(2,522,609)	(2,404,481)
<b>Cash Flows From Capital and Related Financing Activities</b>		
Acquisition and construction of capital assets	(11,944,064)	(3,625,959)
Capital contributions	1,062,500	-
Issuance of Bond Anticipation Notes	2,710,000	-
Advances from City of Albany	8,052,625	5,037,080
Principal payments on bonds and notes	(1,624,922)	(1,577,336)
Net cash used for capital and related financing activities	(1,743,861)	(166,215)
<b>Cash Flows From Investing Activities</b>		
Net proceeds from the sale of investments	611,810	1,924,561
Net cash provided by investing activities	611,810	1,924,561
Net increase in cash	120,654	4,069
Cash, beginning of year	496,769	492,700
Cash, end of year	\$ 617,423	\$ 496,769
<b>Reconciliation of Operating Loss to Net Cash Used By Operating Activities</b>		
Operating loss	\$ (788,893)	\$ (1,318,905)
Adjustments to reconcile operating loss to net cash used for operating activities:		
Depreciation	2,844,712	2,689,999
Amortization	59,407	59,407
Original issue amortization	267,643	47,896
Changes in:		
Receivables	(355,012)	(205,333)
Prepaid expenses	(33,092)	(43,350)
Construction deposits	1,947,320	(1,870,314)
Deferred revenue	(100,000)	(100,000)
Accrued expenses	(66,771)	1,390,804
Total adjustments	4,564,207	1,969,109
Net cash provided by operating activities	\$ 3,775,314	\$ 650,204

*See Notes to Combined Financial Statements.*

**Albany Water Board  
Albany Municipal Water Finance Authority**

**Notes to Combined Financial Statements  
December 31, 2002**

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**NOTE 1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Organization:** The City of Albany Water and Sewer System (the System) provides water supply and distribution, and the collection and disposal of sewage, principally for the City of Albany (the City). The System, as presented in the accompanying combined financial statements, began operations in February 1988, and consists of two legally separate, but interdependent, entities: Albany Water Board (the Board) and Albany Municipal Water Finance Authority (the Authority). The System is a component reporting unit of the City of Albany and, as such, is also included in the City of Albany's general purpose financial statements.

The Board, a corporate municipal instrumentality, was established in 1986 with the power to set and collect water and sewer fees in amounts sufficient to pay the debt service on the bonds of the Authority, as well as to provide for the costs of the operation and maintenance of the System. The primary responsibility of the Board is to charge, collect, and enforce rates and other charges for the System. The Board consists of five members who are appointed by the Mayor of the City.

The Authority, a public benefit corporation, was established in 1986 for the purpose of issuing revenue bonds to pay for the purchase, future improvement, and construction of the System. Among its powers, the Authority may borrow money, issue debt, and require that the Board charge and collect sufficient rates to pay the costs of operating and financing the System. The Authority consists of seven members, two members of which are appointed by the Governor of New York State and five members of which are appointed by the Mayor of the City.

**Bond Resolution:** The Water and Sewer System General Revenue Bond Resolution (the Bond Resolution) provides that the Authority pledge for the payment of the bonds, all System revenues, the proceeds from the sale of bonds, and all moneys and securities in any funds and accounts. Additionally, it provides for the assignment and transfer of all of the Authority's rights and interests relative to revenue collection and the payment of debt service to M&T Bank, as the currently authorized trustee. Certain funds and accounts (see Note 5) have been established with the trustee to assure the Board and Authority's compliance with the Bond Resolution.

**Operation Agreement:** The Board is a party to an operation agreement with the City whereby the City provides the Board with management, operational and administrative personnel, and certain services, supplies and equipment for the operation and maintenance of the System. Direct costs under this agreement, including substantially all operation, maintenance, payroll, and payroll related costs, are charged to the Board (by the City) as incurred. Certain indirect costs, including certain legal services, purchasing, accounting, and engineering support, were charged to the Board (by the City), in the amount of \$275,000 and \$275,000 for 2002 and 2001, respectively. Other indirect costs have been assumed by the City in lieu of the City paying water and sewer charges. Revenues and expenses relating to the City's use of the System, which have not been recorded in the financial statements, are estimated to be insignificant relative to the total operations of the System.

**Albany Water Board**  
**Albany Municipal Water Finance Authority**  
**Notes to Combined Financial Statements**  
**December 31, 2002**

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**NOTE 1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, CONTINUED**

***Financing Agreement:*** The City, Board and Authority are parties to a financing agreement which authorized the issuance of bonds by the Authority to finance the purchase of the System (from the City). The financing agreement requires the Board to maintain a rate structure which adequately funds debt service, requires the Board to provide for the monthly transfer of revenues to the Authority to provide for debt service payments, and stipulates other administrative requirements for the Board, Authority and City. The financing agreement also sets forth the Board's annual funding of debt service costs of the Authority and the operation and maintenance costs of the System.

***Combined Financial Statements:*** The Board and the Authority, as fiscally interdependent entities, are combined for financial reporting purposes. Additionally, both the Board and the Authority are included in the City's financial statements as a component reporting unit (an enterprise fund) of the City.

***Basis of Presentation:*** On January 1, 2002, the Board and Authority adopted the provisions of Governmental Accounting Standards Board (GASB) Statement No. 34 "Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments" and GASB Statement No. 37 "Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments: Omnibus." Statement 34, as amended by Statement 37, established standards for external reporting for all state and local government entities, which includes a balance sheet, statement of revenues, expenses and changes in fund equity and a statement of cash flows. It requires the classification of fund equity into three components – invested in capital assets, net of related debt; restricted; and unrestricted. These classifications are defined as follows:

- **Invested in capital assets, net of related debt** – This component of fund equity consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. If there are significant unspent related debt proceeds at year-end, the portion of the debt attributable to the unspent proceeds is not included in the calculation of invested in capital assets, net of related debt. Rather, that portion of the debt is included in fund equity as unspent proceeds.
- **Restricted** – This component of fund equity consists of constraints placed on fund equity use through external constraints imposed by creditors, contributors, or laws or regulations of other governments or constraints imposed by law through constitutional provisions or enabling legislation. The Board and Authority had no restricted fund equity at December 31, 2002 and 2001.
- **Unrestricted fund equity** – This component of fund equity consists of fund equity that does not meet the definition of "restricted" or "invested in capital assets, net of related debt."

**Albany Water Board**  
**Albany Municipal Water Finance Authority**  
**Notes to Combined Financial Statements**  
**December 31, 2002**

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**NOTE 1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, CONTINUED**

Also on January 1, 2002, the Board and Authority adopted the provisions of GASB Statement No. 33 "Accounting and Financial Reporting for Nonexchange Transactions" and GASB Statement No. 36 "Recipient Reporting for Certain Shared Nonexchange Revenues." Statements 33 and 36 established new standards for the accounting of nonexchange revenues and transactions. With respect to the Board and Authority, these statements principally apply to capital contributions received through capital project grants from New York State.

The adoption of Statements 33, 34, 36 and 37 by the Board and Authority were applied retroactively, effective January 1, 2001, for purposes of comparability. The adoption of Statement 34, as amended by Statement 37, had no significant effect on the combined financial statements except for the reformatting of the combined financial statements and classification of net assets in accordance with Statement 34.

**Basis of Accounting:** The accompanying financial statements have been prepared in conformity with generally accepted accounting principles for governmental entities, as prescribed by GASB. The financial statements reflect the consolidated accounts of the entities referenced above. In accordance with the provisions promulgated by GASB, the Authority has elected not to apply Financial Accounting Standards Board (FASB) pronouncements and interpretations issued after November 1989.

The operations of the Board and Authority are reported as a proprietary fund and, as such, are accounted for on a flow of economic resources measurement focus under the accrual basis of accounting. Within this measurement focus, all assets and liabilities associated with operations are included on the balance sheet with revenues recorded when earned and expenses recorded at the time liabilities are incurred.

**Capital Assets:** Capital assets, acquired through either purchase or construction, are recorded at cost. Depreciation is computed using the straight-line method based upon estimated depreciable lives as follows:

Buildings	20-40 Years
Water supply and waste water treatment systems	5-50 Years
Water distribution and sewage collection systems	5-50 Years
Equipment, furniture and fixtures	5-10 Years

Maintenance and repairs are charged to current operations. Major replacements and improvements, including all costs associated with the Board/Authority capital plan, are capitalized as capital assets.

**Investments:** As further described in Note 3, investments consist of obligations of the United States and its agencies, and are carried at amortized cost, which approximates market.

**Albany Water Board**  
**Albany Municipal Water Finance Authority**  
**Notes to Combined Financial Statements**  
**December 31, 2002**

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**NOTE 1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, CONTINUED**

**Receivables:** Receivables include all unpaid customer bills for System related services and, also, include estimated amounts earned for unbilled usage which relate to billing cycles which end subsequent to December 31. The Board records estimated unbilled revenue based on historic billing trends and considers the effect of rate structure changes which may have been implemented during the year. Delinquent accounts are placed on the City's general property tax rolls and, as such, are subject to the City's collection procedures (which subsequently provide for full collection by Albany County).

**Restrictions on Cash and Investments:** As further described in Note 5, certain proceeds from bond issues, including monies set aside for future capital expenditures, are restricted under various provisions of the bond resolution and financing agreement.

**Other Assets:** As further described in Note 7, other assets include bond issuance and insurance costs which are being amortized over the respective terms of the bonds. It is the policy of the Authority to utilize the bonds outstanding method of amortization (a method which does not materially differ from the effective yield method).

**Deferred Revenue:** As further described in Note 11, deferred revenue has been recorded to reflect the Board's receipt of funds from the Town of Guilderland and a related commitment to sell water to Guilderland at a below market rate under a 1998 inter-municipality agreement.

**Employee Benefit Plans:** Certain employee benefit plans are provided (by the City) for System employees and reimbursed (by the Board) under the operation agreement. In this regard, employees earn vacation time credits as they provide service. Pursuant to collective bargaining agreements, they may accumulate (subject to certain limitations) unused time earned and, upon retirement, termination, or death, may be compensated for such accumulated time. In addition, substantially all full-time employees of the City are members of the New York State Employees' Retirement System, a multi-employer defined benefit pension plan. Participant contributions are mandatory for those employed after June 1976. The majority of participants employed before that date do not contribute. Under the operation agreement, all employee benefits are recorded in the financial statements as billed by the City.

**Operating Revenues:** The System has approximately 29,000 water and sewer customer accounts at December 31, 2002. Approximately 80% of the customer base is comprised of residential customers. Water services are billed based on meter readings or at flat rate charges; sewer charges are generally billed at 100% of water charges. Revenues, which are based on billing rates imposed by the Board, were last increased in April 2003 (see Note 11 relating to rate covenant).

**Capital Contributions:** During 2002, the Board earned certain State assistance, in the amount of \$1,062,500, under the Clean Water Bond Act of 1996. This assistance, which was utilized to fund, in part, certain sewer improvements completed in 2002, was recorded as a capital contribution in the statement of revenues and expenses for the year ended December 31, 2002.

**Albany Water Board**  
**Albany Municipal Water Finance Authority**  
**Notes to Combined Financial Statements**  
**December 31, 2002**

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**NOTE 1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, CONTINUED**

**Income Taxes:** The Authority and the Board are both municipal entities which are not subject to any income taxes at the federal, state and local levels.

**Estimates and Assumptions:** The preparation of financial statements in conformity with generally accepted accounting principles requires estimates and assumptions that affect reported amounts. Actual results could differ from those estimates.

**Reclassifications:** Certain 2001 financial statements line items have been reclassified to conform with the current year presentation.

**NOTE 2. CAPITAL ASSETS**

Capital assets are comprised of the following:

	December 31 2001	Additions	Deletions	December 31 2002
Water supply, distribution and collection systems	\$ 22,170,389	\$ -	\$ -	\$ 22,170,389
Water and sewer system capital improvements, equipment, furniture and fixtures	34,704,700	5,042,867	-	39,747,567
Six Mile Waterworks (Rensselaer Lake) ground lease	-	7,210,000	-	7,210,000
Construction in progress	1,417,999	1,257,581	-	2,675,580
	58,293,088	13,510,448	-	71,803,536
Less accumulated depreciation	27,891,908	2,844,713	-	30,736,621
	\$ 30,401,180	\$ 10,665,735	\$ -	\$ 41,066,915

The purchase of the System (from the City) and all related equipment, furniture, and fixtures were originally accounted for in the water supply, distribution and collection systems category. Capital asset additions incurred subsequent to the original purchase of the System are classified as capital improvements.

In December 2002, the Board and City entered into a fifty year ground lease under which the City conveyed to the Board a leasehold interest in certain real property, including Six Mile Waterworks (Rensselaer Lake), which will be utilized by the Board as a supplemental source of water in future years. The total cost of this lease, including certain related financing costs, has been recorded as a capital asset at December 31, 2002.

Depreciation expense was \$2,844,713 and \$2,689,999 for the years ended December 31, 2002 and 2001, respectively.

**Albany Water Board**  
**Albany Municipal Water Finance Authority**  
**Notes to Combined Financial Statements**  
**December 31, 2002**

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**NOTE 3. CASH, CASH EQUIVALENTS AND INVESTMENTS**

Guidelines issued by the Office of the State Comptroller (OSC) establish the criteria for permissible investments by the Board and Authority. Additionally, the Board and Authority have combined investment policies which incorporate provisions of the Bond Resolution and OSC's guidelines. In this regard, the Board and Authority may invest in obligations of the U.S. Government and its agencies, obligations of the State of New York, certificates of deposit (issued by a New York State commercial bank), and repurchase agreements (which are collateralized by obligations of the federal government).

Investments are stated at amortized cost which, inclusive of accrued interest income, approximates market. Generally, it is the Board and Authority's policy to purchase U.S. Government agency obligations with the intent of holding them until they mature. All such obligations are registered and held by the Board or Authority's custodian in the Board or Authority's name. The December 31 year-end cash, cash equivalents and investments are detailed below.

<i>December 31, 2002</i>	<i>Cost</i>	<i>Market</i>
<i>Non-interest bearing accounts</i>		
Cash accounts	\$ 214,852	\$ 214,852
<i>Interest bearing and money market accounts</i>		
Cash accounts	41,127	41,127
Vision Treasury Money Market	148,282	148,282
Victory U.S. Treasury Fund	213,162	213,162
	402,571	402,571
<i>Investments in debt securities</i>		
Federal Home Loan Bank due 02/21/03	1,421,674	1,423,576
Federal National Mortgage Association due 02/14/03	3,029,130	3,013,140
Federal National Mortgage Association due 11/15/03	3,047,040	3,047,820
Federal National Mortgage Association due 05/30/03	73,583	73,637
Federal Home Loan Mortgage Corporation due 04/30/03	3,189,210	3,200,215
U.S. Certificate of Indebtedness SLGS due 01/15/09	273,478	273,478
U.S. Certificate of Indebtedness SLGS due 10/15/19	39,751	39,751
U.S. Certificate of Indebtedness SLGS due 07/01/16	78,400	78,400
	11,152,266	11,150,017
	\$ 11,769,689	\$ 11,767,440

**Albany Water Board**  
**Albany Municipal Water Finance Authority**  
**Notes to Combined Financial Statements**  
**December 31, 2002**

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**NOTE 3. CASH, CASH EQUIVALENTS AND INVESTMENTS, CONTINUED**

<i>December 31, 2001</i>	<b>Cost</b>	<b>Market</b>
<i>Non-interest bearing accounts</i>		
Cash accounts	\$ 318,091	\$ 318,091
<i>Interest bearing and money market accounts</i>		
Cash accounts	34,260	34,260
Vision Treasury Money Market	138,271	138,271
Victory U.S. Treasury Fund	6,147	6,147
	178,678	178,678
<i>Investments in debt securities</i>		
Federal National Mortgage Association due 01/16/02	1,756,263	1,767,770
Federal National Mortgage Association due 02/08/02	1,057,067	1,063,190
Federal National Mortgage Association due 01/10/02	1,088,940	1,089,591
Federal National Mortgage Association due 01/11/02	277,805	277,883
Federal National Mortgage Association due 02/07/02	860,090	862,540
Federal Home Loan Mortgage Corporation due 05/23/02	7,945,926	7,965,465
U.S. Certificate of Indebtedness SLGS due 01/15/09	273,478	273,478
U.S. Certificate of Indebtedness SLGS due 10/15/19	39,751	39,751
U.S. Certificate of Indebtedness SLGS due 07/01/16	78,400	78,400
	13,377,720	13,418,068
	<b>\$ 13,874,489</b>	<b>\$ 13,914,837</b>

**NOTE 4. BONDS AND NOTES PAYABLE**

**Bond Anticipation Notes:** During December 2002, the Authority issued \$2,710,000 of 2002 Series Water and Sewer System Bond Anticipation Notes for the purpose of financing a portion of the cost of a conveyance, by the City to the Board, of a fifty year leasehold interest in Six Mile Waterworks (Rensselaer Lake) and to fund related costs of issuance. The 2002 Bond Anticipation Notes provide for an interest rate of 1.3% per annum and a maturity date of July 1, 2003. The Bond Anticipation Notes (BAN) are a special obligation of the Authority and are not secured by a pledge of revenues on a parity basis with the Revenue Bonds.

The Bond Anticipation Notes are expected to be paid through a refunding of the Authority's 1993 and 2000 Series Revenue Bonds.

**Revenue Bonds:** During February 1988, the Authority issued \$46,700,000 of 1988 Series Water and Sewer System Revenue Bonds for the purpose of financing the purchase of the System from the City, financing a portion of the cost of capital improvements to the System and to fund certain reserves. As more fully discussed on the following page, the substantial portion of this bond series was refunded in 1993, with the balance refunded in 2000.

**Albany Water Board**  
**Albany Municipal Water Finance Authority**  
**Notes to Combined Financial Statements**  
**December 31, 2002**

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**NOTE 4. BONDS AND NOTES PAYABLE, CONTINUED**

During February 1993, in order to take advantage of a low interest rate environment, the Authority issued \$47,634,000 of 1993 Series Water and Sewer System Revenue Bonds for the purpose of providing the Authority with the funds required to refund a portion of the (higher interest rate) 1988 Series Revenue Bonds, to fund the costs of certain future improvements to the System, and to fund certain reserve accounts. The 1993 Series Revenue Bonds are comprised of Serial, Term, and Capital Appreciation Bonds, with varying rates and maturities, as follows:

Type	Rate	Maturity	Amount (In Thousands)
Serial Bonds	2.65% to 5.95%	1993 to 2012	\$ 21,135
Term Bonds	5.50%	2010	5,000
Term Bonds	5.75%	2022	17,940
Capital Appreciation Bonds	4.70% to 6.00%	1998 to 2009	3,559
			\$ 47,634

Interest on both the Serial and Term Bonds is payable semiannually. Principal payments under the Serial bonds began December 1, 1993. The Term Bonds require sinking fund installments, beginning in the year 2008, through the year 2022, of amounts ranging from \$1,530,000 to \$3,190,000, annually. The Term Bonds are callable at the option of the Authority, in whole or in part, beginning December 1, 2003, at redemption prices up to 102% of par, plus accrued interest.

During February 2000, the Authority issued \$12,498,540 in 2000 Series Water and Sewer System Revenue Bonds for the purpose of providing the Authority with the funds required to refund the outstanding 1988 Series Revenue Bonds and to fund the cost of certain future improvements to the System.

The 2000 Series Revenue Bonds are comprised of Serial, Term, and Capital Appreciation Bonds, with varying rates and maturities, as follows:

Type	Rate	Maturity	Amount (In Thousands)
Serial Bonds	5.375% to 5.5%	2003 to 2011	\$ 4,830
Term Bonds	6.375%	2017	4,580
Capital Appreciation Bonds	6.08% to 6.19%	2018 to 2022	3,088
			\$ 12,498

Interest on both the Serial and Term Bonds is payable semiannually. Principal payments under the Serial bonds will begin December 1, 2003 in the amount of \$20,000. The Term Bonds require sinking fund installments, beginning in the year 2012, through the year 2017, of amounts ranging from \$295,000 to \$965,000, annually. The Term Bonds are callable at the option of the Authority, in whole or in part, beginning December 1, 2009, at redemption prices up to 101% of par, plus accrued interest.

**Albany Water Board**  
**Albany Municipal Water Finance Authority**  
**Notes to Combined Financial Statements**  
**December 31, 2002**

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**NOTE 4. BONDS AND NOTES PAYABLE, CONTINUED**

In connection with the 1993 and 2000 Bond issues, the Board granted a security interest and mortgage in the System to the Authority. Additional security for the bonds has been provided through the issuance of municipal bond insurance, insuring the timely payment of principal and interest on the bonds. The 1993 and 2000 Series Revenue Bonds are direct obligations of the Authority, secured by a pledge of revenues and funds established under the Bond Resolution.

**State Revolving Fund Notes:** During 1996, 1997, 1998 and 1999, the Authority participated in pooled borrowings under the New York State Water Pollution Control Revolving Fund (SRF), a program administrated by New York State Environmental Facilities Corporation (EFC). The SRF provides municipalities and other issuers similar to the Authority with funding, principally for sewer related projects, under a subsidized program funded by both the Federal government and the State of New York. Under the SRF program, EFC issues bonds which mirror the terms of notes issued by the Authority to EFC. Approximately one-half of the Authority's annual interest cost is subsidized by the SRF program.

The notes require serial installments, with interest rates (before the SRF subsidy) ranging from 3.73% to 5.90% for 1996, from 3.85% to 5.65% for 1997, from 3.75% to 5.20% for 1998, and from 3.97% to 5.43% for 1999, all based on dates of maturity. Interest is payable semiannually. The SRF notes, similar to EFC's bonds, are callable depending on redemption dates and amounts redeemed.

Principal repayment requirements, as of December 31, 2002, on all outstanding bonds and notes follow:

Year Ending December 31	1993 Revenue Bonds	1996 SRF Notes	1997 SRF Notes	1998 SRF Notes	1999 SRF Notes	2000 Revenue Bonds	2002 BAN	Total
2003	\$ 1,485,586	\$ 30,000	\$ 25,000	\$ 105,000	\$ 15,000	\$ 20,000	\$ 2,710,000	\$ 4,390,586
2004	1,531,876	30,000	30,000	105,000	15,000	495,000	-	2,206,876
2005	1,573,817	30,000	30,000	110,000	15,000	530,000	-	2,288,817
2006	1,628,803	35,000	30,000	110,000	15,000	550,000	-	2,368,803
2007	1,686,966	35,000	30,000	120,000	15,000	585,000	-	2,471,966
2008 and thereafter	28,241,298	485,000	505,000	1,890,000	275,000	10,318,540	-	41,714,838
	36,148,346	645,000	650,000	2,440,000	350,000	12,498,540	2,710,000	55,441,886
Less unamortized original issue discount	(817,517)	-	-	-	-	-	-	(817,517)
Plus unaccrued original issue premium	-	-	-	-	-	182,106	-	182,106
Plus Capital Appreciation Bond interest accrual	1,281,553	-	-	-	-	566,687	-	1,848,240
Net bonds and notes payable	\$ 36,612,382	\$ 645,000	\$ 650,000	\$ 2,440,000	\$ 350,000	\$ 13,247,333	\$ 2,710,000	\$ 56,654,715

Interest expense was \$3,067,568 and \$3,154,063 for the years ended December 31, 2002 and 2001, respectively, inclusive of amortization of net original issue discount/premium and Capital Appreciation Bond interest of \$1,212,827 and \$992,448 for 2002 and 2001, respectively.

**Albany Water Board**  
**Albany Municipal Water Finance Authority**  
**Notes to Combined Financial Statements**  
**December 31, 2002**

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**NOTE 5. RESTRICTIONS ON CASH AND INVESTMENTS**

Substantially all the cash, cash equivalents and investments of the Authority have been restricted under the Bond Resolution and/or the Financing Agreement. A schedule by fund and account follows:

	[ ----- December 31, 2002 ----- ]			December 31,	
	Cash and Cash Equivalents	Investments	Total	2001	Total
<b>Authority Funds</b>					
1988 Debt service fund (A)	\$ 643	\$ 114,131	\$ 114,774	\$ 112,884	
1988 Debt service reserve fund (B)	2,258	-	2,258		2,231
1993 Debt service fund (A)	279	255,551	255,830		40,780
1993 Debt service reserve fund (B)	402	5,541,521	5,541,923		5,399,387
1996 Debt service reserve fund (B)	28,863	78,400	107,263		102,634
1996 Construction fund (C)	574	153,829	154,403		151,858
1997 Debt service reserve fund (B)	701	99,244	99,945		98,299
1997 Construction fund (D)	623	117,108	117,731		115,793
1998 Debt service reserve fund (B)	60,868	273,478	334,346		320,523
1998 Construction fund (E)	529	690,740	691,269		679,866
1999 Debt service reserve fund (B)	6,722	39,751	46,473		44,393
1999 Construction fund (F)	927	411,863	412,790		405,984
2000 Debt service reserve fund (B)	776	49,718	50,494		11,185
2000 Construction fund (G)	625	3,326,932	3,327,557		3,286,109
2000 Bond redemption fund	671	-	671		664
<b>Total Authority Funds</b>	<b>105,461</b>	<b>11,152,266</b>	<b>11,257,727</b>	<b>10,772,590</b>	
<b>Board Funds</b>					
Operation and maintenance reserve fund (H)	213,162	-	213,162		2,748,348
Lockbox and other accounts	298,800	-	298,800		353,551
	<b>\$ 617,423</b>	<b>\$ 11,152,266</b>	<b>\$ 11,769,689</b>	<b>\$ 13,874,489</b>	

- (A) Debt Service Funds - These restricted accounts provide for the monthly funding of debt service payments. The revenues from the Board are utilized to fund these accounts on a priority basis.
- (B) Debt Service Reserve Funds - These restricted accounts were originally funded with deposits from the proceeds of various bond issues in amounts approximating the maximum annual debt service payments. In accordance with the Bond Resolution and the SRF note agreements, these funds are restricted and may only be applied to debt service payments to the extent other funds are not available.
- (C) 1996 Construction Fund - This restricted account, which provides for the funding of capital expenditures approved under the 1996 SRF Bond issue, was originally funded with approximately \$686,000.
- (D) 1997 Construction Fund - This restricted account, which provides for the funding of capital expenditures approved under the 1997 SRF Bond issue was originally funded with approximately \$688,000.

**Albany Water Board**  
**Albany Municipal Water Finance Authority**  
**Notes to Combined Financial Statements**  
**December 31, 2002**

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**NOTE 5. RESTRICTIONS ON CASH AND INVESTMENTS, CONTINUED**

- (E) 1998 Construction Fund - This restricted account, which provides for the funding of capital expenditures approved under the 1998 SRF Bond issue, was originally funded with approximately \$2,490,000.
- (F) 1999 Construction Fund – This restricted account, which provides for the funding of capital expenditures approved under the 1999 SRF Bond issue, was originally funded with approximately \$358,000.
- (G) 2000 Construction Fund – This restricted account, which provides for the funding of capital expenditures approved under the 2000 revenue bond issue, was originally funded with approximately \$3,000,000. This fund is expected to be utilized in 2003 to fund, in part, a radio-read meter project for all system users.
- (H) Operation and Maintenance Reserve Fund - This account is funded from revenues, with annual amounts budgeted by the Board and with additional amounts available from current operations.

**NOTE 6. CONSTRUCTION DEPOSITS**

In December 1997, the Board transferred approximately \$1,984,000 to the New York State Department of Transportation (NYSDOT) for use as a deposit on future construction. This deposit was required in connection with Phase I of a project being undertaken by NYSDOT to renovate the Pearl Street area of Albany, including water and sewer related renovations for which the Board has primary responsibility. As construction under the project progressed, this deposit was used by NYSDOT to pay contractors and other project costs.

In March 1998, concurrent with the commencement of the Phase I project, the Authority participated in an SRF bond issue, in part to fund the sewer related costs of the project. As eligible project costs were certified and paid by NYSDOT, the Authority was eligible to draw-down EFC funds up to the amount of the bond issue (approximately \$2,490,000). During 2002, NYSDOT provided the Board/Authority with a final accounting of the Phase I costs and the project is considered closed.

Separately, in July 2001, the Board transferred approximately \$1,843,000 to the New York State Department of Transportation (NYSDOT) for use as a deposit on future construction. This deposit was required in connection with Phase II of the project undertaken to renovate the Pearl Street area of Albany, including water and sewer related renovations for which the Board has primary responsibility. As construction under the Project progresses, this deposit will be used by NYSDOT to pay contractors and other project costs.

At December 31, 2002, construction deposits are comprised of the Phase II (2001) deposit of \$1,843,000 and \$64,049 in accrued interest income.

**Albany Water Board**  
**Albany Municipal Water Finance Authority**  
**Notes to Combined Financial Statements**  
**December 31, 2002**

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**NOTE 7. OTHER ASSETS**

Other assets principally relate to the Authority's issuance of bonds and notes and are comprised of the following:

	[---- December 31 ----]	
	2002	2001
Underwriters discount	\$ 678,435	\$ 678,435
Bond insurance	415,886	415,886
Bond financing costs	529,288	529,288
	1,623,609	1,623,609
Less accumulated amortization	462,940	403,533
<b>Net other assets</b>	<b>\$ 1,160,669</b>	<b>\$ 1,220,076</b>

Amortization expense was \$59,407 for each of the years ended December 31, 2002 and 2001.

**NOTE 8. ACCRUED EXPENSES**

Accrued expenses are comprised of the following:

	[---- December 31 ----]	
	2002	2001
Albany County Sewer Contract obligation (Note 11)	\$ 1,557,149	\$ 1,619,372
Accrued interest on Authority bonds	329,400	333,948
	<b>\$ 1,886,549</b>	<b>\$ 1,953,320</b>

**NOTE 9. OBLIGATIONS TO THE CITY OF ALBANY**

Obligations to the City of Albany are comprised of the following:

	[---- December 31 ----]	
	2002	2001
Six Mile Waterworks deferred lease payments	\$ 4,500,000	\$ -
Construction related contract costs and other payables	6,953,578	3,400,952
	<b>\$ 11,453,578</b>	<b>\$ 3,400,952</b>

In connection with the Board's December 2002 acquisition of a fifty year leasehold interest in Six Mile Waterworks (Rensselaer Lake), the Board is contractually obligated to pay the City rental payments in the total amount of \$7,000,000. The first installment, in the amount of \$2,500,000, was paid upon execution of the lease (in December 2002) through the Authority's issuance of Bond Anticipation Notes (see Note 4). The second installment, in the amount of \$3,100,000, is due in December 2003; the third and final installment, in the amount of \$1,400,000, is due in December 2004. The 2003 and 2004 deferred lease payments, in the total amount of \$4,500,000, do not provide for interest payments to the City.

**Albany Water Board**  
**Albany Municipal Water Finance Authority**  
**Notes to Combined Financial Statements**  
**December 31, 2002**

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**NOTE 10. RETIREMENT PLAN**

**Plan Description:** The System, through the City, contributes to the Employees' Retirement System (ERS), a plan administered by the New York State and Local Retirement System. Plan benefits, including retirement and disability benefits, annual cost-of-living adjustments and death benefits to plan members and beneficiaries are provided under the provisions of the New York State Retirement and Social Security Law and are guaranteed under the State Constitution. ERS issues a financial report which includes financial statements and other information for ERS which is available to the public.

**Funding Requirements:** The System, through the City, is required to contribute annually to ERS based on a percentage of payrolls. The rates, which vary according to the employees' date of hire, include normal, administrative, and supplemental pension contributions and prior service costs. At December 31, 2002, substantially all full-time System employees were covered by the ERS.

**NOTE 11. COMMITMENTS AND CONTINGENCIES**

**Litigation:** The System is a party to various legal actions normally associated with utility operations, the aggregate effect of which is not expected to be material to the financial condition of the System.

**Deferred Revenue:** During 1998, the Board entered into an inter-municipality agreement with the Town of Guilderland which provides for a commitment to sell water to the Town through the year 2018. Under the agreement, the Town advanced the Board \$2.3 million, of which \$2.0 million was provided to induce the Board to enter into the agreement providing for the sale of water at below market rates over a twenty year period. The Board has recorded these funds as deferred revenue, which is being amortized into revenue over the term of the agreement.

**Rebate on Interest Earnings:** In accordance with the Tax Reform Act of 1986, the Board and Authority are required to rebate to the Federal government the net interest earned on certain restricted funds under the bond issues, in excess of the interest expense on the bonds. The amounts to be rebated, if any, are not expected to be material in relation to the System's investment income.

**Albany County Sewer Contract:** The City, along with certain other municipalities, entered into an agreement with the Albany County Sewer District (the District) which was subsequently assumed by the Board. The District maintains and operates the county sewer system and waste treatment plants. Under the agreement, the District bills the Board its share of the debt service on County sewer obligations and related operating expenses. The Board is liable for its allocable share of debt service whether or not the City's sewer system remains connected to the County system.

**Rate Covenant:** Under the Bond Resolution (see Note 1), the Board has agreed to establish rates sufficient in each year so that budgeted revenues are at least equal to 115% of the sum of budgeted annual aggregate debt service and System operating expenses. The Board was not in compliance with the provisions of the rate covenant in either 2001 or 2002. During March 2002 and 2003, however, the Board implemented 15% and 9.5% rate increases for all system users to ensure future compliance under the rate covenant.

**Report on Compliance, Including Compliance with  
Investment Guidelines, and on Internal Control over  
Financial Reporting Based on an Audit of Financial  
Statements Performed in Accordance with  
*Government Auditing Standards***

To the Members  
Albany Water Board  
Albany Municipal Water Finance Authority

We have audited the combined financial statements of Albany Water Board and Albany Municipal Water Finance Authority (a component reporting unit of the City of Albany) as of and for the year ended December 31, 2002, and have issued our report thereon dated April 25, 2003. We conducted our audit in accordance with generally accepted auditing standards; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and Investment Guidelines for Public Authorities issued by the Office of the State Comptroller, State of New York.

**Compliance**

As part of obtaining reasonable assurance about whether Albany Water Board and Albany Municipal Water Finance Authority's financial statements are free of material misstatement, we performed tests of their compliance with certain provisions of laws, regulations, contracts and grants, including Investment Guidelines for Public Authorities and the Board and Authority's Investment Guidelines, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance that are required to be reported herein under *Government Auditing Standards*.

**Internal Control Over Financial Reporting**

In planning and performing our audit, we considered Albany Water Board and Albany Municipal Water Finance Authority's internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide an opinion on the internal control over financial reporting. Our consideration of the internal control over financial reporting would not necessarily disclose all matters in the internal control over financial reporting that might be material weaknesses. A material weakness is a condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. We noted no matters involving the internal control over financial reporting and its operation that we consider to be material weaknesses.

**Report on Compliance, Including Compliance with  
Investment Guidelines, and on Internal Control over  
Financial Reporting Based on an Audit of Financial  
Statements Performed in Accordance with  
*Government Auditing Standards, Continued***

This report is intended solely for the information and use of the Members of Albany Water Board and Albany Municipal Water Finance Authority, the City of Albany, and the Office of the State Comptroller, and is not intended to be and should not be used by anyone other than these specified parties.

*Urbach Kann & Weisz, LLP*

Albany, New York  
April 25, 2003

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**APPENDIX**

**CERTAIN INFORMATION CONCERNING THE CITY OF ALBANY**

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## THE CITY OF ALBANY

### **General Information**

The City of Albany is the capital of the State and the county seat of Albany County. It operates under a strong mayor form of government with 15 Council Members elected to four-year terms to the Common Council. Also serving four-year elected positions are the Mayor, the President of the Common Council, the Comptroller and the Treasurer. The Common Council is the legislative body of the City with power to pass ordinances, adopt resolutions and approve the annual budget. The Mayor acts as the administrative head of the City.

Located on the west bank of the Hudson River approximately 140 miles north of New York City, Albany is a trading and distribution center for agricultural and manufactured products between western New York State, the New England States, northeastern New York, Canada and New York City, and points south. Industrial activity in the City includes printing, publishing, foundries, machine shops, bakeries, and paper products.

As the capital of the State, many of the State's Agencies and Departments are located in various office buildings within the City. The Empire State Plaza, a complex consisting of a 40-story office tower and several smaller office towers and buildings and situated in the City's downtown, is the location of many of the State's Agencies and Departments.

The City is a center for higher education and is the site of the State University at Albany, the College of Saint Rose, the Junior College of Albany, Albany Law School, Albany College of Pharmacy, and Albany Medical College, the latter three being divisions of Union University. Situated nearby are Siena College in the Town of Colonie and Rensselaer Polytechnic Institute and Russell Sage College in Troy.

The City is home to a multitude of hospitals and healthcare facilities including Albany Medical Center, St. Peters Hospital and the Veterans Administration Hospital.

Albany is a crossroads of all forms of transportation, including air, truck, bus, rail and water. Northeast rail travel is provided by Amtrak with service at the Rensselaer Station, which is easily accessible from the City. Major bus lines operate in all directions from the Albany bus terminal. Truck traffic is facilitated by the New York State Thruway with two access points in the City. Other major highways serving the City are the Adirondack Northway (U.S. Interstate 87), U.S. Interstate 787, U.S. Routes 9W and 20, and New York State Routes 5, 32, 43, 85, 144, 378 and 443. The Albany International Airport, located nearby in the Town of Colonie, provides passenger and freight service and accommodates both general aviation and military services. Transportation by water service is provided through the Port of Albany. The Port is operated by the Albany Port District Commission and receives cargo originating in and being shipped to foreign countries and other cities in the United States.

Albany has been chosen by International SEMETECH, a consortium of 12 computer chip manufacturers, for their new computer-chip facility. The \$403,000,000 chip facility will be housed at the University of Albany's Center for Excellence in Nanoelectronics and will initially employ 250 people. Tokyo Electron, a computer chip manufacturer, will be building a new facility in Albany and will initially employ 100 people.

### **City Services**

The principal services provided by the City involve public safety (including police and fire protection), culture and recreation, solid waste collection and disposal, maintenance and cleaning of City streets (including snow removal) and general government. The Police Department is housed in five facilities and includes a Patrol Division, an Administrative Division, Investigation and Detective Services, Special Services, and The Office of Professional Standards. The Fire Department consists of several fire companies stationed in eight firehouses as well as fire investigation and emergency life support units. Maintenance of streets and roads and solid waste collection within the City is performed by the City's Department of General Services. Lighting of public streets, roadways, and parks is furnished by the City under contract with Niagara Mohawk Power Corporation.

The City provides a variety of other services to City residents through several of its departments. The Department of Recreation administers over 80 recreation areas including 13 community parks, 11 major parks, three swimming pools, a municipal sports stadium, and various other recreational and athletic programs. In addition, the City owns and maintains an 18-hole municipal golf course. This department also administers and supports more than 20 youth programs and activities, including youth centers. The City also provides a substantial number of community service programs. The City has created the Albany

Theater Arts District and encourages cultural events, such as chamber music concerts and outdoor theater, as well as a myriad of festivals and events. The City provides funding for the Albany Institute of History and Art, the Albany Symphony Orchestra, and has numerous other cultural programs.

### Solid Waste

One of the City's major revenue sources over the years has been income generated by the City's landfill. As lead agency of the multi-municipality ANSWERS Waste Consortium, the City has contracts with 13 municipalities to accept solid waste. The City has sited and constructed a landfill expansion, which provides an additional 4-5 years of capacity at the existing landfill site. The additional capacity is estimated to generate approximately \$10.3 million in annual income and will allow the City of Albany to continue its pursuit of a longer-term solution to deal with its solid waste.

Under the terms and conditions of the existing landfill permits issued by the New York State Department of Environmental Conservation, the City has been and remains obligated to identify a permanent, long term solution to deal with its solid waste. In that regard, the City undertook a thorough landfill site selection process, identified a 300+ acre tract of land in the Town of Coeymans and secured options to purchase the same. Due to protracted litigation, the City has of yet been unable to purchase these properties.

### Population

According to U.S. Census data, the City had a 2000 population of 94,301. The following table presents population trends of the City, the Albany Metropolitan Statistical Area (the "MSA" consists of the six counties of Albany, Greene, Montgomery, Rensselaer, Saratoga and Schenectady), the State, and the United States since 1950:

	Population <sup>(1)</sup>			
	The City of Albany	Albany MSA	New York State	United States
1950	134,995	677,707	14,830,200	151,326,000
1960	129,726	746,115	16,782,300	179,323,000
1970	115,781	811,080	18,241,400	203,235,000
1980	101,727	835,800	17,558,000	226,504,825
1990	100,031	861,623	17,990,455	248,709,873
2000	94,301	892,604	18,976,457	281,421,906

<sup>(1)</sup> Data for compiled by the U.S. Department of Commerce, Bureau of the Census as of April 1 of each year based on the census for that year.

## **Economy**

Economic statistics for the Albany region are generally compiled on a countywide basis and do not relate exclusively to the City, although the City employment base and population represent a substantial portion of the Albany County total. The economy of the County is diversified, with significant activity in the areas of government, finance and services. As the capital of New York, many State government operations are located in the City, including the State Capitol and the Court of Appeals, the highest court in New York State. In addition to the State's operations, the City is home to many of the County's operations, including the Pepsi Arena, a multi-purpose sports facility owned by the County. There are four hospitals located in the City and the Port of Albany is a strategic location for industry, which depends on maritime, rail and highway transportation.

## **Real Property Tax Base**

Approximately 43% of the City's property is tax-exempt, which decreases the City's real property tax base without a proportionate decrease in the need for many City services. While some of this property is owned by charitable institutions such as universities and hospitals, the major owner of tax-exempt property in the City is the State. The City continues to seek special compensation from the State to offset this impairment of its real property tax base. The City has secured an agreement with the State over payments beginning in 2002 (pursuant to Section 19-A of the Public Lands Law) for a State-owned 2,300 space parking garage and a 400,000 square foot office building occupied by the State Comptroller. Earlier, the Dormitory Authority entered into a PILOT Agreement with the City in regard to its new downtown Albany headquarters, which was completed on January 1, 1998. Additionally, in 2002 the City began collecting taxes on a newly constructed privately owned 400,000 square foot office building, which serves as the headquarters of the New York State Department of Environmental Conservation. This new building has been assessed at \$40,680,000.

State legislation enacted in 2000 and amended in 2002 provides State Aid payments to the City for the State owned Empire State Plaza government complex. The statute provides for payments to the City of \$4.5 million annually through 2002, \$10 million annually from 2003 through 2027 and \$4.5 million for 2028 and 2029.

## **Building Permits**

### **Dollar Value of Construction by Type**

	<b>Residential</b>	<b>Apartments</b>	<b>Commercial And Industrial</b>	<b>Other</b>	<b>Total Dollar Value</b>	<b>Total Building Permits</b>
1989	\$13,974,935	\$2,550,000	\$42,735,803	\$58,865,301	\$118,126,039	4,522
1990	10,202,759	1,875,000	21,971,844	42,129,448	76,179,051	4,375
1991	5,119,569	96,000	29,489,716	46,310,220	81,015,505	4,188
1992	4,022,200	75,000	13,455,266	41,590,534	59,143,000	3,866
1993	3,286,885	192,000	18,081,300	71,157,248	92,717,433	3,583
1994	1,316,445	-	41,722,946	66,706,368	109,745,759	3,532
1995	1,678,250	6,245,000	5,704,000	51,692,053	59,698,803	3,173
1996	627,100	4,400,000	13,729,675	47,727,564	66,484,339	3,173
1997	4,191,627	4,120,000	30,611,702	18,255,523	57,178,852	2,769
1998	5,146,580	3,351,057	26,326,048	26,798,477	61,622,162	1,509
1999	7,246,421	10,522,236	100,608,787	2,026,473	120,403,917	1,600
2000	18,647,272	51,052,882	34,305,146	20,311,694	124,316,994	1,772
2001	23,995,534	20,342,752	24,063,879	5,810,562	74,212,727	1,694
2002	10,706,826	1,237,891	50,660,198	29,370,351	92,370,351	1,807

## Employment

A major portion of non-agricultural workers have historically been employed by federal, state, or local governments. In recent years, this sector has increased to approximately one-third of the non-agricultural workforce in Albany County. The following table provides a historical comparison among employment sectors for the Albany MSA.

**Non-Agricultural Employment by Industry Groups, Albany MSA**

	1980	1985	1990	1996	1997	1998	1999	2000	2001	2002 <sup>(1)</sup>
	(thousands)									
Contract Construction	11.5	15.3	19.5	14.1	15.0	16.2	17.4	18.0	17.9	17.7
Manufacturing	60.7	52.1	46.7	39.4	38.6	39.1	38.1	38.1	37.2	28.7
Transportation and Public Utilities	16.8	16.6	17.2	16.3	17.1	17.2	17.9	19.1	19.8	81.3
Wholesale and Retail Trade	70.6	81.2	92.6	91.3	91.9	91.9	94.2	95.1	95.6	96.8
Finance, Insurance, and Real Estate	16.0	19.6	25.2	25.5	25.3	25.7	25.3	25.1	25.7	20.0
Services and Miscellaneous	73.4	91.7	118.2	129.5	134.8	139.8	146.3	151.2	153.8	67.2
Government	101.2	105.4	115.7	109.2	109.0	109.4	110.4	110.6	111.0	148.9
Total	350.2	381.9	435.1	425.3	431.7	439.3	449.6	457.2	461.0	460.6

SOURCE: New York State Department of Labor, Division of Employment

<sup>(1)</sup> The Federal government changed the industry group classifications during 2002. The classifications for 2002 do not directly compare to previous years.

## Ten Largest Employers in the City

Name	Type	Number of Employees
State of New York <sup>(1)</sup>	Government	33,283
United States <sup>(2)</sup>	Government	8,600
Albany Medical Center	Hospital	6,529
University at Albany	Education	4,500
St. Peter's Hospital	Hospital	3,273
Albany County <sup>(2)</sup>	Government	3,135
Verizon Communications	Utility	3,030
Albany City School District	Education	1,507
City of Albany	Government	1,424
Veteran's Administration Hospital	Hospital	1,399

<sup>(1)</sup> Does not include public authorities.

<sup>(2)</sup> Includes employees at facilities located outside the City, but within the County.

SOURCE: Employers as listed above

The industrial diversity and high proportion of government employees have afforded the City a higher employment level than the rest of the State. The following table gives historic levels of unemployment for the City, the Albany MSA, the State and the United States:

**Unemployment Rates<sup>(1)</sup>**

	<b>City of Albany<sup>(2)</sup></b>	<b>Albany MSA</b>	<b>New York State</b>	<b>United States</b>
1988	3.3	3.6	4.1	5.5
1989	3.9	4.2	5.1	5.3
1990	3.3	3.6	5.2	5.5
1991	5.5	5.7	7.2	6.7
1992	7.0	6.0	8.5	7.4
1993	5.8	4.9	7.7	6.8
1994	5.8	4.8	6.9	6.1
1995	5.9	4.9	6.3	5.6
1996	5.4	4.6	6.2	5.4
1997	4.7	4.2	6.4	5.7
1998	4.2	3.6	5.6	4.5
1999	4.1	3.6	5.2	4.2
2000	4.0	3.4	4.6	4.0
2001	3.7	3.2	4.9	4.8
2002	4.4	3.8	6.1	5.8
3/2003	4.1	3.8	6.3	6.0

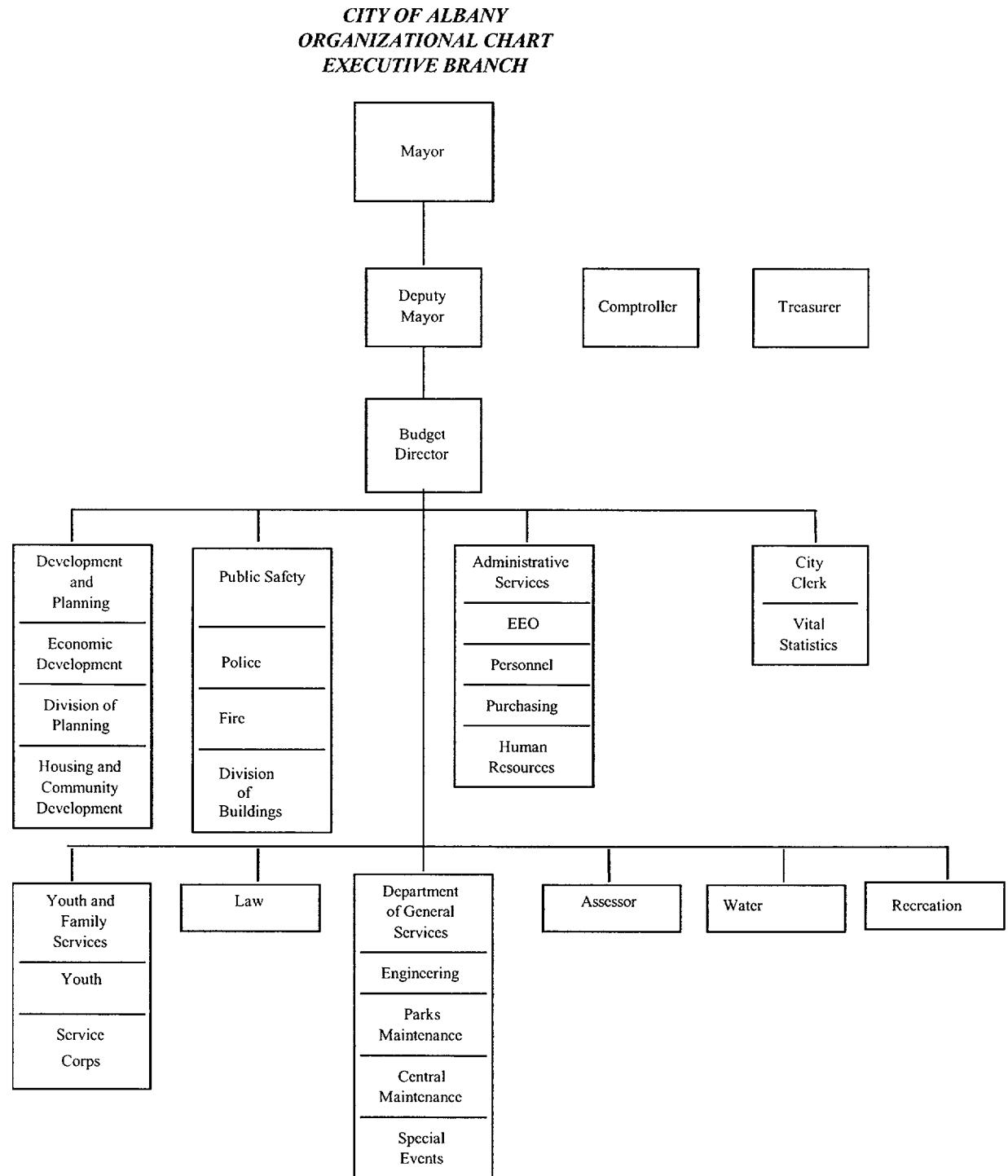
<sup>(1)</sup> These are annual averages of actual labor force and employment estimates.

<sup>(2)</sup> City unemployment rates are estimated by the New York State Department of Labor based on the relationship between City and County labor force statistics.

SOURCE: New York State Department of Labor, Bureau of Labor Market Information

## Government Organization

The City is governed largely by the provisions of its Charter and functions under provisions of the State Constitution and various statutes. The following is an organizational chart of the City.



The Common Council is the legislative body of the City. The President of the Common Council is elected in the general election to a four-year term. Council members are elected from each of the 15 wards within the City every four years or by special election in the event of a vacancy. The Common Council has the power to establish rules and procedures for itself, adopt local laws, set taxes and other revenue measures, adopt budgets, and approve all matters relevant to the administration of City government. Meetings of the Common Council are open to the public and are held twice a month.

The Mayor is the highest elected official and serves as chief executive officer of the City; he is elected in the general election to a four-year term without restriction as to number of terms. He is charged with the supervision of City government, subject to the provisions of the Charter. The Mayor reports annually to the Common Council on the state of the City, recommends an annual budget, appoints the head of every department and administrative unit of City government, except for the publicly elected Treasurer and Comptroller, and executes contracts. There are nine major City staff units in addition to the separately elected Treasurer and Comptroller as shown in the City of Albany Organizational Chart on the previous page. The financial affairs of the City are administered by two elected officials, the Comptroller and the Treasurer, and the appointed Budget Director. The Comptroller is the chief fiscal officer of the City and is responsible for the fiscal integrity of the City including cash management, auditing payment vouchers, administering bank accounts, internal audit and debt issuance. The Treasurer is responsible for the collection, custody, and deposit of all taxes and other funds due the City and processing payroll and personnel transactions. The Budget Director's responsibilities include the preparation and administration of the City's operating and capital budgets and establishment and management of fiscal control systems and management studies. The Budget Director works closely with all departments to develop the annual budget and five-year capital plans.

### **Employee Relations**

The City provides services through approximately 1,485 employees (as of May 15, 2003). The following information is for the 918 unionized employees:

<u>Bargaining Unit</u>	<u>Approximate Number of Employees</u>	<u>Contract Expiration Date</u>
Albany Police Officers-Council 82	402	December 31, 2005
Albany Firefighters-AFL-CIO	238	December 31, 2005
Council 66-AFSCME-Local 1961	255	December 31, 2005
Communication Workers of America	13	December 31, 2005
International Union of Operating Engineers	7	December 31, 2005
Teamsters Local 294	3	December 31, 2005
Local Union 190	0	December 31, 2005

While there has been litigation relative to certain union contracts in the past, there is no record of strikes against the City. Most of the City's employees are prohibited from participating in or encouraging a strike under New York law.

## **DISCUSSION OF FINANCIAL OPERATIONS**

### **Budgetary Procedure**

The budget process begins in mid-February when the Mayor issues a policy statement regarding the upcoming budget. In early March, the Budget Director distributes personnel lists and budget instructions to each department along with requests for the City's five-year capital plan.

In mid-May, the Budget Director develops the necessary economic and statistical data required for budget forecasting which include changes in the consumer price index and revenue trends. The City's assessor submits tentative assessment rolls. The Comptroller along with the Budget Director estimates revenues with each department administrator. The Comptroller submits estimated debt service needs, and the Assessor submits final assessment figures and realty tax data, to the Mayor's Office.

On or before October 1, the Mayor submits the proposed budget for the ensuing fiscal year and an accompanying budget message to the Common Council. The Common Council may accept or amend the Mayor's proposed budget. If the Common Council chooses to amend the proposed budget, the Mayor has the right to veto any portion, or all of, the Common Council's

amendments. The Common Council may override any Mayoral veto with a two-thirds vote of the full Common Council members.

On or before October 31 the President of the Common Council calls for a public hearing on the budget after having given two weeks notice to the public. After the public hearing, the Common Council may adopt the budget with or without amendment. The Common Council is to adopt the budget on or before November 30. No later than December 10, the Mayor shall act on the budget as amended and passed by the Common Council. On or before December 20, the Common Council may override a veto of one or more of its proposed amendments. The Common Council approved the 2003 budget on November 26, 2002.

In March of 2001, the City unveiled the Vision 2001 Plan, which is an update to the Capitalize Albany Strategy. The City has been able to document nearly \$1 billion dollars of new investment since 1993 related to Capitalize Albany initiative. The Vision 2001 Plan calls for the development and implementation of transformational projects. The five strategic initiatives identified in the plan include the development of tourism and entertainment venues, the development of the Albany Riverfront, Business Development, Neighborhood Revitalization, and the formation of a Redevelopment Authority. The Department of Environmental Conservation and the NYS Comptroller offices are completed and were occupied in the fall of 2001. The master plan for the North Waterfront District and the South Broadway "Living History Museum" Feasibility Study was completed in the fall of 2001. These plans are efforts to further revitalize the City's riverfront. Also, the City has completed a convention center feasibility report.

### **2003 Budget**

The 2003 budget is the City's third structurally balanced budget in 14 years. The budget includes a real property tax increase of 7.4%. Additional highlights of the budget include a 2% sales tax growth estimate, an estimated year-end general fund balance of \$3.3 million and a reliance on certain one-time revenue sources such as property sales. The budget projected a year-end fund balance of approximately \$3.3 million. A summary of the 2003 Budget is outlined below:

<u>Budget 2003</u>	
<b>REVENUES</b>	
Real Property Taxes	\$ 39,000,000
Sales and Use Tax	27,005,000
Intergovernmental Revenues	1,900,000
State Aid	10,739,000
Charges for Services	12,760,900
Other Revenues	<u>27,131,421</u>
Total Revenues	\$ 118,536,321
<b>EXPENDITURES</b>	
Public Safety and Regulation	\$ 57,406,579
General Government	18,211,389
Employee Benefits	10,063,000
Debt Service	12,068,000
Other Expenditures	<u>20,787,353</u>
Total Expenditures	\$ 118,536,321

During the 2000 State Legislative session, the City was afforded significant budgetary relief through the enactment of legislation that provides State Aid payments to the City for the State owned Empire State Plaza government complex. This statute provided \$4.5 million per year in payments to the City through 2004 and \$10 million per year through 2029. During the 2002 State Legislative session, the City was successful in obtaining State legislation to alter the payment stream to receive additional moneys in 2003 and 2004. The City will receive \$10 million in years 2003 to 2027, and \$4.5 million in 2028 and 2029.

### **Five-Year Capital Plan**

As part of its budgeting process, the City prepares, on an annual basis, a five-year capital plan. This allows the City to anticipate capital spending and borrowing needs in a manner that lends greater stability and predictability to its budget process.

The following table contains a summary of the City's five-year capital plan included in its 2003 budget, as well as the projected sources of funds for financing its capital projects.

#### Five Year Capital Plan Summary 2003-2007

<i>Department of General Services</i>	2003	2004	2005	2006	2007	Total Cost	Financing Method
Replacement Vehicles.	\$635,000	\$275,000	\$250,000	\$275,000	\$285,000	\$1,720,000	Borrowings
Sanitation Packer	125,000	250,000	125,000	125,000	125,000	750,000	Borrowings
Dump Trucks (6)	205,000	180,000	185,000	125,000	65,000	760,000	Borrowings
Front End Loaders (2)	210,000	210,000	210,000	210,000	0	840,000	Borrowings
Aerial Bucket Truck.	95,000	0	0	0	0	95,000	Borrowings
Tractor	50,000	0	0	0	0	50,000	Borrowings
Landfill Off Road Truck	200,000	0	0	0	0	200,000	Borrowings
Landfill Fork Lift	40,000	0	0	0	0	40,000	Borrowings
Landfill Excavator	190,000	0	0	0	0	190,000	Borrowings
Landfill Litter Vacuum	20,000	0	0	0	0	20,000	Borrowings
Compressor (3)	48,000	0	0	0	0	48,000	Borrowings
Trailers (5)	135,000	0	0	0	0	135,000	Borrowings
Salt Storage Renovation	100,000	0	0	0	0	100,000	Borrowings
Fuel Island Upgrade	15,000	0	0	0	0	15,000	Borrowings
Transformer Replacement.	30,000	0	0	0	0	30,000	Borrowings
Stair Restoration	50,000	0	0	0	0	50,000	Borrowings
Street Sweeper	0	105,000	105,000	105,000	105,000	420,000	Borrowings
Recycling Trucks (8)	0	1,300,000	0	0	0	1,300,000	Borrowings
<i>Engineering</i>							
Street Reconstruction	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$5,000,000	Borr./CHIPS
Sidewalk Reconstruction	600,000	600,000	600,000	600,000	600,000	3,000,000	Borr./CDBG
A.D.A. Compliance	250,000	250,000	250,000	250,000	250,000	1,250,000	Borr./CDBG
Energy Conservation	15,000	15,000	15,000	15,000	15,000	75,000	Operating
Repairs to City Buildings	70,000	70,000	70,000	70,000	70,000	350,000	Operating
Elevator Renovations	100,000	80,000	80,000	30,000	30,000	320,000	Borrowings
<i>Parks</i>							
Parks Vehicles and Mowers	\$110,000	\$110,000	\$120,000	\$120,000	\$120,000	\$580,000	Operating
Resurface Courts	100,000	100,000	100,000	120,000	120,000	540,000	Operating
Golf Course Equipment	80,000	50,000	85,000	45,000	85,000	345,000	Operating
Play Platform	30,000	30,000	30,000	30,000	30,000	150,000	CDBG
Lincoln Park Improvements	80,000	80,000	80,000	80,000	80,000	400,000	Borrowings
Roof Improvements	120,000	125,000	130,000	135,000	140,000	650,000	Borrowings
Golf Course Improvements	370,000	170,000	175,000	55,000	55,000	825,000	Borrowings
Normanskil Farm Repairs	80,000	25,000	0	0	0	105,000	Borrowings
Washington Park Improvements	15,000	0	0	0	0	15,000	Borrowings
Pool Resurfacing	70,000	95,000	95,000	95,000	0	355,000	Borrowings
Recreation Van	25,000	0	0	0	0	25,000	Borrowings
Play Structures (5)	65,000	0	0	0	0	65,000	Borrowings
<b>Total</b>	<b>\$5,328,000</b>	<b>\$5,120,000</b>	<b>\$3,705,000</b>	<b>\$3,485,000</b>	<b>\$3,175,000</b>	<b>\$20,813,000</b>	

<i><b>Police Department</b></i>							
Vehicles	\$425,000	\$435,000	\$445,000	\$455,000	\$465,000	\$2,225,000	Borrowings
Special Use Vehicles	97,000	70,000	70,000	70,000	70,000	377,000	Borrowings
Computer Replacement	25,000	15,000	15,000	15,000	15,000	85,000	Borrowings
Building Renovations	275,000	70,000	70,000	70,000	70,000	555,000	Borrowings
Wireless Tactical Equipment	50,000	0	0	0	0	50,000	Borrowings
Firearms Training Simulator	50,000	0	0	0	0	50,000	Borrowings
<i><b>Traffic Engineering</b></i>							
Traffic Signals	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000	Borrowings
Traffic Signal Poles	100,000	100,000	100,000	100,000	100,000	500,000	CHIPS
Traffic Signal Equipment	60,000	60,000	60,000	60,000	60,000	300,000	Borrowings
Maintenance Vehicle (2)	65,000	0	0	0	0	65,000	Borrowings
Blueprint Copy Machine	<u>20,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>20,000</u>	Borrowings
<b>Total.</b>	<b>1,367,000</b>	<b>950,000</b>	<b>960,000</b>	<b>970,000</b>	<b>980,000</b>	<b>5,227,000</b>	
<i><b>Fire Department</b></i>							
Pumper (2)	\$500,000	\$275,000	\$275,000	\$275,000	\$275,000	\$1,600,000	Borrowings
Replacement Air Cylinders	35,000	35,000	35,000	35,000	35,000	175,000	Operating
Repair Truck Shop	35,000	0	0	0	0	35,000	Borrowings
Suburban (2)	60,000	60,000	30,000	30,000	70,000	250,000	Borrowings
External Defibrillators	40,000	40,000	0	0	0	80,000	Borrowings
Firehouse Exhaust System	450,000	0	0	0	0	450,000	Borrowings
Computer Replacement	20,000	20,000	0	0	0	40,000	Borrowings
Air-Pak Alert System	45,000	45,000	15,000	15,000	15,000	135,000	Borrowings
Aerial Ladder Truck	0	625,000	0	0	0	625,000	Borrowings
Heavy Duty Rescue Squad	<u>0</u>	<u>0</u>	<u>425,000</u>	<u>0</u>	<u>0</u>	<u>425,000</u>	Borrowings
<b>Total.</b>	<b>\$1,185,000</b>	<b>\$1,100,000</b>	<b>\$780,000</b>	<b>\$355,000</b>	<b>\$395,000</b>	<b>\$3,815,000</b>	
<b>Operating.</b>	<b>\$410,000</b>	<b>\$380,000</b>	<b>\$425,000</b>	<b>\$405,000</b>	<b>\$445,000</b>	<b>\$2,065,000</b>	Operating
<b>Borrowings</b>	<b>\$6,390,000</b>	<b>\$5,710,000</b>	<b>\$3,940,000</b>	<b>\$3,325,000</b>	<b>\$3,025,000</b>	<b>\$22,390,000</b>	Borrowings
<b>Other</b>	<b><u>\$1,080,000</u></b>	<b><u>\$1,080,000</u></b>	<b><u>\$1,080,000</u></b>	<b><u>\$1,080,000</u></b>	<b><u>\$1,080,000</u></b>	<b><u>\$5,400,000</u></b>	Other
<b>Grand Total</b>	<b>\$7,880,000</b>	<b>\$7,170,000</b>	<b>\$5,445,000</b>	<b>\$4,810,000</b>	<b>\$4,550,000</b>	<b>\$29,855,000</b>	

SOURCE: City of Albany 2003 Budget

\*\*Actual borrowings have typically exceeded planned amounts due to unexpected expenditures.

\*The City will be adding projects to the year 2003 Capital Plan and finance them in 2003.

#### **Financial Control Procedures**

The Comptroller and the Budget Director are responsible for controlling municipal expenditures to ensure that budget appropriations for the City are not exceeded and for reviewing all revenues received by the City. Expenditure of municipal appropriations are carefully monitored. The Comptroller's office audits payment requests to ensure budget appropriation, departmental authorization, and compliance with applicable contracts and the City Charter, City ordinances, and State laws. In addition, in 1998 the Comptroller established an internal audit division that conducts internal audits and other reviews of City departments. The Comptroller also conducts inspections to determine that purchases and services are delivered as required and to ensure that all revenues are being collected and deposited by the City. The City follows bidding procedures beyond those procedures mandated by the State. These aggressive bidding procedures have resulted in substantial savings. The Budget Director also participates in these financial control procedures.

The Comptroller is empowered by the Common Council to borrow moneys as needed for the uninterrupted operations of the city, subject to the applicable provisions of the Local Finance Law and the General Municipal Law.

### **Accounting Practice and Independent Audits**

Under State law, a uniform system of accounting and reporting is prescribed by the State Comptroller for all municipalities. An annual financial report for every municipality must be filed with the State Comptroller within 60 days after the close of the fiscal year. This report is categorized by fund and shows as of the end of the fiscal year (1) a balance sheet, (2) a statement of revenues, (3) a statement of expenditures, (4) an analysis of fund balances, (5) cash reconciliation, (6) a statement of indebtedness, and (7) any other particular fund data which are required.

The City retains independent certified public accountants to conduct annual audits of its financial statements. The State Comptroller's office also conducts an audit of the City at least every three years to determine compliance with the State Uniform System of Accounts for Cities and submits its report to the Mayor.

Throughout this Appendix, the financial information for 1997 through 2001 is derived from the City's audited financial statements. Certain financial information for fiscal year 2002 is based upon the City's Annual Financial Report to the State Comptroller. Financial information for 2003 is based upon the City's 2003 adopted budget. The Accounting firm Urbach, Ahn & Werlin, LLP, CPAs is currently auditing the City of Albany's financial statement for the fiscal year ending December 1, 2002.

## **FINANCIAL HISTORY OF THE CITY**

### **General Fund**

The City prepares and adopts a budget for each year pursuant to Article 6 of the New York Second Class Cities Law and its charter. The City's General Fund budget is prepared on a budgetary legal basis. Such basis is not in accordance with generally accepted accounting principles ("GAAP") in certain respects, principally adjustments for encumbrances. Budgetary accounting treats encumbrances as a charge against current year budgetary appropriations and unreserved fund balance is reduced. Under GAAP, encumbrances are recognized only as a reservation of fund balance.

### **Revenues**

The City has a relatively diversified revenue base, deriving 31% of General Fund revenues budgeted for fiscal 2002 from real estate taxes, 13% from intergovernmental and departmental charges, 36% from sales and use taxes and 20% from miscellaneous other sources. The actual tax levy for fiscal 2002 was \$36,306,293.

### **Real Estate Property Tax**

Tax payments are levied on January 1 of each year and are due and payable within 30 days. A penalty of 4% is added for late payments made in February, and for payments made on or after March 1 an additional penalty is included at the rate of 1% per month. After December 31, payments must be made to the County Comptroller.

City and County tax collection procedures are such that the City bears none of the burden of uncollected or delinquent real estate taxes. One tax bill is presented to City residents for all City and County real estate taxes. The City then collects real estate taxes for both the City and the County, retains a portion of the taxes collected equal to its final tax levy, and remits the remaining portion to the County. Delinquent taxes are accordingly turned over to the County Comptroller for collection and are retained by the County as a portion of its tax levy. The City is not responsible for the collection of taxes of any other governmental unit.

Although the City bears none of the burden of uncollected or delinquent taxes, a reduction in the assessed valuation of real property within the City after establishment of the annual budgeted tax levy would cause the amount of taxes collected to be less than the budgeted amount. Reductions in the assessed valuation of real property within the City are generally a result of certiorari proceedings. The budgeted tax levy for fiscal year 2003 is \$39,000,000.

### Sales Taxes

The City's sales and other non-property tax revenues are comprised of the State sales tax, utilities gross receipts tax, franchise tax, and privilege taxes on coin-operated machines. The sales tax is assessed, collected and monitored by the State. Of the current 8.25% tax collected in the County, the State keeps 4.25% and pays 4% to the County on a monthly basis. Through a 1986 act of the Albany County Legislature, the County shares 40 percent of its collected sales tax with the municipalities within its borders. The distribution percentages are based upon the municipalities' share of the County population at the last Federal census. Of the 40% shared with municipalities, the City receives 32.01 percent or 12.8 percent of the total. Although the County Legislature can decide to change the allocation of sales tax to its municipalities, the allocation has not been changed since it was first enacted in 1986. Beginning in September 1992, the County Legislature requested the State Legislature to temporarily add 1% to the County's share of the tax, making the amount collected in the County 8%. Both the County and State Legislatures have extended the temporary increase four times. The latest temporary increase expires November 30, 2003. In June 2003 the State Legislature increased the State's sales tax from 4% to 4.25%. The total Sales Tax paid in Albany County is now 8.25%.

City sales tax receipts for the four years ended December 31, 1998 through December 31, 2002 were, \$23,356,824, \$24,614,606, \$26,933,276, \$27,240,221 and \$26,195,799.04 respectively. The budget for 2003 projects sales tax receipts of \$27,005,000.

Through a 1986 act of the Albany County Legislature and the State Tax Law, the County shares 40% of its collected sales tax with the municipalities, based on the municipalities' share of the County population at the last Federal census. Shifts in the County's population potentially reduced the City's share of the revenue from 34.55% (or 13.82% of the total) to 32.47% (or 12.99 % of the total). However, the County remits a smaller share of sales tax than most upstate counties.

The City's utilities gross receipts tax revenues for the five years ended December 31, 1998 to 2002 amounted to, \$1,899,615 \$1,798,010, \$1,866,813, \$2,232,091 and \$1,865,016 respectively. This tax is levied on commercial and industrial concerns, which produce a utility product and sell the oversupply, and owners or lessees of business buildings who purchase a utility service and resell all or a part of the quantity purchased. Budgeted receipts for 2003 are \$1,900,000.

### Intergovernmental Charges

For fiscal year 2002, the City received \$3,892,690 in revenues for intergovernmental charges (excluding State Aid and the City's share of mortgage taxes) \$3,727,451 in 2001 and \$3,299,306 in 2000.

The City obtained a permit and has sited and constructed a landfill expansion, which provides an additional 4-5 years of capacity at the existing landfill site. The additional capacity is estimated to generate approximately \$10.3 million in annual income and will allow the City to continue its pursuit of a longer-term solution to deal with its solid waste.

### State Aid

State aid constitutes a comparatively significant portion of the City's General Fund revenues. State aid includes direct aid and grants and payments for certain services. In its General Fund for the 2002 fiscal year, the City received \$11,012,004 from the State as State Aid.

During the 2000 State Legislative session, the City was afforded significant budgetary relief through the enactment of legislation that provides State aid payments to the City for the State owned Empire State Plaza government complex. This statute provides \$4.5 million in annual payments to the City through 2002, \$10 million per year through 2027 and \$4.5 million for 2028 - 2029. During the 2002 State Legislative session, the City was successful in obtaining State legislation to alter the payment stream to receive additional moneys in 2003 and 2004. The City will receive \$10 million in years 2003 to 2027, and \$4.5 million in 2028 and 2029.

The following table sets forth the percentage of General Fund revenues of the City comprised of State Aid for each of the fiscal years 1996-2002 and budgeted 2003:

**State Aid Payments**  
**Fiscal Year Ending December 31**

Fiscal Year	General Fund Revenues	State Aid <sup>(1)</sup>	State Aid as a Percentage of General Fund Revenue
1996	\$97,525,750	\$13,413,880 <sup>(2)</sup>	14.0%
1997	\$91,090,555	\$9,303,004	10.0%
1998	\$86,142,511	\$10,187,102	12.0%
1999	\$95,039,389	\$12,445,379 <sup>(3)</sup>	13.0%
2000	\$103,623,255	\$10,750,709	10.0%
2001	\$110,154,126	\$11,217,530	10.0%
2002	\$109,923,396	\$11,012,004	10.0%
2003*	\$118,536,321	\$10,739,000 <sup>(4)</sup>	8.7%

budgeted

) Includes amounts received from the New York State Mortgage Recording Tax.

) The City received an additional one-time State Aid payment in 1996 as the result of the State's decision to change State Aid payment dates.

) Includes an unbudgeted addition of \$2,460,000.

) The City will receive an additional \$5.5 million from the State that was not budgeted in 2003 due to the 19-a acceleration.

SOURCE: City of Albany Comptroller's Office.

#### Expenses

In 2002, General Fund expenditures and transfers to other funds totaled \$122,495,800 compared to \$111,467,286 in 2001. Of this amount, public safety constituted 45.48%, general government expenses constituted 14.4%, debt service constituted 9.57%, employee benefits constituted 7.29%, culture and recreation constituted 5.5%, transportation constituted .6%, and community service constituted 4.31%.

#### Pension Payments

All full-time employees of the City are members of the New York State Employees' Retirement System or the New York State Policemen's and Firemen's Retirement System (the "State Systems"). Based on earnings data for each member of the system which the City supplies to the System, the State Systems bill the City annually. The State administers the program and distributes all benefits.

With regard to the State Systems, the Pension Reform Bill has been signed by the Governor as Chapter 49 of New York state 2003 Laws. The law changes the cycle of billing to match budget cycles of the City. Under the previous method, the City was unsure of how much they paid to the system until after their budget was implemented. Under the new system the contribution for a given fiscal year will be based on the value of the pension fund on the prior April 1 instead of the following April 1 so that the City will be able to build the cost of the contribution into their budget.

The legislation requires the City to make a minimum contribution of 4.5% of payroll every year, including years in which investment performance of the fund would make a lower contribution possible. The December 2003 bill will be 4.5% of payroll. For 2004, it is estimated that the contribution will be 11% of payroll. The legislation further authorizes that the amount of payment in excess of 7% of payroll will be allowed to be amortized over a period of five years. This amortization may be made with the State Comptroller and the City would pay 8% interest on any amortized amounts or the City could issue general obligation bonds, the interest on which would be taxable for federal income tax purposes.

While the City is aware of the potential negative impact on their budget and will take the appropriate steps to budget accordingly for the increase, there can be no assurance that the City's financial position will not be negatively impacted.

Pursuant to Chapter 62 of the Laws of 1989, the City's liability to the State Systems is accounted for according to GAAP. Bills for payments to the State Systems are sent November 15 of each year for payment to be made on December 15. The December 15 payment covers the 12 month period from the payment date through to the following March 31.

The following table shows the total actual payments made by the City to the New York State Employees' Retirement System or the New York State Policemen's Retirement System.

**City Payments**  
**Fiscal Year Ending December 31**

<b><u>Year</u></b>	<b><u>Amounts</u></b>
1995	\$3,057,260
1996	\$2,143,499
1997	\$1,592,679
1998	\$438,410
1999	\$318,415
2000	\$552,191
2001	\$312,296
2002	\$998,961
2003	\$2,800,000*

\*Estimated.

The City also administers a City Police and Fire Pension Plan, instituted prior to the establishment of the State Policemen's and Firemen's Retirement System for members of the Police and Fire Departments prior to June 1, 1940 who did not elect to join the New York State Policemen's and Firemen's Retirement System. After the State Systems were established, the City plan ceased to accept new members. As of December 31, 2002, there were four pensioners or survivors receiving benefits in the police plan and three pensioners or survivors receiving benefits in the fire plan. Retirement benefits paid during fiscal 2002 were \$21,405 to police recipients and \$11,200 to fire recipients. The two plans are administered by a two-member board consisting of the Mayor and the Comptroller as treasurer of the funds with the Chief of Police and Fire Chief as Secretary and co-signer of the respective funds. In each of the last several years the City has paid the required amounts from non-tax revenues.

**TAX INFORMATION**

**Valuations**

<u>Years Ending December 31:</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003<sup>(1)</sup></u>
Assessed Valuation	\$3,155,462,638	\$3,113,817,477	\$3,137,523,271	\$3,138,259,839	\$3,670,000,207
State Equalization Rate	99.00%	100.00%	100.00%	95.18%	100.0%
Full Valuation	\$3,187,335,998	\$3,113,817,477	\$3,137,523,271	\$3,297,184,113	\$3,670,000,207

<sup>(1)</sup> The City completed a citywide revaluation during 2003.

**Tax Rate Per \$1,000 (Assessed)**

<u>Years Ending December 31:</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
Homestead Rate	\$ 9.87	\$ 10.30	\$ 10.27	\$ 10.33	\$14.153
Non-Homestead Rate	13.25	12.77	13.23	13.12	17.09

**Tax Collection Record**

<u>Years Ending December 31:</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
Total Tax Levy	\$ 35,800,000	\$ 36,000,000	\$ 36,000,000	\$ 36,306,293	\$36,007,790
Uncollected End of Year	321,294	405,103	333,910	\$2,082,799	N/A
% Uncollected	0.90%	1.12%	0.92%	5.74%	N/A

## **x Collection Procedure**

Tax payments are levied on January 1 of each year and are due and payable within 30 days. A penalty of 4% is added for payments made in February, and for payments made on or after March 1 an additional penalty is included at the rate of 1% per month. After December 31, payments must be made to the County Comptroller.

City and County tax collection procedures are such that the City bears none of the burden of uncollected or delinquent real estate taxes. One tax bill is presented to City residents for all City and County real estate taxes. The City then collects real estate taxes for both the City and the County, retains a portion of the taxes collected equal to its final tax levy, and remits the remaining amount to the County. Delinquent taxes are accordingly turned over to the County Comptroller for collection and are retained by the County as a portion of its tax levy. The City is not responsible for the collection of taxes of any other governmental unit.

Although the City bears none of the burden of uncollected or delinquent taxes, a reduction in the assessed valuation of real property within the City after establishment of the annual budgeted tax levy would cause the amount of taxes collected to be less than the budgeted amount. Reductions in the assessed valuation of real property within the City are generally a result of certiorari proceedings. The actual tax levy for fiscal 2003 is \$39,000,000.

## **x Largest Taxpayers - (2003 Tax Roll)**

Name	Type	Estimated Assessed Valuation
agara Mohawk Power Corporation	Utility	\$ 127,344,417
cotte Companies	Commercial	71,068,700
orizon	Utility	44,791,413
ashington Commons	Commercial	33,793,700
vin Towers Assoc. Ltd. Partnership of Albany	Commercial	28,000,000
zet National Bank	Bank	22,443,000
almart	Commercial	20,250,000
arl Tower Assoc.	Commercial	13,595,300
S. Associates	Office Building	13,000,000
State Street	Office Building	12,700,000

The ten largest taxpayers listed above have an estimated total assessed valuation of \$386,986,530, which represents approximately 10.5% of the tax base of the City.

Note: The City receives payments in lieu of taxes from various tax-exempt entities. The City received \$5,763,969 for such payments in 2002 and \$5,896,343 in 2001.

## **x Constitutional Tax Margin**

Computation of Constitutional Tax Margin for fiscal years ending December 31, 2000, 2001, 2002 and 2003:

	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
Five-Year Average Full Valuation.....	\$ 3,449,017,195	\$ 3,356,017,268	\$ 3,183,184,005	\$ 3,177,664,631
Ex Limit - 2% of Five-Year Average.....	68,980,344	67,120,345	63,663,680	63,553,293
Id: Exclusions From Tax Limit.....	<u>9,675,000</u>	<u>10,272,000</u>	<u>11,835,927</u>	<u>11,828,000</u>
Total Taxing Power .....	\$ 68,655,344	\$ 77,392,345	\$ 75,502,607	\$ 75,381,293
less Total Levy .....	<u>36,000,000</u>	<u>36,000,000</u>	<u>36,300,000</u>	<u>39,000,000</u>
tax Margin .....	<u>\$ 42,655,344</u>	<u>\$ 41,392,345</u>	<u>\$ 39,202,607</u>	<u>\$ 36,381,293</u>

#### **Additional Tax Information**

Real property located in the City is assessed by the City. The City completed a citywide revaluation during 2003.

Veterans and senior citizens' exemptions are offered to those who qualify.

The estimated total annual property tax bill of a \$100,000 market value residential property located in the City is approximately \$3,818 including City, Library and School District taxes.

The City assessment roll, based on the number of parcels, is estimated to be constituted as follows: 82.1% residential and 17.9% commercial.

**APPENDIX D**  
**CERTAIN DEFINITIONS**

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## APPENDIX D

### CERTAIN DEFINITIONS

The following are definitions of certain capitalized terms used in the body of this Official Statement, in this Appendix D and in Appendix E. Other capitalized terms used in this Official Statement are defined or in the body or other Appendices.

“Account” shall mean, depending on the context, any of the special accounts created and established pursuant to either the First General Resolution, the Second General Resolution or the Financing Agreement.

“Accountant” shall mean an independent certified public accountant (or a firm thereof) of recognized standing, selected by the Authority.

“Acquisition Agreement” shall mean the Acquisition Agreement dated as of October 1, 1987, by and between the City and the Board with respect to the acquisition by the Board of the System, as the same may be from time to time hereafter amended or supplemented in accordance with the provisions thereof and of the First General Resolution.

“Acquisition Date” shall mean the date of the conveyance of the System by the City to the Board pursuant to the Acquisition Agreement.

“Act” shall mean, collectively, the Authority Act and the Board Act.

“Actual Rebate Amount” shall have the meaning set forth in Section 510(A).

“Adjusted Aggregate Debt Service” for any Fiscal Year shall mean, as of any date of calculation, (A) with respect to the Bonds, the sum of (1) the aggregate of the Adjusted Debt Service for all Series of Bonds Outstanding during such Fiscal Year and (2) the Adjusted Debt Service with respect to all series of Priority Indebtedness Outstanding during such Fiscal Year and (B) with respect to the Priority Indebtedness, the Adjusted Debt Service with respect to all series of Priority Indebtedness Outstanding during such Fiscal Year.

“Adjusted Debt Service” for any Fiscal Year and for any Series of Bonds or, where applicable, any series of Priority Indebtedness shall mean, as of any date of calculation, the Debt Service for such Fiscal Year with respect to such Series or series of Priority Indebtedness except that, if any Refundable Principal Installment of such Series or series of Priority Indebtedness is included in Debt Service for such Fiscal Year, Adjusted Debt Service shall mean Debt Service determined as if such Refundable Principal Installment had been payable over a period extending from the due date of such Refundable Principal Installment through the last date on which such Series or series of Priority Indebtedness could have been stated to mature under the Act as in effect on the date of issuance of such Series or series of Priority Indebtedness, in installments which would require equal annual payments of Principal Installments and interest over such period. Interest deemed payable in any Fiscal Year after the actual due date of any Refundable Principal Installment of any Series or series of Priority Indebtedness shall be calculated at the actual interest cost on all Bonds of such Series or series of Priority Indebtedness (using the actuarial method of calculation).

“Aggregate Debt Service” shall mean for any Fiscal Year, as of any date of calculation, (A) with respect to the Bonds, the sum of (1) the aggregate of the Debt Service for all Bonds Outstanding during such Fiscal Year and (2) the Aggregate Debt Service with respect to the Priority Indebtedness during such

Fiscal Year and (B) with respect to the Priority Indebtedness, the sum of the Debt Service for all Priority Indebtedness Outstanding during such Fiscal Year.

“Annual Budget” shall mean the annual budget of the Board, as amended or supplemented, adopted or in effect for a particular Fiscal Year, as provided in Section 6.4 of the Financing Agreement.

“Authority” shall mean the Albany Municipal Water Finance Authority, a body corporate and politic constituting a public benefit corporation of the State, created and existing under and by virtue of the provisions of the Authority Act.

“Authority Act” shall mean the Albany Municipal Water Finance Authority Act, constituting Title 6 of Article 5 of the Public Authorities Law of the State, as amended from time to time.

“Authority Budget” shall have the meaning ascribed to such term in (A) the First General Resolution for so long as any Priority Indebtedness is Outstanding, and (B) the Second General Resolution, thereafter.

“Authority Expense Fund” shall mean, when issued with respect to the Priority Indebtedness, the Authority Expense Fund established pursuant to the First General Resolution and, when used with respect to the Bonds, the Second Resolution Authority Expense Fund established pursuant to the Second General Resolution.

“Authority Expenses” shall mean all reasonable or necessary current expenses of the Authority (other than Debt Service), including, but not limited to all salaries, administrative, general, commercial, engineering, advertising, auditing and legal expenses, insurance and surety bond premiums, fees paid to banks, insurance companies or other financial institutions for the issuance of Credit Facilities or Interest Rate Exchange Agreements, consultants’ fees and charges, payments to pension, retirement, health and hospitalization funds, posts of public hearings and public notices, ordinary and current rentals of equipment and other property, lease payments for real property or interests therein, expenses, liabilities and compensation of any Fiduciary, and all other expenses necessary, incidental or convenient for the efficient operation of the Authority.

“Authorized Representative” shall mean (A) in the case of both the Authority and the Board, their respective Chairpersons, or such other person or persons so designated by resolution or the by-laws of the Authority or the Board, as the case may be, to perform the act or sign the document in question and (B) in the case of the City, the Mayor or, if under the charter of the City the powers and duties of the Mayor have devolved upon the President of the Common Council of the City, the President of the Common Council of the City shall perform the act or sign the document in question.

“Banking Depository” shall mean any bank or trust company selected by the Board or the Authority, as the case may be, as a Banking Depository of moneys to be held under the provisions of the Financing Agreement, the First General Resolution or the Second General Resolution, and may include the Trustee.

“Board” shall mean the Albany Water Board, a body corporate and politic constituting a corporate municipal instrumentality of the State created and existing under and by virtue of the Board Act.

“Board Act” shall mean the Albany Water Board Act, constituting Title 6-A of Article 5 of the Public Authorities Law of the State, as amended from time to time.

"Board Expense Account" shall mean the Albany Water Board Expense Account established by, and held in the custody of, the Board pursuant to Section 4.2(A)(1) of the Financing Agreement.

"Board Expenses" shall mean all reasonable or necessary expenses of the Board, including, but not limited to, all salaries, administrative, general, commercial, engineering, advertising, auditing, accounting and legal expenses, insurance and surety bond premiums, consultants fees and charges, payment to pension, retirement, health and hospitalization funds, costs of public hearings and public notices, ordinary and current rentals of equipment and other property, lease payments for real property or interests therein, expenses, liabilities and compensation of any depositary of funds of the Board, and all other expenses necessary, incidental or convenient for the efficient operation of the Board; provided, however, that in the event the Board shall operate the System, Board Expenses shall not include Operating Expenses.

"Bond" or "Bonds" shall mean any bonds, notes or other evidences of indebtedness, as the case may be, authenticated and delivered pursuant to the Second General Resolution or any Supplemental Resolution thereunder and shall also mean any Parity Bond Anticipation Note and any Parity Reimbursement Obligation issued under the Second General Resolution, but shall not mean Subordinated Indebtedness or other Bond Anticipation Notes issued under the Second General Resolution or Priority Indebtedness.

"Bond Anticipation Note" shall mean, depending on the context, any note issued pursuant to the First General Resolution in anticipation of the issuance of Priority Indebtedness or any note issued pursuant to the Second General Resolution in anticipation of the issuance of Bonds.

"Bond Counsel" shall mean Hiscock & Barclay, LLP of Albany, New York, or, if such firm, or a successor thereto, is no longer in existence, any other attorney or firm of attorneys of nationally recognized standing in the field of law relating to revenue bonds of municipalities and public agencies, selected by the Authority.

"Bondholder", "owner", "holder" or words of similar import shall mean, when used with reference to a Bond or, where applicable, in reference to an obligation constituting Priority Indebtedness, the person in whose name such Bond or obligation constituting Priority Indebtedness is registered.

"Bond Payment Date" shall mean each date on which interest or both a Principal Installment and interest shall be due and payable on any of the Outstanding Bonds or Priority Indebtedness according to their respective terms.

"Bond Series Certificate" shall mean the certificate of an Authorized Representative of the Authority fixing terms, conditions and other details of Bonds in accordance with the delegation of power to do so under the Second General Resolution or under a Supplemental Resolution.

"Capitalized Interest" shall mean, for any particular Series of Bonds or series of Priority Indebtedness, that portion of the proceeds of such Series or series, if any, required by the respective Supplemental Resolution authorizing such Series or series to be deposited in a sub-account established for such Series or series in the Capitalized Interest Account in the applicable Debt Service Fund, for the purpose of funding the payment of a portion of the interest on the Bonds of such Series or, where applicable, Priority Indebtedness of a given series.

"Capitalized Interest Account" shall mean, as the context indicates, either (A) the First General Resolution Capitalized Interest Account established in the Debt Service Fund pursuant to Section 502(C)

of the First General Resolution, or (B) the Second Resolution Capitalized Interest Account established in the Debt Service Fund pursuant to Section 502(C) of the Second General Resolution.

“Certificate” shall mean, as the context indicates, either (A) a signed document attesting to or acknowledging the matters stated in the First General Resolution or the Second General Resolution or setting forth matters to be determined pursuant to the First General Resolution, the Second General Resolution or the Financing Agreement, (B) the report of an Accountant as to any matter called for by the First General Resolution, the Second General Resolution or the Financing Agreement, or (C) any report of the Consulting Engineer or Rate Consultant as to any matter called for by the First General Resolution, the Second General Resolution or the Financing Agreement.

“City” shall mean the City of Albany, a municipal corporation of the State.

“Code” shall mean the Internal Revenue Code of 1986, as amended, and the applicable regulations promulgated by the United States Department of the Treasury thereunder, including any applicable regulations promulgated under the Internal Revenue Code of 1954, as amended.

“Common Account” shall mean, as the context requires, either (A) the Common Account established in the Debt Service Reserve Fund established under the First General Resolution, or (B) the Second Resolution Common Account established in the Debt Service Reserve Fund established under the Second General Resolution.

“Construction” shall have the meaning assigned such term in subsection 8 of Section 1115-a of the Act.

“Construction Fund” shall mean, as the context requires, the Construction Fund established pursuant to the First General Resolution or the Second Resolution Construction Fund established pursuant to the Second General Resolution.

“Consulting Engineer” shall mean such independent engineer or firm of engineers of recognized standing selected by the Board in consultation with the City and the Authority, and may include an independent engineer or firm of engineers retained by the City in one or more other capacities.

“Cost” or “Cost of a Project” shall mean all costs of Construction, including, without limitation, the acquisition, erection, building, alteration, improvement, increase, enlargement, extension, reconstruction, renovation or rehabilitation of the System or a Project or any portion of either, the inspection and supervision thereof, the engineering, architectural, legal, fiscal, economic and environmental investigations and studies, surveys, designs, plans, working drawings, specifications, procedures and other actions incidental thereto; the cost of the acquisition of all Property; the cost of demolishing, removing or relocating any buildings or structures on lands so acquired, including the cost of acquiring any lands to which such buildings or structures may be moved or relocated; the cost of all systems, facilities, machinery, apparatus and equipment, financing charges, interest prior to, during and after Construction to the extent not paid or provided for from Revenues or other sources; the cost of engineering and architectural surveys, plans and specifications; the cost of consultants’ and legal services; the cost of lease guarantee or bond insurance; other expenses necessary, reasonably related or incidental to the Construction of such Project and the financing of the Construction thereof, including the cost of Credit Facilities and Interest Rate Exchange Agreements, the amounts authorized in the First General Resolution or any Supplemental Resolution or the Second General Resolution to be paid into any reserve or other special fund from the proceeds of Bonds and Priority Indebtedness and the financing of the placing of any Project in operation, including reimbursement to any municipality, state agency, the State,

the United States of America or any other person for expenditures that would be costs of such Project hereunder and all claims arising from any of the foregoing.

“Costs of Issuance” shall mean all items of expense, directly or indirectly payable or reimbursable and related to the authorization, sale and issuance of Bonds or, where applicable, Priority Indebtedness, including but not limited to printing costs, costs of preparation and reproduction of documents, filing and recording fees, initial fees and charges of any Fiduciary, legal fees and charges, fees and disbursements of consultants and professionals, costs of credit ratings, fees and charges for preparation, execution, transportation and safekeeping of Bonds or, where applicable, Priority Indebtedness, costs and expenses of refunding, premiums, commitment fees or similar charges for any Credit Facility relating to the Bonds or, where applicable, Priority Indebtedness or any Interest Rate Exchange Agreement and any other cost, charge or fee in connection with the original issuance of Bonds or, where applicable, Priority Indebtedness.

“Counterparty” shall mean any person with which the Authority or the Board has entered into an Interest Rate Exchange Agreement, provided that, at the time the Interest Rate Exchange Agreement is executed, the senior or uncollateralized long-term debt obligations of such person, or of any person that has guaranteed for the term of the Interest Rate Exchange Agreement the obligations of such person thereunder, are rated, without regard to qualification of such rating by symbols such as “+” or “-” and numerical notation, not lower than in the third highest rating category by each Rating Agency.

“Credit Facility” shall mean a letter of credit, revolving credit agreement, standby purchase agreement, surety bond, insurance policy or similar obligation, arrangement or instrument issued by a bank, insurance company or other financial institution which provides for payment of all or a portion of the Principal Installments or interest due on any Series of Bonds (or, where applicable, any series of Priority Indebtedness) or provides funds for the purchase of such Bonds (or, where applicable, Priority Indebtedness) or portions thereof.

“Debt Service” for any Fiscal Year or part thereof shall mean, as of any date of calculation and (A) with respect to any Series, an amount equal to the sum of (1) interest payable during such Fiscal Year or part thereof on Bonds of such Series (including interest on Parity Bond Anticipation Notes), less amounts on deposit in the Capitalized Interest Account in the Debt Service Fund with respect to such Series of Bonds and (2) the Principal Installments of the Bonds of such Series payable during such Fiscal Year or part thereof and (B) with respect to any series of Priority Indebtedness, an amount equal to the sum of (1) interest payable during such Fiscal Year or part thereof on Priority Indebtedness of such series, less amounts on deposit in the Capitalized Interest Account in the Debt Service Fund with respect to such series of Priority Indebtedness, and (2) the Principal Installments of the Priority Indebtedness of such series payable during such Fiscal Year or part thereof. Such interest and Principal Installments for such Series or series shall be calculated on the assumption that (a) no Bonds of such Series Outstanding (or Priority Indebtedness of a given series) at the date of calculation will cease to be Outstanding except by reason of the payment thereof upon stated maturity or upon mandatory redemption by application of Sinking Fund Installments and (b) Variable Rate Bonds will bear interest at the greater of (i) the rate or rates which were assumed by the Authority in the Authority Budget for such Fiscal Year to be borne by Variable Rate Bonds during such Fiscal Year or (ii) the actual rate or rates borne by such Variable Rate Bonds on such date of calculation.

“Debt Service Fund” shall mean (A) when used with respect to the Bonds, the Second Resolution Debt Service Fund created under the Second General Resolution and (B) when used with respect to the Priority Indebtedness, the Debt Service Fund created under the First General Resolution.

“Debt Service Reserve Fund” shall mean, when used with respect to the Priority Indebtedness, the Debt Service Reserve Fund, and the Accounts therein established pursuant to the First General Resolution and, when issued with respect to the Bonds, the Second Resolution Debt Service Reserve Fund, and the Accounts therein established pursuant to the Second General Resolution.

“Debt Service Reserve Requirement” shall mean, as of any date of calculation, and for any Fiscal Year, the amount equal to the sum of the Debt Service Reserve Requirements for each Series of Bonds, or where applicable, series of Priority Indebtedness at the time then Outstanding. The Debt Service Reserve Requirement for any Series of Bonds shall be the lesser of: (A) the maximum Adjusted Aggregate Debt Service in the current or any future Fiscal Year on such Series of Bonds, or (B) an amount equal to ten percent (10%) of the net proceeds of the sale of the Bonds of such Series, or (C) an amount equal to 125% of the average of the principal, whether at maturity or on mandatory redemption, and interest becoming due in any one Fiscal Year on the Bonds of such Series, or (D) for each Series of Bonds the interest on which, in the opinion of Bond Counsel at the time of the issuance of such Series, is not includable in gross income of the holders thereof for federal income tax purposes, the maximum amount of the proceeds of such Series which, in the opinion of Bond Counsel, can be deposited in the Debt Service Reserve Fund under the Code without having an adverse effect on the exclusion of interest on such Series of Bonds from gross income for federal income tax purposes; provided, however, that, if (1) the payment of the Principal Installments of or interest on any Series of Bonds or portion thereof is secured by a Special Credit Facility or (2) the payment of the Tender Option Price of any Option Bond of a Series is secured by a Special Credit Facility, the Supplemental Resolution authorizing such Series may provide that the Debt Service Reserve Requirement for the Bonds so secured be an amount specified therein, but not in excess of the amounts described in clause (A) through (D) above. (The Debt Service Reserve Requirement for any series of Priority Indebtedness is the lesser of: (a) the maximum Adjusted Aggregate Debt Service in the current or any future Fiscal Year on such series of Priority Indebtedness, or (b) for each series of Priority Indebtedness the interest on which, in the opinion of Bond Counsel at the time of the issuance of such series, is not includable in gross income of the holders thereof for federal income tax purposes, the maximum amount of the proceeds of such series which, in the opinion of Bond Counsel, can be deposited in the Debt Service Reserve Fund under the Code without having an adverse effect on the exclusion of interest on such series of Priority Indebtedness from gross income for federal income tax purposes.) For the purpose of calculating the Debt Service Reserve Requirement for any Series of Variable Rate Bonds, the maximum Adjusted Debt Service on such Series shall be determined by reference to the Pro Forma Bond Issue for such Series set forth in the Supplemental Resolution authorizing such Series. Notwithstanding the limitation contained in clause (D), a Supplemental Resolution for a Series of Bonds may establish a Debt Service Reserve Requirement greater than the amount determined pursuant to clause (D) hereof so long as the amount deposited from proceeds of Bonds does not exceed the amount determined pursuant to clause (D).

“Defeasance Obligations” shall mean and include any of the following securities:

(A) direct obligations of the United States of America (including obligations issued or held in book-entry form on the books of the Department of Treasury, and CATS and TIGRS) or obligations the principal of and interest on which are unconditionally guaranteed by the United State of America;

(B) bonds, debentures, notes or other evidence of indebtedness issued by any of the following federal agencies and provided such obligations are backed by the full faith and credit of the United States of America (stripped securities being permitted only if they have been stripped by the agency itself): US Export Import Bank (a/k/a Eximbank) (direct obligations or fully guaranteed certificates or beneficial ownership); Farmers Home Administration (a/k/a FMHA) (certificates of beneficial ownership); Federal Financing Bank; General Services Administration

(participation certificates); US Maritime Administration (guaranteed Title XI financing); US Department of Housing and Urban Development (a/k/a HUD) (project notes, local authority bonds, US Government-guaranteed new communities debentures, US Government guaranteed public housing notes and bonds); and

(C) Pre-refunded municipal bonds rated "Aaa" by Moody's Investors Service Inc. and "AAA" by Standard & Poor's Rating Services or by Standard & Poor's Rating Services alone if the pre-refunded bonds have been pre-refunded with cash, direct U.S. or U.S. guaranteed obligations, or AAA rated pre-refunded municipals.

"Depository" shall mean The Depository Trust Company, New York, New York, a limited purpose trust company organized under the laws of the State, or its nominee, or any other person, firm, association or corporation designated in the Supplemental Resolution authorizing a Series of Bonds to serve as securities depository for the Bonds of such Series.

"Disbursement Request" shall mean the written request signed by an Authorized Representative of the Authority and required to be delivered to the Trustee pursuant to the First General Resolution or the Second General Resolution, as the case may be, to effect disbursements from the Construction Fund, in substantially the form set forth in the First General Resolution or the Second General Resolution, as the case may be.

"Event of Default" shall mean, as required by the context, any event specified in Article X of the First General Resolution or Article X of the Second General Resolution.

"Fiduciary" shall mean the Trustee or any Paying Agent or any Banking Depository.

"Financial Guaranty" shall mean one or more of the following: (A) an irrevocable, unconditional and unexpired letter of credit issued by a banking institution the senior long-term debt obligations of which (or of the holding company of any such banking institution) have (at the time of issuance of such letter of credit) a rating of Aa or better by Moody's Investors Service Inc. and AA or better by Standard & Poor's Rating Services or Fitch, Inc.; or (B) an irrevocable and unconditional policy of insurance in full force and effect issued by a municipal bond insurer the obligations insured by which are eligible for a rating of Aa or better by Moody's Investors Service Inc. and AA or better by Standard & Poor's Rating Services (at the time of issuance of such policy); in each case providing for the payment of sums for the payment of Principal Installments of and interest on Bonds in the manner provided in Section 508 of the Second General Resolution (or, as applicable, on Priority Indebtedness in the manner provided in Section 508 of the First General Resolution); and providing further that any such Financial Guaranty must be drawn upon, on a date which is at least thirty (30) days prior to the expiration date of such Financial Guaranty, in an amount equal to the deficiency which would exist if the Financial Guaranty expired, unless a substitute Financial Guaranty is acquired prior to such expiration date as provided in a related Supplemental Resolution.

"Financing Agreement" shall mean the Financing Agreement, dated as of October 1, 1987, as amended June 20, 2003, entered into pursuant to Section 1115-h of the Act, by and among the City, the Authority and the Board, as the same may be from time to time hereafter amended or supplemented in accordance with the provisions thereof and of the First General Resolution and the Second General Resolution.

"First General Resolution" shall mean the Water and Sewer System General Revenue Bond Resolution adopted by the Authority January 22, 1988, as the same may be amended or supplemented

from time to time by one or more Supplemental Resolutions (other than the Second General Resolution and all resolutions supplemental thereto).

“First General Resolution Revenue Fund” shall mean the Revenue Fund established pursuant to the First General Resolution.

“Fiscal Year” shall mean the twelve-month period commencing on January 1 of each year; provided, however, that the Authority, the Board and the City may, from time to time, mutually agree on a different twelve-month period as the Fiscal Year, in which case January 1, when used herein with reference to a Fiscal Year, shall be construed to mean the first day of the first calendar month of such different Fiscal Year.

“Fund” shall mean, as the context requires, any fund established pursuant to the First General Resolution or the Second General Resolution.

“General Account” shall mean the Albany Water Board Water and Sewer System General Account established by, and held in the custody of, the Board pursuant to Section 4.2(A)(5) of the Financing Agreement.

“Interest Rate Exchange Agreement” shall mean an agreement entered into by the Authority or the Board in connection with the issuance of or which relates to Bonds of one or more Series which (i) provides that during the term of such agreement the Authority or the Board is to pay to the Counterparty an amount based on the interest accruing at a fixed or variable rate per annum on an amount equal to a principal amount of such Bonds and that the Counterparty is to pay to the Authority an amount based on the interest accruing on a principal amount equal to the same principal amount of such Bonds at a fixed or variable rate per annum, in each case computed according to a formula set forth in such agreement, or that one shall pay to the other any net amount due under such agreement and (ii) in the opinion of Bond Counsel will not adversely affect the exclusion of interest on Bonds from gross income for the purposes of federal income taxation.

“Investment Securities” shall mean and include any of the following securities, if and to the extent the same are at the time legal investments by the Authority of the funds to be invested therein and conform to the policies set forth in any investment guidelines adopted by the Authority and in effect at the time of the making of such investment:

(A) direct obligations of the United States of America (including obligations issued or held in book-entry form on the books of the Department of Treasury, and CATS and TIGRS) or obligations the principal of and interest on which are unconditionally guaranteed by the United States of America;

(B) bonds, debentures, notes or other evidence of indebtedness issued by any of the following federal agencies and provided such obligations are backed by the full faith and credit of the United States of America (stripped securities being permitted only if they have been stripped by the agency itself): US Export Import Bank (a/k/a Eximbank) (direct obligations or fully guaranteed certificates or beneficial ownership); Farmers Home Administration (a/k/a FMHA) (certificates of beneficial ownership); Federal Financing Bank; Federal Housing Administration (a/k/a FHA) (debentures); General Services Administration (participation certificates); Government National Mortgage Association (guaranteed mortgage-backed bonds and guaranteed pass-through obligations); US Maritime Administration (guaranteed Title XI financing); US Department of Housing and Urban Development (a/k/a HUD) (project notes, local authority

bonds, US Government-guaranteed new communities debentures, US Government guaranteed public housing notes and bonds);

(C) bonds, debentures, notes or other evidence of indebtedness issued or guaranteed by any of the following non-full faith and credit US government agencies (stripped securities being permitted only if they have been stripped by the agency itself): Federal Home Loan Bank System (senior debt obligations); Federal Home Loan Mortgage Corporation (a/k/a FHLMC or "Freddie Mac") (participation certificates and senior debt obligations); Federal National Mortgage Association (a/k/a FNMA or "Fannie Mae") (mortgage-backed securities and senior debt obligations); Student Loan Marketing Association (a/k/a SLMA or "Sallie Mae") (senior debt obligations); Resolution Funding Corp. (a/k/a REFCORP) (obligations); Farm Credit System (consolidated systemwide bonds and notes);

(D) Money market funds registered under the Federal Investment Company Act of 1940, whose shares are registered under the Federal Securities Act of 1933, and having a rating by Standard & Poor's Rating Services of AAA-m-G, AAA-m, or AA-m, and if rated by Moody's Investors Service Inc. rated Aaa, Aa1 or Aa2;

(E) Certificates of deposit secured at all times by collateral described in (A) or (B) above. Such certificates must be issued by commercial banks, savings and loan association or mutual savings banks. The collateral must be held by a third party and the bondholders must have a perfected first security interest in the collateral;

(F) Certificates of deposit, savings accounts or deposit accounts which are fully insured by FDIC, including BIF and SAIF;

(G) Commercial paper rated, at the time of purchase of "Prime - 1" by Moody's Investors Service Inc. and "A-1" or better by Standard & Poor's Rating Services;

(H) Direct obligations of the State, any other state of the United States of America, or any municipality thereof, provided such obligations are rated in one of the two highest rating categories by Moody's Investors Service Inc. and Standard & Poor's Rating Services;

(I) Federal funds or bankers acceptances with a maximum term of one year of any bank which has an unsecured, uninsured and unguaranteed obligation rating of "Prime - 1" or "A3" or better by Moody's Investors Service Inc. and "A-1" or "A" or better by Standard & Poor's Rating Services;

(J) Repurchase Agreements ("repos") for 30 days or less which meet the following criteria:

(1) Repos must be between the Authority or the Trustee and either a primary dealer on the Federal Reserve reporting dealer list which is rated "A" or above by Standard & Poor's Corporation and Moody's Investor Services Inc., or a bank rated "A" or above by Standard & Poor's Corporation and Moody's Investor Services Inc.

(2) The written repo contract must provide for the following: (a) securities which are acceptable for transfer are securities described in (A) or (B) above, as well as FNMA and FHLMC securities described in (C) above; (b) the term of the repo may not exceed 30 days; (c) the collateral must be delivered to the Authority, the Trustee (if the Trustee is not supplying the collateral) or a third party acting as agent for the Trustee (if

the Trustee is supplying the collateral) before or simultaneous with payment (perfection by possession of certificated securities); (d) the securities must be valued weekly and marked-to-market at a current market price plus accrued interest. The value of collateral must be equal to 104% of the amount of cash transferred by the Authority or the Trustee to the primary dealer or bank under the repo plus accrued interest. If the value of securities held as collateral falls below 104% of the value of the cash transferred by the Authority or the Trustee, then additional cash and/or acceptable securities must be transferred to restore the 104% level. If, however, the securities used as collateral are FNMA or FHLMC securities described in (C) above, then the value of the collateral must be equal to 105% of the value of the cash transferred by the Authority or the Trustee, with required restoration to that level if values fall.

(3) A legal opinion which must be delivered to the Authority to the effect that the repo meets guidelines under state law, including the Act, and under the Resolution for investment by the Authority or the Trustee on behalf of the Authority.

“Local Water Fund” shall mean the special fund by that name established by subsection 2 of Section 1115-i of the Act in the custody of the Board.

“Mayor” shall mean the Mayor of the City or, in the case of actions taken pursuant to the Financing Agreement, such other person duly appointed and authorized to act on behalf of the Mayor.

“Minimum Monthly Balance” shall mean the monthly amount calculated in accordance with Section 4.3 of the Financing Agreement.

“Mortgage” shall mean the mortgage dated as of June 1, 2003, whereby the Board grants the Authority and the Trustee a mortgage lien on and security interest in the System as additional security for the Bonds, as the same may be supplemented or amended from time to time.

“Ongoing Project Account” shall mean the Albany Water Board Ongoing Project Account established by, and held in the custody of, the Board pursuant to Section 4.2(A)(4) of the Financing Agreement.

“Operating Expenses” shall mean all reasonable or necessary current expenses of operating, maintaining, repairing, and managing the System, including all salaries, administrative, general, commercial, architectural, engineering, advertising, public notices, auditing, billing, collection and enforcement and legal expenses, insurance and surety bond premiums, consultants fees and charges, payments to pension, retirement, health and hospitalization funds, any taxes or assessments which may lawfully be imposed on the System or the income or operation thereof, payments to any taxing jurisdiction (other than the City) in lieu of taxes, costs of public hearings, ordinary and current rentals of equipment or other property, hydrant rentals, lease payments for real property or interest therein, usual expenses of maintenance and repair (including replacements), expenses, liabilities and compensation of the Banking Depository or any other depositary of Board funds, reasonable reserves for maintenance and repair and all other expenses necessary, incidental or convenient for the efficient operation of the System, but only to the extent properly attributable to the Board or the System; including but not limited to those costs incurred by and payable to the City as Operating Expenses under the Operation Agreement.

“Operating Revenues” means that portion of the Revenues described in clause (A) of the definition of Revenue, less all amounts excluded therefrom by clauses (1), (2) and (4) of such definition.

**“Operation Account”** shall mean the Albany Water Board Operation Account established by, and held in the custody of, the Board pursuant to Section 4.2(A)(2) of the Financing Agreement.

**“Operation Agreement”** means the Operation Agreement, dated as of October 1, 1987, by and between the City and the Board providing for the operation and maintenance of the System by the City, as the same may be from time to time hereafter amended or supplemented in accordance with the provisions of the Operation Agreement, the First General Resolution and the Second General Resolution.

**“Operation and Maintenance Reserve Account”** shall mean the Albany Water Board Operation and Maintenance Reserve Account established by, and held in the custody of, the Board pursuant to Section 4.2(A)(3) of the Financing Agreement.

**“Option Bonds”** shall mean Bonds (or, where applicable, Priority Indebtedness) which by their terms may be tendered by and at the option of the owner thereof for purchase or payment by the Authority prior to the stated maturity thereof, or the maturities of which may be extended by and at the option of the owner thereof.

**“Outstanding”** when used with reference to Bonds or Priority Indebtedness, where applicable, shall mean, as of any date, all Bonds or Priority Indebtedness theretofore or thereupon being authenticated and delivered under the First General Resolution or the Second General Resolution, as the case may be, except:

(A) any Bonds or obligations constituting Priority Indebtedness cancelled or deemed cancelled by the Trustee at or prior to such date;

(B) any Bond or obligation constituting Priority Indebtedness (or portion thereof) for the payment or redemption of which there shall be set aside and held in trust hereunder either:

(1) moneys in an amount sufficient to pay when due the Principal Installments or Redemption Price thereof, together with all accrued interest,

(2) Defeasance Obligations in such principal amounts, of such maturities, bearing such interest and otherwise having such terms and qualifications, as are necessary to provide moneys (whether as principal or interest) in an amount sufficient to pay when due the Principal Installments or Redemption Price thereof, together with all accrued interest, or

(3) any combination of (1) and (2) above,

and, if such Bond or obligation constituting Priority Indebtedness or portion thereof is to be redeemed, for which notice of redemption has been given as provided in Article VI of the First General Resolution or Article VI of the Second General Resolution, or the applicable Supplemental Resolution, or provision satisfactory to the Trustee has been made for the giving of such notice;

(C) any Bond or obligation constituting Priority Indebtedness in lieu of or in substitution for which other Bonds or Priority Indebtedness, as the case may be, have been authenticated and delivered; and

(D) any Bond or obligation constituting Priority Indebtedness deemed to have been paid as provided in the Second General Resolution or the First General Resolution, as the case maybe.

“Parity Bond Anticipation Note” shall mean any Bond Anticipation Note the interest on which is payable from and secured by a pledge of the Revenues on a parity with, depending on the context, all other Bonds or other Priority Indebtedness.

“Parity Reimbursement Obligation” shall mean (A) a Reimbursement Obligation or (B) a payment by the Authority to a Counterparty under an Interest Rate Exchange Agreement, the payment of which in either case is secured by a pledge of, and a lien on, Revenues on a parity with the lien created by Section 501 of the Second General Resolution or Section 501 of the First General Resolution, as the case may be.

“Paying Agent” shall mean, as required by the context, any paying agent for the Bonds of any Series or Priority Indebtedness of any series, and its successors or successors and any other person which may at any time be substituted in its place pursuant to the First General Resolution, the Second General Resolution or any Supplemental Resolution.

“Permitted Encumbrances” when used with reference to the System, shall mean (A) any and all liens, encumbrances, security interests or other defects in or clouds on title which may exist on the Acquisition Date, (B) utility, access and other easements, rights of way and exceptions which do not materially impair the operation or maintenance of the System or the Revenues therefrom, (C) mechanics’, materialmen’s, warehousemen’s, carriers’ and other similar liens, to the extent permitted by law, and liens for taxes at the time not delinquent or being contested, (D) the Mortgage, (E) any other lien or security interest which the Board grants with the written consent of the City and the Authority, and (F) agreements for the sale and leaseback of elements of the System.

“Principal Installment” shall mean, as of any date of calculation and with respect to any Series or series of Priority Indebtedness, so long as any Bonds of such Series or Priority Indebtedness of such series are Outstanding, (A) the principal amount of Bonds or Priority Indebtedness (including [1] any amount designated in, or determined pursuant to, the applicable Supplemental Resolution, as the “principal amount” with respect to any Bonds or Priority Indebtedness which do not pay full current interest for all or any part of their term, [2] the Tender Option Price of any Option Bonds which may be tendered to the Authority for purchase or payment prior to the stated maturity thereof in accordance with the terms of the Supplemental Resolution authorizing such Option Bonds, unless such amount is secured by a Credit Facility which is not in default and [3] the principal amount of any Parity Reimbursement Obligation) of such Series or series due (or required to be so tendered for purchase or payment) on a certain future date for which no Sinking Fund Installments have been established, or (B) the unsatisfied balance of any Sinking Fund Installments due on a certain future date for Bonds of such Series or for Priority Indebtedness of a given series, or (C) if such future dates coincide as to different Bonds of such Series or for Priority Indebtedness of a given series, the sum of such principal amount of Bonds or Priority Indebtedness, as the case may be, and of such unsatisfied balance of Sinking Fund Installments due on such future date; provided, however, that Principal Installment shall not include the principal of Parity Bond Anticipation Notes.

“Priority Indebtedness” shall mean all bonds, notes and other evidences of indebtedness authenticated and delivered under the First General Resolution that constitute “Bonds” (as defined in the First General Resolution) and therefore entitled to priority status under the First General Resolution.

“Pro Forma Bond Issue” shall mean, when used with reference to the Debt Service Reserve Requirement for a Series of Variable Rate Bonds, the hypothetical fixed rate long term bond issue set forth in the Supplemental Resolution authorizing such Series, having (A) the same maturities (and sinking fund provisions, if any) as the Series of Variable Rate Bonds to which it relates and (B) such interest rate or rates as the Authority shall reasonably deem to be the equivalent of the rates which would have been borne by such Series of Variable Rate Bonds if such Series had been issued as a Series of Fixed Rate Bonds.

“Project” shall have the meaning assigned such term in subsection 15 of Section 1115-a of the Act, including any water facility, sewerage facility or water and sewerage facility as described in the Act and constituting a part of the System.

“Projected Debt Service” for any Fiscal Year or part thereof shall mean, as of any date of calculation and with respect to any Projected Series of Bonds (and, if applicable, Priority Indebtedness), an amount, set forth by the Authority in the Authority Budget as provided in Section 6.4 of the Financing Agreement, equal to the Debt Service estimated by the Authority to be payable during such Fiscal Year or part thereof on such Projected Series.

“Projected Series of Bonds” or “Projected Series” shall mean any Series of Bonds described in an Authority Budget as anticipated to be issued in the Fiscal Year to which such Authority Budget relates.

“Property” shall mean any interest in any kind of property or asset, whether real, personal or mixed, tangible or intangible.

“Rate Consultant” shall mean such independent accountant or firm of independent accountants, or management consultant or firm of management consultants, or independent engineer or firm of independent engineers (which may be the firm then serving as the Consulting Engineer), selected by the Board in consultation with the City and the Authority.

“Rating Agency” shall mean Moody’s Investors Service Inc., Standard & Poor’s Rating Services and Fitch, Inc., and their respective successors and assigns.

“Rebate Amount” shall mean amounts required to be deposited to the Rebate Fund under the First General Resolution or the Second General Resolution for payment as arbitrage rebate to the United States under the Code.

“Rebate Fund” shall mean, when used with respect to the Priority Indebtedness, the Rebate Fund created pursuant to the First General Resolution, and, when used with respect to the Bonds, the Second Resolution Rebate Fund created pursuant to the Second General Resolution.

“Record Date” shall mean, unless otherwise determined by a Supplemental Resolution for a particular Series of Bonds or series of Priority Indebtedness, the fifteenth day of the calendar month next preceding the calendar month in which a Bond Payment Date occurs.

“Redemption Price” shall mean, when used with respect to a Bond or portion thereof or any Priority Indebtedness or portion thereof, the principal amount thereof plus the applicable premium, if any, payable upon redemption thereof pursuant to the First General Resolution or Second General Resolution and any Supplemental Resolution relating thereto.

“Refundable Principal Installment” shall mean any Principal Installment for any Series of Bonds or, where applicable, series of Priority Indebtedness, which the Authority intends to pay with moneys

which are not Revenues, provided that such intent shall have been expressed in the Supplemental Resolution authorizing such Series of Bonds or series of Priority Indebtedness or, where applicable, Series of Priority Indebtedness and provided further that such Principal Installment shall be a Refundable Principal Installment only until the date of adoption of the Authority Budget in the Fiscal Year immediately preceding the Fiscal Year in which such Principal Installment comes due unless the Authority has delivered to the Trustee a certificate of an Authorized Representative that it has made provision for the payment of such Principal Installment from a source other than Revenues.

“Refunding Bond” shall mean any Bond authenticated and delivered on original issuance pursuant to the Second General Resolution for the purpose of refunding any Outstanding Bonds or Priority Indebtedness, or thereafter authenticated and delivered in lieu of or substitution for such Bond pursuant to the Second General Resolution and any Supplemental Resolution relating thereto.

“Reimbursement Obligation” shall mean the obligation of the Authority described in Section 209(B) of the Second General Resolution or Section 209(B) of the First General Resolution to directly reimburse the issuer of a Credit Facility for amounts paid by such issuer thereunder, whether or not such obligation to so reimburse is evidenced by a promissory note or other similar instrument.

“Required Deposits” shall mean, for any Fiscal Year, amounts, if any, payable into the Authority Expense Fund, the Debt Service Reserve Fund and the Subordinated Indebtedness Fund (including amounts required to be transferred from the Authority Expense Fund into the Rebate Fund), but only to the extent such payments are required to be made from Revenues pursuant to the First General Resolution or the Second General Resolution.

“Revenue Fund” shall mean when used with respect to the Priority Indebtedness, the Revenue Fund established pursuant to the First General Resolution and, when used with respect to the Bonds, the Second Resolution Revenue Fund established pursuant to Section 502(A)(2) of the Second General Resolution.

“Revenues” shall mean (A) all rates, rents, fees, charges, payments and other income and receipts derived by the Board from users of the System, and (B) all investment proceeds and proceeds of insurance, condemnation, sale or other disposition of the System or any part thereof received by the Board (other than the proceeds of insurance with respect to the damage or destruction of all or any portion of the System), together with all operating aid with respect to the System from any governmental entity, Federal, State or local, to the Board, but shall not include (1) amounts required to be refunded because of billing or payment errors, (2) any amount attributable to any of the foregoing sources described in clause (A) which is expressly excluded by the Financing Agreement or the Operation Agreement, (3) any amount from any governmental entity, Federal, State or local, in aid of or for or with respect to the Cost of a Project or (4) (a) fines (excluding interest on late payments which shall constitute Revenues), (b) amounts from the use of water to generate electricity, (c) amounts from the State as a result of mandatory water discharges from reservoirs or (d) any amounts from the granting of easements, licenses, rights-of-way or other interests in the real property constituting a part of the System.

“Second General Resolution” shall mean the Second Water and Sewer System General Revenue Bond Resolution adopted by the Authority on June 20, 2003, as the same may be amended or supplemented from time to time by one or more Supplemental Resolutions (as defined in such Second General Resolution).

“Series” or “Series of Bonds” shall mean all of the Bonds, as the case may be, authenticated and delivered on original issuance and identified pursuant to the Supplemental Resolution under the Second General Resolution authorizing such Bonds as a separate Series of Bonds and any Bonds thereafter

authenticated and delivered in lieu of or in substitution therefor pursuant to the Second General Resolution regardless of varieties in maturity, interest rate or other provisions.

“Sewerage System” or “Sewer System” shall have the meaning ascribed to “Sewerage System” in subsection 21 of Section 1115-a of the Act; provided, however, that for purposes of describing the Sewerage System to be operated by the City pursuant to the Operation Agreement, the term Sewerage System shall not include such portions of the Sewerage System which are owned by the Board and operated by the Albany County Sewer District.

“Sinking Fund Installment” shall mean, as of any particular date of calculation, the amount required by the First General Resolution, the Second General Resolution or a Supplemental Resolution authorizing the issuance of a Series of Bonds or series of Priority Indebtedness to be paid by the Authority on a future date for the retirement of Outstanding Bonds or Priority Indebtedness which are stated to mature subsequent to such future date, but does not include any amount payable by the Authority by reason only of the maturity of a Bond or any obligation constituting Priority Indebtedness.

“Special Account” shall mean one or more of the Special Accounts established in the Debt Service Reserve Fund by a Supplemental Resolution pursuant to either the First General Resolution or the Second General Resolution.

“Special Credit Facility” shall mean, with respect to any Series of the Bonds or portion thereof or series of Priority Indebtedness or portion thereof, a Credit Facility (A) which provides funds for (1) the direct payment of the Principal Installments of and interest on such Bonds or Priority Indebtedness when due or (2) the payment of the Principal Installments of and interest on such Bonds or Priority Indebtedness in the event amounts otherwise pledged to the payment thereof are not available when due or (3) the payment of the Tender Option Price of any Option Bond which may be tendered to the Authority for purchase or payment in accordance with the Supplemental Resolution authorizing such Option Bond (in any case, regardless of whether such Credit Facility provides funds for any other purpose) and (B) which (1) requires the Authority to directly reimburse the issuer of such Credit Facility for amounts paid thereunder and (2) provides that such obligation is a Parity Reimbursement Obligation.

“State” shall mean the State of New York.

“Subordinated Indebtedness” shall mean (A) with respect to the Priority Indebtedness and the First General Resolution, any bond, note or other evidence of indebtedness issued by the Authority under the First General Resolution and payable from the Subordinated Indebtedness Fund created under the First General Fund, including the Bonds, and (B) with respect to the Bonds and the Second General Resolution, any bond, note or other evidence of indebtedness issued by the Authority under the Second General Resolution and payable from the Subordinated Indebtedness Fund created under the Second General Resolution.

“Subordinated Indebtedness Fund” shall mean, when used with respect to the Priority Indebtedness and the First General Resolution, the Subordinated Indebtedness Fund established pursuant to the First General Resolution or, when used with respect to the Bonds and the Second General Resolution, the Second Resolution Subordinated Indebtedness Fund established pursuant to Section 502(A)(6) of the Second General Resolution.

“Supplemental Resolution” shall mean a resolution of the Authority authorizing the issuance of a Series of Bonds or Priority Indebtedness, as the case may be, or otherwise amending or supplementing the First General Resolution or the Second General Resolution, adopted at the time of or subsequent to the adoption of the First General Resolution or the Second General Resolution, as the case may be, in

accordance with Article VIII of the First General Resolution (including, except for purposes of the definition of First General Resolution while there are Bonds Outstanding, the Second General Resolution) or, as applicable, Article VIII of the Second General Resolution.

“System” or “Systems” shall mean, collectively, the Water System and the Sewerage System.

“Tender Option Price” shall mean, with respect to any Option Bond tendered for purchase or payment in accordance with the Supplemental Resolution authorizing such Option Bond, an amount equal to the principal amount of such Option Bond plus the interest accrued and unpaid thereon to the date of such tender.

“Trustee” shall mean Manufacturers and Traders Trust Company, Buffalo, New York, and its successor or successors and any other person which may at any time be substituted in its place pursuant to the First General Resolution and the Second General Resolution.

“Variable Rate Bond” shall mean, as of any date of determination, any Bond or, where applicable, any obligation constituting Priority Indebtedness, on which the interest rate borne thereby may vary during any part of its remaining term.

“Water System” shall have the meaning ascribed to such term in subsection 26 of Section 1115-a of the Act.

**APPENDIX E**

**SUMMARY OF CERTAIN PROVISIONS OF THE FINANCING AGREEMENT,  
THE FIRST GENERAL RESOLUTION, THE SECOND GENERAL RESOLUTION  
AND THE OPERATION AGREEMENT**

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## APPENDIX E

### **SUMMARY OF CERTAIN PROVISIONS OF THE FINANCING AGREEMENT, THE FIRST GENERAL RESOLUTION, THE SECOND GENERAL RESOLUTION AND THE OPERATION AGREEMENT**

The following are brief summaries of certain provisions of the Financing Agreement, the First General Resolution, the Second General Resolution and the Operation Agreement. These summaries do not purport to be complete and are subject in all respects to the provisions of, and are qualified in their entirety by reference to, the respective documents to which they relate.

#### **Summary of the Financing Agreement**

*Financing of Projects.* The Authority agrees to use its best efforts to finance all or a part of the Cost of the Projects described in Appendix A to the Financing Agreement. In consideration of the Authority's issuance of the Bonds and the Priority Indebtedness, the Board gives, grants, conveys and transfers to the Authority all of its right, title and interest in the Revenues, including without limitation, all of its rights to collect and receive said Revenues subject only to provisions of the Financing Agreement, the First General Resolution and the Second General Resolution permitting the application of said Revenues to the purposes therein set forth. (Financing Agreement Sections 2.1 and 2.4)

*Transfer of Funds.* The Authority shall deposit the proceeds of each series of Priority Indebtedness with the Trustee in accordance with the provisions of the First General Resolution and the Supplemental Resolution authorizing such series. The Authority shall deposit the proceeds of each Series of Bonds with the Trustee in accordance with the provisions of the Second General Resolution and the applicable provisions of the First Supplemental Resolution thereto authorizing such Series of Bonds. The Authority shall authorize payment of Costs incurred with respect to Projects in the manner set forth in the First General Resolution or the Second General Resolution, as the case may be, once evidence thereof is provided in a Certificate signed by an Authorized Representative of the Board. (Financing Agreement Sections 3.1 and 3.2)

*Local Water Fund.* The Board shall deposit all Revenues, as promptly as practicable after receipt, into the General Account of the Local Water Fund at the Banking Depository. There shall be deposited in the Local Water Fund all amounts received by the Board from the Trustee pursuant to the First General Resolution and the Second General Resolution. (Financing Agreement Section 4.1)

*Establishment of Certain Accounts and Application of Revenues in the Local Water Fund.* The Board shall establish the following special accounts within the Local Water Fund: the Board Expense Account, the Operation Account, the Operation and Maintenance Reserve Account, the Ongoing Project Account and the General Account. The Board shall hold such accounts as trust funds and the amounts on deposit shall only be applied for the purposes provided in the Financing Agreement and the Operation Agreement.

Beginning on the first day of each Fiscal Year and on each day thereafter, the Board is required to apply the Revenues in the General Account of the Local Water Fund, *first*, to the Trustee for deposit in the Revenue Fund until the amount on deposit in the Revenue Fund, together with the amount on deposit in the Debt Service Fund, equals the Minimum Monthly Balance for each series of obligations constituting Priority Indebtedness (or, if there are no such obligations Outstanding, Bonds) in such month and the Trustee shall have received the amounts, if any, required (by the First General Resolution so long as any Priority Indebtedness remains outstanding, and thereafter by the Second General Resolution) to be deposited in the Authority Expense Fund, the Debt Service Reserve Fund and the Subordinated

Indebtedness Fund (which, so long as any Priority Indebtedness is Outstanding, shall include all amounts required to be deposited in the Funds and Accounts created under the Second General Resolution) for such month; *second*, to the Board Expense Account, 1/12<sup>th</sup> of the Board Expenses for the then current Fiscal Year as shown in the Annual Budget; *third*, to the Operation Account, for credit against the amount due from the Board to the City for Operating Expenses for the then current Fiscal Year, 1/12<sup>th</sup> of the amount certified to the Board pursuant to the Operation Agreement; *fourth*, from the balance, if any, in the General Account after making the deposits described above, to the Operation and Maintenance Reserve Account, all such Revenues until the total of the amounts so paid equals the total amount budgeted for deposit therein in such Fiscal Year in the Annual Budget; *fifth*, from the balance, if any, in the General Account after making the deposits described above, to the Ongoing Project Account until the amount on deposit therein equals the total amount budgeted for deposit therein in such Fiscal Year in the Annual Budget; and *sixth*, the balance, if any, in the General Account after making the deposits described above, to the Operation and Maintenance Reserve Account. (Financing Agreement Section 4.2)

*Minimum Monthly Balance.* On the first day of each month, the Minimum Monthly Balance shall be calculated by the Authority for such month for each series of Outstanding obligations constituting Priority Indebtedness (or if no Priority Indebtedness is Outstanding, Bonds) and shall be an amount equal to the sum of the aggregate amounts of Debt Service that have accrued with respect to all series of Priority Indebtedness (or, if no Priority Indebtedness is Outstanding, all Series of Bonds), calculating the Debt Service that has accrued with respect to each series of Priority Indebtedness (or, if no Priority Indebtedness is Outstanding, all Series of Bonds) as an amount equal to the sum of (1) the interest on the Priority Indebtedness of such series (or, if there is no Priority Indebtedness Outstanding, the Bonds) that has accrued and is unpaid and that will have accrued by the end of the then current calendar month, reduced by the amount, if any, then on deposit in the Capitalized Interest Account in the Debt Service Fund, and (2) that portion of the next due Principal Installment for all Priority Indebtedness (or, if there is no Priority Indebtedness Outstanding, Bonds) of such series that would have accrued by the end of the then current calendar month. (Financing Agreement Section 4.3)

*Deposits to the Operation and Maintenance Reserve Account.* There shall be deposited in the Operation and Maintenance Reserve Account in each Fiscal Year from the sources described below the amount required, if any, so that the amounts on deposit therein at least equal the amount of the deposit to the Operation and Maintenance Reserve Account set forth in the Annual Budget for such Fiscal Year.

Deposits to the Operation and Maintenance Reserve Account may be made from the Local Water Fund or from any other moneys lawfully available therefor. (Financing Agreement Section 4.4)

*Application of Moneys in the Operation and Maintenance Reserve Account.* The amounts on deposit in the Operation and Maintenance Reserve Account may be used to pay the cost of extraordinary repairs and replacements of the System, and, if there are insufficient funds in the Operation Account to pay City the requisite amounts for Operating Expenses, the Board shall withdraw from the Operation and Maintenance Reserve Account and pay to the City, on demand, an amount equal to the amount required be so paid, or the entire balance in the Operation and Maintenance Reserve Account if less than sufficient.

After any payments and transfers described above are made, the amounts on deposit in the Operation and Maintenance Reserve Account may also be applied or transferred, as the case may be, by the Board in the following order of priority:

- (1) on any date that there are insufficient funds in the Board Expense Account to pay Board Expenses then due and owing, to the Board Expense Account the amount of such deficiency;

(2) to pay, when due, the amounts requested by the City to pay Costs incurred by the City for the Construction of Projects approved by the Board, but only if on such date there are insufficient funds in the Operation Account to pay such amounts so requested; and

(3) to pay, when due, the principal of and interest on bonds, notes or other obligations of the Authority (other than Priority Indebtedness, Bonds, Bond Anticipation Notes and Subordinated Indebtedness), together with all other amounts necessary to make the required deposits, if any, to the reserve and other funds and accounts established for such bonds, notes or other obligations pursuant to the resolution, trust indenture or other instrument under which such bonds, notes or other obligations were issued. (Financing Agreement Section 4.5)

*Application of Moneys in the Operation Account.* The amounts on deposit in the Operation Account shall be paid to the City for Operating Expenses in accordance with the Operation Agreement.

The amounts on deposit in the Operation Account may also be paid to the City for Costs incurred by the City for the Construction of Projects approved by the Board as provided in the Operation Agreement. (Financing Agreement Section 4.6)

*Application of Moneys in the Board Expense Account.* The amounts on deposit in the Board Expense Account shall be applied by the Board solely for the purposes of paying Board Expenses. (Financing Agreement Section 4.7)

*Application of Moneys in the Ongoing Project Account.* The amounts on deposit in the Ongoing Project Account shall be applied to ongoing Projects undertaken by the City or the Board in accordance with the Operation Agreement.

The amounts on deposit in the Ongoing Project Account may also be applied to pay the principal of and interest on bonds, notes or other obligations of the Authority (other than Priority Indebtedness, Bonds, Bond Anticipation Notes and Subordinated Indebtedness), together with all other amounts necessary to make the required deposits, if any, to the reserve and other funds and accounts established for such bonds, notes or other obligations pursuant to the resolution, trust indenture or other instrument under which such bonds, notes or other obligations were issued. (Financing Agreement Section 4.8)

*Application of Revenues After Default.* The Board has covenanted that if an "event of default" as defined in the First General Resolution (or, if there is no Priority Indebtedness Outstanding, the Second General Resolution), shall occur, the Board shall pay or cause to be paid to the Trustee, upon its request, all moneys and securities then held by the Board in the Local Water Fund and thereafter the Revenues as promptly as practicable after receipt. (Financing Agreement Section 4.9)

*Amounts Remaining.* Any amounts received or held by the Authority or the Trustee pursuant to the First General Resolution, any similar document, including the Second General Resolution, or the Financing Agreement after all Priority Indebtedness and other evidences of indebtedness, including Bonds and all Subordinated Indebtedness, have been paid in full or are no longer Outstanding and after payment of all other obligations and expenses of the Authority, or provision for payment thereof has been made, shall be paid to the City. (Financing Agreement Section 4.10)

*Rate Covenant.* The Board has covenanted and agreed to establish, fix and revise fees, rates or other charges for the use of or services furnished by the System which, together with any other available funds, are adequate to provide for: (1) the timely payment of the Principal Installments of and interest on all Priority Indebtedness and the Bonds and the principal of and interest on any other indebtedness of the Authority payable from Revenues, (2) the proper operation and maintenance of the System, (3) all other

payments required for the System not otherwise provided for, and (4) all other payments required pursuant to the Financing Agreement and the Operation Agreement. Without intending to limit the generality of the foregoing and so long as there is any Priority Indebtedness Outstanding, (i) the Board has also covenanted to establish and collect rates, fees and charges sufficient in each Fiscal Year so that Operating Revenues collected in such Fiscal Year will be at least equal to the sum of (a) 115% of estimated Aggregate Debt Service with respect to the Priority Indebtedness and Projected Debt Service payable in such Fiscal Year, (b) 100% of the Operating Expenses and Authority Expenses payable in such Fiscal Year, and (c) 100% of the amount necessary to pay the other Required Deposits for such Fiscal Year, and for so long as there are Bonds Outstanding, (ii) the Board has also covenanted to establish and collect rates, fees and charges sufficient in each Fiscal Year so that Operating Revenues collected in such Fiscal Year will be at least equal to the sum of (a) 115% of estimated Aggregate Debt Service and Projected Debt Service payable in such Fiscal Year, (b) 100% of the Operating Expenses and Authority Expenses payable in such Fiscal Year and (c) 100% of the amount necessary to pay the Required Deposits for such Fiscal Year (without double counting any amounts included under (a) above). A failure to generate Operating Revenues does not constitute an “event of default” if the Board takes timely action to correct any such deficit. Except to the extent required by law or by existing agreements, the Board will not furnish or supply any product, use or service of the System free of charge or at a nominal charge; provided, however, there shall be no charges for any use of the System by the City in pursuance of its governmental functions or for services rendered to the City in connection with such use of the System. (Financing Agreement Section 6.1)

*Consulting Engineer and Rate Consultant.* The Board shall employ a Consulting Engineer and a Rate Consultant whose duties, respectively, shall be to make any certificates and perform any other acts required or permitted of the Consulting Engineer and the Rate Consultant under the Financing Agreement, the Operation Agreement, the First General Resolution and the Second General Resolution. If so determined by the Board, the same person or firm may perform the duties and functions of the Consulting Engineer and the Rate Consultant.

In every other Fiscal Year, the Consulting Engineer shall make an examination of and shall report to the Authority, the Board, the City and the Trustee on, the properties and operations of the System. Such reports shall set forth among other findings: the Consulting Engineer's advice and recommendation as to the proper operation, maintenance and repair of the System during the two ensuing Fiscal Years and improvements which should be made during the ensuing five Fiscal Years, and an estimate of the amounts of money necessary for such purposes, the Consulting Engineers findings as to whether the System has been maintained in good repair and sound operating condition, and its estimate of the amount, if any, required to be expended to place such properties in such condition, and the details of such expenditures and the approximate time required therefor.

In every Fiscal Year, the Rate Consultant shall make an examination of, and shall report to the authority and the Board on, the properties and operations of the System. Such annual report shall set forth the projected or actual compliance by the Authority with the rate covenants in Section 6.1 of the Financing Agreement for the immediately preceding Fiscal Year, and the projected compliance therewith for the current Fiscal Year, and for the next two succeeding Fiscal Years.

In the event of noncompliance in the previous Fiscal Year or prospective noncompliance in the current Fiscal Year, the Board shall issue a corrective measures report to the Authority within 20 days detailing the methods by which and time frame within which it shall cause compliance. In the event such report includes a recommended increase in rates, fees, rents or other charges, the Board covenants to meet within 45 days and formally consider a resolution to increase such rates, fees, rents or other charges in amounts necessary to cause compliance with the rate covenants in Section 6.1 of the Financing Agreement.

The City and the Board covenant that if any such report shall set forth that the properties of the System have not been maintained in good repair and sound operating condition, it will promptly restore the properties to good repair and sound operating condition with all expedition practicable. (Financing Agreement Section 6.2)

*Covenant to Operate and Maintain System.* The City and the Board have covenanted that they shall, at all times:

(1) operate the System properly and in a sound and economical manner and maintain, preserve and keep the same preserved and kept, with the appurtenances and every part and parcel thereof, in good repair, working order and condition, and from time to time make, or cause to be made, all necessary and proper repairs, so that at all times the operation of the System may be properly and advantageously conducted, regardless of any failure on the part of the Board to make the payments to the City required by the Operation Agreement; provided, however, that nothing contained in the Financing Agreement shall require the City and the Board to operate, maintain, preserve, repair, replace, renew or reconstruct any part of the System if there shall be filed with the Board, the Authority and the Trustee (a) a certificate of an Authorized Representative of the City stating that in the opinion of the City abandonment of operation of such part of the System will not adversely affect the operation of the System or the amount of Revenues derived therefrom and is not prejudicial to the interests of the Board, the Authority, the holders of Priority Indebtedness or the Bondholders, and (b) a Certificate of the Consulting Engineer concurring with such statement;

(2) enforce the rules and regulations governing the operation, use and services of the System established from time to time by the Board or the City;

(3) observe and perform all of the terms and conditions contained in the Act, and comply with all valid acts, rules, regulations, orders and directions of any legislative, executive, administrative or judicial body having competent jurisdiction of the City, the Board or the System; provided, however, that the failure of the City or the Board to comply with this covenant for any period shall not constitute a default on its part so long as the City or the Board, as the case may be, (a) is taking reasonable and timely steps to permit compliance and (b) the City or the Board, as the case may be, shall have delivered to the Authority and to the Board or the City, as the case may be, a Certificate of the Consulting Engineer which (i) sets forth in reasonable detail the facts and circumstances attendant to such noncompliance, (ii) sets forth the steps being taken by the City or the Board, as the case may be, to permit compliance, (iii) sets forth the estimated date on which the City or the Board, as the case may be, will be in compliance and (iv) states that in the opinion of the Consulting Engineer such noncompliance during the period described will not adversely affect the operation of the System or the amount of Revenues to be derived therefrom; and

(4) not create or suffer to be created any lien or charge upon the System or any part thereof except for Permitted Encumbrances. (Financing Agreement Section 6.3)

*Annual Budget.* On November 1 of each year (or on such later date as the Authority, the Board and the City may agree) the Authority shall deliver to the Board a certified copy of the Authority Budget for the ensuing Fiscal Year showing the Debt Service and Projected Debt Service for all Series of Bonds, all Projected Series of Bonds and on any Priority Indebtedness for such Fiscal Year, as well as the total amount of interest and principal payable on all other obligations of the Authority issued under the First General Resolution or the Second General Resolution. Within five days after passage of the City's budget, the City shall submit to the Board its certification of the amounts of moneys to be paid to the City by the Board in accordance with Section 6.2 of the Operation Agreement. Based upon the information contained in (1) the Authority Budget, (2) the City's certification pursuant to Section 6.2 of the Operation Agreement, (3) the certificate delivered to the Board pursuant to Section 6.2 of the Operation Agreement,

and (4) the reports of the Consulting Engineer and the Rate Consultant described in Section 6.2 of the Financing Agreement (collectively, the “Budget Documents”), the Board in consultation with the City shall prepare the Annual Budget for the ensuing Fiscal Year. In addition to the information contained in the Budget Documents, the Board shall also make provisions in the Annual Budget (a) for Board Expenses for the ensuing Fiscal Year, (b) for the amount, if any, required to be deposited in the Operation and Maintenance Reserve Account in accordance with Section 4.4 of the Financing Agreement, and (c) after consultation with the Consulting Engineer, for the amount to be deposited in the Ongoing Project Account. Thereafter, but in no event later than 15 days after the date of passage of the City’s budget, the Board shall adopt such Annual Budget. Promptly after adoption of the Annual Budget, and in no event later than December 31 (or such other date as the Authority, the Board and the City may agree) of each year, the Board shall establish the rates, fees and charges for the use of the System for the ensuing Fiscal Year. The Board may from time to time, either before or after commencement of the Fiscal Year to which it relates, amend the Annual Budget, but (except for its own expenses) only in accordance with and after receipt of amended Budget Documents. If, as of the first day of any Fiscal Year an Annual Budget has not been adopted, the Annual Budget for the immediately preceding Fiscal Year shall be the Annual Budget for such Fiscal Year until a new Annual Budget is adopted. (Financing Agreement Section 6.4)

*Tax Exemption.* The Authority, the City and the Board have covenanted that so long as any Bonds or Priority Indebtedness shall be Outstanding, neither will take any action, or fail to take any action, which, if taken or not taken, as the case may be, would adversely affect the tax-exempt status of the interest payable on the Bonds or the Priority Indebtedness then Outstanding, and to consent to any amendments to the Financing Agreement, the Operation Agreement, the First General Resolution or the Second General Resolution required, in the opinion of Bond Counsel, to maintain such tax exemption. Such amendments may be made without the consent of Bondholders and the holders of Priority Indebtedness. (Financing Agreement Section 6.5)

*Discontinuance of Service.* The Board and the City have covenanted to enforce the rules and regulations providing for discontinuance of, or disconnection from, the supply of water or the provision of sewer service, or both, as the case may be, for nonpayment of fees, rents, rates or other charges imposed by the Board, provided that such discontinuance or disconnection shall not be carried out except in the manner and upon the notice as is required of a waterworks corporation pursuant to Sections 89(b)(3)(a)-(c) and 116 of the Public Service Law of the State. (Financing Agreement Section 6.7)

*Covenant of City as to Rates and Charges.* The City has covenanted that, upon the issuance of the Bonds by the Authority, the City will not thereafter levy user fees, rents and other charges with respect to the System until all Bonds (and all Priority Indebtedness) are paid or are no longer Outstanding pursuant to the terms of the First General Resolution (or the Second General Resolution, as the case may be); provided, however, that the City may levy ad valorem taxes or assessments to pay the costs and expenses of the System or to pay the principal of and interest on general obligation bonds of the City heretofore or hereafter issued to finance the System or any part thereof. (Financing Agreement Section 6.9)

*Books and Records.* Each of the Authority and the Board shall keep or cause to be kept proper books of record and account in which complete and correct entries shall be made of all transactions relating to their corporate purposes under the Act. The Authority and the Board shall annually submit to the Governor of the State, the State Comptroller and the State Legislature a detailed report concerning their activities for the Fiscal Year. A copy of such report shall be delivered to the Mayor and the Comptroller of the City. (Financing Agreement Section 6.11)

*Liens.* Until the Bonds or other evidences of indebtedness, including Priority Indebtedness, issued by the Authority for its purposes under the Act have been paid in full or provision has been made therefor in accordance with the First General Resolution or similar document, the Financing Agreement provides

that the Board shall not create, and, to the extent it has the power to do so, shall not permit to be created, any lien upon or pledge of the Revenues except the lien and pledge thereon created by the Act, the First General Resolution, the Second General Resolution and the Mortgage. (Financing Agreement Section 6.12)

*Security Interests.* Except to the extent provided by the Act, neither the Board nor the Authority may grant any Bondholder, or any holder of Priority Indebtedness, any security interest in any of the assets or Properties of the Board (other than the Property and Revenues which have been mortgaged and pledged pursuant to the terms of the Financing Agreement, of the First General Resolution and of the Mortgage). Notwithstanding the foregoing, in the event the Board is required to grant a lien on the System in favor of the Trustee to obtain or maintain a credit rating on the Bonds (or any other obligations of the Authority, including Priority Indebtedness), it is authorized to do so in accordance with the terms of the Mortgage. The creation of such lien shall not be considered a violation or an event of default under the Financing Agreement. (Financing Agreement Section 6.13)

*Agreement of the State.* Pursuant to the Act, the State has pledged and agreed that it will not alter or limit the rights vested by the Act in the Authority or the Board to fulfill the terms of any agreement made with or for the benefit of the Bondholders, or in any way impair the rights and remedies of holders of Priority Indebtedness, until the Bonds, together with the interest thereon, with interest on any unpaid installment of interest, and all costs and expenses in connection with any action or proceeding by or on behalf of such holders, are fully met and discharged. The Authority, the Board and the City for the purpose of effectuating such pledge of the State certify that the Financing Agreement, the First General Resolution, the Second General Resolution, the Mortgage and the Acquisition Agreement are all intended to be for the benefit of, first, the holders of Priority Indebtedness and, second, the holders of the Bonds. (Financing Agreement Section 7.1)

*Events of Default and Remedies.* An “event of default” or a “default” means any one of the following events: (1) failure by the Board to pay the Authority those amounts required under the Financing Agreement; (2) failure of the City or the Board to observe any covenant, term, or condition of the Financing Agreement (other than as described in clause (1)) and such failure shall have continued for a period of 60 days after written notice, specifying such failure and requesting that it be remedied, is given to the City or the Board, or both, by the Authority, unless the Authority shall agree in writing to extend such time prior to its expiration, provided such extension shall not be unreasonably withheld if the City or the Board has instituted and is diligently pursuing corrective action which cannot be completed within the applicable period; (3) the Authority shall file a petition or otherwise seek relief under any Federal or State bankruptcy or similar law; or (4) the respective provisions of the Act pursuant to which the First General Resolution and the Second General Resolution have been adopted or the Bonds (and the Priority Indebtedness) have been issued, including, without limitation, those provisions pursuant to which the lien upon the Revenues of the Board has been created pursuant to the Financing Agreement, the First General Resolution and the Second General Resolution and those provisions establishing the powers and obligations of the Board and the relationship of the Authority to the Board and the City as contemplated by the Act, shall be materially and adversely limited, altered or impaired by any legislative action or any final judgment or the terms, conditions and security provided under the Financing Agreement, the First General Resolution and the Second General Resolution be materially and adversely limited, altered or impaired by any legislative action or any final judgment. (Financing Agreement Section 8.1)

Whenever any event of default shall have occurred and be continuing, and written notice of the default, if required, shall have been given to the City and the Board by the Authority or by the Trustee and the default shall not have been cured within any curative period provided therefor, the Authority and the Trustee may take whatever action at law or in equity may appear necessary or desirable to collect the payments then due and as they thereafter become due, and the Authority and the Trustee, so long as any

Bonds or Priority Indebtedness are Outstanding, may take whatever action at law or in equity may appear necessary or desirable to enforce performance and observance of any obligation, agreement or covenant of the City or the Board under the Financing Agreement. The remedies conferred upon or reserved to the Authority in respect of any event of default are not exclusive of other available remedies, but shall be in addition to every other remedy given under the Financing Agreement or existing at law or in equity or by statute. (Financing Agreement Sections 8.2 and 8.3)

*Termination.* The Financing Agreement shall terminate and the covenants and other obligations contained therein shall be discharged and satisfied, when (1) payment of all indebtedness of the Authority has been made or provided for in accordance with the First General Resolution or similar document securing such indebtedness, including the Second General Resolution, and (2) either all payments required thereunder have been made in full, or provision for such payments satisfactory to the Authority has been made, or the City pays or assumes all liabilities, obligations, duties, rights and powers of the Authority under the Financing Agreement. (Financing Agreement Section 9.1)

*Amendments.* The parties to the Financing Agreement may enter into any amendment, change or modification of the Financing Agreement (if in writing, signed by each of the parties and consented to in writing by the Trustee); provided that the parties shall enter into no such change or modification which adversely affects the rights of the holders of any Bonds or Priority Indebtedness by modifying certain enumerated provisions of the Financing Agreement without first complying with the applicable provisions of the First General Resolution and the Second General Resolution. (Financing Agreement Section 10.1)

*Conflicts.* The Financing Agreement provides that its provisions shall not change or in any manner alter the terms of the First General Resolution or the Second General Resolution, or the security, rights or remedies of the Trustee, the Bondholders or the holders of an obligation constituting Priority Indebtedness. In the event any provision of the Financing Agreement conflicts at any time, or in any manner, with the provisions of the First General Resolution or the Second General Resolution or any Bond (or obligation constituting Priority Indebtedness), the provisions of the First General Resolution or the Second General Resolution or Bond (or obligation constituting Priority Indebtedness) shall be controlling and conflicting provisions of the Financing Agreement shall be disregarded. In the event of any conflict between the First General Resolution and the Second General Resolution, the First General Resolution shall be controlling so long as any Priority Indebtedness is Outstanding. (Financing Agreement Section 11.1)

### **Summary of the First General Resolution**

*Resolution to Constitute Contract.* The First General Resolution authorizes the issuance by the Authority, from time to time, of its Priority Indebtedness in one or more series, each such series to be authorized by a Supplemental Resolution. (See "Summary of Second General Resolution – No Further Priority Indebtedness to be Issued".) With respect to each series of Priority Indebtedness, in consideration of the purchase and acceptance of any and all of Priority Indebtedness of a series authorized to be issued under the First General Resolution and under the applicable Supplemental Resolution by those who shall hold or own the same from time to time, the First General Resolution and the applicable Supplemental Resolution shall be deemed to be and shall constitute a contract among the Authority, the Trustee and the Holders from time to time of the Priority Indebtedness and the pledge made in the First General Resolution and the covenants and agreements set forth to be performed by or on behalf of the Authority shall be for the equal and ratable benefits, protection and security of the Holders of any and all of the Priority Indebtedness, all of which, regardless of the time or times of their issue or maturity, shall be of equal rank without preference, priority or distinction of any such Priority Indebtedness over any

other Priority Indebtedness except as expressly provided in or permitted by the First General Resolution or by the applicable Supplemental Resolution. (First General Resolution Section 202)

*Pledge of Revenues and Funds.* The Authority pledges for the payment of the Priority Indebtedness, in accordance with their terms and the provisions of the First General Resolution, subject only to the provisions of the First General Resolution, each applicable Supplemental Resolution, the Act and the Financing Agreement permitting the application of such amounts for or to the purposes and on the terms and conditions therein set forth: (1) all Revenues; (2) the proceeds from the sale of the Priority Indebtedness; (3) all moneys or securities in any of the Funds and Accounts (except the Rebate Fund); and (4) all other moneys and securities to be received, held or set aside by the Authority or by any Fiduciary pursuant to the First General Resolution. It is the intention of the Authority that, to the fullest extent permitted by law, such pledge shall be valid and binding from the time when it is made, the Revenues, moneys, securities and other funds so pledged and then or thereafter received by the Authority shall immediately be subject to the lien of such pledge, and the obligation to perform the contractual provisions therein contained shall have priority over any or all other obligations and liabilities of the Authority and shall be valid and binding as against all parties having claims of any kind in tort, contract or otherwise against the Authority, irrespective of whether such parties have notice thereof.

As further security for the payment of the principal or Redemption Price of and interest on the Priority Indebtedness, the Authority, under the First General Resolution, assigns, transfers and pledges to the Trustee all of its rights and interests under and pursuant to the Financing Agreement and the Mortgage (excluding rights to notice and other procedural rights, its rights to indemnification and rights and interests not material to holders of Priority Indebtedness), including, without limiting the generality of the foregoing, the present and continuing right (1) to claim, collect or receive from the Board all Revenues thereunder, (2) to bring actions and proceedings thereunder for enforcement of such right of collection, and (3) to do any and all things which the Authority is or may become entitled to do under the Financing Agreement and the Mortgage; provided that such assignment shall not impair or diminish any obligation of the Authority under the Financing Agreement and the Mortgage.

The Priority Indebtedness constitutes special obligations of the Authority payable solely from the Revenues and other amounts described in the First General Resolution, and the Priority Indebtedness shall not in any respect be a general obligation of the Authority or constitute an indebtedness of the State, the City or the Board and neither the State, the City nor the Board shall be in any way liable thereon. (First General Resolution Sections 203 and 501)

*Establishment of Funds and Accounts.* The Resolution establishes the following Funds:

- (1) Construction Fund;
- (2) Revenue Fund;
- (3) Debt Service Fund;
- (4) Authority Expense Fund;
- (5) Debt Service Reserve Fund;
- (6) Subordinated Indebtedness Fund; and
- (7) Rebate Fund.

The First General Resolution establishes in the Debt Service Reserve Fund a separate Account known as the "Common Account", and provides that any Supplemental Resolution which authorizes a Special Credit Facility may establish one or more "Special Accounts" in the Debt Service Reserve Fund. The Resolution also establishes in the Debt Service Fund a separate account known as the "Capitalized Interest Account". The Trustee shall hold all of the Funds and Accounts. (First General Resolution Section 502)

*Construction Fund.* The Authority shall deposit from time to time in the Construction Fund any amount required to be deposited therein pursuant to the First General Resolution or the Financing Agreement and any other amounts received by the Authority for or in connection with the System and determined by the Authority to be deposited therein. Any proceeds of insurance maintained by the Board or the City against physical loss of or damage to the System, or of any contractors' performance bonds pertaining to the construction of any Project, or of condemnation or eminent domain awards received by the Trustee, the Board or the City with respect to the System, shall also be paid into the Construction Fund.

Except as otherwise provided, amounts in the Construction Fund may only be expended to pay Costs (including Costs of Issuance). The Trustee shall make payments from the Construction Fund, except as otherwise provided, only upon receipt of a Disbursement Request signed by an Authorized Representative of the Authority.

To the extent that other moneys are not available therefor in any other Fund or Account, amounts in the Construction Fund shall be applied to the payment of principal of and interest on Priority Indebtedness when due. (First General Resolution Section 503)

*Revenue Fund.* The Authority shall cause all Revenues received from the Board pursuant to the Financing Agreement to be paid to the Trustee and deposited promptly upon receipt in the First General Resolution Revenue Fund. There shall also be deposited in the First General Resolution Revenue Fund all other amounts required by the Resolution, any Supplemental Resolution or the Financing Agreement to be so deposited. (First General Resolution Section 504)

*Payments Into Certain Funds.* From the Revenues in the First General Resolution Revenue Fund, the Trustee shall make, as soon as practicable in each month, the following deposits in the following order:

- (1) to the Debt Service Fund, all such amounts until the amount therein on deposit in such month equals the Minimum Monthly Balance for such month for all series of Priority Indebtedness Outstanding;
- (2) from the balance, if any, remaining in such month after making the deposits required in (1) above, to the Authority Expense Fund, the entire balance until the total on deposit therein in such month is equal to (x) the Authority Expenses for the then current Fiscal Year as set forth in the Authority Budget plus (y) all Rebate Amounts certified by the Accountant for the then current Fiscal Year, less the Rebate Amounts transferred to the Rebate Fund for the then current Fiscal Year;
- (3) from the balance, if any, remaining after making the deposits required in (1) and (2) above, first, to the Common Account in the Debt Service Reserve Fund, the amount, if any, necessary to make the total on deposit in the Common Account equal to the Debt Service Reserve Requirement for the Bonds to which such Common Account relates or, if less than sufficient, the entire balance, and, second, to each Special Account the amount, if any, necessary to make the

amount therein on deposit equal to the Debt Service Reserve Requirement for the Priority Indebtedness to which each Special Account relates; provided, however, that if the balance remaining is less than sufficient to credit in full each Special Account, credit shall be made pro rata among all Special Accounts in the same ratio as the Debt Service Reserve Requirement relating to such Special Account bears to the sum of the Debt Service Reserve Requirements for all of the Priority Indebtedness relating to the Special Accounts;

(4) from the balance, if any, remaining after making the deposits required in (1), (2) and (3) above, to the Subordinated Indebtedness Fund, the amount required to be deposited for such month in accordance with the Authority Budget, or the entire balance, if less than sufficient; and

(5) from the balance, if any, remaining after making the deposits required in (1), (2), (3) and (4) above, to the General Account of the Local Water Fund. (First General Resolution Section 505)

*Debt Service Fund.* The Trustee shall, for each series of Priority Indebtedness Outstanding, pay from the Debt Service Fund the amounts due on each Bond Payment Date for the payment of the Principal Installments, if any, and, from the moneys in the Debt Service Fund, including moneys in the Capitalized Interest Account in such Fund, interest on the Outstanding Priority Indebtedness, and, on the redemption date or date of purchase, the amounts required for the payment of the Redemption Price of or purchase price of and accrued interest on Priority Indebtedness to be redeemed or purchased on such date unless the payment of such amounts shall be otherwise provided for.

The Trustee may, and if so directed by an Authorized Representative of the Authority shall, prior to the forty-fifth day preceding the due date of each Sinking Fund Installment, apply the amounts accumulated in the Debt Service Fund for such Sinking Fund Installment, together with amounts with respect to interest on the Priority Indebtedness for which such Sinking Fund Installment was established, as follows: (1) to the purchase of Priority Indebtedness of like Series and maturity at prices (including any brokerage and other charges) not exceeding the Redemption Price payable for such Priority Indebtedness when such Priority Indebtedness is redeemable with such Sinking Fund Installment plus unpaid interest accrued to the date of purchase; or (2) to the redemption of such Priority Indebtedness, if redeemable by their terms, at or below said Redemption Price. Upon such purchase or redemption of any Priority Indebtedness, the Trustee shall then credit an amount equal to the principal of the Priority Indebtedness so purchased or redeemed toward the next Sinking Fund Installment thereafter to become due and the amount of any excess over the amount of such Sinking Fund Installment shall be credited against future Sinking Fund Installments in direct chronological order.

In any event, the Trustee shall, as soon as practicable alter the forty-fifth day preceding the due date of any such Sinking Fund Installment, call for redemption a sufficient amount of Priority Indebtedness of like series and maturity to complete the retirement of the principal amount specified for such Sinking Fund Installment of such Priority Indebtedness whether or not it then has moneys in the Debt Service Fund to pay the applicable Redemption Price thereof on the redemption date. The Trustee shall apply to the redemption of the Priority Indebtedness on each such redemption date the amount required for the redemption of such Priority Indebtedness. (First General Resolution Section 506)

*Authority Expense Fund.* Amounts credited to the Authority Expense Fund (as defined in the First General Resolution) (1) for the payment of Authority Expenses shall be applied by the Trustee, upon requisition by the Authority, to the payment of Authority Expenses and (2) for the payment of Rebate Amounts shall be transferred to the Rebate Fund by the Trustee. Any moneys in the Authority Expense Fund which the Authority determines are in excess of that needed to meet the sum of the unpaid Authority Expenses for such Fiscal Year plus (if such amount was included in the Authority Budget for such Fiscal Year) the Reserve for Expenses, plus the amounts credited for deposit in the Rebate Fund, shall be

applied toward any deficiencies in the following Funds and Accounts in the order stated: the Debt Service Fund, the Debt Service Reserve Fund (as defined in the First General Resolution) and the Subordinated Indebtedness Fund (as defined in the First General Resolution). Any amounts credited to the Authority Expense Fund for the payment of Authority Expenses and remaining on deposit on the last day of each Fiscal Year shall be transferred to the Board for deposit in the General Account of the Local Water Fund. (First General Resolution Section 507)

*Debt Service Reserve Fund.* The First General Resolution establishes a Debt Service Reserve Fund and a Common Account therein. In addition, the First General Resolution provides that any Supplemental Resolution which provides for a Special Credit Facility to secure the payment of the Principal Installments of and interest on the Bonds or the Tender Option Price of any Option Bonds may establish one or more "Special Accounts" in the Debt Service Reserve Fund. Upon the issuance of each series of Priority Indebtedness there shall be deposited in the Debt Service Reserve Fund the amount, if any, necessary to make the amount on deposit therein equal to the Debt Service Reserve Requirement after giving effect to the issuance of such series of Priority Indebtedness. Amounts on deposit in each of the Accounts in the Debt Service Reserve Fund will be applied, to the extent necessary, to pay the Principal Installments of and interest on the Priority Indebtedness to which such Account relates.

In addition to the transfers required under Section 514 of the First General Resolution, if, as of January 1 of any year, the amount in any Account in the Debt Service Reserve Fund exceeds the applicable Debt Service Reserve Requirement after giving effect to any Financial Guaranty deposited in such Fund, the Trustee shall withdraw from such account the amount of any excess therein over the applicable Debt Service Reserve Requirement as of the date of such withdrawal and deposit the moneys so withdrawn into the General Account of the Local Water Fund. If, as of January 1 of any year the amount in any Account in the Debt Service Reserve Fund is less than the applicable Debt Service Reserve Requirement and, to the extent that such deficiency has not been made up by March 1 of such year by either (1) deposits pursuant to Section 505 of the First General Resolution or (2) an increase in the market value of the Investment Securities therein, or (3) a combination of (1) and (2), the Authority shall, in its Authority Budget for the ensuing Fiscal Year, include the amount necessary to make up such deficiency as a Required Deposit.

Whenever the amount (exclusive of Financial Guarantees) in all of the Accounts in the Debt Service Reserve Fund, together with the amount in the Debt Service Fund, is sufficient to pay all Outstanding Priority Indebtedness in accordance with their respective terms, the funds on deposit in the Debt Service Reserve Fund shall be transferred to the Debt Service Fund and applied to the redemption or payment at maturity of all Priority Indebtedness Outstanding.

In lieu of the required deposits and transfers to any Account in the Debt Service Reserve Fund, the Authority may cause to be deposited into such Account Financial Guarantees in an amount equal to the difference between the applicable Debt Service Reserve Requirement and the sums, if any, then on deposit in such Account or being deposited in such Account concurrently with such Financial Guarantees; provided, however, that no Financial Guarantees shall be deposited with respect to any series of Priority Indebtedness for which a Credit Facility has been obtained without the consent of the issuer of such Credit Facility. The Financial Guarantees shall be payable (upon the giving of notice as required thereunder) on any date on which moneys will be required to be withdrawn from such Account in the Debt Service Reserve Fund and applied to the payment of a Principal Installment of or interest on any Priority Indebtedness and such withdrawal cannot be met by amounts on deposit in the Debt Service Reserve Fund. If a disbursement is made pursuant to Financial Guarantees, the Authority shall be obligated either (1) to reinstate the maximum limits of such Financial Guarantees or (2) to deposit into the applicable Account, funds in the amount of the disbursement made under such Financial Guarantees, or a

combination of such alternatives, as shall provide that the amount in such Account equals the applicable Debt Service Reserve Requirement.

In the event of the refunding of any Priority Indebtedness, the Trustee shall, upon the written direction of the Authority, withdraw from the Account in the Debt Service Reserve Fund related to the Priority Indebtedness to be refunded all or any portion of amounts accumulated therein with respect to the Priority Indebtedness being refunded and deposit such amounts as provided in such written direction; provided that such withdrawal shall not be made unless (1) immediately thereafter the Priority Indebtedness being refunded shall be deemed to have been paid pursuant to Section 1201 of the Resolution, and (2) the amount remaining in the Debt Service Reserve Fund after such withdrawal shall not be less than the Debt Service Reserve Requirement. (First General Resolution Sections 502, 508 and 510)

*Subordinated Indebtedness Fund.* The Trustee shall apply amounts on deposit in the Subordinated Indebtedness Fund under the First General Resolution solely to the maintenance of reserves for, or the payment of, Subordinated Indebtedness (or as otherwise provided by the resolution of the Authority authorizing each issue of Subordinated Indebtedness). The Trustee shall withdraw from the Subordinated Indebtedness Fund any amount necessary to render the balances in the Debt Service Fund or Debt Service Reserve Fund sufficient to meet the requirements of such Funds. (First General Resolution Section 509)

*Subordinated Indebtedness.* The Authority may issue Subordinated Indebtedness payable out of and secured by a pledge of and lien on amounts in the Subordinated Indebtedness Fund available for payment. (For purposes of the First General Resolution, the Bonds constitute Subordinated Indebtedness. See "Summary of the Second General Resolution – Interpretation with First General Resolution".) Such Subordinated Indebtedness, however, shall be issued only for the purposes for which Priority Indebtedness may be issued and shall be secured by a pledge subordinate in all respects to the pledge created by the First General Resolution as security for the Priority Indebtedness. (First General Resolution Section 511)

*Banking Depositaries.* All moneys or securities held by the Trustee shall constitute trust funds and the Trustee may, and shall, if directed by the Authority, deposit such moneys or securities with one or more Depositaries. All moneys deposited under the provisions of the First General Resolution with the Trustee or any Depositary shall be held in trust and applied only in accordance with the provisions of the First General Resolution, and each of the Funds established by the First General Resolution shall be a trust fund for the purposes thereof.

Each Banking Depositary holding moneys or securities in trust for the Trustee shall be a bank or trust company organized under the laws of the State or a national banking association (having its principal within the State), having capital stock, surplus and undivided earnings aggregating at least \$25,000,000 and willing and able to accept the office on reasonable and customary terms and authorized by law in accordance with the provisions of the First General Resolution. (First General Resolution Section 512)

*Investment of Certain Funds.* Moneys held in the Debt Service Fund, the Debt Service Reserve Fund and the Subordinated Indebtedness Fund (subject to the terms of any resolutions or other instruments securing any issue of Subordinated Indebtedness) shall be invested and reinvested to the fullest practicable extent in Investment Securities which mature not later than such times as shall be necessary to provide moneys when needed to make payments required from such Funds; provided that in the case of the Debt Service Reserve Fund maturation may not occur later than 15 years from the date of such investment, and in the case of the Debt Service Fund, investments shall be of the type described in clauses (B), (C) and (F), and in the case of the Debt Service Reserve Fund, clauses (B) and (C), of the

definition of "Investment Securities" (in either case, to the fullest extent practicable). Moneys in the Revenue Fund, the Authority Expense Fund, the Construction Fund and the Rebate Fund may be invested and reinvested in Investment Securities which mature no later than such times as shall be necessary to provide moneys when needed to make payments from such Funds. The Trustee shall make all investments in accordance with written instructions from any Authorized Representative of the Authority. Moneys in any Fund or Account may be combined with moneys in any other Fund or Account for the purpose of making such investments in Investment Securities.

Interest (net of that which represents a return of accrued interest paid in connection with the purchase of any investment) earned on any moneys or investments in the Funds and Accounts, other than the Debt Service Fund, and the Rebate Fund, and, in the case of the Series 2000A Bonds, the Construction Fund, shall be paid by the Trustee to the Board for deposit in the General Account of the Local Water Fund, except that with respect to the Debt Service Reserve Fund such earnings shall be paid to the Board only to the extent that the amount on deposit therein exceeds the Debt Service Reserve Requirement. Interest (net of that which represents a return of accrued interest paid in connection with the purchase of any investment) earned on any moneys or investments in (1) the Debt Service Fund shall be retained in the Debt Service Fund, and (2) the Rebate Fund shall be paid into the Rebate Fund Earnings Account.

All Investment Securities acquired with moneys in any Fund or Account shall be held by the Trustee in pledge or by a Depositary as agent in pledge in favor of the Trustee. (First General Resolution Section 514)

*Credit Facilities.* In connection with the issuance of any Series of Priority Indebtedness, the Authority may obtain or cause to be obtained one or more Credit Facilities providing for payment of all or a portion of the Principal Installments or Redemption Price or interest due or to become due on such Priority Indebtedness, providing for the purchase of such Priority Indebtedness by the issuer of such Credit Facility or providing funds for the purchase of such Priority Indebtedness by the Authority.

The Authority may secure such Credit Facility by an agreement providing for the purchase of the Series of Priority Indebtedness secured thereby with such adjustments to the rate of interest, method of determining interest, maturity or redemption provisions as specified by the Authority in the applicable Supplemental Resolution. The Authority may also in an agreement with the issuer of such Credit Facility agree to directly reimburse such issuer for amounts paid under the terms of such Credit Facility, together with interest thereon (the "Reimbursement Obligation"); provided, however, that no Reimbursement Obligation shall be created until amounts are paid under such Credit Facility. Any such Reimbursement Obligation (a "Parity Reimbursement Obligation") may be secured by a lien on Revenues on a parity with the lien created by Section 501 of the First General Resolution. Any such Parity Reimbursement Obligation shall be deemed to be part of the series of Priority Indebtedness to which the Credit Facility which gave rise to such Parity Reimbursement Obligation relates.

Any such Credit Facility shall be for the benefit of and secure such series of Priority Indebtedness or portion thereof as specified in the applicable Supplemental Resolution. (First General Resolution Section 209)

*Tax Covenants.* The Authority shall not permit the use of the proceeds of the Priority Indebtedness or other funds of the Authority to purchase securities or obligations the acquisition of which would cause any Priority Indebtedness to be an "arbitrage bond" as defined in the Code. Unless otherwise provided in the Supplemental Resolution authorizing such series of Priority Indebtedness the Authority shall not permit the use of the proceeds of the Priority Indebtedness or other funds of the Authority in a manner which would result in the exclusion of any obligation constituting Priority

Indebtedness from the treatment afforded by Section 103(a) of the Code. (First General Resolution Section 705)

*Defaults and Remedies.* The First General Resolution provides that if one or more of the following Events of Default shall occur, namely: (1) a default in the payment of the principal or Redemption Price of any obligation constituting Priority Indebtedness; (2) a default in the payment of any installment of interest on any Priority Indebtedness; (3) a default by the Authority in the performance or observance of any other of its covenants, agreements or conditions on its part in the First General Resolution, the Mortgage, any Supplemental Resolution or the Priority Indebtedness for a period of 45 days after written notice thereof; (4) a default under the Financing Agreement or the Acquisition Agreement by the Board or the City for a period of 45 days after written notice thereof; or (5) a filing of a petition for relief under any general or State bankruptcy or similar law by the Authority; then, upon the happening and continuance of any Event of Default, the Trustee may, and upon the written request of the holders of not less than a majority in principal amount of the Priority Indebtedness Outstanding, and, with respect to any Series of Priority Indebtedness for which a Credit Facility has been obtained, the consent of the issuer of such Credit Facility, the Trustee shall, declare the principal and accrued interest on all the Priority Indebtedness then Outstanding, due and payable immediately, subject, however, to rescission of such declaration and annulment of the default upon the remedying thereof.

The Authority covenants that upon the occurrence of an Event of Default, the books of record and account of the Authority shall at all times be subject to the inspection and use of the Trustee and of its agents and attorneys and that, upon demand of the Trustee, the Authority will account, as if it were the trustee of an express trust, for all Revenues and other moneys, securities and funds pledged or held under the Resolution for such period as shall be stated in such demand.

Upon default, the Trustee may proceed to protect and enforce its rights under the Mortgage and the rights of the holders of the Priority Indebtedness under the First General Resolution forthwith by a suit or suits in equity or at law, whether for the specific performance of any covenant therein contained, or in aid of the execution of any power therein granted, or for an accounting against the Authority as if the Authority were the trustee of an express trust, or in the enforcement of any other legal or equitable right as the Trustee, being advised by counsel, shall deem most effectual to enforce any of its rights or to perform any of its duties under the First General Resolution.

During the continuance of an Event of Default, Revenues shall be applied first, to the reasonable and proper charges and expenses of the Trustee; then (unless the principal of all of the Priority Indebtedness shall have been declared payable) to the payment of all unpaid interest ratably, and then to unpaid principal or Redemption Price, ratably; and if all of the principal of the Priority Indebtedness shall be due and payable, to the payment of unpaid principal and interest without preference or priority of interest over principal, principal over interest or of any obligation constituting Priority Indebtedness or installment over any other obligation constituting Priority Indebtedness or installment, without any discrimination or preference.

No holder of Priority Indebtedness has any right to institute suit to enforce any provision of the First General Resolution or the execution or any trust thereunder or for any remedy thereunder, unless the Trustee has been requested by the holders of at least a majority in principal amount of the Bonds to take such action and has been offered adequate security and indemnity and has failed to commence such suit in the manner provided in the First General Resolution. (First General Resolution Article X)

*Defeasance of Priority Indebtedness.* Any Outstanding obligation constituting Priority Indebtedness shall prior to the maturity or redemption date thereof be deemed to have been paid and shall cease to be entitled to any lien, benefit or security under the First General Resolution if (1) in the case of

any Priority Indebtedness to be redeemed prior to their maturity, the Authority shall have given to the Trustee irrevocable instructions accepted in writing by the Trustee to give notice of redemption of such Priority Indebtedness (other than Priority Indebtedness purchased by the Trustee prior to the giving of the notice of redemption) and (2) there shall have been deposited with the Trustee either moneys in an amount sufficient, or Defeasance Obligations the principal of and interest on which, when due, without reinvestment, will provide moneys which, together with the moneys deposited, shall be sufficient to pay when due the Principal Installments or Redemption Price, if applicable, and interest due and to become due on said Priority Indebtedness.

The Trustee shall, if so directed by the Authority prior to the maturity date of Priority Indebtedness deemed to have been paid which are not to be redeemed prior to their maturity date or prior to the publication of the above notice of redemption for Priority Indebtedness deemed paid and to be redeemed, apply moneys deposited with the Trustee in respect of such Priority Indebtedness and redeem or sell Defeasance Obligations so deposited with the Trustee and purchase such Priority Indebtedness and the Trustee shall immediately thereafter cancel all such Priority Indebtedness so purchased; provided, however, that the moneys and Defeasance Obligations remaining on deposit with the Trustee after the purchase and cancellation of such Priority Indebtedness shall be sufficient to pay when due the Principal Installment or Redemption Price, if applicable, and interest due or to become due on all Priority Indebtedness. (First General Resolution Section 1201)

### **Summary of the Second General Resolution**

*Interpretation With the First General Resolution.* For purposes of the First General Resolution and for so long as any Priority Indebtedness shall remain Outstanding, (1) the Second General Resolution shall constitute and shall function as a Supplemental Resolution under the First General Resolution, (2) notwithstanding their priority under the terms of the Second General Resolution one against the other, all Bonds and Subordinated Indebtedness issued under the Second General Resolution and any Supplemental Resolution with respect to the Second General Resolution shall constitute Subordinated Indebtedness under the First General Resolution, (3) all Funds and Accounts created under the Second General Resolution shall be deemed to be part of the Subordinated Indebtedness Fund created under the First General Resolution and shall be fully accessible by the Trustee for the purposes provided in Section 509(B) of the First General Resolution, (4) upon the occurrence of an Event of Default under the First General Resolution, the provisions of the First General Resolution shall control with respect to the exercise of all remedies, (5) upon the occurrence of an Event of Default under the Second General Resolution that is not an Event of Default under the First General Resolution, the remedies exercisable by the Trustee under the Second General Resolution shall only apply to that portion of the Revenues deposited by the Authority into the Subordinated Indebtedness Fund under the First General Resolution, and (6) in the event of any conflict between the terms of the Second General Resolution and the First General Resolution affecting the rights of or benefits accruing to the holders of the Priority Indebtedness, the First General Resolution shall control.

From and after the day after such time as there is no Priority Indebtedness Outstanding, (1) the Second General Resolution shall cease to constitute and function as a Supplemental Resolution for purposes of the First General Resolution and shall constitute and function, and shall be deemed for all purposes to have constituted and to have functioned as, a separate authorizing resolution of the Authority, not dependent in any regard on the authorization of the First General Resolution, (2) unless consented to by the Holders of 100% of the aggregate principal amount of all Bonds Outstanding under the Second General Resolution, all Bonds shall be the senior debt of the Authority and shall stand first in priority with respect to the security provided by the Revenues and the Mortgage, (3) all Funds and Accounts created under the Second General Resolution shall no longer constitute, or be deemed to constitute, part of the Subordinated Indebtedness Fund under the First General Resolution, and shall be, and shall be

deemed for all purposes to be separate and independent Funds and Accounts under the terms of the Second General Resolution, (4) the Second General Resolution shall be deemed to have superseded the First General Resolution in all matters relating to the application of the Revenues, and (5) in the event of any conflict between the terms of the Second General Resolution and the First General Resolution affecting the rights of or benefits accruing to the Bondholders, the Second General Resolution shall control. (Second General Resolution Section 103)

*No Further Priority Indebtedness to be Issued.* From and after the date of the adoption of the Second General Resolution, the Authority shall not (A) adopt any further Supplemental Resolution under the First General Resolution (but the Authority may adopt Supplemental Resolutions to the Second General Resolution), and (B) issue or extend the maturity of any Priority Indebtedness or other obligations of any type under the First General Resolution, or any Supplemental Resolution under the First General Resolution, excluding only Bonds, Subordinated Indebtedness and any other obligations of the Authority issued under the terms of the Second General Resolution and any Supplemental Resolution thereunder, without in either case the consent of the holders of 100% of the aggregate principal amount of all Bonds Outstanding under the Second General Resolution. (Second General Resolution Section 1A01)

*Resolution to Constitute Contract.* The Second General Resolution authorizes the issuance by the Authority, from time to time, of its revenue Bonds in one or more Series, each such Series to be authorized by a Supplemental Resolution. With respect to each Series of Bonds, in consideration of the purchase and acceptance of any and all of the Bonds of a Series authorized to be issued under the Second General Resolution and under the applicable Supplemental Resolution by those who shall hold or own the same from time to time, the Second General Resolution and the applicable Supplemental Resolution shall be deemed to be and shall constitute a contract among the Authority, the Trustee and the Holders from time to time of the Bonds and the pledge made in the Second General Resolution and the covenants and agreements set forth to be performed by or on behalf of the Authority shall be for the equal and ratable benefits, protection and security of the Holders of any and all of the Bonds, all of which, regardless of the time or times of their issue or maturity, shall be of equal rank without preference, priority or distinction of any such Bonds over any other Bonds except as expressly provided in or permitted by the Second General Resolution or by the applicable Supplemental Resolution. (Second General Resolution Section 202)

*Pledge of Revenues and Funds.* The Authority pledges for the payment of the Bonds, in accordance with their terms and the provisions of the Second General Resolution, subject only to the provisions of the First General Resolution, each applicable Supplemental Resolution, the Act and the Financing Agreement permitting the application of such amounts for or to the purposes and on the terms and conditions therein set forth: (1) all Revenues; (2) the proceeds from the sale of the Bonds; (3) all moneys or securities in any of the Funds and Accounts (except the Rebate Fund); and (4) all other moneys and securities to be received, held or set aside by the Authority or by any Fiduciary pursuant to the Second General Resolution. It is the intention of the Authority that, to the fullest extent permitted by law, such pledge shall be valid and binding from the time when it is made, the Revenues, moneys, securities and other funds so pledged and then or thereafter received by the Authority shall immediately be subject to the lien of such pledge, and the obligation to perform the contractual provisions therein contained shall have priority over any or all other obligations and liabilities of the Authority and shall be valid and binding as against all parties having claims of any kind in tort, contract or otherwise against the Authority, irrespective of whether such parties have notice thereof.

As further security for the payment of the principal or Redemption Price of and interest on the Bonds, the Authority, under the Second General Resolution, assigns, transfers and pledges to the Trustee all of its rights and interests under and pursuant to the Financing Agreement and the Mortgage (excluding rights to notice and other procedural rights, its rights to indemnification and rights and interests not material to Bondholders), including, without limiting the generality of the foregoing, the present and

continuing right (1) to claim, collect or receive from the Board all Revenues thereunder, (2) to bring actions and proceedings thereunder for enforcement of such right of collection, and (3) to do any and all things which the Authority is or may become entitled to do under the Financing Agreement and the Mortgage; provided that such assignment shall not impair or diminish any obligation of the Authority under the Financing Agreement and the Mortgage.

The Bonds are special obligations of the Authority payable solely from the Revenues and other amounts described in the Second General Resolution, and the Bonds shall not in any respect be a general obligation of the Authority or constitute an indebtedness of the State, the City or the Board and neither the State, the City nor the Board shall be in any way liable thereon. (Second General Resolution Sections 203 and 501)

*Establishment of Funds and Accounts.* The Second General Resolution establishes the following Funds:

- (1) Second Resolution Construction Fund;
- (2) Second Resolution Revenue Fund;
- (3) Second Resolution Debt Service Fund;
- (4) Second Resolution Authority Expense Fund;
- (5) Second Resolution Debt Service Reserve Fund;
- (6) Second Resolution Subordinated Indebtedness Fund; and
- (7) Second Resolution Rebate Fund.

The Second General Resolution establishes in the Debt Service Reserve Fund a separate Account known as the "Second Resolution Common Account", and provides that any Supplemental Resolution which authorizes a Special Credit Facility may establish one or more "Second Resolution Special Accounts" in the Debt Service Reserve Fund. The First General Resolution also establishes in the Debt Service Fund a separate account known as the "Second Resolution Capitalized Interest Account". The Trustee shall hold all of the Funds and Accounts. (Second General Resolution Section 502)

*Construction Fund.* The Authority shall deposit from time to time in the Construction Fund any amount required to be deposited therein pursuant to the Second General Resolution or the Financing Agreement and any other amounts received by the Authority for or in connection with the System and determined by the Authority to be deposited therein. Any proceeds of insurance maintained by the Board or the City against physical loss of or damage to the System, or of any contractors' performance bonds pertaining to the construction of any Project, or of condemnation or eminent domain awards received by the Trustee, the Board or the City with respect to the System, shall also be paid into the Construction Fund unless otherwise required to be applied pursuant to the First General Resolution.

Except as otherwise provided, amounts in the Construction Fund may only be expended to pay Costs (including Costs of Issuance). The Trustee shall make payments from the Construction Fund, except as otherwise provided, only upon receipt of a Disbursement Request signed by an Authorized Representative of the Authority.

To the extent that other moneys are not available therefor in any other Fund or Account, amounts in the Construction Fund shall be applied to the payment of principal of and interest on Bonds when due. (Second General Resolution Section 503)

*Revenue Fund.* For so long as there is any Priority Indebtedness Outstanding, (A) the Authority shall cause all Revenues received from the Board pursuant to the Financing Agreement to be paid to the Trustee and deposited promptly upon receipt in the First General Resolution Revenue Fund, and (B) there shall be deposited in such First General Resolution Revenue Fund all other amounts required by the First General Resolution, the Second General Resolution, any Supplemental Resolution or the Financing Agreement to be so deposited. Thereafter (1) the Authority shall cause all Revenues received from the Board pursuant to the Financing Agreement to be paid to the Trustee, who shall promptly upon receipt deposit the same in the Revenue Fund created under the Second General Resolution, and (2) there shall be deposited in such Revenue Fund all other amounts required by the Second General Resolution, any Supplemental Resolution or the Financing Agreement to be so deposited. The Authority shall cause all amounts deposited in the Subordinated Indebtedness Fund created under the First General Resolution with respect to the Bonds and other obligations issued under the Second General Resolution and any Supplemental Resolution thereunder to be deposited to the Revenue Fund established under the Second General Resolution. There shall also be deposited in such Revenue Fund all other amounts required by the Second General Resolution, any Supplemental Resolution or the Financing Agreement to be so deposited. (Second General Resolution Section 504)

*Payments Into Certain Funds.* From the amounts on deposit in the Revenue Fund created under the Second General Resolution, the Trustee shall make, as soon as practicable in each month, the following deposits in the following order:

(1) to the Debt Service Fund, all such amounts until the amount therein on deposit in such month equals the Minimum Monthly Balance for such month for all Series of Bonds Outstanding;

(2) from the balance, if any, remaining in such month after making the deposits required in (1) above, to the Authority Expense Fund, the entire balance until the total on deposit therein, together with the amount, if any, on deposit in the Authority Expense Fund established under the First General Resolution, in such month is equal to (x) the Authority Expenses for the then current Fiscal Year as set forth in the Authority Budget plus (y) all Rebate Amounts certified by the Accountant, pursuant to the First General Resolution or to Section 510 of the Second General Resolution, for the then current Fiscal Year, less (i) the Rebate Amounts transferred to the Rebate Fund pursuant to Section 510 of the Second General Resolution (or to the "Rebate Fund", as defined in the First General Resolution, pursuant to the First General Resolution) for the then current Fiscal Year and (ii) all amounts expended on Authority Expenses for the then current Fiscal Year;

(3) from the balance, if any, remaining after making the deposits required in (1) and (2) above, first, to the Common Account in the Debt Service Reserve Fund, the amount, if any, necessary to make the total on deposit in the Common Account equal to the Debt Service Reserve Requirement for the Bonds to which such Common Account relates or, if less than sufficient, the entire balance, and, second, to each Special Account the amount, if any, necessary to make the amount therein on deposit equal to the Debt Service Reserve Requirement for the Bonds to which each Special Account relates; provided, however, that if the balance remaining is less than sufficient to credit in full each Special Account, credit shall be made pro rata among all Special Accounts in the same ratio as the Debt Service Reserve Requirement relating to such Special

Account bears to the sum of the Debt Service Reserve Requirements for all of the Bonds relating to the Special Accounts;

(4) from the balance, if any, remaining after making the deposits required in (1), (2) and (3) above, to the Subordinated Indebtedness Fund, the amount required to be deposited for such month in accordance with the Authority Budget, or the entire balance, if less than sufficient; and

(5) from the balance, if any, remaining after making the deposits required in (1), (2), (3) and (4) above, to the General Account of the Local Water Fund. (Second General Resolution Section 505)

*Debt Service Fund.* The Trustee shall, for each Series of Bonds Outstanding, pay from the Debt Service Fund the amounts due on each Bond Payment Date for the payment of the Principal Installments, if any, and, from the moneys in the Debt Service Fund, including moneys in the Capitalized Interest Account in such Fund, interest on the Outstanding Bonds, or the amount payable by the Authority under any Interest Rate Exchange Agreement with respect to interest payable on such date, and, on the redemption date or date of purchase, the amounts required for the payment of the Redemption Price of or purchase price of and accrued interest on Bonds to be redeemed or purchased on such date unless the payment of such amounts shall be otherwise provided for.

The Trustee may, and if so directed by an Authorized Representative of the Authority shall, prior to the forty-fifth day preceding the due date of each Sinking Fund Installment, apply the amounts accumulated in the Debt Service Fund for such Sinking Fund Installment, together with amounts with respect to interest on the Bonds for which such Sinking Fund Installment was established, as follows: (1) to the purchase of Bonds of like Series and maturity at prices (including any brokerage and other charges) not exceeding the Redemption Price payable for such Bonds when such Bonds are redeemable with such Sinking Fund Installment plus unpaid interest accrued to the date of purchase; or (2) to the redemption of such Bonds, if redeemable by their terms, at or below said Redemption Price. Upon such purchase or redemption of any Bond, the Trustee shall then credit an amount equal to the principal of the Bond so purchased or redeemed toward the next Sinking Fund Installment thereafter to become due and the amount of any excess over the amount of such Sinking Fund Installment shall be credited against future Sinking Fund Installments in direct chronological order.

In any event, the Trustee shall, as soon as practicable alter the forty-fifth day preceding the due date of any such Sinking Fund Installment, call for redemption a sufficient amount of Bonds of like Series and maturity to complete the retirement of the principal amount specified for such Sinking Fund Installment of such Bonds whether or not it then has moneys in the Debt Service Fund to pay the applicable Redemption Price thereof on the redemption date. The Trustee shall apply to the redemption of the Bonds on each such redemption date the amount required for the redemption of such Bonds. (Second General Resolution Section 506)

*Authority Expense Fund.* Amounts deposited to the Authority Expense Fund (1) for the payment of Authority Expenses shall be applied by the Trustee, upon requisition by the Authority, to the payment of Authority Expenses and (2) for the payment of Rebate Amounts shall be transferred to the Rebate Fund by the Trustee. Any moneys in the Authority Expense Fund which the Authority determines are in excess of that needed to meet the sum of the unpaid Authority Expenses for such Fiscal Year plus (if such amount was included in the Authority Budget for such Fiscal Year) the Reserve for Expenses, plus the amounts credited for deposit in the Rebate Fund, shall be applied toward any deficiencies in the following Funds and Accounts in the order stated: the Debt Service Fund, the Debt Service Reserve Fund and the Subordinated Indebtedness Fund. Any amounts credited to the Authority Expense Fund for the payment of Authority Expenses and remaining on deposit on the last day of each Fiscal Year shall be transferred to

the Board for deposit in the General Account of the Local Water Fund. Any amount deposited to the Authority Expense Fund created in the First General Resolution shall discharge any corresponding deposit requirements under the Second General Resolution. (Second General Resolution Section 507)

*Debt Service Reserve Fund.* The Second General Resolution establishes a Second Resolution Debt Service Reserve Fund and a Second Resolution Common Account therein. In addition, the Second General Resolution provides that any Supplemental Resolution which provides for a Special Credit Facility to secure the payment of the Principal Installments of and interest on the Bonds or the Tender Option Price of any Option Bonds may establish one or more "Special Accounts" in the Debt Service Reserve Fund. Upon the issuance of each Series of Bonds there shall be deposited in the Debt Service Reserve Fund the amount, if any, necessary to make the amount on deposit therein equal to the Debt Service Reserve Requirement after giving effect to the issuance of such Series of Bonds. Amounts on deposit in each of the Accounts in the Debt Service Reserve Fund will be applied, to the extent necessary, to pay the Principal Installments of and interest on the Bonds to which such Account relates.

If, as of January 1 of any year, the amount in any Account in the Debt Service Reserve Fund exceeds the applicable Debt Service Reserve Requirement after giving effect to any Financial Guaranty deposited in such Fund, the Trustee shall withdraw from such account the amount of any excess therein over the applicable Debt Service Reserve Requirement as of the date of such withdrawal and deposit the moneys so withdrawn into the General Account of the Local Water Fund. If, as of January 1 of any year the amount in any Account in the Debt Service Reserve Fund is less than the applicable Debt Service Reserve Requirement and, to the extent that such deficiency has not been made up by March 1 of such year by either (1) deposits pursuant to Section 505 of the Second General Resolution or (2) an increase in the market value of the Investment Securities therein, or (3) a combination of (1) and (2), the Authority shall, in its Authority Budget for the ensuing Fiscal Year, include the amount necessary to make up such deficiency as a Required Deposit.

Whenever the amount (exclusive of Financial Guarantees) in all of the Accounts in the Debt Service Reserve Fund, together with the amount in the Debt Service Fund, is sufficient to pay all Outstanding Bonds in accordance with their respective terms, the funds on deposit in the Debt Service Reserve Fund shall be transferred to the Debt Service Fund and applied to the redemption or payment at maturity of all Bonds Outstanding.

In lieu of the required deposits and transfers to any Account in the Debt Service Reserve Fund, the Authority may cause to be deposited into such Account Financial Guarantees in an amount equal to the difference between the applicable Debt Service Reserve Requirement and the sums, if any, then on deposit in such Account or being deposited in such Account concurrently with such Financial Guarantees; provided, however, that no Financial Guarantees shall be deposited with respect to any Series of Bonds for which a Credit Facility has been obtained without the consent of the issuer of such Credit Facility. The requirements applicable to the Financial Guarantees acceptable in connection with the Series 2003 Bonds are provided for in the First Supplemental Resolution. The Financial Guarantees shall be payable (upon the giving of notice as required thereunder) on any date on which moneys will be required to be withdrawn from such Account in the Debt Service Reserve Fund and applied to the payment of a Principal Installment of or interest on any Bonds and such withdrawal cannot be met by amounts on deposit in the Debt Service Reserve Fund. If a disbursement is made pursuant to Financial Guarantees, the Authority shall be obligated either (1) to reinstate the maximum limits of such Financial Guarantees or (2) to deposit into the applicable Account, funds in the amount of the disbursement made under such Financial Guarantees, or a combination of such alternatives, as shall provide that the amount in such Account equals the applicable Debt Service Reserve Requirement.

In the event of the refunding of any Bonds, the Trustee shall, upon the written direction of the Authority, withdraw from the Account in the Debt Service Reserve Fund related to the Bonds to be refunded all or any portion of amounts accumulated therein with respect to the Bonds being refunded and deposit such amounts as provided in such written direction; provided that such withdrawal shall not be made unless (1) immediately thereafter the Bonds being refunded shall be deemed to have been paid pursuant to Section 1201 of the Second General Resolution, and (2) the amount remaining in the Debt Service Reserve Fund after such withdrawal shall not be less than the Debt Service Reserve Requirement. (Second General Resolution Sections 502, 508 and 510)

*Subordinated Indebtedness Fund.* The Trustee shall apply amounts on deposit in the Subordinated Indebtedness Fund solely to the maintenance of reserves for, or the payment of, Subordinated Indebtedness (or as otherwise provided by the resolution of the Authority authorizing each issue of Subordinated Indebtedness). The Trustee shall withdraw from the Subordinated Indebtedness Fund any amount necessary to render the balances in the Debt Service Fund or Debt Service Reserve Fund sufficient to meet the requirements of such Funds. (Second General Resolution Section 509)

*Subordinated Indebtedness.* The Authority may issue Subordinated Indebtedness payable out of and secured by a pledge of and lien on amounts in the Subordinated Indebtedness Fund available for payment. Such Subordinated Indebtedness, however, shall be issued only for the purposes set forth in Section 206(A)(2) of the Second General Resolution and shall be secured by a pledge subordinate in all respects to the pledge created by the Second General Resolution as security for the Bonds. (Second General Resolution Section 511)

*Banking Depositaries.* All moneys or securities held by the Trustee shall constitute trust funds and the Trustee may, and shall, if directed by the Authority, deposit such moneys or securities with one or more Banking Depositaries. All moneys deposited under the provisions of the Second General Resolution with the Trustee or any Banking Depository shall be held in trust and applied only in accordance with the provisions of the Second General Resolution, and each of the Funds established by the Second General Resolution shall be a trust fund for the purposes thereof.

Each Banking Depository holding moneys or securities in trust for the Trustee shall be a bank or trust company organized under the laws of the State or a national banking association (having its principal within the State), having capital stock, surplus and undivided earnings aggregating at least \$75,000,000 and willing and able to accept the office on reasonable and customary terms and authorized by law in accordance with the provisions of the Second General Resolution. (Second General Resolution Section 512)

*Investment of Certain Funds.* Moneys held in the Debt Service Fund, the Debt Service Reserve Fund and the Subordinated Indebtedness Fund (subject to the terms of any resolutions or other instruments securing any issue of Subordinated Indebtedness) shall be invested and reinvested to the fullest practicable extent in Investment Securities which mature not later than such times as shall be necessary to provide moneys when needed to make payments required from such Funds; provided that in the case of the Debt Service Reserve Fund maturation may not occur later than five (5) years from the date of such investment, and in the case of the Debt Service Fund, investments shall be of the type described in clauses (A), (B), (C), (D), (E), (F) or (J), and in the case of the Debt Service Reserve Fund, clauses (A) or (B), of the definition of "Investment Securities" (in either case, to the fullest extent practicable). Moneys in the Revenue Fund, the Authority Expense Fund, the Construction Fund and the Rebate Fund may be invested and reinvested in Investment Securities which mature no later than such times as shall be necessary to provide moneys when needed to make payments from such Funds. The Trustee shall make all investments in accordance with written instructions from any Authorized

Representative of the Authority. Moneys in any Fund or Account may be combined with moneys in any other Fund or Account for the purpose of making such investments in Investment Securities.

Interest (net of that which represents a return of accrued interest paid in connection with the purchase of any investment) earned on any moneys or investments in the Funds and Accounts, other than the Debt Service Fund, the Rebate Fund, and, in the case of the Series 2000A Bonds, the Construction Fund, shall be paid by the Trustee to the Board for deposit in the General Account of the Local Water Fund, except that with respect to the Debt Service Reserve Fund such earnings shall be paid to the Board only to the extent that the amount on deposit therein exceeds the Debt Service Reserve Requirement. Interest (net of that which represents a return of accrued interest paid in connection with the purchase of any investment) earned on any moneys or investments in (1) the Debt Service Fund shall be retained in the Debt Service Fund, and (2) the Rebate Fund shall be paid into the Rebate Fund Earnings Account.

All Investment Securities acquired with moneys in any Fund or Account shall be held by the Trustee in pledge or by a Banking Depositary as agent in pledge in favor of the Trustee. (Second General Resolution Section 514)

*Additional Bonds.* The Authority may issue Bonds from time to time without limitation as to amount except as provided in the Second General Resolution or as specified by law to generate funds sufficient to meet the Costs of Projects or to refund any Bonds or any bonds, notes or other obligations issued by the Authority, including any Outstanding Priority Indebtedness (or heretofore by the City) to pay the costs of the System. All Bonds shall be issued subject to the terms, conditions and limitations established in the Second General Resolution and in one or more Supplemental Resolutions as therein provided.

Bonds shall be authenticated and delivered only upon the Trustee's receipt of, among other items:

- (A) a certified copy of the Supplemental Resolution authorizing such Series;
- (B) an opinion of Bond Counsel to the effect that (1) the Authority has the right and power to adopt the Second General Resolution and such Supplemental Resolution under the Act, (2) the Second General Resolution and such Supplemental Resolution have been duly and lawfully adopted by the Authority and are enforceable against the Authority in accordance with their terms, except as may be limited by bankruptcy, insolvency or other laws affecting creditors' rights and the unavailability of equitable remedies or the application of equitable principles, (3) the Second General Resolution and such Supplemental Resolution create the valid pledge which they purport to create of the Revenues and proceeds of the Bonds on deposit in any of the Funds, subject to the application thereof to the purposes and on the conditions permitted by the First General Resolution, the Second General Resolution, such Supplemental Resolution, the Act, and the Financing Agreement, (4) the Bonds of such Series are valid and binding special obligations of the Authority, enforceable in accordance with their terms and the terms of the Second General Resolution and such Supplemental Resolution, except as limited by bankruptcy, insolvency or other laws affecting creditors' rights and the unavailability of equitable remedies or the application of equitable principles, and (5) all conditions required by the First General Resolution, the Second General Resolution and such Supplemental Resolution precedent to the issuance of the Bonds have been met and, upon the execution, authentication and delivery thereof, the Bonds of such Series will have been duly and validly authorized and issued in accordance with the Act, the First General Resolution, the Second General Resolution and such Supplemental Resolution;

- (C) a written order as to the delivery of such Bonds, signed by an Authorized Representative of the Authority;
- (D) in the case of any Series of Bonds subsequent to the initial Series of Bonds, an executed copy of any amendment or supplement to the Financing Agreement not theretofore delivered to the Trustee;
- (E) for deposit in the Construction Fund, the balance of the proceeds of such Series;
- (F) except in the case of the initial Series of Bonds and any Series of Refunding Bonds, a Certificate of an Authorized Representative of the Authority setting forth (1) the Operating Revenues for either of the last two full Fiscal Years immediately preceding the Fiscal Year in which such Bonds are to be issued, (2) the Aggregate Debt Service during such Fiscal Year for which Operating Revenues are set forth pursuant to clause (1), excluding from Aggregate Debt Service any Principal Installment or portion thereof which was paid from sources other than Operating Revenues, and (3) the sum of the Operating Expenses and the Required Deposits for such Fiscal Year, and showing that the amount set forth in (1) is at least equal to the sum of (a) an amount equal to 115% of the amount set forth in (2) and (b) an amount equal to 100% of the amount set forth in (3);
- (G) except in the case of any Series of Refunding Bonds, a Certificate of the Consulting Engineer setting forth the projected Operating Expenses for each of the five Fiscal Years following the issuance of such Series of Bonds, plus the Fiscal Year in which such Bonds are issued;
- (H) except in the case of any Series of Refunding Bonds, a Certificate of an Authorized Representative of the Authority setting forth the estimated Required Deposits for each of the five Fiscal Years following the issuance of such Series of Bonds, plus the Fiscal Year in which such Bonds are issued;
- (I) except in the case of any Series of Refunding Bonds, a Certificate of the Rate Consultant (1) setting forth the estimated Operating Revenues for each of the five Fiscal Years following the issuance of such Series of Bonds, plus the Fiscal Year in which such Bonds are issued, after giving effect to any increases or decreases in rates, fees and charges projected for such Fiscal Years, and (2) showing for each such Fiscal Year that the estimated Operating Revenues for such Fiscal Year will be at least equal to the sum of (a) 115% of the maximum estimated Adjusted Aggregate Debt Service in any future Fiscal Year on all Bonds Outstanding (including the Bonds then to be issued) and (b) 100% of the sum of the projected Operating Expenses and Required Deposits, as shown on the Certificate of the Consulting Engineer delivered pursuant to paragraph (G) above and the Certificate of the Authority delivered pursuant to paragraph (H) above, respectively;
- (J) except in the case of any Series of Refunding Bonds, a Certificate of each of the respective Authorized Representatives of the Authority, the Board and the City, each dated as of the date of such delivery, stating that (1) the Authority is not in default in the performance of any of the covenants, conditions, agreements or provisions contained in the Second General Resolution, (2) the Board is not in default in the performance of any of the covenants, conditions, agreements or provisions contained in the Financing Agreement, the Operation Agreement or the Acquisition Agreement, and (3) the City is not in default in the performance of any of the covenants, conditions, agreements or provisions contained in the Financing Agreement, the Operation Agreement or the Acquisition Agreement;

(K) in the case of any Series for which Capitalized Interest has been provided by the Supplemental Resolution authorizing such Series, (1) the written direction of an Authorized Representative of the Authority to establish the sub-account for such Series in the Capitalized Interest Account in the Debt Service Fund and (2) the amount of the proceeds of such Series to be deposited therein; and

(L) such further documents and moneys as are required by the provisions of the Second General Resolution or any Supplemental Resolution. (Second General Resolution Section 206)

*Refunding Bonds.* One or more Series of Refunding Bonds may be issued pursuant to the Second General Resolution at any time to refund any Outstanding Bonds, provided that, except in the case of the initial series of Bonds issued under the Second General Resolution, (1) the average annual Debt Service on such Series of Refunding Bonds shall not exceed the average annual Debt Service on the Bonds or Priority Indebtedness to be refunded and (2) the maximum Debt Service in any Fiscal Year on such Series of Refunding Bonds shall not exceed the maximum Debt Service in any Fiscal Year on the Bonds to be refunded, all as shown in a Certificate signed by an Authorized Representative of the Authority and delivered to the Trustee prior to the authentication and delivery of such Series of Refunding Bonds. Refunding Bonds shall be issued in a principal amount sufficient, together with other moneys available therefor, to accomplish such refunding and to make the deposits in the Funds and Accounts required by the provisions of the Supplemental Resolution authorizing such Bonds or the Bond Series Certificate with respect to such Bonds. (Second General Resolution Section 207)

*Bond Anticipation Notes.* Whenever the Authority shall authorize the issuance of a Series of Bonds, the Authority may, by resolution, authorize the issuance of notes (and renewals thereof) in anticipation of such Series. The principal of and interest on such notes and renewals thereof shall be payable from the proceeds of such notes or from the proceeds of the sale of the Series of Bonds in anticipation of which such notes are issued. The proceeds of such Bonds may be pledged for the payment of the principal of and interest on such notes and any such pledge shall have a priority over any other pledge of such proceeds created by the Second General Resolution. The Authority may also pledge the Revenues to the payment of the interest on and subject to Section 707 of the Second General Resolution, the principal of such notes. A copy of the resolution of the Authority authorizing such notes, certified by an Authorized Representative of the Authority, shall be delivered to the Trustee following its adoption, together with such other information concerning such notes as the Trustee may reasonably request. (Second General Resolution Section 208)

*Credit Facilities; Interest Rate Exchange.* In connection with the issuance of any Series of Bonds, the Authority may obtain or cause to be obtained one or more Credit Facilities providing for payment of all or a portion of the Principal Installments or Redemption Price or interest due or to become due on such Bonds, providing for the purchase of such Bonds by the issuer of such Credit Facility or providing funds for the purchase of such Bonds by the Authority. (The Authority in the First Supplemental Resolution designates the Policy as the Credit Facility with respect to the Series 2003 Bonds.)

The Authority may secure such Credit Facility by an agreement providing for the purchase of the Series of Bonds secured thereby with such adjustments to the rate of interest, method of determining interest, maturity or redemption provisions as specified by the Authority in the applicable Supplemental Resolution. The Authority may also in an agreement with the issuer of such Credit Facility agree to directly reimburse such issuer for amounts paid under the terms of such Credit Facility, together with interest thereon; provided, however, that no Reimbursement Obligation shall be created until amounts are paid under such Credit Facility. Any such Reimbursement Obligation may be secured by a lien on Revenues on a parity with the lien created by Section 501 of the Second General Resolution (in which case such Reimbursement Obligation shall be a Parity Reimbursement Obligation). Any such Parity

Reimbursement Obligation shall be deemed to be part of the Series of Bonds to which the Credit Facility which gave rise to such Parity Reimbursement Obligation relates.

Any such Credit Facility shall be for the benefit of and secure such Series of Bonds or portion thereof as specified in the applicable Supplemental Resolution or related Bond Series Certificate.

In connection with the issuance of any Series of Bonds under the Second General Resolution, the Authority may obtain or cause to be maintained one or more Interest Rate Exchange Agreements. The Authority may agree that payments by the Authority under the Interest Rate Exchange Agreement may be secured by a pledge of, and a lien on Revenues on a parity with the lien created by Section 501, and any payment so secured shall be a Parity Reimbursement Obligation hereunder. (Second General Resolution Section 209)

*Tax Covenants.* The Authority shall not permit the use of the proceeds of the Bonds or other funds of the Authority to purchase securities or obligations the acquisition of which would cause any Bond to be an “arbitrage bond” as defined in the Code. Unless otherwise provided in the Supplemental Resolution authorizing such Series of Bonds, the Authority shall not permit the use of the proceeds of the Bonds or other funds of the Authority in a manner, or take or omit to take any action, which would result in the exclusion of any Bond from the treatment afforded by Section 103(a) of the Code. The Authority further covenants to comply with the rebate requirements (including the prohibited payment provisions) contained in Section 148(f) of the Code and any regulations promulgated thereunder, including the payment of any Rebate Amount, to the extent applicable, and to pay any interest or penalty imposed by the United States for failure to comply with said rebate requirements, to the extent applicable. (Second General Resolution Section 705)

*Accounts and Periodic Reports and Certificates.* The Authority shall keep proper books of record and account (separate from all other records and accounts) in which complete and correct entries shall be made of its transactions under the Second General Resolution and which, together with all other books and papers of the Authority, shall at all reasonable times be subject to the inspection of the Trustee or the representative, duly authorized in writing, of the holder or holders of not less than 25% in principal amount of the Bonds then Outstanding. (Second General Resolution Section 706)

*Indebtedness and Liens.* The Authority shall not issue any bonds, notes or other evidences of indebtedness, other than the Bonds, Bond Anticipation Notes, Subordinated Indebtedness and Parity Reimbursement Obligations, secured by a pledge of or other lien on the Revenues and shall not create or cause to be created any lien on such Revenues or on any amounts held by any Fiduciary, under the First General Resolution; however, the Authority may (1) issue notes payable from the proceeds of Bonds, (2) issue bonds or notes or other obligations for the corporate purposes of the Authority payable out of, or secured by a pledge of, Revenues derived on and after such date as the pledge of the Revenues provided in the Second General Resolution is discharged and satisfied, and (3) issue bonds or notes or other obligations for the corporate purposes of the Authority payable out of or secured by the pledge of amounts in the Local Water Fund after satisfaction, in each month, of the Minimum Monthly Balance and Required Deposits for such month, and which recite on their face that such pledge of said amounts is and shall be in all respects subordinate to the provisions of and the lien and pledge created by the First General Resolution and the Second General Resolution. (Second General Resolution Section 707)

*Agreement of the State.* Pursuant to Section 1115-s of the Act, the State has pledged and agreed that it will not alter or limit the rights vested by the Act in the Authority or the Board to fulfill the terms of any agreement made with or for the benefit of the Bondholders, or in any way impair the rights and remedies of Bondholders, until the Bonds, together with the interest thereon, with interest on any unpaid

installment of interest, and all costs and expenses in connection with any action or proceeding by or on behalf of such holders, are fully met and discharged. (Second General Resolution Section 711)

*Authority Budget.* The Authority shall, on or before November 1 in each Fiscal Year, adopt and file with the Trustee and the Board a certified copy of the Authority Budget, showing the Aggregate Debt Service and Projected Debt Service for all Projected Series of Bonds and the aggregated debt service for any Subordinated Indebtedness (including the amount of each item constituting a component thereof, on a monthly basis) together with any other information required to be set forth therein by the First General Resolution, the Second General Resolution or the Financing Agreement. Such Authority Budget may set forth such additional information as the Authority may determine or as the Board may request. If for any reason the Authority shall not have adopted the Authority Budget before such November 1, the Authority Budget for the then current Fiscal Year shall be deemed to be the Authority Budget for the ensuing Fiscal Year until a new Authority Budget is adopted. The Authority may at any time adopt an amended Authority Budget for the then current or ensuing Fiscal Year, and shall adopt an amended budget upon the occurrence of any change in the Aggregate Debt Service, Projected Debt Service or the debt service on Subordinated Indebtedness, but no such amended Authority Budget shall supercede any prior Authority Budget until the Authority shall have filed with the Trustee and the Board a copy of such amended Authority Budget. (Second General Resolution Sections 712 and 713)

*Supplemental Resolutions.* The Second General Resolution permits the modification or amendment of the rights and obligations of the Authority and of the holders of the Bonds thereunder by a Supplemental Resolution, with the written consent of (1) the issuer of a Credit Facility, if any, with respect to any Series of Bonds, (2) the holders of two-thirds of the principal amount of the Bonds then Outstanding and (3) in case less than all of the several Series of Bonds then Outstanding are affected by the modification or amendment, of the Bonds of the Series so affected then Outstanding; provided, however, that, if such modification or amendment will, by its terms, not take effect so long as any Bonds of any specified like Series and maturity remain Outstanding, the consent of the holders of such Bonds shall not be required and such Bonds shall not be deemed to be Outstanding for the purpose of modification. No such modification or amendment shall change the terms of redemption or maturity of principal of any Outstanding Bond or of any installment of interest thereon or reduce the principal amount, Redemption Price or rate of interest without the consent of the holder of the affected Bond, or reduce the percentages of consents required to effect any future modification or amendment.

The Authority may adopt (without the consent of any holders of the Bonds) Supplemental Resolutions to authorize additional Bonds; to add to the restrictions contained in the First General Resolution upon the issuance of additional indebtedness; to add to the covenants of the Authority contained in, or surrender any rights reserved to or conferred upon it by, the Second General Resolution; to confirm any pledge under the Second General Resolution of Revenues or other moneys; to preserve the federal tax exemption of interest on the Bonds; or otherwise to modify any of the provisions of the Second General Resolution (but no such other modification may be effective while any of the Bonds of any Series theretofore issued are Outstanding); or to cure any ambiguity, supply any omission or to correct any defect in the Second General Resolution or to insert such provisions clarifying matters of questions arising under the Second General Resolution as are necessary or desirable, and are not contrary to or inconsistent with the Second General Resolution as theretofore in effect or to provide for additional duties of the Trustee (provided that the Trustee shall consent thereto). (Second General Resolution Articles VIII and IX)

*Defaults and Remedies.* The Second General Resolution provides that if one or more of the following Events of Default shall occur, namely: (1) a default in the payment of the principal or Redemption Price of any Bond; (2) a default in the payment of any installment of interest on any Bonds; (3) a default by the Authority in the performance or observance of any other of its covenants, agreements

or conditions on its part in the Second General Resolution, the Mortgage, any Supplemental Resolution or the Bonds for a period of 30 days after written notice thereof; (4) a default under the Financing Agreement or the Acquisition Agreement by the Board or the City for a period of 30 days after written notice thereof; or (5) a filing of a petition for relief under any general or State bankruptcy or similar law by the Authority, or (6) a default by the Authority under the First General Resolution; then, upon the happening and continuance of any Event of Default, the Trustee may, and upon the written request of the holders of not less than a majority in principal amount of the Bonds Outstanding, and, with respect to any Series of Bonds for which a Credit Facility has been obtained, the consent of the issuer of such Credit Facility, the Trustee shall, declare the principal and accrued interest on all the Bonds then Outstanding, due and payable immediately, subject, however, to rescission of such declaration and annulment of the default upon the remedying thereof.

The Authority covenants that upon the occurrence of an Event of Default, the books of record and account of the Authority shall at all times be subject to the inspection and use of the Trustee and of its agents and attorneys and that, upon demand of the Trustee, the Authority will account, as if it were the trustee of an express trust, for all Revenues and other moneys, securities and funds pledged or held under the Second General Resolution for such period as shall be stated in such demand.

Upon default, the Trustee may proceed to protect and enforce its rights under the Mortgage and the rights of the holders of the Bonds under the Second General Resolution forthwith by a suit or suits in equity or at law, whether for the specific performance of any covenant therein contained, or in aid of the execution of any power therein granted, or for an accounting against the Authority as if the Authority were the trustee of an express trust, or in the enforcement of any other legal or equitable right as the Trustee, being advised by counsel, shall deem most effectual to enforce any of its rights or to perform any of its duties under the Second General Resolution.

During the continuance of an Event of Default, Revenues shall be applied first, to the reasonable and proper charges and expenses of the Trustee; then (unless the principal of all of the Bonds shall have been declared payable) to the payment of all unpaid interest ratably, and then to unpaid principal or Redemption Price, ratably; and if all of the principal of the Bonds shall be due and payable, to the payment of unpaid principal and interest without preference or priority of interest over principal, principal over interest or of any Bond or installment over any other Bond or installment, without any discrimination or preference.

No Bondholder has any right to institute suit to enforce any provision of the Second General Resolution or the execution or any trust thereunder or for any remedy thereunder, unless the Trustee has been requested by the holders of at least a majority in principal amount of the Bonds to take such action and has been offered adequate security and indemnity and has failed to commence such suit in the manner provided in the Second General Resolution. (Second General Resolution Article X)

*Subordination to First General Resolution.* All rights and remedies of the Trustee set forth in the Second General Resolution for the benefit of the holders of the Bonds are subject and subordinate to the rights and remedies of the Trustee for the benefit of the holders of the Priority Indebtedness under the First General Resolution. (Second General Resolution Section 1009)

*Defeasance of Bonds Other than Variable Rate or Option Bonds.* Any Outstanding Bond shall prior to the maturity or redemption date thereof be deemed to have been paid and shall cease to be entitled to any lien, benefit or security under the Second General Resolution if (1) in the case of any Bonds to be redeemed prior to their maturity, the Authority shall have given to the Trustee irrevocable instructions accepted in writing by the Trustee to give notice of redemption of such Bonds (other than Bonds purchased by the Trustee prior to the giving of the notice of redemption) and (2) there shall have been

deposited with the Trustee either moneys in an amount sufficient, or Defeasance Obligations the principal of and interest on which, when due, without reinvestment, will provide moneys which, together with the moneys deposited, shall be sufficient to pay when due the Principal Installments or Redemption Price, if applicable, and interest due and to become due on said Bonds.

The Trustee shall, if so directed by the Authority prior to the maturity date of Bonds deemed to have been paid which are not to be redeemed prior to their maturity date or prior to the publication of the above notice of redemption for Bonds deemed paid and to be redeemed, apply moneys deposited with the Trustee in respect of such Bonds and redeem or sell Defeasance Obligations so deposited with the Trustee and purchase such Bonds and the Trustee shall immediately thereafter cancel all such Bonds so purchased; provided, however, that the moneys and Defeasance Obligations remaining on deposit with the Trustee after the purchase and cancellation of such Bonds shall be sufficient to pay when due the Principal Installment or Redemption Price, if applicable, and interest due or to become due on all Bonds. (Second General Resolution Section 1201)

*Defeasance of Variable Rate Bonds.* The Second General Resolution provides that for the purposes of determining whether Variable Rate Bonds shall be deemed to have been paid prior to the maturity or redemption date thereof, by the deposit of moneys, or Defeasance Obligations and moneys, if any, the interest due on such Bonds shall be calculated at the maximum rate permitted; provided, however, that if, as a result of such Bonds having borne interest at less than the maximum rate for any period, the total amount of moneys and Defeasance Obligations on deposit with the Trustee for the payment of interest on such Bonds exceeds the total amount required to be deposited with the Trustee, the Trustee shall, if requested by the Authority, pay the amount in excess to the Authority free and clear of any lien or pledge securing the Bonds or otherwise existing under the Second General Resolution. (Second General Resolution Section 1201)

*Defeasance of Option Bonds.* Option Bonds shall be deemed paid in accordance with the Second General Resolution only if, in addition to satisfying several of the requirements applicable to other than Variable Rate or Option Bonds, there shall have been deposited with the Trustee moneys in an amount which shall be sufficient to pay the maximum amount of principal of and premium due, if any, and interest on such Bonds which could become payable to the holders of such Bonds upon the exercise of any options provided to the holders of such Bonds; provided, however, that if the options originally exercisable by the holder of an Option Bond are no longer exercisable, such Bond shall not be considered an Option Bond. (Second General Resolution Section 1201)

### **Summary of the Operation Agreement**

*Revenues of the Board.* All Revenues received by the Board shall belong to the Board, and shall be applied in accordance with the provisions of the Financing Agreement, the First General Resolution and the Second General Resolution. (Operation Agreement Section 2.1)

*Substitution of Board for City.* Wherever necessary or desirable and to the extent permitted by law, the City and the Board agree to use their best efforts to substitute the Board for the City with respect to any application or proceedings filed or commenced in relation to the System with the various State and Federal regulatory bodies having jurisdiction over the System. To the extent permitted by law, the City and the Board agree any such application or proceeding shall inure to and be for the benefit of the Board and shall be binding upon the Board to the same extent and in the same manner as if the Board had been a party to such application or proceeding from its inception, and that the Board shall be deemed a party thereto. To the extent permitted by such regulatory bodies, all licenses, approvals, permits or decisions issued or granted pursuant to or as a result of any such application or proceeding, shall inure to the benefit

of and be binding upon the Board, and the City agrees to assign and transfer same to the Board to the extent permitted by law. (Operation Agreement Section 2.2)

*Indemnification.* The City agrees, subject to certain conditions, to hold the Board harmless from any and all liability, loss or damage from or in connection with any act the Board does or omits in the exercise of its powers if taken or omitted in good faith and in pursuance of its corporate powers. (Operation Agreement Sections 2.3 and 2.4)

*City to Operate and Maintain System.* The Board delegates its general power to operate and maintain the System to the City. The Board is entitled to actively participate with the City with respect to all substantially material decisions affecting the operation and maintenance of System. The City agrees to administer, operate and maintain the System in good and safe order and condition, and to make all necessary repairs in connection therewith. The City's duty to "maintain" and "repair" shall include all necessary repairs, replacements, renewals, alterations and additions, whether structural, non-structural, ordinary or extraordinary and its duty to "administer" shall include, without limitation, the enforcement of regulations of the Board and the City relating to the use of the System.

The Board shall advise and consult with the City in connection with the administration, operation, maintenance and repair of the System. Subject to certain conditions, if the Board perceives any deficiencies in the City's operation, maintenance or repair of the System, the Board may correct such deficiency. (Operation Agreement Section 3.1)

The City and the Board shall use all reasonable care to prevent the occurrence of waste, damage or injury to the System. The City and the Board have covenanted to use, operate and maintain the system in accordance with all applicable laws, including the applicable rules and regulations of the Board and the City. The City shall continue to exercise its powers pursuant to applicable law to administer, operate, maintain and regulate the use of the System. The exercise of such powers by the City shall not, however, diminish the power of the Board pursuant to the Act to promulgate such rules and regulations as it may deem necessary from time to time. (Operation Agreement Sections 3.2 and 3.3)

*Constructions and Acquisition by City.* The City may incur Costs for the Construction, effectuation and financing of Projects in accordance with a Project capital plan mutually agreed to by the City and the Board. Such Projects may be financed from the Construction Fund in accordance with the provisions of the Financing Agreement. Projects may be financed from the Operation Account or the Operation and Maintenance Reserve Account in the Local Water Fund if such Projects are specified and approved in the Project capital plan agreed upon by the Board and the City.

The City may acquire all real and personal property, or any interest therein, necessary or useful for the Construction or effectuation of a Project; provided that all such property or interest acquired by the City through the exercise of the power of eminent domain shall be taken in the name of the City. (Operation Agreement Sections 4.1 and 4.3)

*Construction by Board.* The Board may also incur Costs for the Construction, effectuation and financing of Projects. Subject to certain conditions and limitations, the Costs of such Projects shall be paid from the Ongoing Project Account in the Local Water Fund. (Operation Agreement Section 4.2)

*Billing and Levy of Water and Sewer Charges.* The City has agreed to provide billing, accounting, collection and budgeting services to the Board. Such services include but are not limited to: (1) notification to users of the System of the water and sewer charges levied by the Board, (2) collection of such charges (including the City's use of its power of enforcement and collection of unpaid taxes under the laws of the State to enforce and collect any delinquent water and sewer charges from the persons and

property liable therefor) and (3) maintenance of the books, records and accounts of the billing systems. (Operation Agreement Sections 5.1 and 5.2)

*Late Payments.* All late payments of water and sewer charges are the property of the Board and shall be collected by the City on behalf of the Board through interim proceedings or otherwise. (Operation Agreement Section 5.3)

*Discontinuance of Billing Services.* If either the City or the Board no longer desires that the City provide the Board with billing services, the party desiring termination shall give written notice of such fact to the other party at least two years prior to the termination. Notwithstanding such termination of billing services, Section 5.2 of the Operation Agreement, relating to delinquent water and sewer charges, shall remain in full force and effect. (Operation Agreement Section 5.4)

*Payments of Costs by the Board.* The Board has agreed to pay the City amounts sufficient to: (1) pay the cost of administration, maintenance, repair and operation of the System, including overhead costs incurred by the City attributable thereto (but less the amount of any governmental operating aid received or receivable within the current Fiscal Year with respect to the System), (2) pay the cost of materials and supplies for the System, (3) pay the amount of any judgment or settlement paid by the City arising out of a tort claim (but only if the costs of such claim are not otherwise reimbursed and the City's liability for such claim is related to Construction of a Project or operation or maintenance of the System), (4) pay compensation, or the cost of services, of any City officers and employees provided on a full-time or part-time basis to the Board, and (5) reimburse the City for Costs incurred by the City for the Construction of Projects (if requested by the City and not otherwise reimbursed) including, without limitation, the payment of any judgment or settlement arising out of a contract claim related to the Construction of any Project. The Board has agreed to provide free use of the System to the City for its governmental purposes in exchange for billing, collection, budgeting, accounting and enforcement services provided by the City. (Operation Agreement Section 6.1)

*Method of Payment.* The City shall certify within five business days after publication of the City's Budget for the ensuing Fiscal Year the amount which the City reasonably anticipates it will expend in connection with the operation and maintenance of the System; provided that, prior to its payment to the City, the Board shall have received, in addition to such certification by the City, a certificate of the Consulting Engineer or the Rate Consultant to the effect that such amounts certified by the City for such payments and costs are reasonable and appropriate. In the event that in any Fiscal Year, the City incorrectly estimates the amounts to be expended in such year, the City shall deliver to the Board a certificate of the Consulting Engineer or the Rate Consultant and a supplemental certificate of the City stating the new estimates. (Operation Agreement Sections 6.2 and 7.1)

*Disposition of Property.* The Board agrees that it will not sell, lease, sublease, assign, transfer, encumber (other than Permitted Encumbrances) or otherwise dispose of any part of the System, or any other property which may be acquired by the Board, or its interest in the Operation Agreement, without the prior written approval of the Mayor.

The City may request the Board to dispose of personal property included in the System. In the case of personal property the value of which is less than \$1 million per unit, the Board will adopt rules and procedures for the expedited disposition thereof. Upon the City's request to dispose of any personal property valued in excess of \$1 million, the Board will give such consent only upon receipt of a certificate signed by the Consulting Engineer to the effect that such personal property may be disposed of without materially or adversely affecting the Revenues of the System or impairing the ability of the Board to make any payments required by the Operation Agreement or the Financing Agreement or any other agreement to which it may be a party or be bound. The Board may also, with the prior written consent of

the City, grant Permitted Encumbrances on the System which, in the reasonable judgment of the Board, do not interfere with the operation and maintenance of the System and the collection of the Revenues from the System. (Operation Agreement Section 9.1)

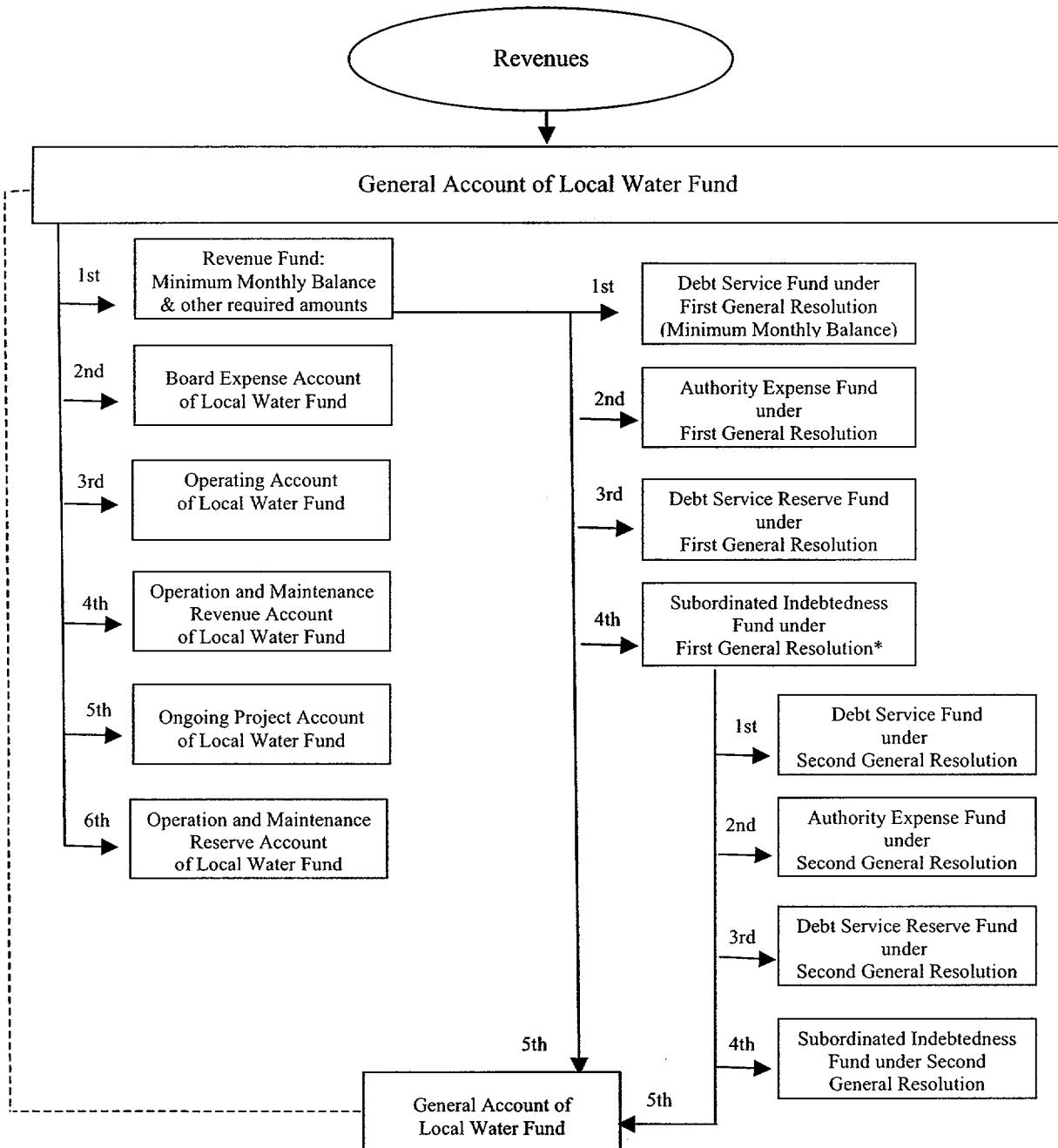
*Encumbrances.* Other than pursuant to the Mortgage or Permitted Encumbrances, the Board may not authorize any use of, or grant any lien, encumbrance, security interest, license, easement or right-of-way in connection with, the System without the prior written approval of the City. (Operation Agreement Section 9.2)

## **APPENDIX F**

### **DIAGRAM OF FLOW OF FUNDS UNDER THE FIRST GENERAL RESOLUTION AND THE SECOND GENERAL RESOLUTION**

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The following diagram describes the flow of moneys in the funds and accounts created under the First General Resolution and the Second General Resolution.



\* Under the Second General Resolution, amounts deposited in the Subordinated Revenue Fund under the First General Resolution are transferred to the Revenue Fund created under the Second General Resolution. The funds are then transferred in accordance with the terms of the Second General Resolution as described in this diagram.

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**APPENDIX G**

**FORM OF APPROVING OPINION OF BOND COUNSEL  
REGARDING SERIES 2003 BONDS**

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## **APPENDIX G**

### **FORM OF APPROVING OPINION OF BOND COUNSEL REGARDING SERIES 2003 BONDS**

September 3, 2003

Albany Municipal Water Finance Authority  
City Hall  
Eagle Street  
Albany, New York 12207

Ladies and Gentlemen:

We have acted as bond counsel in connection with the issuance on the date hereof by Albany Municipal Water Finance Authority (the "Authority") of its Second Resolution Revenue Bonds, Series 2003A in the aggregate principal amount of \$46,745,000 (the "Series 2003A Bonds") and its Second Resolution Revenue Bonds, Series 2003B in the aggregate principal amount of \$23,605,000 (the "Series 2003B Bonds" and, with the Series 2003A Bonds, the "Series 2003 Bonds").

The Series 2003 Bonds are authorized to be issued pursuant to (i) Chapter 868 of the Laws of 1986 of the State of New York (the "State") constituting Title 6 of Article 5 of the Public Authorities Law of the State, as amended (the "Act"), (ii) the Water and Sewer System General Revenue Bond Resolution adopted by the Authority on January 22, 1988 (the "First General Resolution"), (iii) the Second Water and Sewer System General Revenue Bond Resolution adopted by the Authority on June 20, 2003 (the "Second General Resolution"), (iv) the First Supplemental Resolution to Second Water and Sewer System General Revenue Bond Resolution adopted by the Authority on June 20, 2003 (the "First Supplemental Resolution" and, together with the First General Resolution and the Second General Resolution, the "Resolutions") and (v) the Bond Series Certificate for the Series 2003A Bonds and the Series 2003B Bonds dated the date of delivery of the Series 2003 Bonds (the "Series Certificate") executed and delivered pursuant to the First Supplemental Resolution.

The Series 2003 Bonds are issued as fully registered bonds without coupons and mature and bear interest as set forth therein. The Series 2003 Bonds of each Series are subject to redemption prior to maturity in the manner and upon the terms and conditions set forth in, respectively, the Series 2003A Bonds and the Series 2003B Bonds and in the Resolutions. The principal of, redemption premium, if any, and interest on the Series 2003 Bonds are payable from the Revenues (as defined in the Resolutions).

The Series 2003A Bonds are being issued to finance (A) the refunding of a portion of the outstanding aggregate principal amount of the Authority's Water and Sewer System Revenue Bonds, Series 1993A, (B) the refunding of the outstanding aggregate principal amount of the Authority's Water and Sewer System Revenue Bonds, Series 2000A, (C) (D) the funding of certain reserves of the Authority, and (E) payment of the costs of issuance of the Series 2003A Bonds.

The Series 2003B Bonds are being issued to finance (A) the costs of the various capital projects and improvements relating to the water and sewer systems of the Albany Water Board (the "Board") serving the City of Albany, New York, including certain costs previously financed by the bond

anticipation notes of the Authority,, (B) the funding of certain reserves of the Authority, and (C) payment of the costs of issuance of the Series 2003B Bonds.

We have examined a specimen of the Series 2003A Bonds and a specimen of the Series 2003B Bonds and executed counterparts of the Resolutions, the Series Certificate and a certain tax compliance agreement relating to the Series 2003 Bonds executed by the Authority and the Board and dated the date hereof (the "Series 2003 Tax Compliance Agreement").

As bond counsel, we have examined originals or copies, certified or otherwise identified to our satisfaction, of such instruments, certificates and documents (including all documents constituting the record of proceedings with respect to the issuance of the Series 2003 Bonds) as we have deemed necessary or appropriate for the purposes of the opinions rendered below. In such examination, we have assumed the genuineness of all signatures, the authenticity and due execution of all documents submitted to us as originals and the conformity to the original documents of all documents submitted to us as copies. As to any facts material to our opinion, without having any independent investigation, we have relied upon, and assumed the accuracy and truthfulness of, the aforesaid instruments, certificates and documents.

The Internal Revenue Code of 1986, as amended (the "Code"), imposes various requirements which must be met upon and subsequent to the issuance and delivery of the Series 2003 Bonds in order that interest on the Series 2003 Bonds will be and remain excludable from gross income for federal income tax purposes. Included among these requirements are restrictions on the investment and use of proceeds of the Series 2003 Bonds and the rebate of certain earnings in respect of such investments to the United States. Failure to comply with the requirements of the Code may cause interest on the Series 2003 Bonds to be includable in gross income for purposes of federal income tax, possibly from the date of issuance of the Series 2003 Bonds. The Authority and the Board have covenanted to comply with certain procedures, and have made certain representations and certifications designed to assure satisfaction of the requirements of the Code. Our opinion in paragraph (vii) hereinbelow assumes compliance with such covenants and the accuracy, in all material respects, of such representations and certifications. We express no opinion with respect to the exclusion from gross income for federal income tax purposes of interest on the Series 2003 Bonds in the event that any such representations and certifications are materially inaccurate or that there occurs a failure to comply with such covenants nor do we express any opinion regarding federal tax consequences arising with respect to the Series 2003 Bonds other than as expressed in paragraph (vii) below.

Based upon the foregoing, it is our opinion that:

- (i) The Authority is a duly created and validly existing corporate governmental agency constituting a public benefit corporation under the laws of the State.
- (ii) The Authority has the right and power under the Act (a) to issue, execute, sell and deliver the Series 2003 Bonds, (b) to assign its interest in the Revenues to the Trustee as provided in the Resolutions and (c) to enter into the Series 2003 Tax Compliance Agreement.
- (iii) The Resolutions have been duly and lawfully adopted by the Authority and are in full force and effect and the Series Certificate has been duly executed by the Authority and is in full force and effect.
- (iv) The Series 2003 Tax Compliance Agreement has been duly authorized and lawfully executed and delivered by the Authority and (assuming the authorization, execution and

delivery by the other respective parties thereto) creates valid and legally binding obligations of the Authority enforceable against it in accordance with its terms.

(v) The Series 2003 Bonds have been duly authorized, executed, delivered and issued for value by the Authority in conformity with all applicable laws and the provisions of the Resolutions and the Series Certificate and constitute valid and legally binding special obligations of the Authority enforceable against it in accordance with their terms. The Series 2003 Bonds are payable solely from the Revenues and the other monies and assets pledged therefor under the Resolutions. The Resolutions create a valid pledge of and a valid lien upon the Revenues, except as set forth therein, and subject only to the provisions of the Resolutions permitting the use and payment thereof for or to the purposes and on the terms and conditions set forth in the Resolutions. The Series 2003 Bonds are subordinate to the Priority Indebtedness (as defined in the Second General Resolution).

(vi) The Series 2003 Bonds do not constitute a debt of the State or of any political subdivision thereof, including, without limitation, the City of Albany, and neither the State nor any political subdivision thereof, including, without limitation, the City of Albany, will be liable thereon.

(vii) Interest on the Series 2003 Bonds is excluded from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations; it should be noted, however, that for the purpose of computing the alternative minimum tax imposed on certain corporations (as defined for federal income tax purposes), such interest is taken into account in determining adjusted current earnings. Interest on the Series 2003 Bonds is exempt from State of New York and City of New York personal income taxes.

In rendering our opinion, we wish to advise you that:

(a) The enforceability against the Authority of the Series 2003 Bonds, the Resolutions and the Series 2003 Tax Compliance Agreement may be limited by any applicable bankruptcy, insolvency or other similar law or enactment now existing or hereafter enacted by the State or the Federal government affecting the enforcement of creditors' rights generally.

(b) Equitable remedies with respect to any of the documents described in paragraph (a) above (and with respect to any other documents) lie in the discretion of a court and may not be available.

(c) In rendering our opinion set forth in paragraph (vii) above, we have assumed the accuracy of the factual information and the truthfulness of the expectations set forth in the Series 2003 Tax Compliance Agreement and have assumed the accuracy of all representations and certifications, and the compliance with all covenants, made and undertaken to satisfy the requirements of the Code in respect of the Series 2003 Bonds.

(d) We express no opinion as to the title to, or the sufficiency (insofar as it relates to the title of the System) of the description in the Resolutions or the Series 2003 Tax Compliance Agreement of the System or the existence of any liens or encumbrances on the System.

(e) Certain requirements and procedures contained or referred to in the Resolutions and certain other documents delivered in connection with the issuance of the Series 2003 Bonds may be changed, and certain actions may be taken or omitted under the circumstances and subject to

the terms and conditions set forth in such documents, upon the advice, or with the approving opinion of Bond Counsel. We express no opinion as to any Series 2003 Bond or the interest thereon if any such change occurs or action is taken upon the advice or approval of bond counsel other than Hiscock & Barclay, LLP.

We call attention to the fact that we have not been requested to examine, and have not examined, any documents or information relating to the Authority other than the record of proceedings hereinabove referred to, and no opinion is expressed as to any financial or other information, or the adequacy thereof, which has been, or may be, supplied to any purchaser of the Series 2003 Bonds.

We have examined executed Series 2003A Bond numbered AR-1 and executed Series 2003B Bond numbered BR-1, each in fully registered form and, in our opinion, the forms of said Bonds and their execution are regular and proper.

Very truly yours,

APPENDIX H  
FORM OF CONTINUING DISCLOSURE AGREEMENT

This Continuing Disclosure Agreement (the "Agreement") dated as of September 1, 2003 by and between the Albany Municipal Water Finance Authority (the "Authority"), the Albany Water Board (the "Water Board") and Manufacturers and Traders Trust Company, as trustee (the "Trustee") in connection with the issuance of the Authority's \$46,745,000 Second Resolution Revenue Bonds, Series 2003A (the "Series 2003A Bonds") and \$23,605,000 Second Resolution Revenue Bonds, Series 2003B (the "Series 2003B Bonds") (the Series 2003A Bonds and the Series 2003B Bonds hereinafter collectively referred to as the "Series 2003 Bonds"). The Series 2003 Bonds are being issued pursuant to the Authority Act, its Water and Sewer System General Revenue Bond Resolution (the "First General Resolution") adopted on January 22, 1988, its Second Water and Sewer System General Revenue Bond Resolution (the "Second General Resolution") adopted on June 20, 2003, and its First Supplemental Resolution adopted June 20, 2003 (the "First Supplemental Resolution"). The proceeds of the Series 2003A Bonds are being used to refund certain outstanding obligations of the Authority. The proceeds of the Series 2003B Bonds are being used to finance the costs of the Series 2003 Projects pursuant to a Financing Agreement dated as of October 1, 1987, as amended as of June 20, 2003, by and between the Authority and the City of Albany, New York. Capitalized terms used in this Agreement which are not otherwise defined in the First General Resolution or the Second General Resolution shall have the respective meanings specified in Article IV hereof. Pursuant to the Second General Resolution, the parties agree as follows:

ARTICLE I

The Undertaking

Section 1.1. Purpose: No Issuer Responsibility or Liability. This Agreement is being executed and delivered solely to assist the Underwriter in complying with subsection (b)(5) of the Rule.

Section 1.2. Annual Financial Information. (a) The Authority shall provide Annual Financial Information with respect to each fiscal year of the Authority, commencing with fiscal year ended December 31, 2003, by no later than 15 Business Days prior to 6 months after the end of the respective fiscal year, to the Trustee. The Water Board shall provide to the Authority all financial and operating information determined by the Authority to be necessary for such purpose. The Trustee shall provide notice in writing to the Authority that such Annual Financial Information is required to be provided by such date, at least 60 Business Days but not more than 90 Business Days in advance of such date. The Trustee shall provide such Annual Financial Information to (i) each NRMSIR and (ii) the SID, in each case within 5 Business Days after receipt by the Trustee,

(b) The Trustee shall provide, in a timely manner, notice of any failure of the Authority or the Trustee to provide the Annual Financial Information by the date specified in subsection (a) above, in each case to (i) either the MSRB or each NRMSIR and (ii) the SID.

Section 1.3. Audited Financial Statements. If not provided as part of Annual Financial Information by the date required by Section 1.2 hereof because not available, the Authority and the Water Board shall provide Audited Financial Statements, when and if available, to the Trustee. The Trustee shall provide any such Audited Financial Statements to (i) each NRMSIR and (ii) the SID, in each case within one Business Day after receipt by the Trustee.

**Section 1.4. Material Event Notices.** (a) If a Material Event occurs, or if the Water Board obtains notice of the occurrence of a Material Event it shall immediately notify the Authority, and the Authority shall provide, in a timely manner, notice of such Material Event to the Trustee. The Trustee shall provide notice of each such Material Event to (i) either the MSRB or each NRMSIR and (ii) the SID, in each case within one Business Day after receipt by the Trustee.

(b) Any such notice of a defeasance of Series 2003 Bonds shall state whether the Series 2003 Bonds have been escrowed to maturity or to an earlier redemption date and the timing of such maturity or redemption.

(c) The Trustee shall promptly advise the Authority whenever, in the course of performing its duties as Trustee under the Resolution, the Trustee has actual notice of an occurrence which, if material, would require the Authority or the Water Board to provide notice of a Material Event hereunder; provided, however, that the failure of the Trustee so to advise the Authority shall not constitute a breach by the Trustee of any of its duties and responsibilities under this Agreement or the Resolution.

**Section 1.5. Additional Disclosure Obligations.** The Authority acknowledges and understands that other state and federal laws, including but not limited to the Securities Act of 1933 and Rule 10b-5 promulgated under the Securities Exchange Act of 1934, may apply to the Authority and that under some circumstances, compliance with this Agreement without additional disclosures or other action may not fully discharge all duties and obligations of the Authority under such laws.

**Section 1.6. Additional Information.** Nothing in this Agreement shall be deemed to prevent the Authority from disseminating any other information, using the means of dissemination set forth in this Agreement or any other means of communication, or including any other information in any Annual Financial Information or notice of Material Event hereunder, in addition to that which is required by this Agreement. If the Authority chooses to include any information in any Annual Financial Information or Material Event Notice in addition to that which is specifically required by this Agreement, the Authority shall have no obligation under this Agreement to update such additional information or include it in any future Annual Financial Information or notice of a Material Event hereunder.

## ARTICLE II

### Operating Rules

**Section 2.1. Reference to Other Documents.** It shall be sufficient for purposes of Section 1.2 hereof if the Authority provides Annual Financial Information by specific reference to documents (i) either (1) provided to each NRMSIR existing at the time of such reference and the SID or (2) filed with the SEC, or (ii) if such document is a “final official statement” as defined in paragraph f(3) of the Rule, available from the MSRB.

**Section 2.2. Submission of Information.** Annual Financial Information may be provided in one document or multiple documents, and at one time or in part from time to time.

**Section 2.3. Material Event Notices.** Each notice of a Material Event hereunder shall be captioned “Notice of Material Event” and shall prominently state the title, date and CUSIP numbers of the Series 2003 Bonds.

**Section 2.4. Transmission of Information and Notices.** Unless otherwise required by law and, in the Trustee’s sole determination, subject to technical and economic feasibility, the Trustee shall employ

such methods of information and notice transmission as shall be requested or recommended by the herein-designated recipients of the Authority's information and notices.

Section 2.5. Fiscal Year. (a) The Authority's current fiscal year is January 1, 2003 - December 31, 2003 and the Authority shall promptly notify the Trustee in writing of each change in its fiscal year. The Trustee shall provide such notice to (i) each NRMSIR and (ii) the SID, in each case within 5 Business Days after receipt by the Trustee.

(b) Annual Financial Information shall be provided at least annually notwithstanding any fiscal year longer than 12 calendar months.

### ARTICLE III

#### Effective Date: Termination: Amendment and Enforcement

Section 3.1. Effective Date: Termination. (a) This Agreement shall be effective upon the issuance of the Series 2003 Bonds.

(b) The Authority's, Water Board's and the Trustee's obligations under this Agreement shall terminate upon a legal defeasance, prior redemption or payment in full of all of the Series 2003 Bonds.

(c) This Agreement, or any provision hereof, shall be null and void in the event that (1) the Authority delivers to the Trustee an opinion of Counsel, addressed to the Authority, the Water Board and the Trustee, to the effect that those portions of the Rule which require this Agreement, or such provision, as the case may be, do not or no longer apply to the Series 2003 Bonds, whether because such portions of the Rule are invalid, have been repealed, or otherwise, as shall be specified in such opinion, and (2) the Trustee delivers copies of such opinion to (i) each NRMSIR and (ii) the SID. The Trustee shall so deliver such opinion within one Business Day after receipt by the Trustee.

Section 3.2. Amendment. (a) This Agreement may be amended, by written agreement of the parties, without the consent of the holders of the Series 2003 Bonds (except to the extent required under clause (4)(ii) below), if all of the following conditions are satisfied: (1) such amendment is made in connection with a change in circumstances that arises from a change in legal (including regulatory) requirements, a change in law (including rules or regulations) or in interpretations thereof, or a change in the identity, nature or status of the Authority or the type of business conducted thereby, (2) this Agreement as so amended would have complied with the requirements of the Rule as of the date of this Agreement, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances, (3) the Authority shall have delivered to the Trustee an opinion of Counsel, addressed to the Authority, the Water Board and the Trustee, to the same effect as set forth in clause (2) above, (4) either (i) the Authority shall have delivered to the Trustee an opinion of Counsel or a determination by a person, in each case unaffiliated with the Authority or the Water Board (such as bond counsel or the Trustee) and acceptable to the Authority, addressed to the Authority, the Water Board and the Trustee, to the effect that the amendment does not materially impair the interests of the holders of the Series 2003 Bonds or (ii) the holders of the Series 2003 Bonds consent to the amendment to this Agreement pursuant to the same procedures as are required for amendments to the Second General Resolution with consent of holders of Series 2003 Bonds pursuant to Article IX of the Second General Resolution as in effect on the date of this Agreement, and (5) the Trustee shall have delivered copies of such opinion(s) and amendment to (i) each NRMSIR and (ii) the SID. The Trustee shall so deliver such opinion(s) and amendment with one Business Day after receipt by the Trustee.

(b) In addition to subsection (a) above, this Agreement may be amended by written agreement of the parties, without the consent of the holders of the Series 2003 Bonds, if all of the following conditions are satisfied: (1) an amendment to the Rule is adopted, or a new or modified official interpretation of the Rule is issued, after the effective date of this Agreement which is applicable to this Agreement, (2) the Authority shall have delivered to the Trustee an opinion of Counsel, addressed to the Authority, the Water Board and the Trustee, to the effect that performance by the Authority, the Water Board and the Trustee of this Agreement as so amended will not result in a violation of the Rule, and (3) the Trustee shall have delivered copies of such opinion and amendment to (i) each NRMSIR and (ii) the SID. The Trustee shall so deliver such opinion and amendment within one Business Day after receipt by the Trustee.

(c) To the extent any amendment to this Agreement results in a change in the type of financial information or operating data provided pursuant to this Agreement, the first Annual Financial Information provided thereafter shall include a narrative explanation of the reasons for the amendment and the impact of the change in the type of operating data or financial information being provided.

(d) If an amendment is made pursuant to Section 3.2(a) hereof to the accounting principles to be followed by the Authority or the Water Board in preparing its financial statements, the Annual Financial Information for the fiscal year in which the change is made shall present a comparison between the financial statements or information prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles. Such comparison shall include a qualitative and, to the extent reasonably feasible, quantitative discussion of the differences in the accounting principles and the impact of the change in the accounting principles on the presentation of this financial information.

**Section 3.3. Benefit: Third-Party Beneficiaries: Enforcement.** (a) The provisions of this Agreement shall constitute a contract with and inure solely to the benefit of the holders from time to time of the Series 2003 Bonds, except that beneficial owners of Series 2003 Bonds shall be third-party beneficiaries of this Agreement. The provisions of this Agreement shall create no rights in any person or entity except as provided in this subsection (a) and subsection (b) of this Section.

(b) The obligations of the Authority and the Water Board to comply with the provisions of this Agreement shall be enforceable (i) in the case of enforcement of obligations to provide financial statements, financial information, operating data and notices, by any holder of Outstanding Series 2003 Bonds, or by the Trustee on behalf of the holders of Outstanding Series 2003 Bonds, or (ii), in the case of challenges to the adequacy of the financial statements, financial information and operating data so provided, by the Trustee on behalf of the holders of Outstanding Series 2003 Bonds; provided, however, that the Trustee shall not be required to take any enforcement action except at the direction of the holders of not less than a majority in aggregate principal amount of the Series 2003 Bonds at the time Outstanding, who shall have provided the Trustee with adequate security and indemnity. The holders' and Trustee's rights to enforce the provisions of this Agreement shall be limited solely to a right, by action in mandamus or for specific performance, to compel performance of the Authority's or Water Board's obligations under this Agreement. In consideration of the third-party beneficiary status of beneficial owners of Series 2003 Bonds pursuant to subsection (a) of this Section, beneficial owners shall be deemed to be holders of Series 2003 Bonds for purposes of this subsection (b).

(c) Any failure by the Authority, the Water Board or the Trustee to perform in accordance with this Agreement shall not constitute a default or an Event of Default under the Second General Resolution and the rights and remedies provided by the Second General Resolution upon the occurrence of a default or an Event of Default shall not apply to any such failure.

(d) This Agreement shall be construed and interpreted in accordance with the laws of the State, and any suits and actions arising out of this Agreement shall be instituted in a court of competent jurisdiction in the State; provided, however, that to the extent this Agreement addresses matters of federal securities laws, including the Rule, this Agreement shall be construed in accordance with such federal securities laws and official interpretations thereof.

## ARTICLE IV

### Definitions

Section 4.1. Definitions. The following terms used in this Agreement shall have the following respective meanings:

(a) “Annual Financial Information” means, collectively, (i) updated versions of the following financial information and operating data contained in the Official Statement, for each fiscal year of the Authority, as follows:

(i) The annual audited financial statements of the Authority and the Water Board for the preceding Fiscal Year, which may be combined in a single report. The statements are required to be prepared in accordance with generally accepted accounting principles applicable to such entities, except as may otherwise be required by State law.

(ii) A summary of any water rate changes imposed for the preceding Fiscal Year and a summary of water billings and collections for the preceding Fiscal Year.

(iii) A copy or summary of any revised capital improvement program for the System.

(iv) A statement of the aggregate principal amount and aggregate debt service requirements with respect to any Additional Series 2003 Bonds issued during the preceding Fiscal Year (other than the Series 2003 Bonds).

and (ii) the information regarding amendments to this Agreement required pursuant to Sections 3.2(c) and (d) of this Agreement. Annual Financial Information shall include Audited Financial Statements, if available, or Unaudited Financial Statements.

The descriptions contained in clause (i) above of financial information and operating data constituting Annual Financial Information are of general categories of financial information and operating data. When such descriptions include information that no longer can be generated because the operations to which it related have been materially changed or discontinued, a statement to that effect shall be provided in lieu of such information. Any Annual Financial Information containing modified financial information or operating data shall explain, in narrative form, the reasons for the modification and the impact of the modification on the type of financial information or operating data being provided.

(b) “Audited Financial Statements” means the annual financial statements, if any, of the Authority and the Water Board, audited by such auditor as shall then be required or permitted by State law or the Second General Resolution. Audited Financial Statements shall be prepared in accordance with GAAP except as may otherwise be required by State law; provided, however, that pursuant to Section 3.2(a) hereof, the Authority and the Water Board may from time to time, if required by Federal or State legal requirements, modify the accounting principles to be followed in preparing its financial statements. The notice of any such modification required by Section 3.2(a) hereof shall include a

reference to the specific Federal or State law or regulation describing such accounting principles, or other description thereof.

(c) "Counsel" means Hiscock & Barclay, LLP, or other nationally recognized bond counsel or counsel expert in federal securities laws.

(d) "GAAP" means generally accepted accounting principles as prescribed from time to time for governmental units by the Governmental Accounting Standards Board, the Financial Accounting Standards Board, or any successor to the duties or responsibilities thereof.

(e) "Material Event" means any of the following events with respect to the Series 2003 Bonds whether relating to the Authority or otherwise, if material:

- (i) principal and interest payment delinquencies;
- (ii) non-payment related defaults;
- (iii) unscheduled draws on debt service reserves reflecting financial difficulties;
- (iv) unscheduled draws on credit enhancements reflecting financial difficulties;
- (v) substitution of credit or liquidity providers, or their failure to perform;
- (vi) adverse tax opinions or events affecting the tax-exempt status of the security;
- (vii) modifications to rights of security holders;
- (viii) bond calls;
- (ix) defeasances;
- (x) release, substitution, or sale of property securing repayment of the securities; and
- (xi) rating changes.

(f) "MSRB" means the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(l) of the Securities Exchange Act of 1934.

(g) "NRMSIR" means, at any time, a then-existing nationally recognized municipal securities information repository, as recognized from time to time by the SEC for the purposes referred to in the Rule. NRMSIRs currently are identified on the SEC website at <http://www.sec.gov/consumer/nrmsir.htm>.

(h) "Official Statement" means the Official Statement dated July 24, 2003 of the Authority relating to the Series 2003 Bonds.

(i) "Rule" means Rule 15c2-12 promulgated by the SEC under the Securities Exchange Act of 1934 (17 CFR Part 240, §240.15c2-12), as in effect on the date of this Agreement, including any official interpretations thereof issued either before or after the effective date of this Agreement which are applicable to this Agreement.

- (j) "SEC" means the United States Securities and Exchange Commission.
- (k) "SID" means, at any time, a then-existing, state information depository, if any, as operated or designated as such by or on behalf of the State for the purposes referred to in the Rule. As of the date of this Agreement, there is no SID.
- (l) "Unaudited Financial Statements" means the same as Audited Financial Statements, except that they shall not have been audited.
- (m) "Underwriter" shall mean the original Underwriter of the Series 2003 Bonds required to comply with the Rule in connection with the offering of the Series 2003 Bonds.

## ARTICLE V

### Miscellaneous

Section 5.1. Duties, Immunities and Liabilities of Trustee. Article XI of the Resolution is hereby made applicable to this Agreement as if this Agreement were, solely for this purpose, contained in the Resolution. The Trustee shall have only such duties under this Agreement as are specifically set forth in this Agreement, and the Authority agrees to indemnify and save the Trustee, its officers, directors, employees and agents, harmless against any loss, expense and liabilities which it may incur arising out of or in the exercise or performance of its powers and duties hereunder, including the costs and expenses (including attorneys fees) of defending against any claim of liability, but excluding liabilities due to the Trustee's negligence or willful misconduct in the performance of its duties hereunder. Such indemnity shall be separate from and in addition to that provided to the Trustee under the Second General Resolution. The obligations of the Authority under this Section shall survive resignation or removal of the Trustee and payment of the Series 2003 Bonds.

Section 5.2. Counterparts. This Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, the parties have each caused this Agreement to be executed by their duly authorized representatives, all as of the date first above written.

ALBANY MUNICIPAL WATER  
FINANCE AUTHORITY

By: \_\_\_\_\_

ALBANY WATER BOARD

By: \_\_\_\_\_

MANUFACTURERS AND TRADERS TRUST  
COMPANY, as Trustee

By: \_\_\_\_\_

**APPENDIX I**  
**SPECIMEN NEW ISSUE POLICY**

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# **FINANCIAL GUARANTY INSURANCE POLICY**

**MBIA Insurance Corporation  
Armonk, New York 10504**

Policy No. [NUMBER]

IBIA Insurance Corporation (the "Insurer"), in consideration of the payment of the premium and subject to the terms of this policy, hereby unconditionally and irrevocably guarantees to any owner, as hereinafter defined, of the following described obligations, the full and complete payment required to be made by or on behalf of the Issuer to [PAYING AGENT/TRUSTEE] or its successor (the "Paying Agent") of an amount equal to (i) the principal of (either at the stated maturity or by any advancement of maturity pursuant to a mandatory sinking fund payment) and interest on, the Obligations (as that term is defined below) as such payments shall become due but shall not be so paid (except that in the event of any acceleration of the due date of such principal by reason of mandatory or optional redemption or acceleration resulting from default or otherwise, other than any advancement of maturity pursuant to a mandatory sinking fund payment, the payments guaranteed hereby shall be made in such amounts and at such times as such payments of principal would have been due had there not been any such acceleration); and (ii) the reimbursement of any such payment which is subsequently recovered from any owner pursuant to a final judgment by a court of competent jurisdiction that such payment constitutes an avoidable preference to such owner within the meaning of any applicable bankruptcy law. The amounts referred to in clauses (i) and (ii) of the preceding sentence shall be referred to herein collectively as the "Insured Amounts." "Obligations" shall mean:

[PAR]  
**[LEGAL NAME OF ISSUE]**

Upon receipt of telephonic or telegraphic notice, such notice subsequently confirmed in writing by registered or certified mail, or upon receipt of written notice by registered or certified mail, by the Insurer from the Paying Agent or any owner of an Obligation the payment of an Insured amount for which is then due, that such required payment has not been made, the Insurer on the due date of such payment or within one business day after receipt of notice of such nonpayment, whichever is later, will make a deposit of funds, in an account with U.S. Bank Trust National Association, in New York, New York, or its successor, sufficient for the payment of any such Insured Amounts which are then due. Upon presentation and surrender of such Obligations or presentment of such other proof of ownership of the Obligations, together with any appropriate instruments of assignment to evidence the assignment of the Insured Amounts due on the Obligations as are paid by the Insurer, and appropriate instruments to effect the appointment of the Insurer as agent for such owners of the Obligations in any legal proceeding related to payment of Insured Amounts on the Obligations, such instruments being in a form satisfactory to U.S. Bank Trust National Association, U.S. Bank Trust National Association shall disburse to such owners, or the Paying Agent payment of the Insured Amounts due on such Obligations, less any amount held by the Paying Agent for the payment of such Insured Amounts and legally available therefor. This policy does not insure against loss of any prepayment premium which may at any time be payable with respect to any Obligation.

In this policy, the term "owner" shall mean the registered owner of any Obligation as indicated in the books maintained by the Paying Agent, the Issuer, or any designee of the Issuer for such purpose. The term "owner" shall not include the Issuer or any party whose agreement with the owner constitutes the underlying security for the Obligations.

Any service of process on the Insurer may be made to the Insurer at its offices located at 113 King Street, Armonk, New York 10504 and such service of process shall be valid and binding.

This policy is non-cancellable for any reason. The premium on this policy is not refundable for any reason including the payment prior to maturity of the Obligations.

I WITNESS WHEREOF, the Insurer has caused this policy to be executed in facsimile on its behalf by its duly authorized officers, this [DAY] of [MONTH, YEAR].

UNTERSIGNED:

**SPECIMEN**  
Agent Licensed Agent

ty, State

TD-RCS-6  
95

MBIA Insurance Corporation

**SPECIMEN**  
President

Attest:

Assistant Secretary

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