

In the opinion of Greenberg Traurig, P.A., Bond Counsel, under existing statutes, regulations, rulings and court decisions and assuming the accuracy of certain representations and continuing compliance with certain covenants, interest on the Series 2018 Bonds is excludable from gross income for federal income tax purposes. Further, interest on the Series 2018 Bonds is not an item of tax preference for purposes of the alternative minimum tax imposed on individuals. Bond Counsel is also of the opinion that the Series 2018 Bonds and the income thereon are not subject to taxation under the laws of the State of Florida, except as to estate taxes and taxes under Chapter 220, Florida Statutes, on interest, income or profits on debt obligations owned by corporations as defined in Chapter 220, Florida Statutes. For a more complete description of such opinions of Bond Counsel, see "TAX MATTERS" herein.



\$196,035,000
CITY OF FORT LAUDERDALE, FLORIDA
Water and Sewer Revenue Bonds
Series 2018

Dated: Date of Delivery

**Due: March 1 and September 1,
as shown on inside cover page**

The City of Fort Lauderdale, Florida Water and Sewer Revenue Bonds, Series 2018 (the "Series 2018 Bonds") will be issued by the City of Fort Lauderdale, Florida (the "City") as fully registered bonds, without coupons, in denominations of \$5,000 and integral multiples thereof and when issued, will be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"), which will act as securities depository for the Series 2018 Bonds. Purchasers will not receive certificates representing their ownership interests in the Series 2018 Bonds purchased. See "DESCRIPTION OF THE SERIES 2018 BONDS - Book-Entry Only System" herein. Interest on the Series 2018 Bonds will accrue from their date of delivery and will be payable on September 1, 2018 and semiannually on each March 1 and September 1 thereafter. Regions Bank, Jacksonville, Florida, will serve as the initial Bond Registrar and Paying Agent (the "Paying Agent") for the Series 2018 Bonds. While the Series 2018 Bonds are registered through the DTC book-entry only system, principal of and interest on the Series 2018 Bonds will be payable by the Paying Agent to DTC.

The Series 2018 Bonds are being issued for the purpose of providing funds, together with other legally available funds of the City, to (i) finance a portion of the Costs of improving and upgrading the City's Water and Sewer System (the "Water and Sewer System"), including, to the extent permissible, reimbursement to the City for amounts previously paid for such Costs; and (ii) pay the costs of issuing the Series 2018 Bonds. See "INTRODUCTION" and "PURPOSE OF THE ISSUE" herein.

The Series 2018 Bonds are payable from and secured by a lien on and pledge of the Net Revenues derived from the City's ownership or operation of the Water and Sewer System and certain other moneys held under the Resolution (as defined herein), on a parity with the City's Outstanding Water and Sewer Revenue Refunding Bonds, Series 2012, Water and Sewer Revenue Refunding Bonds, Series 2014, Water and Sewer Revenue and Revenue Refunding Bonds, Series 2016, and any other Bonds or Alternative Parity Debt hereafter issued; **provided, however, that no deposit to the Reserve Account shall be made in connection with the issuance of the Series 2018 Bonds and the Series 2018 Bonds shall not be secured by, or entitled to any benefit from, any amounts that may be held in the Reserve Account for the benefit of Bonds hereafter issued under the Bond Resolution (as such terms are defined herein).** Upon issuance of the Series 2018 Bonds, no amounts will be held in the Reserve Account for the benefit of Bonds Outstanding under the Bond Resolution. See "SECURITY AND SOURCES OF PAYMENT" herein.

The Series 2018 Bonds are subject to optional and mandatory sinking fund redemption prior to maturity as described herein. See "DESCRIPTION OF THE SERIES 2018 BONDS - Redemption Provisions" herein.

THE CITY IS OBLIGATED TO PAY THE PRINCIPAL OF AND INTEREST ON THE SERIES 2018 BONDS SOLELY FROM THE NET REVENUES AND CERTAIN OTHER MONEYS, AS DESCRIBED IN THE RESOLUTION. THE SERIES 2018 BONDS SHALL NOT CONSTITUTE AN INDEBTEDNESS OF THE CITY, BROWARD COUNTY, FLORIDA, THE STATE OF FLORIDA OR ANY POLITICAL SUBDIVISION THEREOF WITHIN THE MEANING OF ANY CONSTITUTIONAL OR STATUTORY PROVISION OR LIMITATION. THE FAITH AND CREDIT OF THE CITY, BROWARD COUNTY, FLORIDA, THE STATE OF FLORIDA OR ANY POLITICAL SUBDIVISION THEREOF IS NOT PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF OR INTEREST ON THE SERIES 2018 BONDS. THE ISSUANCE OF THE SERIES 2018 BONDS SHALL NOT DIRECTLY, INDIRECTLY OR CONTINGENTLY OBLIGATE THE CITY, BROWARD COUNTY, FLORIDA, THE STATE OF FLORIDA OR ANY POLITICAL SUBDIVISION THEREOF TO LEVY OR TO PLEDGE ANY TAXES WHATEVER THEREFOR, OR TO MAKE ANY APPROPRIATION FOR THE PAYMENT OF THE PRINCIPAL OF OR INTEREST ON THE SERIES 2018 BONDS, EXCEPT AS PROVIDED IN THE RESOLUTION.

This cover page contains certain information for quick reference only. It is not a summary of this issue. Investors must read the entire Official Statement, including the Appendices, to obtain information essential to the making of an informed investment decision.

The Series 2018 Bonds are offered when, as and if issued by the City, subject to the approval of their legality by Greenberg Traurig, P.A., Fort Lauderdale, Florida, Bond Counsel, and certain other conditions. Certain legal matters will be passed upon for the City by Cynthia A. Everett, Esquire, City Attorney. Certain legal matters relating to disclosure will be passed upon for the City by the Law Offices of Steve E. Bullock, P.A., Miramar, Florida, Disclosure Counsel. Hilltop Securities Inc., Orlando, Florida, is acting as Financial Advisor to the City. It is expected that settlement on the Series 2018 Bonds will occur through the facilities of DTC in New York, New York on or about February 20, 2018.

Citigroup

DAC Bond

\$196,035,000
CITY OF FORT LAUDERDALE, FLORIDA
Water and Sewer Revenue Bonds
Series 2018

**MATURITIES, PRINCIPAL AMOUNTS, INTEREST RATES,
PRICES, YIELDS AND INITIAL CUSIP NUMBERS***

\$19,220,000 Series 2018 Serial Bonds

<u>Maturity</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Price</u>	<u>Yield</u>	<u>Initial CUSIP Number</u>
03/01/2037	\$4,645,000	4.000%	105.098**	3.370%**	347658XD3
09/01/2037	4,770,000	4.000	105.098**	3.370**	347658XE1
03/01/2038	4,840,000	4.000	104.848**	3.400**	347658XF8
09/01/2038	4,965,000	4.000	104.848**	3.400**	347658XG6

\$176,815,000 Series 2018 Term Bonds

\$30,005,000 4.000% Series 2018 Term Bond Due September 1, 2040 – Price: 104.186** / Yield: 3.480%**
Initial CUSIP Number: 347658XL5

\$15,920,000 4.000% Series 2018 Term Bond Due September 1, 2041 – Price: 104.103** / Yield: 3.490%**
Initial CUSIP Number: 347658XN1

\$33,795,000 4.000% Series 2018 Term Bond Due September 1, 2043 – Price: 103.939** / Yield: 3.510%**
Initial CUSIP Number: 347658XS0

\$65,975,000 4.000% Series 2018 Term Bond Due March 1, 2047 – Price: 103.610** / Yield: 3.550%**
Initial CUSIP Number: 347658XZ4

\$31,120,000 3.500% Series 2018 Term Bond Due September 1, 2048 – Price: 98.155 / Yield: 3.600%
Initial CUSIP Number: 347658YC4

* Neither the City nor the Underwriters is responsible for the use of CUSIP Numbers, nor is a representation made as to their correctness. The CUSIP Numbers are included solely for the convenience of the readers of this Official Statement.

** Price and yield calculated to the first optional redemption date of September 1, 2027.

CITY OF FORT LAUDERDALE, FLORIDA

OFFICIALS*

John P. “Jack” Seiler, Mayor
Bruce G. Roberts, Vice Mayor, Commissioner, District I
Dean J. Trantalis, Commissioner, District II
Robert L. McKinzie, Commissioner, District III
Romney Rogers, Commissioner, District IV

ADMINISTRATION

Lee R. Feldman, ICMA-CM, City Manager
Cynthia A. Everett, Esquire, City Attorney
John C. Herbst, CPA, CGFO, CGMA, City Auditor
Jeffrey A. Modarelli, City Clerk
Kirk W. Buffington, CPFIM, CPPO, C.P.M., MBA, Director of Finance
Linda A. Logan-Short, CGFO, CPM, Chief Financial Officer/Deputy Director of Finance
Paul A. Berg, Director, Public Works Department
Laura L. Garcia, CGFO, Controller

CONSULTANTS

Bond Counsel

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Fort Lauderdale, Florida

Financial Advisor

Hilltop Securities Inc.
Orlando, Florida

Disclosure Counsel

Law Offices of Steve E. Bullock, P.A.
Miramar, Florida

Independent Auditor

Crowe Horwath LLP
Fort Lauderdale, Florida

Feasibility Consultants

CH2M HILL, Inc.
Fort Lauderdale, Florida

Hazen and Sawyer, P.C.
Hollywood, Florida

Stantec, Inc.
St. Augustine, Florida

* Commissioners Bruce G. Roberts and Dean Trantalis are running for the office of Mayor of the City. The new Mayor of the City will be selected in the general election to be held on March 13, 2018. In addition, the Commission seat for District 2 and District 4 will each be held by a new Commissioner. Such new Commissioner also will be determined by the results of the general election on March 13, 2018. Heather Moraitis, who was unopposed in the primary election, will become the new Commissioner for District 1. Commissioner Robert L. McKinzie was re-elected in the primary election on January 16, 2018 and will continue to serve as the Commissioner for District 3. The new Mayor of the City and new City Commissioners are scheduled to be sworn in on March 20, 2018. The current Mayor and City Commissioners are expected to serve until the newly elected individuals have been seated.

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No dealer, broker, salesman or other person has been authorized by the City or the Underwriters to make any representations, other than those contained in this Official Statement in connection with the offering contained herein, and if given or made, such other information or representations must not be relied upon as having been authorized by any of the foregoing. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of the Series 2018 Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale. The information contained in this Official Statement has been obtained from public documents, records and other sources considered to be reliable and, while not guaranteed as to completeness or accuracy, is believed to be correct. Any statements in this Official Statement involving estimates, assumptions and opinions, whether or not so expressly stated, are intended as such and are not to be construed as representations of fact, and the Underwriters and the City expressly make no representation that such estimates, assumptions and opinions will be realized or fulfilled. Any information, estimates, assumptions and matters of opinion contained in this Official Statement are subject to change without notice, as neither the delivery of this Official Statement, nor any sale hereunder, shall, under any circumstances, create any implication that there has been no change in the affairs of the City or with respect to the City or the Water and Sewer System since the date hereof.

The Underwriters have provided the following sentence for inclusion in this Official Statement. *The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their respective responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.*

The order and placement of materials in this Official Statement, including the Appendices, are not to be deemed a determination of relevance, materiality or importance, and this Official Statement, including the Appendices, must be considered in its entirety. The captions and headings in this Official Statement are for convenience only and in no way define, limit or describe the scope or intent, or affect the meaning or construction, of any provisions or sections in this Official Statement. The offering of the Series 2018 Bonds is made only by means of this entire Official Statement.

References to website addresses presented in this Official Statement are for informational purposes only and may be in the form of a hyperlink solely for the reader's convenience. Unless specified otherwise, such websites and the information or links contained therein are not incorporated into, and are not part of, this Official Statement.

Certain statements included or incorporated by reference in this Official Statement constitute "forward-looking statements." Such statements generally are identifiable by the terminology used, such as "plan," "expect," "estimate," "project," "forecast," "budget" or other similar words. The achievement of certain results or other expectations contained in such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements described to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. The City does not plan to issue any updates or revisions to those forward-looking statements if or when its expectations or events, conditions or circumstances on which such statements are based occur.

THE SERIES 2018 BONDS HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAW, NOR HAS THE RESOLUTION BEEN QUALIFIED UNDER THE TRUST INDENTURE ACT OF 1939, AS AMENDED, IN RELIANCE UPON EXEMPTIONS CONTAINED IN SUCH ACTS. THE EXEMPTION OF THE SERIES 2018 BONDS FROM REGISTRATION OR QUALIFICATION IN CERTAIN STATES CANNOT BE REGARDED AS

A RECOMMENDATION THEREOF. IN MAKING AN INVESTMENT DECISION, INVESTORS MUST RELY ON THEIR OWN EXAMINATION OF THE CITY AND THE TERMS OF THIS OFFERING, INCLUDING THE MERITS AND RISKS INVOLVED. NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY OTHER FEDERAL, STATE OR GOVERNMENTAL ENTITY OR AGENCY WILL HAVE PASSED UPON THE ACCURACY OR ADEQUACY OF THIS OFFICIAL STATEMENT OR APPROVED OR RECOMMENDED THE SERIES 2018 BONDS FOR SALE. ANY REPRESENTATION TO THE CONTRARY MAY BE A CRIMINAL OFFENSE.

IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE SERIES 2018 BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET, AND SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME. THE UNDERWRITERS MAY OFFER AND SELL THE SERIES 2018 BONDS TO CERTAIN DEALERS AND OTHERS AT PRICES LOWER THAN THE PUBLIC OFFERING PRICES STATED ON THE INSIDE COVER PAGE OF THIS OFFICIAL STATEMENT, AND SUCH PUBLIC OFFERING PRICES MAY BE CHANGED FROM TIME TO TIME, AFTER THE INITIAL OFFERING TO THE PUBLIC, BY THE UNDERWRITERS.

THIS OFFICIAL STATEMENT IS BEING PROVIDED TO PROSPECTIVE PURCHASERS EITHER IN BOUND PRINTED FORM ("ORIGINAL BOUND FORMAT") OR IN ELECTRONIC FORMAT ON THE WEBSITES: WWW.MUNIOS.COM AND WWW.EMMA.MSRB.ORG. THIS OFFICIAL STATEMENT MAY BE RELIED UPON ONLY IF IT IS IN ITS ORIGINAL BOUND FORMAT OR IF IT IS PRINTED IN FULL DIRECTLY FROM EITHER OF SUCH WEBSITES.

THIS OFFICIAL STATEMENT SHALL NOT CONSTITUTE A CONTRACT BETWEEN THE CITY OR THE UNDERWRITERS AND ANY ONE OR MORE HOLDERS OF THE SERIES 2018 BONDS.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION.....	1
PURPOSE OF THE ISSUE.....	2
DESCRIPTION OF THE SERIES 2018 BONDS.....	3
General.....	3
Redemption Provisions.....	3
Book-Entry Only System.....	6
Discontinuance of Securities Depository.....	8
SECURITY AND SOURCES OF PAYMENT.....	9
General.....	9
Rate Covenant.....	10
Flow of Funds.....	11
Reserve Account.....	12
Additional Bonds.....	13
Refunding Bonds.....	15
Other Obligations Secured by Net Revenues.....	15
Modifications or Supplements to Bond Resolution.....	15
ESTIMATED SOURCES AND USES OF FUNDS.....	17
DEBT SERVICE SCHEDULE.....	18
THE CITY.....	20
WATER AND SEWER SYSTEM.....	20
General.....	20
History.....	20
Organizational Structure.....	22
Government Regulations.....	24
Service Area Population Projections.....	25
The Water System.....	26
The Sewer System.....	37
Impact of Hurricane Irma.....	46
Customer Classification/Growth.....	46
Rates, Fees and Charges.....	49
Comparative Rate Survey.....	51
Billing and Collection.....	54
Revenues and Expenses.....	54
CAPITAL IMPROVEMENT PROGRAM.....	55
General.....	55
Water System Improvements.....	57
Sewer System Improvements.....	57
Series 2018 Project.....	58
CONCLUSIONS OF THE FEASIBILITY CONSULTANTS.....	59
LITIGATION.....	61
LEGAL MATTERS.....	61
ENFORCEABILITY OF REMEDIES.....	62
TAX MATTERS.....	62
General Matters.....	62
Original Issue Premium and Discount.....	63
Information Reporting and Backup Withholding.....	64
Changes in Federal and State Tax Law.....	64

CONTINUING DISCLOSURE.....	65
PENSION PLANS.....	65
Defined Benefit Plans.....	65
Defined Contribution Plans.....	69
GASB STATEMENT NO. 45.....	70
FINANCIAL STATEMENTS.....	72
RATINGS.....	72
FINANCIAL ADVISOR.....	72
UNDERWRITING.....	73
CONTINGENT FEES.....	73
DISCLOSURE REQUIRED BY FLORIDA BLUE SKY REGULATIONS.....	73
AUTHORIZATION OF OFFICIAL STATEMENT.....	74
CONCLUDING STATEMENT.....	74

APPENDICES

APPENDIX A	-	General Information Regarding the City of Fort Lauderdale, Florida and Broward County, Florida.....	A-1
APPENDIX B	-	City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report.....	B-1
APPENDIX C	-	Excerpts from Comprehensive Annual Financial Report of the City of Fort Lauderdale, Florida for the Fiscal Year Ended September 30, 2016.....	C-1
APPENDIX D	-	The Resolution.....	D-1
APPENDIX E	-	Proposed Form of Opinion of Bond Counsel.....	E-1
APPENDIX F	-	Proposed Form of Opinion of Disclosure Counsel.....	F-1
APPENDIX G	-	Form of Continuing Disclosure Commitment.....	G-1

OFFICIAL STATEMENT
relating to

\$196,035,000
CITY OF FORT LAUDERDALE, FLORIDA
Water and Sewer Revenue Bonds
Series 2018

INTRODUCTION

The purpose of this Official Statement, including the cover page and all appendices, is to furnish certain information relating to the City of Fort Lauderdale, Florida (the “City”), its combined water and sewer system (the “Water and Sewer System”) and the sale of its \$196,035,000 in aggregate principal amount of Water and Sewer Revenue Bonds, Series 2018 (the “Series 2018 Bonds”). The Series 2018 Bonds are being issued pursuant to the Constitution and laws of the State of Florida, including particularly Chapter 166, Florida Statutes, as amended, and the Charter of the City (collectively, the “Act”), Resolution No. 03-29 adopted by the City Commission of the City (the “City Commission”) on February 18, 2003 (the “Bond Resolution”), as supplemented by Resolution No. 18-16, adopted by the City Commission on January 23, 2018 (the “Series Resolution” and, together with the Bond Resolution, the “Resolution”). The Series 2018 Bonds, the Series 2012 Bonds, the Series 2014 Bonds, the Series 2016 Bonds (each as hereinafter defined) and any Additional Bonds issued under the provisions of the Bond Resolution are hereinafter referred to collectively as the “Bonds.” For a description of certain terms and conditions of the Series 2018 Bonds, and the complete provisions of the Resolution, see “APPENDIX D - The Resolution.”

The Series 2018 Bonds will be issued in book-entry only form and purchasers of the Series 2018 Bonds will not receive certificates representing their interest in the Series 2018 Bonds purchased. The Series 2018 Bonds will contain such other terms and provisions, including provisions regarding redemption, as described in “DESCRIPTION OF THE SERIES 2018 BONDS” herein.

The Series 2018 Bonds are secured by a pledge of and lien on the Net Revenues derived from the City’s ownership and operation of the Water and Sewer System and from certain other moneys held under the Resolution. The City is obligated to pay the principal of and interest on the Series 2018 Bonds solely from the Net Revenues and certain other moneys held under the Resolution. The Series 2018 Bonds do not constitute an indebtedness of the City, Broward County, Florida, the State of Florida or any political subdivision thereof within the meaning of any constitutional or statutory provision or limitation. The faith and credit of the City, Broward County, Florida, the State of Florida or any political subdivision thereof is not pledged to pay the Series 2018 Bonds. The issuance of the Series 2018 Bonds does not directly or contingently obligate the City, Broward County, Florida, the State of Florida or any political subdivision thereof to levy or pledge any taxes whatever therefor or to make any appropriation for their payment, except for the City’s obligation to pay the Series 2018 Bonds from the Net Revenues and certain other moneys held under the Resolution. See “SECURITY AND SOURCES OF PAYMENT” herein.

Payment of the principal of and interest on the Series 2018 Bonds from the Net Revenues and other moneys held under the Resolution is secured on a parity with the City’s Outstanding (i) Water and Sewer Revenue Refunding Bonds, Series 2012 (the “Series 2012 Bonds”); (ii) Water and Sewer Revenue Refunding Bonds, Series 2014 (the “Series 2014 Bonds”); (iii) Water and Sewer Revenue and Revenue Refunding Bonds, Series 2016 (the “Series 2016 Bonds” and, collectively with the Series 2012 Bonds and

the Series 2014 Bonds, the “Outstanding Bonds”) and any other Bonds or Alternative Parity Debt hereafter issued; **provided, however, that no deposit to the Reserve Account shall be made in connection with the issuance of the Series 2018 Bonds and the Series 2018 Bonds shall not be secured by, or entitled to any benefit from, any amounts that may be held in the Reserve Account for the benefit of Bonds hereafter issued under the Bond Resolution.** Upon issuance of the Series 2018 Bonds, no amounts will be held in the Reserve Account under the Bond Resolution for the benefit of the Series 2018 Bonds or the Outstanding Bonds. See “SECURITY AND SOURCES OF PAYMENT - Reserve Account” herein.

The Series 2012 Bonds, the Series 2014 Bonds and the Series 2016 Bonds were originally issued in the aggregate principal amount of \$64,585,000, \$121,520,000 and \$158,930,000, respectively, primarily for the purpose of financing or refinancing certain Costs of improving and upgrading the Water and Sewer System. The Series 2012 Bonds, the Series 2014 Bonds and the Series 2016 Bonds, upon issuance of the Series 2018 Bonds, will be Outstanding in the aggregate principal amount of \$53,500,000, \$121,520,000 and \$148,235,000, respectively.

This introduction is intended to serve as a brief description of this Official Statement and is expressly qualified by reference to this Official Statement as a whole. A full review should be made of this entire Official Statement, as well as the documents and reports summarized or described herein. The description of the Series 2018 Bonds, the documents authorizing and securing the same, including, without limitation, the Resolution, and the information from various reports contained herein are not comprehensive or definitive. All references herein to such documents and reports are qualified by the entire, actual content of such documents and reports. Copies of such documents and reports may be obtained from the City by contacting the City’s Director of Finance, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301, Telephone number: (954) 828-5167, Facsimile number: (954) 828-5168, Email address: finance@fortlauderdale.gov.

Capitalized terms used but not defined in this Official Statement shall have the meaning ascribed to such terms in the Resolution. See “APPENDIX D - The Resolution.”

PURPOSE OF THE ISSUE

The Series 2018 Bonds are being issued for the purpose of providing funds, together with other available funds of the City, to (i) finance a portion of the Costs of certain improvements and upgrades to the Water and Sewer System (the “Series 2018 Project”), including, to the extent permissible under the Code, reimbursement to the City for any amounts previously advanced by the City to pay costs of the Series 2018 Project, as more fully described under the caption “CAPITAL IMPROVEMENT PROGRAM - Series 2018 Project” herein; and (ii) pay the costs of issuing the Series 2018 Bonds. See “ESTIMATED SOURCES AND USES OF FUNDS” herein.

The portion of the proceeds of the Series 2018 Bonds to be used to pay certain Costs of the Series 2018 Project will be deposited into the Series 2018 Water and Sewer Project Construction Subaccount (the “Construction Subaccount”) within the Construction Account established under the Bond Resolution. Until withdrawn to pay Costs of the Series 2018 Project in accordance with the Resolution, the proceeds of the Series 2018 Bonds deposited into the Construction Subaccount will be held in trust and subject to the lien and pledge of the Resolution created for the benefit of the Holders of the Series 2018 Bonds.

DESCRIPTION OF THE SERIES 2018 BONDS

General

The Series 2018 Bonds shall be dated the date of their delivery and shall bear interest at the rates and mature on the dates and in the amounts set forth on the inside cover page of this Official Statement. Interest on the Series 2018 Bonds is payable semiannually on March 1 and September 1 of each year, commencing September 1, 2018. Interest on the Series 2018 Bonds shall be calculated on the basis of a 360 day year consisting of twelve 30-day months. Regions Bank, Jacksonville, Florida, will serve as the initial Paying Agent (the “Paying Agent”) and Bond Registrar (the “Bond Registrar”) for the Series 2018 Bonds.

The Series 2018 Bonds will be issued as fully registered bonds in denominations of \$5,000 or any integral multiple thereof, and when issued, will be registered in the name of Cede & Co., as registered owner and nominee of The Depository Trust Company, New York, New York (“DTC”). Purchases of beneficial interests in the Series 2018 Bonds will be made in book-entry only form, without certificates. So long as the Series 2018 Bonds shall be in book-entry only form, the principal of and interest on the Series 2018 Bonds will be payable to Cede & Co., as registered owner thereof, and will be distributed by DTC and the Participants to the Beneficial Owners (as such terms are defined herein). See “DESCRIPTION OF THE SERIES 2018 BONDS - Book-Entry Only System” herein.

Redemption Provisions

Optional Redemption. The Series 2018 Bonds are subject to redemption at the option of the City prior to their respective dates of maturity on and after September 1, 2027, in whole or in part at any time, in any order of maturity selected by the City and by lot within a maturity, at a redemption price equal to one hundred percent (100%) of the principal amount of the Series 2018 Bonds to be redeemed, together with accrued interest from the most recent interest payment date to the date fixed for redemption.

Mandatory Sinking Fund Redemption. The Series 2018 Bonds maturing on September 1, 2040 are subject to mandatory sinking fund redemption in part prior to maturity by lot through the application of Amortization Requirements, at a redemption price equal to one hundred percent (100%) of the principal amount thereof, plus accrued interest to the redemption date, on March 1 and September 1 in the following amounts and years specified:

<u>Due</u>	<u>Amortization Requirement</u>
March 1, 2039	\$7,280,000
September 1, 2039	7,425,000
March 1, 2040	7,575,000
September 1, 2040*	7,725,000

* Final Maturity.

The Series 2018 Bonds maturing on September 1, 2041 are subject to mandatory sinking fund redemption in part prior to maturity by lot through the application of Amortization Requirements, at a redemption price equal to one hundred percent (100%) of the principal amount thereof, plus accrued interest to the redemption date, on March 1 and September 1 in the following amounts and year specified:

<u>Due</u>	<u>Amortization Requirement</u>
March 1, 2041	\$7,880,000
September 1, 2041*	8,040,000

* Final Maturity.

The Series 2018 Bonds maturing on September 1, 2043 are subject to mandatory sinking fund redemption in part prior to maturity by lot through the application of Amortization Requirements, at a redemption price equal to one hundred percent (100%) of the principal amount thereof, plus accrued interest to the redemption date, on March 1 and September 1 in the following amounts and years specified:

<u>Due</u>	<u>Amortization Requirement</u>
March 1, 2042	\$8,200,000
September 1, 2042	8,365,000
March 1, 2043	8,530,000
September 1, 2043*	8,700,000

* Final Maturity.

The Series 2018 Bonds maturing on March 1, 2047 are subject to mandatory sinking fund redemption in part prior to maturity by lot through the application of Amortization Requirements, at a redemption price equal to one hundred percent (100%) of the principal amount thereof, plus accrued interest to the redemption date, on March 1 and September 1 in the following amounts and years specified:

<u>Due</u>	<u>Amortization Requirement</u>
March 1, 2044	\$8,875,000
September 1, 2044	9,050,000
March 1, 2045	9,235,000
September 1, 2045	9,415,000
March 1, 2046	9,605,000
September 1, 2046	9,800,000
March 1, 2047*	9,995,000

* Final Maturity.

The Series 2018 Bonds maturing on September 1, 2048 are subject to mandatory sinking fund redemption in part prior to maturity by lot through the application of Amortization Requirements, at a redemption price equal to one hundred percent (100%) of the principal amount thereof, plus accrued interest to the redemption date, on March 1 and September 1 in the following amounts and years specified:

<u>Due</u>	<u>Amortization Requirement</u>
September 1, 2047	\$10,195,000
March 1, 2048	10,370,000
September 1, 2048*	10,555,000

* Final Maturity.

Mailing of Notice of Redemption. At least thirty (30), but not more than sixty (60), days before the date set for redemption of any Series 2018 Bonds, either in whole or in part, a notice of such redemption, signed by the Finance Director, shall be (a) filed with the Bond Registrar and (b) mailed, first class mail, postage prepaid, to all registered owners of Series 2018 Bonds to be redeemed at their addresses as they appear on the registration books maintained by the Bond Registrar, but failure to mail any such notice shall not affect the validity of the proceedings for such redemption. Each such notice shall specify the redemption date, the redemption price and the place or places where amounts due upon such redemption will be payable and, if less than all of the Series 2018 Bonds are to be redeemed, the numbers or other distinguishing marks of such Series 2018 Bonds to be redeemed in part only, and the respective portions thereof to be redeemed. Such notice shall further state that on the redemption date there shall become due and payable upon each of the Series 2018 Bonds to be redeemed the redemption price or the specified portions thereof, in the case of Series 2018 Bonds to be redeemed in part only, together with interest accrued to the redemption date, and that from and after such date interest shall cease to accrue and be payable on such Series 2018 Bonds or portions thereof so redeemed.

In the case of an optional redemption of the Series 2018 Bonds, any notice of redemption may state that (i) it is conditioned upon the deposit of moneys with the Paying Agent or an escrow agent, no later than the redemption date, in an amount equal to the amount necessary to effect the redemption; or (ii) the City retains the right to rescind such notice of redemption on or prior to the scheduled redemption date (in either case, a “Conditional Redemption”), and such notice and optional redemption shall be of no effect if such moneys are not so deposited or if the notice is rescinded as described herein. Any notice of Conditional Redemption shall be captioned “Conditional Notice of Redemption.” Any Conditional Redemption may be rescinded at any time prior to the redemption date if the Finance Director delivers a written direction to the Paying Agent directing the Paying Agent to rescind the redemption notice. The Paying Agent shall give prompt notice of such rescission to the affected Bondholders. Any Series 2018 Bonds subject to Conditional Redemption where redemption has been rescinded shall remain Outstanding, and neither the rescission nor the failure by the City to make such funds available shall constitute an Event of Default. The Paying Agent shall give immediate notice to the securities information repositories and the affected Bondholders that the redemption did not occur and that the Series 2018 Bonds called for redemption and not so paid remain Outstanding.

In the event that only part of the principal sum of any Series 2018 Bond shall be called for redemption or prepaid, payment of the amount to be redeemed or prepaid shall be made only upon surrender of such Series 2018 Bond to the Bond Registrar. Upon surrender of such Series 2018 Bond, the Bond Registrar shall execute and deliver to the registered owner thereof, at the designated office of the Bond Registrar, new duly executed Series 2018 Bonds, of authorized principal sums equal in aggregate principal amount to, and of the same maturity and interest rate as, the unredeemed portion of the Series 2018 Bond surrendered.

Effect of Redemption. On the date so designated for redemption, notice having been mailed and filed in the manner and under the conditions described in the Resolution, the Series 2018 Bonds so called

for redemption shall become and be due and payable at the redemption price provided for redemption of such Series 2018 Bonds on such redemption date and, moneys for payment of the redemption price being held in separate accounts by the Bond Registrar or by a separate financial institution designated as escrow agent in trust for the Holders of the Series 2018 Bonds to be redeemed, interest on the Series 2018 Bonds so called for redemption shall cease to accrue, such Series 2018 Bonds shall cease to be entitled to any lien, benefit or security under the Resolution and the Holders or registered owners of the Series 2018 Bonds shall have no rights in respect thereof except to receive payment of the redemption price thereof and accrued interest thereon.

As long as a book-entry system is used for determining beneficial ownership of Series 2018 Bonds, notice of redemption will be sent to DTC. DTC will be responsible for notifying the DTC Participants, which will in turn be responsible for notifying the Beneficial Owners. Any failure of DTC to notify any DTC Participant, or of any DTC Participant to notify the Beneficial Owner of any such notice, will not affect the validity of the redemption of the Series 2018 Bonds.

Book-Entry Only System

DTC will act as securities depository for the Series 2018 Bonds. The Series 2018 Bonds will be issued as fully-registered securities registered in the name of Cede & Co., as DTC's partnership nominee, or such other name as may be requested by an authorized representative of DTC. One fully-registered Series 2018 Bond certificate will be issued for each maturity of the Series 2018 Bonds, each in the aggregate principal amount of such maturity, as set forth on the inside cover page of this Official Statement, and will be deposited with DTC.

DTC, the world's largest depository, 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 and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments from over one hundred (100) countries 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, thereby eliminating 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 is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-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" and, together with Direct Participants, "DTC Participants"). DTC has a S&P Global Ratings, a division of Standard & Poor's Financial Services LLC, rating of AA+. The DTC rules applicable to the DTC Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of Series 2018 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2018 Bonds on DTC's records. The ownership interest of each actual purchaser of each Series 2018 Bond ("Beneficial Owner") is in turn to be recorded on the DTC Participants' records. Beneficial Owners will not receive written confirmation from DTC of

their purchase but Beneficial Owners are expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the DTC Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2018 Bonds are to be accomplished by entries made on the books of DTC Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Series 2018 Bonds, except in the event that use of the book-entry system for the Series 2018 Bonds is discontinued.

To facilitate subsequent transfers, all Series 2018 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 2018 Bonds with DTC and their registration in the name of Cede & Co., or such other DTC nominee, will not effect any change in beneficial ownership of the Series 2018 Bonds. DTC has no knowledge of the actual Beneficial Owners of the Series 2018 Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2018 Bonds are credited, which may or may not be the Beneficial Owners. The DTC 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 DTC 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. Beneficial Owners of Series 2018 Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Series 2018 Bonds, such as redemptions, defaults and proposed amendments to the documents securing the Series 2018 Bonds. For example, Beneficial Owners of the Series 2018 Bonds may wish to ascertain that the nominee holding the Series 2018 Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the Bond Registrar and request that copies of notices are provided directly to them.

Redemption notices shall be sent by the Bond Registrar to DTC. If less than all of the Series 2018 Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to Series 2018 Bonds unless authorized by a Direct Participant in accordance with DTC's Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the City 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 2018 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments on the Series 2018 Bonds will be made to Cede & Co., or to such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the City or the Paying Agent on the payable date in accordance with their respective holdings shown on DTC's records. Payments by DTC Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is 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 and not of DTC, nor its nominee, the Paying Agent or the City, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the City or the Paying Agent,

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 DTC Participants.

When reference is made to any action which is required or permitted to be taken by the Beneficial Owners, such reference shall only relate to those permitted to act (by statute, regulation or otherwise) on behalf of such Beneficial Owners for such purposes. When notices are given, they shall be sent by the City only to DTC.

DTC may discontinue providing its services as securities depository with respect to the Series 2018 Bonds at any time by giving reasonable notice to the City. Under such circumstances, in the event that a successor securities depository is not obtained, bond certificates representing the Series 2018 Bonds are required to be printed and delivered. The City may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, bond certificates representing the Series 2018 Bonds will be printed and delivered. See “DESCRIPTION OF THE SERIES 2018 BONDS - Discontinuance of Securities Depository” herein.

SO LONG AS CEDE & CO., AS NOMINEE FOR DTC, IS THE SOLE REGISTERED OWNER OF THE SERIES 2018 BONDS, THE CITY AND THE PAYING AGENT SHALL TREAT CEDE & CO. AS THE ONLY OWNER OF THE SERIES 2018 BONDS FOR ALL PURPOSES UNDER THE RESOLUTION, INCLUDING RECEIPT OF ALL PRINCIPAL OF AND INTEREST ON THE SERIES 2018 BONDS, RECEIPT OF NOTICES, VOTING AND REQUESTING OR DIRECTING THE CITY AND THE PAYING AGENT TO TAKE OR NOT TO TAKE, OR CONSENTING TO, CERTAIN ACTIONS UNDER THE RESOLUTION. THE CITY AND THE PAYING AGENT HAVE NO RESPONSIBILITY OR OBLIGATION TO THE DTC PARTICIPANTS OR THE BENEFICIAL OWNERS WITH RESPECT TO (A) THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC OR ANY DTC PARTICIPANT; (B) THE PAYMENT BY ANY DTC PARTICIPANT OF ANY AMOUNT DUE TO ANY BENEFICIAL OWNER IN RESPECT OF THE PRINCIPAL OF AND INTEREST ON THE SERIES 2018 BONDS; (C) THE DELIVERY OR TIMELINESS OF DELIVERY BY ANY DTC PARTICIPANT OF ANY NOTICE TO ANY BENEFICIAL OWNER WHICH IS REQUIRED OR PERMITTED UNDER THE TERMS OF THE RESOLUTION TO BE GIVEN TO BONDHOLDERS; OR (D) OTHER ACTION TAKEN BY DTC OR CEDE & CO., AS THE REGISTERED OWNER OF THE SERIES 2018 BONDS.

Discontinuance of Securities Depository

DTC may resign as Securities Depository for the Series 2018 Bonds by giving notice to the City and discharging its responsibilities under applicable law. If DTC is incapable of discharging its duties or is no longer qualified to perform book-entry services, the City shall identify another qualified securities depository to replace DTC. If the City is unable to identify another qualified securities depository, the City will authenticate and deliver replacement Series 2018 Bonds in the form of fully registered certificates. The City may decide to discontinue use of the system of book-entry transfers through DTC (or a successor Securities Depository). In that event, the City will authenticate and deliver replacement Series 2018 Bonds in the form of fully registered certificates. If no qualified Securities Depository is the registered owner of the Series 2018 Bonds, the Beneficial Owners will be paid by the Paying Agent, by check for the interest thereon, mailed to the person registered on the Record Date as owner of the Series 2018 Bonds and upon presentation at the office of the Paying Agent for principal of the Series 2018 Bonds.

In the event that such book-entry only system is discontinued, the following provisions will apply: payments of interest on the Series 2018 Bonds shall be made by the Paying Agent on each Interest Payment Date to the person appearing as the registered owner thereof on the bond registration books maintained by

the Bond Registrar, as of the close of business on the fifteenth (15th) day of the calendar month preceding the applicable Interest Payment Date (or, if interest on the Series 2018 Bonds is in default, a Special Record Date established pursuant to the Resolution), by check mailed to such registered owner at his address as it appears on such registration books or, at the prior written request and expense of an owner of \$1,000,000 in aggregate principal amount of Series 2018 Bonds, by bank wire transfer to a domestic bank account; principal of the Series 2018 Bonds is payable upon presentation of the Series 2018 Bonds to the Paying Agent; and the Series 2018 Bonds may be transferred or exchanged by the Bond Registrar upon the payment of any transfer tax, fee or other governmental charges required to be paid with respect to such transfer or exchange and in accordance with the provisions of the Resolution.

THE INFORMATION IN THIS SECTION CONCERNING DTC AND DTC'S BOOK-ENTRY SYSTEM HAS BEEN OBTAINED FROM SOURCES THAT THE CITY BELIEVES TO BE RELIABLE, BUT THE CITY AND THE UNDERWRITERS TAKE NO RESPONSIBILITY FOR THE ACCURACY OF SUCH INFORMATION.

SECURITY AND SOURCES OF PAYMENT

General

The Series 2018 Bonds are limited obligations of the City, payable solely from and secured by a lien upon and pledge of all Net Revenues of the Water and Sewer System and certain other moneys held under the Resolution. **"Net Revenues"** are defined in the Bond Resolution as being, for any particular period, the excess of the Revenues for such period over the Current Expenses for such period.

"Revenues" are defined in the Bond Resolution as all moneys received by the City from its ownership or operation (either by the City or on its behalf) of the Water and Sewer System, including the income derived by the City from the sale of water produced, treated or distributed by the Water and Sewer System, or from the collection, transmission, treatment or disposal of sewage by the Water and Sewer System, plus any proceeds of use and occupancy insurance on the Water and Sewer System or any part thereof and income from certain investments made under the Bond Resolution. Revenues do not include grants, contributions or donations, investment income from investment of moneys in the Construction Account and the Impact Fee Account established under the Bond Resolution, proceeds of insurance (except use and occupancy insurance) and condemnation awards, moneys held in any Arbitrage Rebate Account created pursuant to the Bond Resolution, proceeds of sales of property constituting a part of the Water and Sewer System, Special Assessments, the proceeds of Bonds or other Utility Debt and Impact Fees.

"Current Expenses" are defined in the Bond Resolution as the City's reasonable and necessary current expenses to maintain, repair and operate the Water and Sewer System. These include, without limiting the generality of the foregoing, all ordinary and usual expenses of maintenance and repair, which may include expenses not annually recurring, all City administrative expenses, expenses relating to the operation of all or a part of the Water and Sewer System by another on behalf of the City and any reasonable payments to pension or retirement funds properly chargeable to the Water and Sewer System, insurance premiums, engineering expenses relating to maintenance, repair and operation of the Water and Sewer System, fees and expenses of the Bond Registrar, legal and accounting expenses, any fees, taxes, fines or penalties lawfully imposed on the Water and Sewer System or its income or operations and reserves for such taxes, annual premiums for bond insurance, interest rate insurance or insurance assuring availability of the amounts required to be on deposit in the Reserve Account, annual fees for Credit Facilities or Liquidity Facilities and any other expenses required to be paid by the City under the Bond Resolution or by law, including any amounts required to fund any Arbitrage Rebate Account created pursuant to the Bond Resolution. Current expenses do not include any reserves for extraordinary maintenance or repair, or any

allowance for depreciation, or any expenses associated with grant-funded expenditures, or any deposits or transfers to the credit of the Sinking Fund Account, the Reserve Account, the Rate Stabilization Account, the Subordinated Indebtedness Account, the Renewal, Replacement and Improvement Account, the General Reserve Account, the Impact Fee Account or the Special Assessment Account. In addition, for purposes of the calculations required by the Bond Resolution relating to the issuance of Additional Bonds and relating to the Rate Covenant, Current Expenses will not include any payments in lieu of taxes or any indirect administrative charges paid to the credit of the City's General Fund.

The City is obligated to pay the principal of and the interest on the Series 2018 Bonds solely from the Net Revenues and certain other moneys held under the Resolution. The Series 2018 Bonds shall not be deemed to constitute a debt of the City, Broward County, Florida, the State of Florida or any political subdivision thereof or a pledge of the faith and credit of the City, Broward County, Florida, the State of Florida or any political subdivision thereof, but such Bonds shall be payable solely from the Net Revenues and certain other moneys held in the funds and accounts under the Resolution. The Series 2018 Bonds shall not directly or indirectly or contingently obligate the City, Broward County, Florida, the State of Florida or any political subdivision thereof to levy or to pledge any form of taxation whatever therefor, nor shall any Series 2018 Bonds constitute a charge, lien or encumbrance, legal or equitable, upon any property of the City, Broward County, Florida, the State of Florida or any political subdivision thereof.

Rate Covenant

The City has covenanted in the Bond Resolution that it will fix, charge and collect reasonable rates and charges for the use of the services and facilities furnished by the Water and Sewer System and that it will adjust such rates and charges from time to time by increasing or decreasing the same or any selected categories of rates and charges as often as it shall appear necessary so that the Net Revenues received in each Fiscal Year (excluding from the computation of Current Expenses for any Fiscal Year any amounts received from any source other than Revenues which are applied to pay Current Expenses in such Fiscal Year) will equal at least one hundred twenty-five percent (125%) of the Principal and Interest Requirements for such Fiscal Year, on all Bonds then Outstanding plus one hundred percent (100%) of all amounts required to be deposited to the Reserve Account, the Renewal, Replacement and Improvement Account, the Subordinated Indebtedness Account, and the Rate Stabilization Account for such Fiscal Year; provided, however, that if either Impact Fees or Special Assessments are legally available for application with respect to any series of Additional Bonds under the Bond Resolution and the City elects to include the receipts from such Impact Fees or Special Assessments for purposes of calculating its compliance with the rate covenant contained in the Bond Resolution, then, in addition to the foregoing, the City further covenants that the Net Revenues received in each Fiscal Year, together with the Impact Fees and/or the Special Assessments, as applicable, will be sufficient to provide an amount in such Fiscal Year at least equal to one hundred thirty percent (130%) of the Principal and Interest Requirements for such Fiscal Year on account of the Bonds then Outstanding. So long as the City is in compliance with the foregoing rate covenant, the City may from time to time revise the rates for water and sewer service by the Water and Sewer System.

If in any Fiscal Year the Net Revenues are less than the amount required to meet the rate covenant contained in the Bond Resolution, within thirty (30) days after the December 31 immediately succeeding such Fiscal Year, the City is required to employ a Rate Consultant to review and analyze the financial status of the Water and Sewer System, to inspect the Water and Sewer System, and to submit, within sixty (60) days thereafter, a written report to the City recommending revisions of the Water and Sewer System's rates, fees and charges, and its methods of operation that will result in producing the required amount in the following Fiscal Year. Promptly upon its receipt of such recommendations, the City must transmit copies thereof to the City Manager and the City Finance Director and must revise its rates, fees and charges or alter its methods of operation, and take any other action to conform with such recommendations.

If the City fails to comply with the recommendations of the Rate Consultant, the registered owners of not less than ten percent (10%) in Outstanding principal amount of Bonds then Outstanding under the Bond Resolution may institute and prosecute an action or proceeding in any court (or before any board or commission having jurisdiction) to compel the City to comply with the recommendations and the requirements of the Rate Consultant. So long as the issuer of a Credit Facility shall not be in default in its payment obligations under its Credit Facility, such issuer shall be deemed to be the holder of all Bonds so insured for purposes of compelling the City to comply with the recommendations and requirements of the Rate Consultant.

If the City complies with all recommendations of the Rate Consultant in respect to its rates, fees, charges and methods of operation, the failure of Net Revenues to meet the rate covenant will not constitute an Event of Default so long as the Revenues, together with available moneys in the funds and accounts created under the Bond Resolution, other than the Arbitrage Rebate Account, are sufficient to pay the Current Expenses in cash and to pay the Principal and Interest Requirements on all Outstanding Bonds and other Utility Debt of the City for such Fiscal Year.

Flow of Funds

The Bond Resolution establishes the Construction Account and the Enterprise Fund. The Enterprise Fund consists of the Revenue Account, the Renewal, Replacement and Improvement Account, the General Reserve Account, the Sinking Fund Account (and within the Sinking Fund Account, the Bond Service Subaccount and the Redemption Subaccount), the Reserve Account, the Subordinated Indebtedness Account, the Rate Stabilization Account, the Impact Fee Account and the Special Assessment Account.

The City will deposit all Revenues collected from the operations of the Water and Sewer System into the Revenue Account of the Enterprise Fund. Not later than the twentieth (20th) day of each month, the City will withdraw the balance of the Revenue Account (except for an amount equal to two month's Current Expenses under the Annual Budget, which amount shall be held for the payment of Current Expenses) and deposit the funds withdrawn in the following order:

(a) To the Bond Service Subaccount of the Sinking Fund Account, one-sixth (1/6) of the amount of interest payable on the Bonds of each Series on the next Interest Payment Date, plus one-twelfth (1/12) (or, if principal is payable semiannually, one-sixth (1/6)) of the next maturing installment of principal on all Serial Bonds then Outstanding, such amounts to be adjusted in each month intervening between the date of delivery of the Bonds and the next succeeding Interest Payment Date or principal payment date to add to the required deposit an additional amount which, when multiplied by the number of deposits to the credit of the Bond Service Subaccount required to be made during such period will equal the amount needed (in addition to any amounts received as accrued interest or capitalized interest from the proceeds of such Bonds) to pay principal and interest on such Bonds when such payments are due on the next Interest Payment Date or principal payment date;

(b) To the Redemption Subaccount of the Sinking Fund Account, an amount equal to one-twelfth (1/12), or, if any Bonds are required to be retired semiannually in satisfaction of the Amortization Requirements therefor, one-sixth (1/6), of the principal amount of Term Bonds of each Series required to be retired, in satisfaction of the Amortization Requirements, if any, for such Fiscal Year;

(c) To the Reserve Account, such amount, if any, of any balance remaining after making the deposits under clauses (a) and (b) above (or the entire balance if less than the required

amount) as may be required to make the amount deposited to the credit of the Reserve Account in such month equal to the Reserve Account Deposit Requirement for such month;

(d) To the Rate Stabilization Account, such amounts determined from time to time by the City Commission to be credited to such account;

(e) To the Subordinated Indebtedness Account, an amount, if any, of any balance remaining after making the deposits under clauses (a), (b), (c) and (d) above (or the entire balance if less than the required amount) equal to the sum of one-twelfth (1/12) of the principal of, redemption premium, if any, and interest coming due on any Subordinated Indebtedness during the next succeeding twelve month period and the amount, if any, required to be deposited in any special reserve subaccount established within the Subordinated Indebtedness Account pursuant to the Bond Resolution;

(f) To the Renewal, Replacement and Improvement Account, such amount, if any, of any balance remaining after making the deposits under clauses (a), (b), (c), (d) and (e) above (or the entire balance if less than the required amount) as may be required to make the amount deposited in such month to the credit of the Renewal, Replacement and Improvement Account equal to one-twelfth (1/12) of the difference between any lesser amount on deposit therein and the Renewal, Replacement and Improvement Account Requirement for such Fiscal Year; and

(g) To the General Reserve Account, the balance, if any, remaining after making the above deposits.

Reserve Account

The Bond Resolution establishes the Reserve Account within the Enterprise Fund. The Reserve Account is held for the benefit of all Bonds Outstanding except that: (i) the Series Resolution for a particular Series of Bonds may provide that such Series of Bonds is not to be secured by the Reserve Account and, in such event, such Series of Bonds will not be secured by the Reserve Account and the moneys held for the credit of the Reserve Account will not be applied for the benefit of such Series of Bonds, and (ii) the Series Resolution for one or more particular Series of Bonds may establish a separate subaccount within the Reserve Account for such particular Series of Bonds and, in such event, such Series of Bonds shall be secured only by the moneys held for the credit of such subaccount and by no other amounts held for the credit of the Reserve Account, and the Bonds Outstanding of any other Series will have no claim whatsoever on the moneys held for the credit of such separate subaccount in the Reserve Account.

The Bond Resolution provides for the establishment of the Reserve Account Requirement. The Reserve Account Requirement is to be an amount equal to the lesser of (i) the Maximum Principal and Interest Requirements for all Outstanding Bonds; (ii) one hundred twenty-five percent (125%) of the average annual Principal and Interest Requirements for all Outstanding Bonds; and (iii) ten percent (10%) of the original proceeds (within the meaning of the Code) of all Series of Bonds Outstanding. However, the Series Resolution provides that no deposit to the Reserve Account shall be made in connection with the issuance of the Series 2018 Bonds. In addition, no separate subaccount in the Reserve Account has been created solely for the benefit of the Series 2018 Bonds. **As a result, the Series 2018 Bonds shall not be secured by any separate subaccount in the Reserve Account nor entitled to any benefit from amounts that may be held in the Reserve Account for the benefit of Bonds hereafter issued under the Bond Resolution.** The series resolutions authorizing issuance of the Series 2012 Bonds, the Series 2014 Bonds and the Series 2016 Bonds, respectively, also provided that no deposit to the Reserve Account was to be

made in connection with the issuance of such Series of Bonds and that no separate subaccount in the Reserve Account was to be created solely for the benefit of such Series of Bonds. Therefore, upon issuance of the Series 2018 Bonds no amounts will be held in the Reserve Account for the benefit of the Series 2018 Bonds or the Outstanding Bonds.

Additional Bonds

Additional Bonds of the City may be issued under and secured by the Bond Resolution, on a parity with the pledge of Net Revenues and certain other moneys held under the Resolution for the benefit of the Series 2018 Bonds, the Outstanding Bonds and any other Bonds and Alternative Parity Debt hereafter issued under the Bond Resolution, and superior in lien to any Subordinated Indebtedness, subject to the conditions described below, from time to time, to pay all or any part of the cost of constructing or acquiring any Improvements.

Before any Additional Bonds shall be issued under the provisions of the Bond Resolution the City Commission shall adopt a Series Resolution authorizing the issuance of such Additional Bonds, fixing the amount and the details thereof (including the Reserve Account Requirement therefor) and describing in brief and general terms the Improvements to be constructed or acquired. In addition, before such Additional Bonds shall be delivered, there shall be filed with the City, among other things, the following:

(a) a certificate of the Finance Director, an Accountant or the Rate Consultant demonstrating that the percentage derived by dividing the Net Revenues for any period of twelve (12) consecutive months selected by the City out of the twenty-four (24) months preceding the delivery of such certificate, by the Maximum Principal and Interest Requirements, including the Principal and Interest Requirements with respect to the Additional Bonds then to be delivered, for any future Fiscal Year is not less than one hundred twenty-five percent (125%) (the period during which Net Revenues are determined for purposes of this paragraph being referred to hereinafter as the "Measurement Period"); provided, however, that if either Impact Fees or Special Assessments are legally available for application with respect to such Additional Bonds pursuant to the terms of the Bond Resolution and the City elects to include the receipts from such Impact Fees or Special Assessments for the purpose of satisfying the Additional Bonds test contained in the Bond Resolution, then, in addition to the foregoing, the certificate shall also demonstrate that the percentage derived by dividing the Net Revenues (taking into consideration the Impact Fees and/or the Special Assessments, as applicable) for the Measurement Period, by the Maximum Principal and Interest Requirements, including the Principal and Interest Requirements with respect to the Additional Bonds then to be delivered, for any future Fiscal Year shall not be less than one hundred thirty percent (130%);

(b) an opinion of the City Attorney that the issuance of such Additional Bonds has been duly authorized and that all conditions precedent to the delivery of such Additional Bonds have been fulfilled; and

(c) a certificate of the Finance Director to the effect that no event of default, as defined in the Bond Resolution, and no event which with the passage of time, the giving of notice or both would become an event of default has occurred within the twelve (12) consecutive calendar months prior to the date of such certificate and is continuing, or, if any such event or event of default has occurred and is continuing, that the issuance of such Series of Additional Bonds will cure the same.

In determining whether to execute and deliver the certificate mentioned in clause (a) of this Section, the following adjustments to Net Revenues may be made:

(1) If the City, prior to the issuance of the proposed Additional Bonds, shall have increased the rates, fees, rentals or other charges for the services of the Water and Sewer System, the Net Revenues for the Measurement Period shall be adjusted to show the Net Revenues which would have been derived from the Water and Sewer System in such Measurement Period as if such increased rates, fees, rentals or other charges for the services of the Water and Sewer System had been in effect during all of such Measurement Period.

(2) If the City shall have acquired or has contracted to acquire any privately or publicly owned existing water system or sewer system, then the Net Revenues derived from the Water and Sewer System during the Measurement Period shall be increased by addition to the Net Revenues for the Measurement Period of the net revenues which would have been derived from said existing water system or sewer system as if such existing water system or sewer system had been a part of the Water and Sewer System during the Measurement Period. For the purposes of this paragraph, the net revenues derived from said existing water system or sewer system during the Measurement Period shall be adjusted by deducting the cost of operation and maintenance of said existing water system or sewer system from the gross revenues of said existing water system or sewer system in the same manner provided in the Bond Resolution for the determination of Net Revenues.

(3) If the City, in connection with the issuance of Additional Bonds, shall enter into a contract (with a duration not less than the final maturity of such Additional Bonds) with any public or private entity whereby the City agrees to furnish services in connection with any water system or sewer system, then the Net Revenues of the Water and Sewer System during the Measurement Period shall be increased by the least amount which said public or private entity shall guarantee to pay in any one year for the furnishing of said services by the City, after deducting therefrom the proportion of operating expenses and repair, renewal and replacement cost attributable in such year to such services. Such payments shall be deemed to be Net Revenues of the Water and Sewer System and pledged for the Bonds in the same manner as other Net Revenues of the Water and Sewer System.

(4) If the City covenants to levy Special Assessments or Impact Fees against improved property to be benefitted by the Improvements (which levy will be done in accordance with State law), the cost of which shall be paid from the proceeds of the proposed Additional Bonds, and if such Special Assessments or Impact Fees are legally available for application with respect to such Additional Bonds, as permitted under the terms of the Bond Resolution, then the Net Revenues during the Measurement Period shall be increased by an amount equal to one hundred percent (100%) of the amount which the Consulting Engineer estimates will be received in each year from the levy of said Impact Fees or said Special Assessments (without taking into account the possibility of prepayment of Special Assessments), within three (3) years of the date of the sale of such Additional Bonds, said amount to be the total received from the installment payments on the Special Assessments or Impact Fees, as the case may be, plus, in the case of Special Assessments, any interest paid on the unpaid portion of the Special Assessments. The estimate of the Consulting Engineer shall be based upon the preliminary assessment roll filed with the City prior to the construction of such Improvements.

The Series 2018 Bonds are being issued as Additional Bonds under Section 209 of the Bond Resolution.

Refunding Bonds

Under the provisions of the Bond Resolution, Refunding Bonds may be issued to refund some or all of the Series 2018 Bonds or other Bonds issued under the Bond Resolution, including the Outstanding Bonds, that are subject to redemption. Any such Refunding Bonds issued to refund Additional Bonds or Alternative Parity Debt shall be secured by the Net Revenues and certain other moneys held under the Resolution, on a parity with the Series 2018 Bonds, the Outstanding Bonds and any other Bonds or Alternative Parity Debt hereafter issued and Outstanding under the Bond Resolution, without meeting the requirements described above in clauses (a) and (c) under the heading “SECURITY AND SOURCES OF PAYMENT - Additional Bonds,” so long as the issuance of the Refunding Bonds will result in a decrease in the total Principal and Interest Requirements for all Bonds Outstanding.

Other Obligations Secured by Net Revenues

Other than the Series 2018 Bonds, the only other obligations issued under the Bond Resolution are the Outstanding Bonds. The Outstanding Bonds were each issued to refinance Bonds and other obligations previously issued as part of the City’s multi-year comprehensive capital improvement program to modernize and improve the Water and Sewer System (the “CIP”). In addition to the Series 2018 Bonds, other Bonds may be issued by the City to finance the improvements to the Water and Sewer System recommended by the City’s independent engineers and consultants in the CIP, but the City currently does not have any specific plans as to the issuance of its next Series of Bonds.

In addition to the issuance of Bonds, in connection with the implementation of the CIP, the City has borrowed funds from the State of Florida revolving loan program (the “SRF”). Although not currently contemplated, the City may obtain additional SRF loans for the CIP in the future. Such SRF loans have not been incurred by the City, and are not expected to be incurred by the City in the future, as Additional Bonds or Alternative Parity Debt. As a result, such SRF loans are currently, and if obtained in the future are expected to be, payable from and secured by Net Revenues on a basis that is junior and subordinate to the pledge of and lien on Net Revenues in favor of the Series 2018 Bonds, the Outstanding Bonds and any other Bonds or Alternative Parity Debt issued under the Bond Resolution.

Modifications or Supplements to Bond Resolution

Except as set forth in the third (3rd) succeeding paragraph below, no supplemental resolution may be adopted by the City Commission for the purpose of modifying, altering, amending, adding to or rescinding, in any particular, any of the terms or provisions of the Bond Resolution or of any resolution supplemental thereto without the consent in writing of the Holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding; provided, however, that no such supplemental resolution shall permit (i) an extension of the maturity of the principal of or the interest on any Bond, (ii) a reduction in the principal amount of any Bond or the redemption premium or the rate of interest thereon, (iii) the creation of a lien upon or a pledge of Revenues other than the lien and pledge created by the Bond Resolution, (iv) a preference or priority of any Bond or Bonds over any other Bond or Bonds, or (v) a reduction in the aggregate principal amount of the Bonds required for consent to such supplemental resolution without, in each case, the consent of the Holders of all the Bonds Outstanding.

For purposes of providing the written consent of the Holders of any Series of Bonds to any supplemental resolution modifying, altering, amending, adding to or rescinding, in any particular, any of the terms or provisions of the Bond Resolution or of any resolution supplemental thereto, the consent of the Holders of any Series of Additional Bonds shall be deemed given if the underwriters or initial purchasers for resale consent in writing to such supplemental resolution and the nature of the amendment

effected by such supplemental resolution is disclosed in the official statement or other offering document pursuant to which such Series of Additional Bonds is offered and sold to the public.

In addition, for purposes of providing the written consent of the Holders of any Series of Bonds to any supplemental resolution modifying, altering, amending, adding to or rescinding, in any particular, any of the terms or provisions of the Bond Resolution or of any resolution supplemental thereto, to the extent any Series of Bonds is secured by a Credit Facility that satisfies the requirements set forth in the Bond Resolution, the consent of the Credit Facility Issuer for such Series of Bonds shall constitute the consent of the Holders of such Bonds.

Notwithstanding the foregoing, the City Commission may adopt such supplemental resolutions as shall not be inconsistent with the terms and provisions of the Bond Resolution:

- (a) to cure any ambiguity or formal defect or omission or to correct any inconsistent provisions in the Bond Resolution or in any supplemental resolution;
- (b) to grant to or confer upon the Bondholders any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Bondholders;
- (c) to add to the conditions, limitations and restrictions on the issuance of Bonds other conditions, limitations and restrictions thereafter to be observed;
- (d) to add to the covenants and agreements of the City in the Bond Resolution other covenants and agreements thereafter to be observed by the City or to surrender any right or power reserved to or conferred upon the City in the Bond Resolution;
- (e) to permit the issuance of Bonds in coupon form, subject to the delivery of the opinion of Bond Counsel required by the Bond Resolution;
- (f) to permit the City to issue Bonds the interest on which is not exempt from federal income taxation;
- (g) to qualify the Bonds or any of them for registration under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended;
- (h) to qualify the Bond Resolution as an “indenture” under the Trust Indenture Act of 1939, as amended;
- (i) to create additional Sinking Fund Accounts for a Series of Bonds permitted by the Bond Resolution;
- (j) to permit Bonds to be issued in denominations smaller than \$5,000; or
- (k) to comply with requirements of entities providing Credit Facilities, Reserve Account Insurance Policies and Reserve Account Letters of Credit.

See “APPENDIX D - The Resolution” for certain other provisions applicable in connection with a proposed modification, amendment or supplement to the Bond Resolution.

ESTIMATED SOURCES AND USES OF FUNDS

The following table sets forth the estimated sources and uses of funds in connection with the issuance of the Series 2018 Bonds:

Sources of Funds

Par Amount of Series 2018 Bonds	\$196,035,000.00
Net Original Issue Premium	<u>6,003,248.55</u>
Total Estimated Sources of Funds	<u><u>\$202,038,248.55</u></u>

Uses of Funds

Deposit to Construction Subaccount ⁽¹⁾	\$200,000,000.00
Deposit to Cost of Issuance Subaccount ⁽²⁾	818,910.85
Underwriters' Discount	<u>1,219,337.70</u>
Total Estimated Uses of Funds	<u><u>\$202,038,248.55</u></u>

(1) See "PURPOSE OF THE ISSUE" herein.

(2) To pay certain costs of issuance of the Series 2018 Bonds, including, without limitation, printing costs and fees of bond counsel, disclosure counsel, the financial advisor, the rating agencies, and the Feasibility Consultants (as such term is hereinafter defined).

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DEBT SERVICE SCHEDULE*

Maturity	Series 2018 Bonds				Outstanding Bonds		Total Debt Service on Outstanding Bonds and Series 2018 Bonds	Total Annual Debt Service on Outstanding Bonds and Series 2018 Bonds
	Principal	Interest	Series 2018 Bonds Debt Service	Series 2018 Bonds Annual Debt Service	Outstanding Bonds Debt Service	Outstanding Bonds Annual Debt Service		
3/1/18	\$ —	\$ —	\$ —	\$ —	\$ 12,064,491	\$ —	\$ 12,064,491	\$ —
9/1/18	—	4,077,744	4,077,744	4,077,744	11,965,116	24,029,606	16,042,860	28,107,350
3/1/19	—	3,842,900	3,842,900	—	12,059,741	—	15,902,641	—
9/1/19	—	3,842,900	3,842,900	7,685,800	11,973,491	24,033,231	15,816,391	31,719,031
3/1/20	—	3,842,900	3,842,900	—	12,065,741	—	15,908,641	—
9/1/20	—	3,842,900	3,842,900	7,685,800	11,971,991	24,037,731	15,814,891	31,723,531
3/1/21	—	3,842,900	3,842,900	—	10,861,741	—	14,704,641	—
9/1/21	—	3,842,900	3,842,900	7,685,800	13,168,291	24,030,031	17,011,191	31,715,831
3/1/22	—	3,842,900	3,842,900	—	12,029,241	—	15,872,141	—
9/1/22	—	3,842,900	3,842,900	7,685,800	12,000,991	24,030,231	15,843,891	31,716,031
3/1/23	—	3,842,900	3,842,900	—	12,037,716	—	15,880,616	—
9/1/23	—	3,842,900	3,842,900	7,685,800	11,995,966	24,033,681	15,838,866	31,719,481
3/1/24	—	3,842,900	3,842,900	—	12,023,966	—	15,866,866	—
9/1/24	—	3,842,900	3,842,900	7,685,800	12,007,316	24,031,281	15,850,216	31,717,081
3/1/25	—	3,842,900	3,842,900	—	12,026,691	—	15,869,591	—
9/1/25	—	3,842,900	3,842,900	7,685,800	12,001,391	24,028,081	15,844,291	31,713,881
3/1/26	—	3,842,900	3,842,900	—	12,022,091	—	15,864,991	—
9/1/26	—	3,842,900	3,842,900	7,685,800	12,013,016	24,035,106	15,855,916	31,720,906
3/1/27	—	3,842,900	3,842,900	—	12,028,766	—	15,871,666	—
9/1/27	—	3,842,900	3,842,900	7,685,800	11,998,941	24,027,706	15,841,841	31,713,506
3/1/28	—	3,842,900	3,842,900	—	12,035,941	—	15,878,841	—
9/1/28	—	3,842,900	3,842,900	7,685,800	11,991,616	24,027,556	15,834,516	31,713,356
3/1/29	—	3,842,900	3,842,900	—	12,024,516	—	15,867,416	—
9/1/29	—	3,842,900	3,842,900	7,685,800	12,000,034	24,024,550	15,842,934	31,710,350
3/1/30	—	3,842,900	3,842,900	—	12,032,922	—	15,875,822	—
9/1/30	—	3,842,900	3,842,900	7,685,800	11,997,284	24,030,206	15,840,184	31,716,006
3/1/31	—	3,842,900	3,842,900	—	12,034,122	—	15,877,022	—
9/1/31	—	3,842,900	3,842,900	7,685,800	11,997,259	24,031,381	15,840,159	31,717,181
3/1/32	—	3,842,900	3,842,900	—	12,062,722	—	15,905,622	—
9/1/32	—	3,842,900	3,842,900	7,685,800	11,967,781	24,030,503	15,810,681	31,716,303
3/1/33	—	3,842,900	3,842,900	—	12,071,263	—	15,914,163	—
9/1/33	—	3,842,900	3,842,900	7,685,800	11,960,063	24,031,325	15,802,963	31,717,125

Series 2018 Bonds					Outstanding Bonds			
Maturity	Principal	Interest	Series 2018 Bonds Debt Service	Series 2018 Bonds Annual Debt Service	Outstanding Bonds Debt Service	Outstanding Bonds Annual Debt Service	Total Debt Service on Outstanding Bonds and Series 2018 Bonds	Total Annual Debt Service on Outstanding Bonds and Series 2018 Bonds
3/1/34	\$ —	\$ 3,842,900	\$ 3,842,900	\$ —	\$ 12,072,441	\$ —	\$ 15,915,341	\$ —
9/1/34	—	3,842,900	3,842,900	7,685,800	11,955,447	24,027,888	15,798,347	31,713,688
3/1/35	—	3,842,900	3,842,900	—	12,076,953	—	15,919,853	—
9/1/35	—	3,842,900	3,842,900	7,685,800	11,953,459	24,030,413	15,796,359	31,716,213
3/1/36	—	3,842,900	3,842,900	—	6,848,366	—	10,691,266	—
9/1/36	—	3,842,900	3,842,900	7,685,800	6,733,678	13,582,044	10,576,578	21,267,844
3/1/37	4,645,000	3,842,900	8,487,900	—	2,249,075	—	10,736,975	—
9/1/37	4,770,000	3,750,000	8,520,000	17,007,900	2,217,275	4,466,350	10,737,275	21,474,250
3/1/38	4,840,000	3,654,600	8,494,600	—	2,245,475	—	10,740,075	—
9/1/38	4,965,000	3,557,800	8,522,800	17,017,400	2,217,775	4,463,250	10,740,575	21,480,650
3/1/39	7,280,000	3,458,500	10,738,500	—	—	—	10,738,500	—
9/1/39	7,425,000	3,312,900	10,737,900	21,476,400	—	—	10,737,900	21,476,400
3/1/40	7,575,000	3,164,400	10,739,400	—	—	—	10,739,400	—
9/1/40	7,725,000	3,012,900	10,737,900	21,477,300	—	—	10,737,900	21,477,300
3/1/41	7,880,000	2,858,400	10,738,400	—	—	—	10,738,400	—
9/1/41	8,040,000	2,700,800	10,740,800	21,479,200	—	—	10,740,800	21,479,200
3/1/42	8,200,000	2,540,000	10,740,000	—	—	—	10,740,000	—
9/1/42	8,365,000	2,376,000	10,741,000	21,481,000	—	—	10,741,000	21,481,000
3/1/43	8,530,000	2,208,700	10,738,700	—	—	—	10,738,700	—
9/1/43	8,700,000	2,038,100	10,738,100	21,476,800	—	—	10,738,100	21,476,800
3/1/44	8,875,000	1,864,100	10,739,100	—	—	—	10,739,100	—
9/1/44	9,050,000	1,686,600	10,736,600	21,475,700	—	—	10,736,600	21,475,700
3/1/45	9,235,000	1,505,600	10,740,600	—	—	—	10,740,600	—
9/1/45	9,415,000	1,320,900	10,735,900	21,476,500	—	—	10,735,900	21,476,500
3/1/46	9,605,000	1,132,600	10,737,600	—	—	—	10,737,600	—
9/1/46	9,800,000	940,500	10,740,500	21,478,100	—	—	10,740,500	21,478,100
3/1/47	9,995,000	744,500	10,739,500	—	—	—	10,739,500	—
9/1/47	10,195,000	544,600	10,739,600	21,479,100	—	—	10,739,600	21,479,100
3/1/48	10,370,000	366,188	10,736,188	—	—	—	10,736,188	—
9/1/48	<u>10,555,000</u>	<u>184,713</u>	<u>10,739,713</u>	<u>21,475,900</u>	<u>—</u>	<u>—</u>	<u>10,739,713</u>	<u>21,475,900</u>
TOTAL	<u>\$196,035,000</u>	<u>\$195,188,444</u>	<u>\$391,223,444</u>	<u>\$391,223,444</u>	<u>\$455,062,153</u>	<u>\$455,062,153</u>	<u>\$846,285,597</u>	<u>\$846,285,597</u>

* Totals may not add due to rounding.

THE CITY

The City, located in the heart of a robust, diversified growth region on the southeast coast of Florida, contains approximately thirty-six (36) square miles and has an estimated population of approximately 179,063, as of April 1, 2017. The City was incorporated in 1911 and operates pursuant to a City Charter. The government consists of a five (5) member City Commission elected by district, including a mayor elected at large. All elections are on a nonpartisan basis. The City Commission appoints a city manager. The current City Manager is Lee R. Feldman, who was appointed to serve as City Manager on June 7, 2011.

The City provides a full range of municipal services, including police and fire protection, streets, planning and zoning, parks and recreation, water, sewer, sanitation, economic development and public information services. Tourism is one of the City's major economic forces, with manufacturing, industrial and commercial business and corporate and regional offices serving to diversify the City's economic base. For more information about the City, see "APPENDIX A - General Information regarding the City of Fort Lauderdale, Florida and Broward County, Florida."

WATER AND SEWER SYSTEM

The following is intended to provide only a summary description of the Water and Sewer System. For a more detailed description of the Water and Sewer System, see the City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report (the "Feasibility Report") prepared by CH2M HILL, Inc., Hazen and Sawyer, P.C. and Stantec, Inc., collectively serving as the City's engineering and feasibility consultants in connection with the issuance of the Series 2018 Bonds (collectively, the "Feasibility Consultants"). The Feasibility Report was prepared to address issues and provide information relevant to the Water and Sewer System and the issuance of the Series 2018 Bonds for the Fiscal Years ended September 30, 2013 through September 30, 2017 (the "Historical Period") and for the Fiscal Years ending September 30, 2018 through September 30, 2022 (the "Forecast Period"). The Feasibility Report is included in this Official Statement as Appendix B.

General

The Water and Sewer System constitutes a large and complicated infrastructure of pipes and treatment facilities for both the production and distribution of potable water and the collection and disposal of sewer waste. It also includes water meters, raw water wells, well pumps, valves, and wastewater pump stations. The City has more than 1,400 miles of water mains, sewer force-mains and gravity sewer lines throughout the 43 square miles of the Water and Sewer System service area.

History

The Water System. Approximately one year after the City's incorporation in 1911, the City's water system (the "Water System") began operations, serving less than 100 people. The original Water System was replaced with a larger well, pumping station and treatment plant in 1919. In 1926 construction of the Dixie Water Treatment Plant (now known as the Walter E. Peele-Dixie Water Treatment Plant) (the "Peele-Dixie WTP") began and such facility was enlarged in 1939 to a capacity of 14 million gallons per day ("mgd"). The number of customer accounts served by the Water System nearly doubled between 1935 and 1945 and again by 1950, growing from 2,365 in 1935 to 5,721 in 1945, and to 11,577 by 1950. In 1950 the City purchased the Fiveash Water Treatment Plant (the "Fiveash WTP") and increased its capacity from 8 mgd to 16 mgd in 1958. By the early 1970s, the capacity of the Peele-Dixie WTP was increased to 20 mgd, and the Fiveash WTP to 40 mgd. Together these water treatment plants provided service to

approximately 35,700 customers. The Fiveash WTP was expanded by an additional 24 mgd of design capacity in the early 1980s as the Water System neared capacity.

In 1953 the City began providing water service to other nearby communities when the City entered into a contract with the Town of Lauderdale-by-the-Sea. Prior to 2008, Lauderdale-by-the-Sea owned the water lines within its boundaries and the City maintained those lines and otherwise provided retail water service to the residents of that community. In 2008, the City purchased the water lines it previously leased from Lauderdale-by-the-Sea. The City continues to provide retail water service to the residents of the Town of Lauderdale-by-the-Sea.

Other entities also purchase water from the City under similar arrangements, including the Village of Sea Ranch Lakes and parts of unincorporated Broward County. Together, the Town of Lauderdale-by-the-Sea and the Village of Sea Ranch Lakes comprise less than four percent (4.0%) of the total population served by the Water System. The number of retail customers the City serves in unincorporated Broward County comprises less than six percent (6.0%) of the total population served by the Water System.

Several other entities purchase water from the City on a wholesale or bulk user basis through a master meter. These entities include the cities of Oakland Park and Wilton Manors and, as to a portion thereof, the City of Tamarac, the Town of Davie and Broward County's Port Everglades. The agreements for water supply between these entities and the City all have 30-year terms, except for the agreement with the City of Wilton Manors, which has a 25-year term. Such contracts collectively represent approximately 16.3% of the City's total water consumption.

Set forth below is a listing of such contracts, their current expiration dates and the percentage of total consumption of the Water System represented by each contract. The City's contract with the Town of Davie expired in 2017 and a new contract is being negotiated. Service is currently provided to the Town of Davie under the terms of the expired contract. The City expects the contract to be renewed once negotiations have been completed and also expects to enter into a new long-term arrangement with each of the entities set forth below when the current wholesale or bulk user contracts expire.

Wholesale Water User Contracts

<u>Large User</u>	<u>Effective Dates of Agreement</u>	<u>% of Total Water System Consumption⁽¹⁾</u>
Town of Davie	1987 - 2017	0.27%
City of Oakland Park	1994 - 2024	8.15
Broward County's Port Everglades ⁽²⁾	2002 - 2032	3.19
Broward County	1994 - 2024	0.04
City of Tamarac	1994 - 2024	0.42
City of Wilton Manors	2005 - 2030	<u>4.26</u>
TOTAL		<u>16.33%</u>

Source: The Feasibility Report. See "APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report," including, in particular, Section 2.1.1 in the Feasibility Report.

Footnotes for the immediately preceding table are provided on the next page.

- (1) Total metered consumption in Fiscal Year 2016 amounted to approximately 12.279 billion gallons.
- (2) Since 2004, the City has provided retail water service to some tenants at Broward County's Port Everglades but continues also to provide wholesale water service at Port Everglades.

The Sewer System. Prior to construction of the G. T. Lohmeyer Wastewater Treatment Plant (the "Lohmeyer WWTP") in the 1970s, the Sewer System of the City (the "Sewer System") was comprised of numerous small sewer treatment facilities housed at various locations around the City. The construction of the Sewer System began in 1927 but, due to the impacts of a hurricane and local economic downturn, was not completed until 1937. In the 1940s and 1950s, the population of the City grew more rapidly than the Sewer System. As a result, new developments were often served by septic systems. By the late 1950s, the City had begun to expand the Sewer System to serve all areas of the City. Most new developments subsequent to 1950 were required to install sanitary sewers as well.

Expansion of the wastewater collection system was limited until 1957, when the City began expanding the Sewer System into unserved areas, beginning from the beach area and extending west. However, expansion of the gravity wastewater system slowed considerably in the late 1970s and 1980s, as available capital funds were used to consolidate and upgrade the wastewater treatment plants of the Sewer System. Currently, almost all of the City's residents are connected, or have access, to the Sewer System.

Construction of the Lohmeyer WWTP began in the mid-1970s. The Lohmeyer WWTP was designed to serve the entire City, as well as the City of Oakland Park, the City of Wilton Manors, Broward County's Port Everglades, portions of the Town of Davie and portions of the City of Tamarac. The City has negotiated contractual agreements with each of these large regional Sewer System users. All of these contracts were amended in 2001 and are now scheduled to expire in 2021. The City plans to enter into new contracts with each of the large regional Sewer System users prior to expiration of the existing contracts. To date, none of the large regional users of the Sewer System have indicated any intention to seek alternative sources of wastewater treatment.

After constructing the Lohmeyer WWTP, the City closed all of the smaller wastewater treatment facilities that had previously been used to operate the Sewer System. The Lohmeyer WWTP has a permitted capacity of 56.6 mgd, based on a maximum 3-month average daily flow.

Organizational Structure

Organization and Management. Operation of the Water System and the Sewer System is the responsibility of the City's Public Works Department (the "Public Works Department"). In addition, the Public Works Department manages operation of the City's stormwater drainage system and solid waste collection system. The Public Works Department currently employs approximately 464 full-time equivalent staff and is composed of four (4) divisions: Administrative/Strategic Support, Utilities, Sustainability and Engineering.

The Utilities Division is responsible for operation of the Water and Sewer System. The two subdivisions within the Utilities Division are: (i) Distribution and Collection (which operates and maintains the potable water distribution facilities and sewer collection and pumping facilities); and (ii) Treatment (which operates the Peele-Dixie WTP, the Fiveash WTP, the Lohmeyer WWTP, the associated wellfields, and the environmental lab).

The Sustainability Division operates the solid waste and recycling activities, fleet services, stormwater, environmental and regulatory affairs and sustainability and climate resilience, including implementation of the City's Sustainability Action Plan (which articulates the City specific "green" goals, strategies and performance indicators, reflects how sustainability will be integrated into all levels of City

decision-making and establishes a system of accountability). The division serves as an internal business consultant to other City departments to integrate sustainable practices and climate resiliency into their daily operations.

The Engineering Division provides for engineering design, construction and project management of capital community investment and public right-of-way projects. The division ensures that projects are in compliance with approved plans, specifications and applicable building codes and meet high standards of quality, delivery time and cost. The division provides engineering and project management services for water, sewer, and stormwater capital improvement projects and includes the engineering and project management subdivisions. The Director's office, constituting the Administrative/Strategic Support Division, is responsible for financial services and utilities support activities, including budget, utilities finance, human resources and payroll, grant management, and operation and management of the City's 24-hour customer service center.

The Director of the Public Works Department is Paul A. Berg. Mr. Berg has been the Director of the Public Works Department since October 2015. Prior to becoming the Director, Mr. Berg served as Acting Director for approximately one year and as Deputy Director (prior to serving as Acting Director) for approximately 1.5 years. Mr. Berg has over forty (40) years of experience serving in local government and has extensive experience serving in a senior management capacity within the public sector. Prior to serving as a Deputy Director for the Public Works Department, Mr. Berg served in capacities where he was responsible for personnel administration, collective bargaining, budgeting, fleet management, public works, library management, and several major construction projects. He has also served two cities as City Manager, one in Florida and one in Illinois. As City Manager, Mr. Berg had extensive experience with strategic planning, downtown revitalization, neighborhood redevelopment, priority based budgeting, privatization of municipal services and community development. Mr. Berg has a Bachelor of Arts in Political Science from Augustana College, a Master of Arts in Public Affairs from the University of Iowa and is a Credentialed Manager by the International City County Management Association.

Each of the divisions of the Public Works Department is supervised by a Deputy or Assistant Public Works Director, one of which (Engineering) is currently vacant.

The Deputy Director of the Public Works Department in charge of the Strategic Support Division is Colonel (R) Alan M. Dodd, P.E. Colonel (R) Dodd has served as the Deputy Director since December 2016 and in the Public Works Department since November 2015. Prior to joining the City, he served 28 years in the United States Army, where he held numerous positions as staff engineer and leading engineering organizations to support national security objectives worldwide. His last position before retiring in 2015 was Commander and District Engineer, Jacksonville District, U.S. Army Corps of Engineers. There he led one of the largest civil works districts in the U.S. Army Corps of Engineers, with geographic responsibility for Florida, Puerto Rico, and the Caribbean basin. His responsibilities included management of 900 civilian employees and the execution of a \$700 million annual program focused on water resources planning, ecosystem restoration, environmental cleanup, construction, navigation and dredging, beach renourishment, hurricane storm damage reduction, and flood protection.

The Assistant Director in charge of the Utilities Division is Talal Abi-Karam, P.E. Mr. Abi-Karam has been an Assistant Director since October 2015 and has been in the Public Works Department since 2012. He has over thirty-five (35) years of professional experience serving utilities and engineering departments for municipalities within South Florida. In addition to being a licensed Professional Engineer, he has achieved high levels of certification in many fields. He has provided engineering, design, construction management, and utility management services nationally and internationally for a variety of

industries, including providing expertise for entities on water/wastewater plants, pipelines, pump stations and stormwater facilities.

The Assistant Public Works Director in charge of the Sustainability Division is Dr. Nancy J. Gassman. Dr. Gassman received her Ph.D. from the University of Miami researching a variety of issues impacting coastal ecosystems. She started her 22 years of public service with Broward County, Florida, working on integrated water resources planning. She transitioned to directing the county's environmental monitoring program, including fostering construction of a LEED-certified environmental chemistry laboratory. Her main focus from 2009-2013 was supporting the development and implementation of Broward County's Climate Change Action Plan and managing the County's Energy and Sustainability Program. She has been a major contributor to developing technical tools for the Southeast Florida Regional Climate Change Compact, including the Unified Sea Level Rise Projection for Southeast Florida. Dr. Gassman joined the City in January 2014.

Training Programs and Certifications. The City has an active training program for its field crews and operations and maintenance staff, including monthly safety meetings and quarterly courses on various safety related subjects. The Florida Administrative Code requires all distribution and collection field crew leaders to be certified by the State of Florida as a condition of their employment. All of such employees, as well as all of the operators of the Water System, the Sewer System and the City's stormwater drainage system, are licensed and certified by the State of Florida. The City also requires that vacancies be filled by licensed operators or by individuals who agree to train to be licensed operators.

The Utilities Division's Environmental Laboratory provides daily sampling and testing services for the Water and Sewer System. The Environmental Laboratory is certified by the Florida Department of Health, Bureau of Public Health Laboratory and by the Florida Department of Environmental Protection ("FDEP") for collecting environmental water samples and conducting water quality analyses. Additionally, the Utilities Division's Environmental Laboratory is accredited through the National Environmental Laboratory Accreditation Certification and the International Organization for Standardization (ISO 17025).

Government Regulations

The Water System and the Sewer System are subject to federal, state, regional and local regulation. Federal regulatory jurisdiction is vested in the United States Environmental Protection Agency (the "EPA"). The Water System must comply with the Federal Safe Drinking Water Act. However, the EPA has delegated the primary responsibility for enforcement of drinking water standards to the State of Florida Department of Health. The Sewer System must comply with the Federal Water Pollution Control Act and the 1977 Clean Water Act Amendments. The EPA has retained jurisdiction over the enforcement of the federal laws.

The State, acting through FDEP, has its own system of operational permits which govern the Water System and the Sewer System. On a regional level, the South Florida Water Management District ("SFWMD") controls groundwater withdrawals through consumptive use permits, which stipulate the maximum annual and daily withdrawals. The current consumptive use permit for the Water System is valid through September 11, 2028. Locally, the Broward County Department of Natural Resource Protection has its own licensing system for wastewater plants and a monitoring and enforcement process and the Broward County Department of Health has jurisdiction over the treatment of potable water.

Service Area Population Projections

A comprehensive study of the Water and Sewer System in 2000 resulted in the creation of the Master Plan for improvements, upgrades and maintenance (the “2000 Master Plan”). See “CAPITAL IMPROVEMENT PROGRAM” herein. Among other projections, the 2000 Master Plan projected a moderate increase in water demand of 0.66% annually through 2020, based on the moderate population growth expected in the Water System service area. The City updates the 2000 Master Plan periodically. In 2007 updates were prepared for the Water System (the “2007 Water Master Plan Update”) and for the Sewer System (the “2007 Wastewater Master Plan Update” and, collectively with the 2007 Water Master Plan Update, the “2007 Master Plan Update”). Projections for population growth in the service area of the Water and Sewer System were updated in the 2007 Master Plan Update. In 2017 the City further updated the projections and recommendations for improvements to the Water and Sewer System in its Comprehensive Utility Strategic Master Plan (the “2017 Master Plan”), including projections for population growth in the service area of the Water and Sewer System. A copy of the 2017 Master Plan may be obtained from the City by contacting the City’s Director of Finance, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301, Telephone number: (954) 828-5167, Facsimile number: (954) 828-5168, Email address: finance@fortlauderdale.gov or may be accessed at the following website address:

<http://www.fortlauderdale.gov/departments/public-works/engineering/master-plans>

Population growth projections were reduced in the 2007 Master Plan Update and in the 2017 Master Plan, based on more recent population estimates for the Fort Lauderdale area provided by national, State and local government agencies. The City has noted the reduction in current population estimates and projections for the region of South Florida which includes the City, the corresponding reductions in population projections that may be expected for the service area of the Water System and the Sewer System and the associated potential decrease in demand for service from the Water and Sewer System. See “WATER AND SEWER SYSTEM - The Water System - Water Treatment Facilities” and “- The Sewer System - Wastewater Treatment Facility” herein. Forecasts of Revenues presented in this Official Statement also have been made acknowledging reduced rates of population growth that may occur in the future, as reflected in the 2017 Master Plan. For a more detailed description of the population forecast utilized for the Water and Sewer System demand forecast and Revenue projections presented in this Official Statement, see “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 2.3 in the Feasibility Report.

Set forth below are the population estimates for calendar year 2015 and the population forecasts for calendar years 2020 through 2035, as contained in the 2017 Master Plan for the Water System service area.

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**Water System Service Area
Population Forecast**

<u>Location</u>	<u>2015</u>	<u>2020</u>	<u>2025</u>	<u>2030</u>	<u>2035</u>
Fort Lauderdale and unincorporated Broward County	175,359	180,968	196,171	205,691	209,294
All Other Locations Within Water System Service Area	<u>53,187</u>	<u>54,521</u>	<u>55,587</u>	<u>57,377</u>	<u>57,902</u>
Total	<u>228,546</u>	<u>235,489</u>	<u>251,758</u>	<u>263,068</u>	<u>267,196</u>

Source: The Feasibility Report. See “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 2.3 in the Feasibility Report.

Set forth below are the population estimates for calendar year 2015 and the population forecasts for calendar years 2020 through 2035, as contained in the 2017 Master Plan for the Sewer System service area.

**Sewer System Service Area
Population Forecast**

<u>Location</u>	<u>2015</u>	<u>2020</u>	<u>2025</u>	<u>2030</u>	<u>2035</u>
Fort Lauderdale and unincorporated Broward County	140,717	145,429	160,108	168,078	171,240
All Other Locations Within Sewer System Service Area	<u>39,116</u>	<u>40,269</u>	<u>40,733</u>	<u>42,240</u>	<u>42,646</u>
Total	<u>179,833</u>	<u>185,698</u>	<u>200,841</u>	<u>210,318</u>	<u>213,886</u>

Source: The Feasibility Report. See “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 2.3 in the Feasibility Report.

The population estimates contained above for the Water and Sewer System are for permanent residents in the respective service areas. Gross per capita water use calculations for the Water and Sewer System, consistent with previous City water forecasting, account for the City’s tourist and other non-permanent resident population, which are estimated by City planning documents as 5% and 6% of the total population, respectively.

The Water System

Service Area and Customer Base. The City provides water across several governmental jurisdictions in central Broward County. In some areas, the City owns and maintains the water distribution system. In others areas, the City sells bulk water for redistribution by another agency or entity. The Water System consists of groundwater withdrawal, treatment, transmission, storage and distribution facilities and includes two water treatment plants (the Peele-Dixie WTP and the Fiveash WTP) with associated wellfields,

a distribution system consisting of approximately 782 miles of pipe, and water storage and pumping facilities.

The City provides retail water service to most of the area within its corporate limits. Several areas north, east and west of Fort Lauderdale Executive Airport and approximately one-half of the Rock Island area that was annexed by the City in 2005 receive water service from Broward County. The City also provides direct retail water service to the Town of Lauderdale-by-the-Sea, the Village of Sea Ranch Lakes, some tenants in Port Everglades and parts of unincorporated Broward County. In addition, the City provides water on a wholesale basis to the cities of Oakland Park and Wilton Manors, and to portions of the City of Tamarac, the Town of Davie, unincorporated Broward County and Broward County's Port Everglades. The Water System service area encompasses a total area of approximately 43 square miles and is the largest potable water distribution system in Broward County. The Water System serves an estimated population of over 225,000, which represents approximately 12% of the total population of Broward County, including both retail and wholesale customers.

Water Production and Demands. Residential units and commercial activities account for most of the demand of the Water System. Commercial activities are estimated to account for approximately twenty-five percent of metered water usage, while master metered customers account for approximately sixteen percent of all metered water usage. No large, heavy manufacturing facilities are located in the Water System service area.

Set forth below is the historical Annual Average Daily Flow ("AADF") pumping data from the City's water treatment plants and wellfields, along with the population estimates from 2009 to 2015.

Historical Finished and Raw Water Demand

Calendar Year	Water System Population	AADF Finished Water Pumped		AADF Raw Water Pumped	
		Pumping Rate (mgd)	Per Capita (gallons per person per day)	Pumping Rate (mgd)	Per Capita (gallons per person per day)
2009	224,145	43.6	195	44.6	199
2010	220,500	40.6	184	41.9	199
2011	222,109	40.3	181	41.4	186
2012	223,718	38.3	171	39.6	177
2013	235,328	37.7	167	39.2	174
2014	226,937	37.5	165	39.3	173
2015*	228,546	41.4	181	42.5	186
2009 to 2015 Average		39.9	178	41.2	184

Source: The Feasibility Report. See "APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report," including, in particular, Section 3.2 in the Feasibility Report.

* The finished water per capita for 2015 was estimated based on the average of the 2009 to 2013 per capita data, in accordance with SFWMD permit application requirements and as set forth in the 2017 Master Plan and the City's 10-Year Water Supply Plan.

The information provided in the table above represents the overall water consumption rate within the Water System service area, including residential, commercial, industrial and wholesale customers. The City has established a finished water per capita goal of 170 gallons per person per day by 2028. Set forth below is the overall water demand forecast for the Water System service area from calendar year 2020 through 2035. Amounts for calendar year 2015 are also included. Forecasts are presented for the Biscayne Aquifer raw water and finished water demands on an AADF basis. Additionally, the maximum day water demand is based on the historical maximum day to annual average day ratio of 1.27. The 2017 Master Plan used a conservative peaking factor of 1.3 for projected maximum day demand calculations.

Projected Finished and Raw Water Demand⁽¹⁾

Calendar Year	Water System Population	Overall Raw Water Per Capita (gpcd) ⁽²⁾	Overall Finished Water Per Capita (gpcd) ⁽²⁾	Biscayne Aquifer Raw Water Demand AADF (mgd)	AADF Finished Water Demand (mgd)	Maximum Day Finished Water Demand (mgd)
2015	228,546	186	181	42.5	41.4	53.8
2020	235,489	181	177	42.6	41.7	54.2
2025	251,758	178	172	44.8	43.3	56.3
2030	263,068	176	170	46.3	44.7	58.1
2035	267,196	176	170	47.0	45.4	58.1

Source: The Feasibility Report. See “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 3.2 in the Feasibility Report.

- (1) The finished water demand is assumed to be 170 gallons per person per day in the year 2028 and thereafter, based on the City’s goal for such demand and provisions for water conservation set forth in the City’s Water Use Permit. See “WATER AND SEWER SYSTEM - Water System - Conservation” and “- Regulatory Impacts” herein.
- (2) “gpcd” = gallons per capita per day.

The Fiveash WTP design capacity is permitted at 70 mgd. The 2017 Master Plan indicated that, based on the age of the plant, the plant has a reduced capacity of 55 mgd. The reduced capacity results from an inefficient plant configuration which significantly increases finished water turbidity and decreases color removal when treatment levels exceed 55 mgd. The CIP includes projects to restore the 70 mgd capacity of the Fiveash WTP. See “CAPITAL IMPROVEMENT PROGRAM - Water System Improvements” herein. However, at the reduced capacity of 55 mgd, together with the 12 mgd treatment capacity of the Peele-Dixie WTP, the Water System will have enough treatment capacity for the forecasted water demand through calendar year 2035.

Conservation. The City has promoted water conservation for more than 25 years and water conservation continues to be a major element of the City’s water supply strategy. The City has established several conservation initiatives to help facilitate reaching its goal of reducing finished water demand to 170 gallons per person per day by the year 2028. The City’s current water conservation program promotes ongoing water conservation by adopting 14 separate comprehensive plans and initiatives, several in partnership with the County and other organizations, to advance conservation ideas and activities. In addition, the City actively promotes conservation by (i) requiring landscaping in single-family zoning that needs little watering, (ii) continuing to increase potable water fees, (iii) offering information and conducting

education programs on the implementation of water conservation measures, and (iv) advising all large water users of the benefits of implementing water conservation measures. The City currently uses an increasing block rate structure, where customers that consume more water pay more for each additional unit consumed. The City also encourages all customers of the Water System to use Florida-friendly, drought-resistant vegetation, and consistently informs wholesale customers about water conservation methods and opportunities.

The 2017 Master Plan also includes recommendations to further increase the City's efforts to promote water conservation. For a more detailed discussion of the conservation measures adopted by the City and additional programs and initiatives recommended in the 2017 Master Plan, see "APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report," including, in particular, Section 3.8 in the Feasibility Report.

Water Supply. The City currently obtains all of its raw water supply from two wellfields: the Dixie Wellfield and the Prospect Wellfield. Both wellfields draw water from the Biscayne Aquifer, a layer of highly permeable limestone and sand which extends from the surface to a depth of approximately 200 feet. The existing wells of the Water System are cased to a depth ranging from 75 feet to 133 feet. Water withdrawn from the Dixie Wellfield is treated at the Peele-Dixie WTP and the Prospect Wellfield supplies raw water for treatment at the Fiveash WTP. Both wellfields are permitted by the SFWMD under Consumptive Use Permit No. 06-00123-W, issued September 11, 2008 and expiring September 11, 2028.

The permit specifies that the City's annual water withdrawal shall not exceed 22,334 million gallons ("MG"), with the maximum monthly withdrawal not to exceed 2,157.6 MG. In addition, the permit stipulates limitations to annual withdrawals from specific sources, limiting withdrawals from the Biscayne Aquifer to 19,181 MG annually (52.55 mgd), with a maximum monthly withdrawal of 1,857 MG. Biscayne Aquifer withdrawals are limited to 5,475 MG per year (15.00 mgd) from the Dixie Wellfield and 15,853 MG per year (43.43 mgd) from the Prospect Wellfield. Such amounts constitute the maximum limits per wellfield, with the total Biscayne Aquifer withdrawals not to exceed the previously specified maximum of 19,181 MG (not the sum of the individual wellfield maximum withdrawals of 21,328 MG). The remaining water supply will be withdrawn from the Floridan Aquifer, which is a lower quality, more brackish source of water supply, or from some other alternative source determined by the City when the need arises.

The permit provides for withdrawals from the Floridan Aquifer via 2 existing and 14 proposed withdrawal facilities, and from the Biscayne Aquifer via 64 existing (37 of which constitute currently active wells) and 2 proposed withdrawal facilities. Biscayne Aquifer withdrawals from the Dixie Wellfield will be treated at the Peele-Dixie WTP by nanofiltration. If made in the future, Floridan Aquifer withdrawals from the Dixie Wellfield will be treated at the Peele-Dixie WTP by reverse osmosis. See "WATER AND SEWER SYSTEM - The Water System - Water Treatment Facilities" herein. Biscayne Aquifer water withdrawn from the Prospect Wellfield will continue to be treated at the Fiveash WTP by lime-softening.

Prior to the upgrade of the Dixie Wellfield in 2009, the Dixie Wellfield consisted of 25 wells that were mostly constructed between 1926 and 1952. The upgrades completed in 2009 did not increase the capacity of the Dixie Wellfield but allowed its older wells to be taken out of service. As part of the Peele-Dixie WTP nanofiltration facility construction program that was completed in 2008, 8 new wells were constructed for the Dixie Wellfield. The existing Peele-Dixie WTP was phased out of service and all of the existing older wells at the Dixie Wellfield were plugged and abandoned in 2010. With the replacement wells, the capacity of the Dixie Wellfield is now approximately 20 mgd. However, the City's consumptive use permit from the SFWMD limits withdrawals from the Dixie Wellfield to 15 mgd on a maximum daily basis from the Biscayne Aquifer. The Dixie Wellfield is expected to provide the raw water for the proposed

6 mgd reverse osmosis treatment facility from the Floridan Aquifer. See “WATER AND SEWER SYSTEM - The Water System - Water Treatment Facilities” herein.

The Prospect Wellfield contains 29 wells located west of Fort Lauderdale Executive Airport. All of the wells in the Prospect Wellfield are currently in operation and such wells collectively have a pumping capacity of 87 mgd. However, the maximum daily allocation allowed under the SFWMD consumptive use permit is only 43.43 mgd on a maximum daily basis from the Biscayne Aquifer. The City has drilled 5 new wells at the Prospect Wellfield to replace 6 wells that the City abandoned. The 5 new wells have a capacity of 15.1 mgd, which is an increase in capacity from the 6 wells that were abandoned.

In addition to the Prospect Wellfield, another 24 wells are located on Fort Lauderdale Executive Airport property adjacent to the Prospect Wellfield (hereinafter referred to as the “Executive Airport Wellfield”). The wells located at the Executive Airport Wellfield are currently not in operation. In the early 1980s, volatile organic compounds (“VOCs”) were detected in some of the production wells located at the Executive Airport Wellfield. To protect the quality of its water supply, the City abandoned such wells and constructed additional wells. The City avoided migration of the VOCs west to the uncontaminated production wells in the Prospect Wellfield by injecting raw water from the uncontaminated wells into the three westernmost wells located on Fort Lauderdale Executive Airport property. Such raw water injections maintained a hydraulic barrier between the contaminant plume and the production wells in the Prospect Wellfield. As a result of the construction of the new wells at the Prospect Wellfield, the last well used to create the hydraulic barrier was shut down in October 2008. The City has an on-going program for monitoring the production wells of the Prospect Wellfield for the presence of VOCs. No increase in the presence of VOCs has been detected and VOC contamination is no longer considered a current threat to the production wells in the Prospect Wellfield.

The active wells of the Water System are aging. As a result, the 2017 Master Plan recommended an extensive well replacement and well rehabilitation program to maintain the integrity of the existing infrastructure. The CIP provides for partial funding of the recommended program to a level sufficient to maintain raw water pumping capacity. In addition, the Series 2018 Project includes approximately \$700,000 of well rehabilitation projects. The 2017 Master Plan recommended \$7.2 million to be invested in well replacement and rehabilitation during the next 5 years. See “CAPITAL IMPROVEMENT PROGRAM - Water System Improvements” herein.

Both the Dixie Wellfield and the Prospect Wellfield are located near salinity control structures. Withdrawals allowed under the current SFWMD consumptive use permit require freshwater mounds between the wellfields and the salt water fronts. In the past, groundwater models of the Dixie Wellfield have indicated potential problems maintaining this freshwater mound during extreme dry conditions. As a result, new wells constructed at the Dixie Wellfield are located to minimize the impacts of saltwater intrusion. The City’s salt water intrusion monitoring program is part of Broward County’s monitoring network that provides regional information, but only a limited amount of information that is specific to individual sites. A network of new salt water monitoring wells has been installed around the Dixie Wellfield. The monitoring wells are tested monthly, with the results being sent to the SFWMD. These wells, to date, have shown no indication of saltwater intrusion.

The 2017 Master Plan recommended continued monitoring of salinity along with development of a variable density model in the short term. The City continues to monitor its wells for saltwater intrusion but has not included funding in the CIP for the 2017 Master Plan recommended model development. Long-term recommendations include the installation of additional saline monitoring wells by calendar year 2026. Since the existing monitoring wells have not shown any evidence of a significant increase in salt water intrusion, the City does not have any current plans for such installations. For more detailed

information on the risk to the Water System of saltwater intrusion, as well as sea level rise and climate change, see “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 3.3.3 through Section 3.3.5 in the Feasibility Report.

As a result of, among other factors, (i) reductions in population projections for the region in which the Water System service area is located, and (ii) reduced water use in response to conservation measures, the City anticipates that it will be able to meet its water supply demands utilizing the Biscayne Aquifer as its sole source of raw water through at least calendar year 2035. To meet future demands in excess of the Biscayne Aquifer withdrawal limits, the City currently expects to use the Dixie Wellfield to access the Floridan Aquifer. In addition, to meet future demands, the City is studying the feasibility of several alternative water sources and offset projects, including additional Floridan Aquifer use, stormwater capture projects, reuse, and other alternative water supply projects. See “WATER AND SEWER SYSTEM - The Water System - Regulatory Impact” herein.

Water Treatment Facilities. The City operates two water treatment facilities: the Peele-Dixie WTP and the Fiveash WTP.

Peele-Dixie WTP. In 2008, the new nanofiltration facility was completed and placed into service at the Peele-Dixie WTP and the plant’s existing lime-softening equipment was removed from service. Implementation of the nanofiltration system also included the installation of a deep injection well for concentrate disposal and two 4-MG finished water storage tanks. The capacity of the Peele-Dixie WTP is currently 12 mgd with all membrane units of the nanofiltration system in service. For a diagram that illustrates the treatment process utilized by the Peele-Dixie WTP see “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 3.4.1 in the Feasibility Report.

The City has studied the addition of 6 mgd of finished water reverse osmosis treatment capacity at the Peele-Dixie WTP. This additional capacity would draw raw water from the Floridan Aquifer and would be used during peak demand periods, usually during the dry season. The City has drilled two Floridan Aquifer test wells in the Dixie Wellfield and constructed a section of raw water main from the new wellfield to the Peele-Dixie WTP. If the reverse osmosis system is constructed, the total installed potable water production capacity at the Peele-Dixie WTP site would increase from 12 to 18 mgd.

Wellfield modeling, facility planning and a basis of design report have been completed for the proposed reverse osmosis facility. However, future investment in the withdrawal, transmission, and treatment of raw water from the Floridan Aquifer has been deferred until water demands dictate the need for the investment. Such need is currently projected to be beyond calendar year 2035. Also see, “WATER AND SEWER SYSTEM - The Water System - Regulatory Impact - General” herein.

The Peele-Dixie WTP finished water meets all current regulatory requirements. Most of the equipment and mechanical items at the Peele-Dixie WTP will not require any improvement or upgrade during the Forecast Period, as the Peele-Dixie WTP was constructed in 2008. In addition, most of the equipment is contained indoors where it is protected from atmospheric conditions. However, see “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 3.4.4 in the Feasibility Report for a discussion of changes in the treatment process of the Peele-Dixie WTP to provide improvements in water quality.

Fiveash WTP. The Fiveash WTP is the primary water treatment facility for the Water System. It has a designed capacity of 70 mgd with all units operating. However, hydraulic restrictions

limit its actual capacity to 55 mgd. Actual treated flow averaged approximately 32 mgd in Fiscal Year 2016 with a maximum day flow of 42 mgd. The treatment of raw water at the Fiveash WTP consists of aeration followed by lime and polymer addition in a hydrotreater. The Fiveash WTP has two 12.5 mgd hydrotreaters, and two 22.5 mgd hydrotreaters that provide coagulation, flocculation, and clarification in one unit. After softening, the water is filtered, chlorinated, and fluoridated. Lime sludge is pumped directly to the Prospect Wellfield storage lagoon for disposal. For a diagram that illustrates the treatment process utilized by the Fiveash WTP see “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 3.4.2 in the Feasibility Report. A \$33.5 million disinfection and reliability improvement project is scheduled for bid during calendar year 2018 and is among the improvements that comprise the Series 2018 Project. See “CAPITAL IMPROVEMENT PROGRAM - Water System Improvements” herein.

Much of the equipment and mechanical items for the lime softening system are at the end of their useful life. The Series 2018 Project includes approximately \$58 million in improvements to upgrade the Fiveash WTP. See “CAPITAL IMPROVEMENT PROGRAM - Water System Improvements” herein.

The Fiveash WTP produces safe, reliable potable water but it has finished water quality issues. Plant process control issues affect the finished water quality and stability. The disinfection residual control is difficult to maintain because the plant process flow does not follow a single, uniform path. As a result, the finished water is slightly colored, which leads to numerous water quality complaints. Process improvements will need to be implemented to provide more aesthetically pleasing finished water to residents and visitors. Such improvements are included in the CIP and are among the improvements that comprise the Series 2018 Project. See “CAPITAL IMPROVEMENT PROGRAM - Water System Improvements” herein.

Water Transmission, Distribution and Storage. The City’s water transmission and distribution system consists of approximately 782 miles of water mains within the direct service area of the Water System, an elevated tank at Northwest 2nd Avenue, a ground level tank at Poinciana Park, and ground level storage tanks at the Fiveash WTP and the Peele-Dixie WTP. High-service pumps at the Fiveash WTP and the Peele-Dixie WTP also supply the transmission and distribution system, and maintain system pressures. The system also includes approximately (i) 18,308 water valves, (ii) 6,168 fire hydrants and (iii) 57,000 water meters.

The transmission lines included in the Water System consist of lined and unlined cast and ductile iron pipe ranging in size from 10 to 54 inches in diameter. The main transmission line from the Fiveash WTP was installed in 1986 and is the predominant supply of water to the downtown area and other areas north, south and east of the Fiveash WTP. The primary transmission mains from the Peele-Dixie WTP were constructed in 2007 to serve the nanofiltration system that was installed in 2008. However, most of the transmission mains from the Peele-Dixie WTP are unlined cast iron pipelines that were constructed in the 1920s and 1930s. The 2000 Master Plan indicated that the water transmission pipelines emanating from the Peele-Dixie WTP were nearing the end of their useful lives. The City completed a project in 1999 to replace a portion of the main transmission lines along US 441 between Broward Boulevard and Davie Road and replaces older water transmission pipelines as part of its on-going renewal and replacement program. The CIP includes \$44 million in funding for water main improvements and replacements; it also identified \$58.3 million in unfunded water piping improvements, of which approximately \$22.2 million are included among the improvements that comprise the Series 2018 Project. See “CAPITAL IMPROVEMENT PROGRAM - Water System Improvements” and “- Series 2018 Project” herein.

Approximately seventeen (17) years ago the City instituted an improvement program for the Water System that targeted the removal of lead service lines. The program did not result in the removal of all lead service lines. However, lead service lines continue to be removed as they are discovered. The City does not know how many lead service lines remain among the pipes of the Water System. The City conducts routine testing of its potable water. The levels of lead and copper detected in the water of the Water System are so low that the existing regulatory framework has the City on a reduced monitoring schedule. Pursuant to such schedule, the City is only required to test fifty percent (50%) of its sample sites every three (3) years.

The City has a total of 29.9 MG of storage in the Water System, as described below.

Water Storage Capacity

<u>Location</u>	<u>Capacity (MG)</u>
Fiveash WTP*	
Clearwell	1.9
Tank 1	5.0
Tank 3	5.0
Tank 4	7.0
Peel-Dixie WTP	
Clearwell	0.026
Tank 1	4.0
Tank 2	4.0
Poinciana Park Tank	2.0
Northwest 2 nd Avenue Tank	<u>1.0</u>
Total Storage Tank Capacity	<u><u>29.9</u></u>

Source: The Feasibility Report. See “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 3.5 in the Feasibility Report.

* As part of the City’s multi-year *WaterWorks* 2011 capital improvement program, tank 2 (a 4 MG tank that was in poor condition) was taken out of service with additional water storage capacity being added at the-Peele Dixie WTP.

Florida Administrative Code (“FAC”) Section 62-555.320(19) established a minimum water storage requirement for water systems of 25 percent of maximum day use plus maximum fire flow volume with all tanks in service. Based on a 5,000 gallons per minute fire flow over a 4 hour duration, the year 2035 required storage volume for the Water System is 15.6 MG. Hence, current storage capacity of the Water System is in compliance with FAC 62-555.320(19).

The Fiveash WTP and the Peele-Dixie WTP have a combined high-service pumping capacity of 155 mgd. The peak hour demand is estimated at 2.2 times the annual average day flow. Year 2035 peak hour demand is forecasted to be 100 mgd. Hence, the City has adequate high-service pumping capacity through the year 2035.

The Peele-Dixie WTP finished water storage tanks and the Poinciana Park storage tank are less than 10 years old and currently have no major renewal and replacement needs. The Fiveash WTP finished water storage tanks and the 2nd Avenue storage tank require regular inspections and renewal and replacement to prolong their service life and maintain the appropriate level of service to the customers of the Water System. Finished water storage tank renewal and replacement includes tank cleaning, patching, repairing, and re-coating. FDEP requires tank inspections every 5 years as well.

The 2017 Master Plan noted certain issues and recommended several repairs and improvements relating to the water storage tanks of the Water System. Such issues and recommendations included the following:

- The Fiveash WTP storage tanks require immediate piping modifications to allow more efficient flow and improved disinfection control and monitoring.
- The Poinciana Park storage tank has a pump cavitation issue that restricts tank drawdown, resulting in a reduced usable tank capacity.
- The 2nd Avenue storage tank does not currently meet the storage capacity criteria of 4 hours storage at peak flow. To address the issue prior to repair or replacement of the tank, the 2017 Master Plan recommends that the City operate this tank in such a manner as to ensure that the tank adequately supplies the later portion of the peak hour demand window. The 2017 Master Plan also notes that expanding the capacity of the 2nd Avenue storage tank would likely have to be at a different location, due to successful public opposition to expansion at the current location.
- The 2nd Avenue storage tank is scheduled for maintenance and repainting. The last repair and repainting was performed in 1991.

The projects, repairs and upgrades required to address the issues and implement the recommendations described above are included as a part of the Series 2018 Project, except for the maintenance and repainting of the 2nd Avenue storage tank, which is scheduled to occur during the first quarter of calendar year 2018 as part of the City's ongoing renewal and replacement program.

The City has an ongoing project to upgrade and rehabilitate the water distribution system. The completed *WaterWorks* 2011 Program replaced more than 42 miles of small water mains. The CIP includes \$44 million in funding to renew and replace water distribution lines and has identified \$58.3 million in unfunded water piping improvement projects. Of such unfunded projects, approximately \$16.7 million in improvements are included as part of the Series 2018 Project. See "CAPITAL IMPROVEMENT PROGRAM - Water System Improvements" herein.

The current CIP continues the practice of replacing aging water mains. In addition, the City has been following a pattern of examining the Water System for leaks every 3 to 5 years, which has helped to manage unaccounted for water. The amount of unaccounted for water of the Water System has fluctuated in recent years, ranging from between approximately 11.0% in Fiscal Year 2013 to approximately 13.1% in Fiscal Year 2016. Total unaccounted for water through August of 2017 has been estimated to be approximately 7.5%.

The International Water Association and the American Water Works Association (the "AWWA") use the term "non-revenue water" to describe the volume of water lost through leakage, meter inaccuracies, flushing and other authorized usage. Non-revenue water represents finished water that is not billed to water system customers and is also sometimes referred to as unaccounted for water.

In 2013, the AWWA assembled validated water audit data from twenty-six (26) utilities across the United States of America and Canada that ranged in size from 850 to over 500,000 water service connections. These water audit data were averaged to develop the percentages of finished water produced and billed on an AADF basis. Such water audit data revealed that 80.0% of finished water was billed to customers, with approximately 14.6% constituting real, unaccounted for water losses, approximately 2.8% constituting apparent lost water and approximately 2.6% constituting lost water from authorized uses, like flushing of water lines, fire hydrant testing, fire fighting, and internal utility uses (such as wash downs of lift stations for maintenance purposes). Real water losses are the result of leakage in the distribution system piping and apparent water losses are the result of faulty meters that understate actual water use, data collection errors and theft.

The non-revenue water in the 2013 AWWA Water Audit data averaged approximately twenty percent (20%). Hence, non-revenue water for the Water System ranging as high as approximately 13.1% during the Historical Period is significantly less than the national average. The non-revenue water of the Water System is also within the range of water unaccountability experienced by similar water systems in South Florida. In addition, the City believes that real water losses are probably less than ten percent (10%) of the finished water produced by the Water System. The City's goal is to not allow total non-revenue water loss to exceed ten percent (10%).

One of the factors determined to have contributed to the higher than desired unaccounted for water loss during the Historical Period is the number of pipe breaks occurring in recent years. The percentage of pipe breaks increased from a low of 4.7% per 100 miles of piping in Fiscal Year 2012 to 12.5% per 100 miles of piping in Fiscal Year 2014 and 12.2% per 100 miles of piping in Fiscal Year 2015. The age of the piping of the Water System is estimated to be approximately: (i) 24% between 0 to 20 years old, (ii) 16% between 21 to 40 years old, (iii) 16% between 41 to 60 years old, and (iv) 15% more than 60 years old, with 29% being of unknown age. The expected useful life of water piping is approximately 75 to 100 years.

Approximately \$22.2 million of improvements in the Series 2018 Project constitute water piping upgrades that were previously identified as unfunded projects in the CIP. See "CAPITAL IMPROVEMENT PROGRAM - Water System Improvements" and "- Series 2018 Project" herein. As the City continues its program of replacing older water mains, the percentage of water main breaks in the Water System should eventually decrease, which should produce a decrease in the real unaccounted for water loss of the Water System. However, as noted in the Feasibility Report, given the age of the water mains of the Water System, the City should expect an increase in the water main break rate in the coming years.

For detailed information as to the age, by diameter size, of the water mains in the Water System and the history of pipe breaks per mile and per 100 miles of piping during the Historical Period, see "APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report," including, in particular, Section 3.5.1 and Section 3.5.2 in the Feasibility Report.

Regulatory Impacts. With the increasing urbanization of South Florida and the recognition of accelerating negative impacts upon the natural environment, State (through the SFWMD) and federal (through the U.S. Army Corps of Engineers) authorities have implemented several major regulatory and construction programs. Such programs are designed to balance the demands on regional water supplies and restore and protect the Everglades National Park ecosystem. These programs have affected the conditions the City has been required to meet, one of the more important of which was the limit in the City's consumptive use permit on allowable withdrawals from the Biscayne Aquifer, producing a need to develop alternative water supply and treatment strategies.

Alternative Water Supply and Treatment Measures. The City has addressed concerns relating to water supply and quality by (i) installing enhancements to the existing water treatment system at the Fiveash WTP; (ii) replacing the conventional lime-softening treatment system at the Peele-Dixie WTP with a state-of-the-art nanofiltration, membrane system (the “Membrane Treatment”); (iii) pursuing multiple avenues of alternative water supply, including reclaimed water offsets, regional water supply solutions that would capture stormwater in a regional reservoir for aquifer recharge (as more specifically described below); and (iv) developing alternative sources of potable water supplies, such as brackish water from the Floridan Aquifer. The City has completed two Floridan Aquifer test wells for the Dixie Wellfield. Wellfield modeling, facility planning and a basis of design study and report to construct a 6 mgd reverse osmosis treatment facility were completed in 2010. Construction of the Floridan Aquifer wells and treatment facilities at the Dixie Wellfield and Peele-Dixie WTP were scheduled for completion in Fiscal Year 2014. However, because of reductions in population projections in the Water System service area and the success of water conservation measures, investment in facilities related to the withdrawal, transmission and treatment of raw water from the Floridan Aquifer has been deferred until a more certain indication of when demand will require such investment has been established. See “WATER AND SEWER SYSTEM - Service Area Population Projections” herein. Currently, facilities to meet additional demand by treating raw water from the Floridan Aquifer are not projected to be needed until at least after calendar year 2035.

The City has also addressed concerns relating to water quality by implementing Membrane Treatment for water withdrawn from the Biscayne Aquifer at the Peele-Dixie WTP. Membrane Treatment produces a higher quality of finished water and is less sensitive to raw water quality than the lime-softening treatment technology previously used at the Peele-Dixie WTP. As an added benefit, Membrane Treatment systems can readily be designed to meet the increasingly stringent requirements of the Safe Drinking Water Act. By including Membrane Treatment at one of its water treatment plants, the City is also able to extend the useful economic life of its existing investment in lime-softening technology. A shortcoming of Membrane Treatment is that as much as fifteen percent (15%) of the raw water is wasted as concentrate from the process, thus increasing raw water demands and further stressing the limits of the City’s consumptive use permit. However, the very high quality water from the Membrane Treatment process can be proportionally blended with the water produced from the lime-softening process to produce potable water that can meet the current and anticipated requirements of the Safe Drinking Water Act.

While the City previously planned to replace the Fiveash WTP treatment process with a Membrane Treatment system, concerns relating to the availability of Biscayne Aquifer water supplies led the City to decide to retain the current lime-softening process. See “WATER AND SEWER SYSTEM - The Water System - Water Supply” herein. The City has used, and expects to continue to use, a portion of the funds that were to be applied to convert to the Membrane Treatment process to extend the life of the existing facility and to construct enhancements that will improve the removal of color from finished water at the Fiveash WTP. See “CAPITAL IMPROVEMENT PROGRAM” herein.

As an additional possible means of addressing concerns relating to the future availability and quality of sources of raw water, the City has met with other South Florida utilities to discuss the possibility of collaborative, sub-regional, multi-jurisdictional solutions designed to produce more cost-effective and environmentally sound methods of obtaining water supplies. A potential project has been identified as the C-51 Reservoir Project. Under this option, stormwater that currently causes environmental concerns in the Lake Worth Lagoon and certain estuarine environments would be captured and stored in the C-51 Reservoir for subsequent re-introduction into the regional water supply system. This water would be available for Biscayne Aquifer transfer and potentially available to recharge those portions of the Biscayne Aquifer that benefit multiple utilities in South Florida, including the Water System. Studies have indicated that the project has the potential to be economically advantageous to public water supply utilities compared with other alternative water supply options. The City plans to continue its involvement in the

investigation of this project as one of the measures it may determine to implement to address future water supply concerns.

Consent Orders. During the last three (3) years the City has received seven (7) consent orders from the Florida Department of Health - Broward County relating to the Water System. The consent orders were for technical violations requiring corrective actions that could be taken without the implementation of major repairs to the Water System. Examples of the violations include: (i) the use of an improper seal at a wellhead, (ii) improper public notification of a failure to comply with Water System regulatory requirements, (iii) inadvertent discharge of filter backwash water to a storage tank, and (iv) use of an unapproved chemical for cleaning. All the necessary actions were taken by the City to re-establish full compliance. Civil penalties and administrative fines for the consent orders totaled \$19,500. Such fines and penalties have been paid.

For a more detailed discussion of regulatory matters impacting the Water System, see “APPENDIX B - Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 3.7 in the Feasibility Report.

The Sewer System

The Sewer System operated by the City consists of wastewater collection and transmission to the Lohmeyer WWTP, treatment and disposal of treated wastewater and disposal of residuals from the wastewater treatment process.

Service Area and Customer Base. Wastewater service areas in Broward County have been developed through regional planning studies conducted in a manner prescribed by law. These regional planning studies designated the City as the lead agency for wastewater transmission and treatment in the central wastewater region of Broward County. The central region includes substantially all of the City, the cities of Wilton Manors and Oakland Park, and portions of the City of Tamarac, the Town of Davie, unincorporated Broward County and Broward County’s Port Everglades. The Lohmeyer WWTP is designated as the facility that treats all wastewater from the central region.

Each municipality and entity in the various regional planning areas, except the unincorporated areas, owns and operates the wastewater collection facilities within its boundaries and performs its own customer billing. The transmission and treatment facilities serving a regional function are owned and operated by the City through “large user” agreements. The City has large user wastewater agreements with the cities of Oakland Park, Wilton Manors and Tamarac, the Town of Davie and Broward County for Port Everglades. In addition to the wholesale wastewater service that the City provides to Broward County’s Port Everglades, the City also provides retail wastewater service to certain tenants at Port Everglades. The large users are treated as wholesale customers and each is issued a single bill for wastewater services provided by the City.

Approximately seventy-five percent (75%) of the population in the service area of the Sewer System resides within the City, with the remainder located in adjacent governmental jurisdictions. The vast majority (99 percent) of the population of the City receives sewer service, leaving only approximately 1,500 residents that have not yet transitioned from septic tanks to the Sewer System, although such residents are currently being charged for sewer service. All new construction in the City is required to connect to the Sewer System.

The City wastewater service area population forecast was compiled and provided by the City based on the latest national, State and local population estimates. See “WATER AND SEWER SYSTEM -

Service Area Population Projections” herein. The population in the Sewer System service area is expected to grow from approximately 179,833 in 2015 to 213,886 in 2035, a nearly 19% increase. The increase in population will result in increased wastewater influent flows to the Lohmeyer WWTP, unless City efforts to curtail inflow and infiltration are successful, or if the large users further curtail their wastewater discharges by reducing their water use or infiltration and inflow into their systems. See “WATER AND SEWER SYSTEM - Sewer System - Infiltration and Inflow” herein.

Wastewater Flows. Set forth below are the wastewater flow rates for the Sewer System for calendar years 2007 through 2016. Annual average and peak seasonal flow rates of the Sewer System were projected in the 2007 Wastewater Master Plan Update potentially to reach 48 mgd and 55 mgd, respectively, by 2020. Based on historical wastewater flow rates, annual average daily flows are expected to be lower than the amounts projected in the 2007 Wastewater Master Plan Update.

Historical Wastewater Flows

<u>Calendar Year</u>	<u>Annual Average Daily Flow (mgd)</u>	<u>Calendar Year</u>	<u>Annual Average Daily Flow (mgd)</u>
2007	38.1	2012	40.9
2008	36.8	2013	39.7
2009	37.2	2014	38.6
2010	37.4	2015	39.0
2011	37.9	2016	39.4

Source: The Feasibility Report. See “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 4.2 in the Feasibility Report.

Set forth below are projected wastewater flows for the Sewer System, as presented in the 2017 Master Plan. The table below summarizes the annual average daily flow forecast and the forecast maximum 3-month average daily flow (“M3MADF”). The M3MADF forecast assumes a 1.27 M3MADF/AADF peaking factor, which is the M3MADF/AADF ratio over the last twenty (20) years. The permitted capacity of the Lohmeyer WWTP of 56.6 mgd is based on treating the M3MADF.

The amounts set forth in the following table were based on projections that infiltration and inflow (“I&I”) would remain near historical levels but decline as a percentage of total Sewer System wastewater flows. The decline is projected to occur as a result of the aggressive sewer rehabilitation program the City has undertaken to reduce I&I, along with the expansion of the wastewater collection system into new areas. See “WATER AND SEWER SYSTEM - The Sewer System - Infiltration and Inflow” herein. While the City has made I&I reduction a priority and makes investments of approximately \$3.0 million annually to rehabilitate its gravity sewer pipes, to provide a conservative estimate, the 21 mgd of I&I contribution was held constant until substantial reductions in I&I can be quantified and forecast by the City as a result of its ongoing I&I program. With the conservative I&I projection utilized in the table below, the Lohmeyer WWTP capacity will not be exceeded until after calendar year 2025. See “WATER AND SEWER SYSTEM - The Sewer System - Wastewater Treatment Facility” herein.

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Projected Wastewater Flows⁽¹⁾

Calendar Year	Sewer System Service Area Population ⁽¹⁾	Residential AADF ⁽²⁾ (mgd)	Non- Residential AADF ⁽²⁾ (mgd)	I&I Contribution AADF ⁽²⁾ (mgd)	Total AADF ⁽²⁾ (mgd)	Total MTMADF ⁽³⁾ (mgd)
2015	179,833	12.6	6.3	21.0	39.9	50.7
2020	185,698	13.0	7.0	21.0	41.0	52.0
2025	200,841	14.1	8.0	21.0	43.1	54.7
2030	210,318	14.7	8.9	21.0	44.6	56.7
2035	213,886	15.0	9.6	21.0	45.6	57.9

Source: The Feasibility Report. See “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 4.2 in the Feasibility Report.

- (1) See “WATER AND SEWER SYSTEM - Service Area Population Projections” for discussion relating to population estimates and projections for the Sewer System.
- (2) AADF = Annual average daily flow.
- (3) MTMADF = Maximum three month average daily flow.

Infiltration and Inflow. I&I refers to surface water and groundwater that enters the wastewater collection system through cracks, joints and other openings in the system. Infiltration is defined as groundwater entering the wastewater collection system and house laterals through defective pipes, pipe joints and manhole walls. In the more westerly portions of the Sewer System, the infiltration consists of freshwater, while in the coastal portions of the Sewer System, the infiltration is saline. The magnitude of infiltration depends on the depth of the groundwater above the pipe defects and the percentage of the collection system submerged. Groundwater levels are influenced by both short-term rainfall events and seasonal precipitation cycles. Freshwater infiltration is expected to be greatest during the late summer and fall months when groundwater levels are high and a greater portion of the collection system is submerged. Inflow includes water discharged into direct connections to the collection system, including private laterals. Potential direct connections include downspouts, yard and area drains, manhole covers, cross connections from storm drains and catch basins. Inflow also is sometimes defined to include rainfall dependent infiltration (i.e., stormwater that percolates into the ground and enters pipe defects directly or indirectly through a temporary rise in the water table).

The presence of I&I is detrimental because it absorbs hydraulic capacity and dilutes the wastewater, rendering treatment less efficient. I&I is considered excessive when it becomes less costly to remove the I&I through sewer rehabilitation than to transport and treat it. A study of I&I conducted during the preparation of the Master Plan found that annual average inflow of the Sewer System ranged from approximately 1 to 4 mgd, with monthly extremes ranging from less than 0.5 mgd to more than 8 mgd. Annual average freshwater infiltration was estimated to range from approximately 9 to 12 mgd, with monthly extremes ranging from 6 to 17 mgd. Annual average saltwater infiltration was estimated to range from approximately 4 to 7 mgd, with monthly variations in the same range. Such I&I levels were considered to be excessive, based on EPA guidelines.

The I&I estimates contained in the 2007 Wastewater Master Plan Update were only slightly lower than the estimates contained in the Master Plan. However, for several years the City has conducted a vigorous sewer rehabilitation program. Based on data compiled in the ADS Environmental Services,

Infiltration & Inflow Study dated February 2014, I&I appears to be lower than projected in the 2007 Wastewater Master Plan Update and generally consistent with or lower than the I&I totals reflected in the preceding table of projected wastewater flows. While specific flow monitoring has not been conducted for each of the I&I projects, flow reductions have been observed at the Lohmeyer WWTP. The annual average daily flow, based on a 12-month rolling average prior to commencement of the City's I&I program, was approximately 41.6 mgd. For Fiscal Year 2016, the 12-month rolling average was 40.4 mgd, a 1.2-mgd reduction overall, although additional sewer connections were added during this time frame.

The City intends to continue its efforts to reduce I&I levels to delay the need to expand the capacity of the Lohmeyer WWTP and/or construct a new deep injection well. See "WATER AND SEWER SYSTEM - Sewer System - Wastewater Treatment Facility" herein.

Wastewater Collection and Transmission. The City owns and operates the wastewater collection and transmission system located within the City boundaries and within the sewerred unincorporated areas of the central wastewater region of Broward County. As the lead agency for wastewater transmission and treatment in such central wastewater region, the City also owns and operates some regional transmission facilities located outside of the City limits. The City's large user customers own and operate their own local wastewater collection and transmission systems.

The City's gravity collection system contains approximately 475 miles of pipeline, nearly 270 miles of which was constructed prior to 1970, and 10,257 sanitary sewer manholes. Most of the system constructed prior to 1970 was built in the 15-year period between 1955 and 1970. Construction during this period used vitrified clay pipe with compression type joint gaskets, although cast iron pipe was also used in conditions where problems of differential settlement were thought to be severe. The pipeline constructed after 1970 generally used polyvinyl chloride ("PVC") pipe with rubber gasket joints.

The City's force main network is comprised of approximately 119 miles of pipeline, ranging from 4 inches to 54 inches in diameter, and 900 force main valves. Most of the force mains are constructed of cast iron or ductile iron pipe, but some are high-density polyethylene or C-900 PVC pipe. Problem sections in the 54-inch force main that is the main line to the Lohmeyer WWTP have been replaced. Thirty-five breaks in the force main system occurred from the beginning of 2014 through August 2017, with 24 of those breaks occurring in 2015 and 2016. However, two simultaneous force main breaks in June 2016 are estimated to have resulted in the discharge of approximately 14.67 MG of untreated wastewater and a break in December 2016 is estimated to have resulted in a discharge of approximately 2.5 MG of untreated wastewater. Because of the large volumes discharged, FDEP contemplated enforcement action for noncompliance under FAC Section 62-604.130. Subsequently, the City voluntarily entered into a consent order with FDEP in September 2017 that includes, among other actions, a commitment by the City to implement projects to reduce risk and improve resiliency within the wastewater collection system. See "WATER AND SEWER SYSTEM - Sewer System - Regulatory Impact - Consent Order" herein. The projects are designed to replace aged pipe networks and construct additional infrastructure to increase the capacity and redundancy of the Sewer System. See "CAPITAL IMPROVEMENT PROGRAM - Sewer System Improvements" herein.

The major force mains of the Sewer System were constructed within the last 25 years and are believed to be in good physical condition. The existing force main system includes 186 pump stations that are owned by the City and approximately 64 small, privately owned pump stations. Several isolated developments and individual businesses in the areas of the City that are not currently serviced by the Sewer System have constructed their own private lift stations that pump wastewater either to the City's force main system or to the gravity system of one of the City's existing pump stations. Private lift stations have also

been constructed in areas where the existing City pump station in the area could not accommodate additional flow.

In the opinion of the Feasibility Consultants, the City's wastewater collection and transmission system is adequate for the demands of the Sewer System and system maintenance is regularly performed. The City maintains the collection system with the use of two video inspection crews, one wet-well cleaning crew, three wastewater cleaning crews, five pump station maintenance crews and two pump station heavy maintenance crews. In addition, all of the pump stations owned by the City are electronically and remotely monitored.

Wastewater Treatment Facility. All wastewater in the service area of the Sewer System and any wastewater received from large users of the Sewer System is treated at the Lohmeyer WWTP, which was upgraded to its present capacity in 1999. The original design capacity on a M3MADF basis was 38 mgd. As a result of improvements to the effluent pumping station, deep injection wells, clarifiers and solids handling processes, in March 2004 the Lohmeyer WWTP was re-rated to a M3MADF capacity of 55.7 mgd. Capacity was further increased to its current 56.6 mgd in connection with the issuance of the operating permit for the Lohmeyer WWTP on September 7, 2011. Major liquid treatment processes include screening, grit removal, pure-oxygen activated sludge, clarification, and chlorination. Sludge is dewatered on belt filter presses and then hauled to the Broward County landfill. Treated effluent from the Lohmeyer WWTP is discharged to five deep injection wells at a nearby site.

The operating permit for the Lohmeyer WWTP was renewed by FDEP on September 7, 2017. The new expiration date is September 6, 2021. FDEP did not impose any significant changes to the permit conditions for the 2017 renewal.

Beginning in 1990, residuals produced by the Lohmeyer WWTP were mixed with polymer and dewatered by belt filter presses to meet regulatory requirements for Class B pathogen and vector attraction reduction for disposal at the Broward County landfill. Currently, the treated residuals ("biosolids") are hauled by a private contractor for 100 percent beneficial reuse. The private contractor hauls the biosolids to a facility that treats them to Class AA standards for beneficial use in land application or as a biofuel. The private contractor may also dispose of the biosolids at the Broward County landfill if it is unable to process or dispose of all of the biosolids at its residuals management facility.

With the re-rating of the Lohmeyer WWTP to a capacity of 56.6 mgd and the successful removal of sufficient I&I, the Lohmeyer WWTP should have adequate capacity for the continued growth of the Sewer System beyond calendar year 2025, even with the addition of flow from the new customers that will be added to the Sewer System as conversions from septic tank systems continue. The need to add additional plant capacity in the future will depend on the type and success of continued residential growth and the continued success of I&I control efforts. Although customary renewal and replacement projects are currently contemplated for the Sewer System, no expansion of treatment or effluent disposal capacity is planned during the Forecast Period. Most of the renewal and replacement projects involve relatively small equipment replacements and repairs, including: (i) upgrades and repairs to belt filter presses, (ii) clarifier pipe replacements, (iii) rehabilitation of motor control centers, (iv) rehabilitation of prestressed concrete cylinder pipe, (v) cryogenic plant upgrades and repairs, (vi) electrical upgrades, (vii) upgrade to odor control dewatering building, and (viii) connection to the emergency generator.

As a condition of the City's agreement with its large users, the City is required to have an annual study prepared that inspects the condition of the regional wastewater transmission and treatment facilities, and that projects renewal and replacement needs for a 20-year forecast period. The analysis then estimates the amount of funds that should be set aside in the renewal and replacement account on an annual basis to

provide sufficient funding for the anticipated renewal and replacement expenditures. The City maintains a separate account for the renewal and replacement of its wastewater transmission and treatment facilities in accordance with the requirements of its agreement with the large users of the Sewer System and the provisions of the Bond Resolution. In general, most of the Lohmeyer WWTP and the other equipment of the Sewer System is in good or better condition. Those components of the Sewer System that have been considered to be in fair or poor condition are scheduled for repair or replacement in the next few years as on-going renewal and replacement projects included in the budget for the Water and Sewer System or as a portion of the Series 2018 Project.

Based on an annual capacity analysis, the Lohmeyer WWTP treatment processes have sufficient capacity to treat wastewater for the projected 2035 flow of 57.9 mgd M3MADF. However, overall capacity will be limited by the facility's effluent disposal system, specifically its injection well capacity, which will not meet emergency condition capacity requirements beginning in calendar year 2021. Additionally, projected flows will begin to exceed the Lohmeyer WWTP's current permitted capacity of 56.6 mgd in calendar year 2032. Reducing I&I flow can temporarily eliminate the need for an additional injection well and Lohmeyer WWTP expansion due to capacity issues. Among other measures, the 2017 Master Plan recommended that the City accelerate the investigation and implementation of methods to reduce I&I flows, to positively impact all capacity-related limitations, and initiate design, permitting, and construction of a sixth injection well to expand effluent disposal capacity by the year 2019. The 2017 Master Plan further recommended that the City investigate methods to avoid tertiary treatment requirements associated with the addition of a sixth injection well, including the potential for categorizing the new well as a nonhazardous industrial waste stream. The City has accelerated its I&I reduction program and, as a result, is delaying construction of a new injection well until sometime after calendar year 2019.

Five years prior to reaching the permitted capacity of a wastewater treatment facility, FDEP requires the initiation of planning and preliminary design work for the plant expansion. Design of a plant expansion must be initiated if capacity will be reached within 4 years, permitting must be initiated if capacity will be reached within 3 years and construction and operation permitting must be completed if capacity will be reached within 6 months. Based on the projected M3MADF for the Lohmeyer WWTP, as modified to reflect revised population and current I&I projections, expansion of the Lohmeyer WWTP should not be required until sometime after calendar year 2025 and initiation of planning and preliminary design work will not be required until sometime after calendar year 2020. Construction of such an expansion has been estimated to take approximately 2 years.

Regulatory Impact. FDEP has given consideration to requiring Class A or AA biosolids stabilization before land application or immediate incorporation of the solids into the soil. The timing for promulgation of any new rule is not currently known. However, it is anticipated that a lengthy implementation schedule of 7 - 10 years will be allowed. The FDEP permit for the Lohmeyer WWTP provides for reopening of the permit "at any time to require additional monitoring or reduced phosphorus loading rates for the land application sites." The City has a long-term contract with a private company to treat its biosolids at a residuals management facility to Class AA standards for use beneficially for land application or as biofuel. See "WATER AND SEWER SYSTEM - The Sewer System - Wastewater Treatment Facility" herein.

General. The Lohmeyer WWTP has consistently met federal, state and local requirements for residuals and effluent quality. Pretreatment permits are in place with all significant industrial dischargers, each of which is currently meeting the terms of those permits.

The Sewer System service area is located in a critical water supply area, as designated by the SFWMD. As such, FAC Section 62-40.416 requires a reasonable amount of reuse of reclaimed water

unless it is not economically, environmentally, or technically feasible. Section 403.064 of the Florida Statutes also requires domestic wastewater treatment plant permit applicants in a critical water supply problem area to submit a reuse feasibility study as part of their permit applications.

A wastewater reuse feasibility study was performed by the consulting engineers for the City in 2008 and in 2012. Such studies evaluated a wide range of alternatives for the beneficial reuse of wastewater in the Sewer System service area. The studies concluded that wastewater reuse was not economically feasible in the City. The City also initiated an Alternative Water Supply Feasibility Study in 2007 that considered five potential project alternatives for a reclaimed water system that would treat sufficient flow to postpone or eliminate projected upgrades to the Lohmeyer WWTP, provide high-quality reclaimed water for recharge purposes, and potentially provide offsets or credits to the City's raw water withdrawal limitations.

The 2007 Alternative Water Supply Study identified the use of a membrane bioreactor treatment process to be located at the City's former composting facility site as the most beneficial reclaimed water alternative. The proposed facility could provide for treatment of 12 mgd of potential reuse water. However, the 2007 Alternative Water Supply Study concluded that a cost-benefit analysis would need to be performed by the City to determine the advisability of implementing the proposed project. Based on preliminary cost estimates, the reuse treatment facility would cost \$53 million more than conventional water capacity and wastewater treatment capital improvements. Implementation of the reuse treatment facility, therefore, was determined to be inadvisable.

As part of its consumptive use permit for the Water System, the City is required to implement a water conservation plan that includes ongoing evaluation and implementation of alternatives, including reuse. To date, the City has implemented certain water conservation efforts, including limiting irrigation hours, instituting low flow plumbing measures, serving as a partner in Broward County's Conservation Pay\$ Program (a coalition of 19 municipalities and water utilities undertaking initiatives to save water, money on conservation measures and the environment), and adopting a water conservation based rate structure. The City will continue to evaluate ideas and proposals to implement an effective and economical water conservation plan. Also see "WATER AND SEWER SYSTEM - Water System - Conservation" herein.

In 2013 and 2014 there were some minor surface water discharges from the emergency outfall at the Lohmeyer WWTP during peak flow conditions. In response, the City rehabilitated the injection wells to restore their injection capacity to the original permitted levels. The rehabilitation restored the capability of the wells to handle peak flows, providing the ability of the wells to avoid future surface water overflows.

Underground Injection Wells. The City currently disposes of treated wastewater by using five existing deep injection wells that discharge into the boulder zone, which is located between 3,000 and 5,000 feet underground. This disposal is regulated under the FDEP Underground Injection Control Program. FDEP issues operating permits for the injection wells on a five year cycle. Such operating permit cycle requires that the City conduct mechanical integrity testing of each well at the end of the five year period and that the City monitors for upward movement of effluent out of the injection zone by use and testing of dedicated monitoring wells in overlying transmissive intervals. The FDEP operating permit was issued for the City's five Class I underground injection wells on January 23, 2012, and was renewed on May 5, 2017. The renewal is scheduled to expire on May 4, 2022.

In 1991 a monitoring well at the disposal site gave evidence that secondary effluent was appearing in an interval in the Floridan Aquifer above the injection zone. While such evidence did not

represent a threat to underground sources of drinking water, it constituted a violation of the conditions of the City's Underground Injection Control operating permits for the then-existing four injection wells. To address the violation, the City entered into a consent agreement with FDEP that established the conditions under which the wells would continue to operate and established the protocol for the investigation and remediation of the permit violation. The subsequent investigation found that the cause of migration was not confinement of the injection zone but rather the failure of the mechanical integrity of the monitoring well. In response to such finding, the City remediated the failed monitoring well, identified a new monitoring interval below the impacted zone, constructed two new monitoring wells, and conducted mechanical integrity testing on the then-existing four injection wells. The City's response demonstrated the integrity of the disposal system and in December of 1995, FDEP issued new operating permits for the injection wells and issued a construction permit for the fifth and final deep injection well to be constructed at the site.

In March of 2001, the City completed the operational testing of the fifth deep injection well and submitted the operating permit application. FDEP completed its review process for the City's Underground Injection Control operating permit applications that included site specific conditions that will govern the operation of the City's five wells. The City's injection wells are currently listed on the FDEP second tier level of concern. The City has attempted to be removed from the second tier level of concern, since it feels such listing was made in error due to an erroneous reading from one of the City's monitoring wells. Thus far, the City has not received any indication as to whether or when the wells will be removed from FDEP's second tier level of concern.

In December 2005, the EPA issued a new Underground Injection Control Rule. FDEP has been delegated responsibility for implementation of the rule in Florida. The rule will require wastewater systems that determine that there has been an upward migration of wastewater effluent from a deep injection well into the lower Floridan Aquifer to implement certain measures to address the problem. The measures required of such wastewater systems include the implementation of (i) filtration, treatment and high level disinfection of their effluent and (ii) reuse of at least forty percent (40%) of their total wastewater flows. Implementation of these measures within five (5) years of determining that there is upward migration of the effluent will allow a wastewater system to continue to operate its deep injection disposal well.

The City has reviewed the EPA's Underground Injection Control Rule to evaluate its options for addressing the requirements of the rule, should it become subject to such requirements in the future. However, the City has not identified any upward migration of its wastewater effluent that would require it to implement the measures required by the Underground Injection Control Rule. The City monitors migration of its effluent on a daily basis. The Underground Injection Control Rule will require the implementation of high level disinfection of the City's wastewater effluent for any new disposal well the City may need in the future.

Consent Order. On September 29, 2017 the City entered into Consent Order OGC No. 16-1487 with FDEP (the "Sewer System Consent Order") in response to discharges of untreated wastewater from breaks in force mains of the Sewer System. Prior to enforcement action for violations under FAC Section 62-604.130, the City voluntarily entered into the Sewer System Consent Order with FDEP. In the Sewer System Consent Order, FDEP cites the City for releasing untreated wastewater into the surface waters and/or ground waters of the State from a period beginning March 31, 2014 through August 31, 2017, with the largest volume of approximately 19.4 MG occurring during calendar year 2016. The Sewer System Consent Order was entered into by the City for purposes of settlement only, with the City agreeing to comply with the actions required but without admitting to the findings of fact or conclusions of law set forth therein.

The Sewer System Consent Order requires the City to replace approximately 1900 linear feet of 12" diameter force main, considered to be at high risk of failure, by February 28, 2018. The cost of such replacement is estimated to be \$1,500,000. No later than May 31, 2018 the City is required to replace approximately 11,620 linear feet of failing 30" diameter force main. The cost of such replacement is estimated to be \$8,700,000. Additional, larger scale projects are required to be implemented by September 30, 2020 (with respect to pump station rehabilitation and replacement and improvements to reduce I&I, at a total estimated cost of \$28,542,000) and by September 30, 2026 (with respect to several force main replacements, at an estimated cost of \$57,628,000). See "CAPITAL IMPROVEMENT PROGRAM - Sewer System Improvements" herein.

In accordance with the requirements of the Sewer System Consent Order, among other matters, the City:

- (a) has submitted a schedule for the repair, upgrade and replacement of existing Sewer System assets for the next two (2) years;
- (b) is required to develop for submission to and comment by FDEP:
 - (i) a complete map of all assets of the Sewer System by June 29, 2018,
 - (ii) by July 29, 2018, a plan for completing an assessment of the current condition of all force mains of the Sewer System; and
 - (iii) by August 29, 2018, a plan to develop an Asset Management and Capacity Management, Operations and Maintenance Program for the Sewer System;
- (c) is required to submit to FDEP, by July 29, 2019, a report on the capacity of the facilities of the Sewer System, specifically identifying any assets with insufficient capacity for current and known projected demands over the next ten (10) years; and
- (d) is required to submit to FDEP every six (6) months a written progress report on the status of projects being completed pursuant to the requirements of the Sewer System Consent Order, including any reasons for failure to satisfy any of the Sewer System Consent Order requirements.

The Sewer System Consent Order requires the payment of a fine of \$100 per day for failures to provide the maps, plans and reports in the time periods required. It also provides a schedule of fines for future discharges of the Sewer System that are not Excusable Discharges, as defined in the Sewer System Consent Order. Fines for inexcusable discharges range from \$500 per day to \$10,000 per day, depending upon the amount of the inexcusable discharge. The Sewer System Consent Order also requires (within ninety (90) days of its effective date) payment by the City of a settlement totaling \$334,577.00 in civil penalties and \$5,000.00 for costs and expenses incurred by FDEP.

In lieu of payment of the civil penalties, the Sewer System Consent Order provides that the City can submit a proposal for an in-kind penalty project, which, if accepted by FDEP, will serve as payment of the civil penalty portion of the settlement amount. The in-kind penalty project must be (i) either an environmental enhancement, environmental restoration or a capital improvement project or the donation of environmentally sensitive land and (ii) valued at one and a half times the civil penalty settlement amount (which, for the Sewer System Consent Order, requires the value of the in-kind penalty project to be at least \$501,865.50). The City has paid the \$5,000.00 for costs and expenses incurred by FDEP and has submitted its proposal for an in-kind penalty project, for which the City is waiting to receive a response from FDEP.

If accepted by FDEP, the in-kind penalty project is expected to be paid for from Revenues and is estimated to be completed in the second quarter of calendar year 2020. The City is currently in compliance with the requirements of the Sewer System Consent Order.

The Sewer System Consent Order constitutes a settlement of FDEP's civil and administrative authority to resolve violations committed by the City. The Sewer System Consent Order is not a settlement of any criminal liabilities which may arise under Florida law, nor is it a settlement of any violation which may be prosecuted criminally or civilly under federal law. The City has not received notice that any individuals or other regulatory bodies or authorities expect to allege that the City has violated any of the laws and regulations relating to its ownership or operation of the Sewer System. No assurance can be provided, however, that such an allegation will not be made in the future or that, if made, will be resolved in a manner and/or amount that does not negatively impact the Sewer System.

Impact of Hurricane Irma

On September 10, 2017, the State of Florida experienced impacts from Hurricane Irma, which made landfall in the City and surrounding areas as a Category 1 hurricane, based on the Saffir-Simpson wind scale. Hurricane Irma caused wind-related damages and vegetative debris within the City and did not produce significant damage to the facilities of the Water and Sewer System. The Water System preserved service levels with appropriate pressures maintained during and after the storm event.

The Sewer System was impacted by Hurricane Irma as a result of power outages and vegetative debris impacting pump stations. There were minor overflows caused by these impacts, with the Sewer System losing power to 180 of its 186 pump stations during the storm. The negative impact of the power outages was mitigated by the use of portable generators and focused sewage tankering. Overflows were addressed immediately and reported to the appropriate regulatory authorities. The associated clean-up was completed promptly. The cost of the portable generators and sewage tankering was approximately \$15,700,000. Power supply issues at the Lohmeyer WWTP impacted effluent pumping and required the delivery of additional loads of liquid oxygen for its cryoplant. Costs for the additional liquid oxygen were approximately \$200,000. The Lohmeyer WWTP remained functional following Hurricane Irma and managed incoming flows.

The costs incurred by the City related to debris clean-up and restoration are estimated at \$15,000,000. Other costs, including overtime, equipment rental, fuel and other expenses incurred as a result of Hurricane Irma, are estimated at \$3,600,000. Total costs to the City attributed to Hurricane Irma is estimated to be \$34,500,000. The City is seeking reimbursement through the Public Assistance Grant, as administered by the Federal Emergency Management Agency ("FEMA"). The City expects that reimbursement will be received in an amount between 75% and 100%, as determined by FEMA, depending on the type of expense and the time period following the storm in which such expense was incurred. The City also anticipates reimbursement from the State at a rate of 5% for the cost of debris removal for the first 30 days following the storm and at the rate of 12.5% for all other eligible expenditures. The City has ample funds available to pay clean-up and restoration costs resulting from Hurricane Irma without experiencing any significant negative impact to the stability or future required use of its funds.

The Water and Sewer System did not experience any interruption or diminution of service to its customers as a result of Hurricane Irma.

Customer Classification/Growth

The Water and Sewer System currently classifies customers into two residential (single-family and multi-family) and six non-residential (commercial, government/exempt, master meter, sprinkler/ irrigation

meters, fire protection, and unimproved) categories. The total population served by the Water System and by the Sewer System was estimated to be 228,546 and 179,833, respectively, as of December 31, 2015. For more detailed information relating to population estimates and forecasts in the service area of the Water and Sewer System, see “WATER AND SEWER SYSTEM - Service Area Population Projections” herein.

The table set forth below reflects the historical number of active and inactive (i.e., meters that have been installed but are currently turned off) Water and Sewer System customer accounts for calendar years 2012 through 2016 and the projected accounts for calendar years 2017 through 2022.

Historical and Projected Water and Sewer Accounts

		<u>Actual⁽¹⁾</u>					<u>Projected⁽²⁾</u>					
<u>Accounts</u>		<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Water	Active	59,407	59,762	60,351	60,605	60,254	60,555	60,858	61,162	61,468	61,775	62,084
	Inactive ⁽³⁾	<u>3,167</u>	<u>2,938</u>	<u>3,018</u>	<u>3,030</u>	<u>3,013</u>	<u>3,028</u>	<u>3,043</u>	<u>3,058</u>	<u>3,073</u>	<u>3,089</u>	<u>3,104</u>
	Total	<u>62,574</u>	<u>62,700</u>	<u>63,368</u>	<u>63,635</u>	<u>63,267</u>	<u>63,583</u>	<u>63,901</u>	<u>64,220</u>	<u>64,542</u>	<u>64,864</u>	<u>65,189</u>
% increase - prior year:												
	Active	0.8%	0.6%	1.0%	0.4%	-0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
	Inactive ⁽³⁾	-10.2%	-7.2%	2.7%	0.4%	-0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
	Total	0.2%	0.2%	1.1%	0.4%	-0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Sewer	Active	46,299	46,790	47,333	47,464	47,901	48,141	48,381	48,623	48,866	49,111	49,357
	Inactive ⁽³⁾	<u>4,249</u>	<u>4,167</u>	<u>4,260</u>	<u>4,272</u>	<u>4,311</u>	<u>4,333</u>	<u>4,354</u>	<u>4,376</u>	<u>4,398</u>	<u>4,420</u>	<u>4,442</u>
	Total	<u>50,548</u>	<u>50,957</u>	<u>51,593</u>	<u>51,736</u>	<u>52,212</u>	<u>52,473</u>	<u>52,736</u>	<u>52,999</u>	<u>53,264</u>	<u>53,531</u>	<u>53,799</u>
% increase - prior year:												
	Active	1.3%	1.1%	1.2%	0.3%	0.9%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
	Inactive ⁽³⁾	-3.5%	-1.9%	2.2%	0.3%	0.9%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
	Total	0.8%	0.8%	1.2%	0.3%	0.9%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

Source: The Feasibility Report. See “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Table 6-1 in the Feasibility Report.

(1) Based on City records of active and inactive service accounts.

(2) Projected increases in customers are based on the forecasted population growth in Broward County, revised as of September 15, 2014.

The table set forth below reflects the forecasted population and active and inactive customer accounts by billing classification for customers in the Water System service area and for customers in the service area of the Sewer System. The information is as of December 31 in the years indicated and is based on population estimates provided for the Water and Sewer System. See “WATER AND SEWER SYSTEM - Service Area Population Projections” herein. For the projected period, calendar years 2017 through 2022, the number of total Water System and Sewer System accounts is projected to increase at an average annual growth rate of approximately 0.5%.

**Water and Sewer Customers
by Customer Classification**

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
<u>Water System</u>						
<i>Total Water Service Area Population</i>	220,183	221,284	222,391	223,503	224,620	225,743
<i>Services</i>						
Residential Customers	38,129	38,319	38,511	38,703	38,897	39,091
Commercial	5,861	5,890	5,920	5,950	5,979	6,009
Government (Exempt)	472	475	477	479	482	484
Master Meter	26	26	26	27	27	27
Sprinkler/Irrigation Meter	8,653	8,696	8,740	8,783	8,827	8,872
Multi-Family Customers	6,096	6,127	6,157	6,188	6,219	6,250
Unimproved	3	3	3	3	3	3
Fire Protection	1,315	1,321	1,328	1,334	1,341	1,348
<i>Total Water Services</i>						
Active	60,555	60,858	61,162	61,468	61,775	62,084
Inactive	<u>3,028</u>	<u>3,043</u>	<u>3,058</u>	<u>3,073</u>	<u>3,089</u>	<u>3,104</u>
Total	<u>63,583</u>	<u>63,901</u>	<u>64,220</u>	<u>64,542</u>	<u>64,864</u>	<u>65,189</u>
% Increase in Total Accounts	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
<u>Sewer System</u>						
<i>Sewer Service Area Population</i>						
Sewered	182,221	183,132	184,048	184,968	185,893	186,822
Non-Sewered	<u>1,920</u>	<u>1,929</u>	<u>1,929</u>	<u>1,929</u>	<u>1,929</u>	<u>1,929</u>
<i>Total Sewer Service Area Population</i>	<u>184,141</u>	<u>185,061</u>	<u>185,977</u>	<u>186,897</u>	<u>187,822</u>	<u>188,751</u>
<i>Services</i>						
Residential Customers	35,780	35,959	36,139	36,319	36,501	36,684
Commercial	5,852	5,881	5,911	5,940	5,970	6,000
Government (Exempt)	422	424	426	428	431	433
Master Meter	1	1	1	1	1	1
Multi-Family	6,083	6,114	6,144	6,175	6,206	6,237
Unimproved	2	2	2	2	2	2
<i>Total Sewer Services</i>						
Active	48,141	48,381	48,623	48,866	49,111	49,356
Inactive	<u>4,333</u>	<u>4,354</u>	<u>4,376</u>	<u>4,398</u>	<u>4,420</u>	<u>4,442</u>
Total	<u>52,473</u>	<u>52,736</u>	<u>52,999</u>	<u>53,264</u>	<u>53,531</u>	<u>53,798</u>
% Increase	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

Source: The Feasibility Report. See “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Table 6-2 in the Feasibility Report.

The following table reflects the largest users for the Water System for calendar year 2016. The combined usage of the Water System by the largest customers, as set forth in the following table, represents approximately twenty-five percent (25%) of the total consumption of the Water System.

Largest Water System Users

<u>Customer</u>	<u>Type of User/Business</u>	<u>Consumption*</u>	<u>Percentage of Total Consumption</u>
<i>Wholesale Customers</i>			
City of Oakland Park	Wholesale User	1,179,753	9.61%
City of Wilton Manors	Wholesale User	539,215	4.39
Port Everglades Authority	Wholesale User	379,319	3.09
City of Tamarac	Wholesale User	55,670	0.45
<i>Retail Customers</i>			
City of Fort Lauderdale	City Government	479,729	3.91
Broward County Courthouse	County Government	186,538	1.52
Marriott Beach Resort	Hotel	75,508	0.62
Broward General Hospital	Hospital	65,041	0.53
Imperial Point Hospital	Hospital	51,557	0.42
Pier 66 Hotel	Hotel	<u>39,004</u>	<u>0.32</u>
Total (Large Users)		<u>3,051,334</u>	<u>24.87%</u>
Total (All Water System Users)		12,270,244	100.0%

Source: The Feasibility Report. See "APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report," including, in particular, Table 6-3 in the Feasibility Report.

* Based on annual water usage in thousands of gallons.

Rates, Fees and Charges

The City is responsible for establishing rates and charges for the services of the Water and Sewer System. The water and sewer rate charges are adopted through ordinance, which requires approval by the City Commission. Historically, through its staff and consultants, the City conducted an annual evaluation of water and sewer costs, revenues and debt service coverage requirements. After presentation of such evaluation to the City Commission, the City Commission determined whether rates for services of the Water and Sewer System should be adjusted and the amount of the adjustment required to continue to provide for the efficient operation and maintenance of the facilities and services of the Water and Sewer System.

In response to the changing environment impacting the Water and Sewer System, including changing weather patterns, changes in the availability of water resources and rising fixed and semi-variable costs, in 2008 the City retained consultants to conduct a comprehensive study of its rate structure and charges for utility services. Based on the recommendations of the rate study, in August 2009 (the "2009

Rate Study”), the City Commission approved changes to its rates for services provided by the Water and Sewer System, including a change: (i) in the rate structure for monthly service, which change was designed to address the impacts of reduced consumption resulting from SFWMD water restrictions during drought conditions, (ii) to increase the stability of the revenue stream generated by the Water and Sewer System and to increase such revenues by twenty percent (20%); (iii) to implement an increase in monthly service rates for the Water and Sewer System of five percent (5%); (iv) to increase impact fees charged for obtaining service from the Water and Sewer System by sixty-six percent (66%); and (v) to establish new rates for service availability charges imposed on all customers in inactive status that had their property previously classified as active.

At the time the 2009 Rate Study was adopted, the City planned to provide for an additional rate study to be conducted to determine an updated plan of annual rate increases for the Water & Sewer System. Such study was completed in October 2011 (the “2011 Rate Study”).

As a result of the analysis and conclusions of the 2011 Rate Study, the City Commission adopted an annual rate indexing policy of adjusting rates for services of the Water and Sewer System. The annual rate adjustment is scheduled to be the greater of (i) the annual change (measured in May of each year) in the United States Consumer Price Index Water & Sewerage Maintenance Series (the “CPI”), or (ii) five percent (5%). The 2011 Rate Study recommended an additional 1.0% and 1.75% rate increase for Fiscal Years 2012 and 2013, respectively. Based on the recommendations in the 2011 Rate Study, the City adopted a rate increase for services of the Water and Sewer System of 6.75 % for Fiscal Year 2012 (i.e., 5.75% actual change in the CPI for May 2011, plus an additional 1.0%), 6.75% for Fiscal Year 2013 (i.e., 5.0% annual increase, plus an additional 1.75%) and 5.0% for Fiscal Years 2014 and 2015, respectively.

An additional increase of 5.0% for services of the Water and Sewer System became effective on each of October 1, 2015, 2016 and 2017 for Fiscal Years 2016, 2017 and 2018, respectively. The City’s current rate structure does not require the City Commission to take action to determine the amount that rates will increase each year. Instead, it provides that rates for services of the Water and Sewer System automatically increase by 5.0% at the beginning of each Fiscal Year.

As part of its approval of the rate increases described above, the City Commission expressly committed to performing annual financial reviews by April 30th of each year to determine if, as of September 30th of the prior year, taking into account adjusted rates for services of the Water and Sewer System, projected Revenues shall be in an amount in excess of the amount needed, based on the following criteria relating to the Water and Sewer System:

1. annual revenues exceed annual expenses,
2. net revenue is at or above two times annual debt service expenses,
3. there is an operating reserve at least equal to 120 days of operating costs,
4. there is an unrestricted capital reserve of at least \$10 million, and
5. there is replacement and repair funding of at least \$10 million.

If the City Manager determines that projected Revenues are in excess of the amount needed, based on the five criteria set forth above, the current customers of the Water and Sewer System shall receive a proportionate rebate of the excess funds on their water/wastewater bill in the same Fiscal Year. Conversely, the annual review described above may identify the need for an additional rate increase to meet the financial requirements of the Water and Sewer System.

The City’s contracts with the large users of the Sewer System specify the basis to be used for the annual calculation of regional wastewater treatment rates. These contracts specify that the rates will be

based on the regional system's budgeted costs. Budgeted costs include a component for the CIP, based on a renewal and replacement analysis of the wastewater treatment facilities, which is updated annually. At the end of each Fiscal Year, the rates are recalculated and each user is provided either a credit or an additional charge to equate their total bill to their proportionate share of the regional system's total costs for that year. The contracts for bulk water service do not specify the basis for their rate calculations. As such, in between periodic cost of service or rate studies, the City adjusts the rates for bulk users of the Water System by the same annual rate increases applied to the Water System's retail customers.

For a schedule of the fixed monthly rates charged for services of the Water and Sewer System during Fiscal Year 2018 for each category of service, see "APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report," including, in particular, Table 6-10 in Section 6.6 of the Feasibility Report. For a more detailed description of all rates and charges applicable to customers of the Water and Sewer System (including, without limitation, tapping charges and connection charges), see the 2017-2018 Rate Schedule for the Water and Sewer System on the City's website at: <http://www.fortlauderdale.gov/departments/finance/utility-billing/new-utility-rates>.

The City recently released a Request for Proposals seeking qualified firms to provide a study of the current rates charged for services of the Water and Sewer System (the "Rate Study RFP"). Responses to the Rate Study RFP are currently due in mid-February, 2018. The firm hired as a result of the Rate Study RFP is expected to, among other things, (i) create an interactive rate model to evaluate the City's current Water and Sewer System rate structure and (ii) recommend an alternative rate structure that is logical and equitable amongst each of the various classes, sizes and required service levels of the Water and Sewer System.

To comply with the terms of the Rate Study RFP, the proposed rate structure must provide a reliable and predictable revenue stream to fund the City's utility operations, including the infrastructure requirements of the Water and Sewer System. The analysis in the rate study is required to present (i) the estimated impact of the proposed alternative rates and fees for both base (fixed) and usage (variable) charges for every type of account serviced by the City, (ii) a ten (10) year revenue projection, based on the recommended rates, and (iii) the impact of the base rate proposal on the elasticity of revenues of the Water and Sewer System.

The work product required by the terms of the Rate Study RFP is expected to take several months to complete. Upon completion, such work product is expected to be presented to the City Commission to determine whether it desires to accept all or any portion of the recommendations made. No reasonable prediction can be made as to whether rates for services of the Water and Sewer System will be increased or decreased in the future as a result of the recommendations made by the firm selected in response to the Rate Study RFP.

Comparative Rate Survey

The following table presents a comparison of the monthly residential water and sewer bills for selected cities within Broward County and for Broward County during Fiscal Year 2017. The City's total monthly water and sewer bill for residential customers consuming 5,000 gallons of water per month was \$60.09. This figure is among the lowest of all of the communities surveyed. Rates for service from the Water and Sewer System remain among the lowest for Fiscal Year 2018, even when the City's current rates are compared to rates for other communities in effect during Fiscal Year 2017, many of which (like the City) have been increased by such other communities for Fiscal Year 2018. For the current Fiscal Year, the City's total monthly water and sewer bill for residential customers consuming 5,000 gallons of water per month is \$63.11. See "APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer

Revenue Bonds Feasibility Report,” including, in particular, Table 6-12 in the Feasibility Report for a comparison of the City’s current monthly water and sewer rates for residential customers consuming 5,000 gallons of water per month with the rates for selected cities within Broward County and for Broward County for Fiscal Year 2017. Monthly water and sewer rates in the following table do not include other surcharges and utility taxes and do not reflect drought rates that may apply.

The total annual bill for residential water and sewer service in the City, assuming 5,000 gallons of water usage per month, would amount to \$721.08 (based on Fiscal Year 2017 rates) or \$757.32 (based on Fiscal Year 2018 rates). Rates for water and sewer service greater than two percent (2%) of the median household income in a service area may present an affordability concern, as determined by utility industry standards (including the EPA’s affordability criteria set forth in its Guidances for Water Quality Standards and Financial Capability Assessment), and may be considered a financial burden to certain utility customers. Based on the median household annual income in Broward County of \$60,900, as reported in 2017 by the U.S. Department of Housing and Urban Development Income Limits Documentation System, and assuming 5,000 gallons of water usage per month, the City’s average water and sewer bill (based on Fiscal Year 2017 rates) was approximately 1.18% of the median household income in Broward County, as reported in 2017.

The average water and sewer bill for services of the Water and Sewer System during Fiscal Year 2017 was well within the affordability levels generally recognized in the utility industry and is well within such affordability levels for the current Fiscal Year (assuming the median household income in Broward County to be reported for 2018 is similar to such income reported for 2017). Also see “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 6.7 in the Feasibility Report for reference to a source which documents median household income in Broward County at a level lower than the U.S. Department of Housing and Urban Development. The average water and sewer bill for services of the Water and Sewer System during Fiscal Year 2017 is also well within the affordability levels generally recognized in the utility industry when the lower number for documenting median household income in Broward County is utilized.

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**Monthly Bill Comparison With Other Communities
For Residential Water and Sewer Service
(Based on 5,000 Gallons/Month)
(Rates in Effect During Fiscal Year 2017)**

<u>Local Jurisdiction</u>	<u>Water</u>	<u>Sewer</u>	<u>Total</u>
Town of Davie	\$37.35	\$69.62	\$106.97
City of Wilton Manors	57.15	47.66	104.81
City of Dania Beach	35.00	58.82	93.82
City of Parkland	52.38	40.30	92.68
City of Oakland Park	45.81	43.53	89.34
City of Sunrise	38.61	47.19	85.80
City of Hillsboro Beach	41.00	43.92	84.92
City of Hollywood	26.92	54.28	81.20
City of North Lauderdale	32.30	47.25	79.55
City of Coconut Creek	41.90	32.24	74.14
City of Miramar	29.92	38.13	68.05
Cooper City	26.75	40.59	67.34
North Springs Improvement District	36.09	30.28	66.37
City of Tamarac	21.80	42.75	64.55
Broward County	23.62	40.20	63.81
City of Lighthouse Point	23.62	40.20	63.81
City of Coral Springs	21.29	40.53	61.82
City of Plantation	22.14	39.53	61.67
City of Fort Lauderdale	22.46	37.63	60.09
City of Hallandale Beach	24.36	34.76	59.12
Royal Utility	26.93	31.41	58.34
City of Margate	28.88	29.40	58.28
City of Lauderhill	20.37	35.69	56.06
City of Deerfield Beach	28.25	24.53	52.78
City of Pembroke Pines	24.13	27.93	52.06
City of Coral Springs	25.01	25.01	50.02
City of Pompano Beach	<u>24.08</u>	<u>25.76</u>	<u>49.84</u>
Average	\$31.04	\$39.60	\$ 70.64

Source: The Feasibility Report. See “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Table 6-12 in the Feasibility Report.

Billing and Collection

The City bills customers for water, sewer, sanitation and stormwater service on a single monthly bill. Unpaid billings amounted to approximately 3.92% of total billings as of September 30, 2017. Such percentage is comparable to the percentage of unpaid billings experienced by other utilities in South Florida and is lower than the percentage of unpaid billings experienced by the City in some prior years. The City has several options it can utilize to collect unpaid bills, including the use of collection agencies, reporting unpaid bills to credit rating agencies, and placing a lien on the property of a delinquent customer. The last upgrade to the City's billing system was placed in service during calendar year 2010.

Revenues and Expenses

Set forth below are actual and projected Revenues, Current Expenses, debt service and debt service coverage for the Water and Sewer System.

Historical and Projected Revenues, Current Expenses, Debt Service and Debt Service Coverage

<u>Fiscal Year</u>	<u>Revenues⁽¹⁾</u>	<u>Current Expenses⁽²⁾</u>	<u>Net Revenue Available for Debt Service⁽¹⁾</u>	<u>Debt Service for Revenue Bonds⁽³⁾</u>	<u>Debt Service Coverage for Revenue Bonds</u>	<u>Debt Service for State Revolving Fund Loan⁽⁴⁾</u>	<u>Debt Service Coverage for Revenue Bonds and State Revolving Fund Loan</u>
2012 ⁽⁵⁾	\$106,017,000	\$57,299,000	\$48,718,000	\$25,883,000	1.88x	\$5,438,000	1.56x
2013 ⁽⁵⁾	121,076,000	56,652,000	64,424,000	26,219,000	2.27	6,523,000	1.97
2014	117,552,000	58,085,000	59,467,000	26,180,000	2.57	6,565,000	1.82
2015	131,913,000	64,546,000	67,367,000	26,197,000	2.42	6,566,000	2.06
2016	131,745,740	68,291,282	63,454,458	22,314,265	2.84	5,544,277	2.28
2017 ⁽⁶⁾	135,518,189	70,738,461	64,779,728	24,031,181	2.70	4,522,892	2.27
2018	145,881,329	72,134,360	73,746,969	28,107,350	2.62	4,522,892	2.26
2019	151,761,110	69,824,651	81,936,459	31,719,031	2.58	4,522,892	2.26
2020	158,272,719	71,403,237	86,869,482	31,723,531	2.74	4,522,892	2.40
2021	165,108,726	73,022,400	92,086,325	31,715,831	2.90	4,522,892	2.54
2022	172,329,131	74,652,225	97,676,905	31,716,031	3.08	4,522,892	2.70

Source: The Feasibility Report. See "APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report," including, in particular, Table 6.5 in the Feasibility Report.

Footnotes for immediately preceding table are continued on the next page.

- (1) Does not include revenues from Impact Fees, extension charges or interest on Bond funds, in accordance with the provisions of the Bond Resolution. See "SECURITY AND SOURCES OF PAYMENT - General" herein.

- Impact Fees are not available to pay debt service on the Series 2018 Bonds. Beginning in Fiscal Year 2018, Revenues are projected assuming an annual five percent (5.0%) increase in rates for services of the Water and Sewer System. See “WATER AND SEWER SYSTEM - Rates, Fees and Charges” herein.
- (2) Excludes depreciation, interfund administrative costs and other costs, in accordance with the provisions of the Bond Resolution. See “SECURITY AND SOURCES OF PAYMENT - General” herein.
 - (3) Includes the Principal and Interest Requirements on all (i) Outstanding Bonds and (ii) the Series 2018 Bonds. See “INTRODUCTION” and “DEBT SERVICE SCHEDULE” herein.
 - (4) Although included in the table demonstrating the amount of Net Revenues available to make debt service payments, the SRF loans have a subordinate lien on Net Revenues. See “SECURITY AND SOURCES OF PAYMENT - Other Obligations Secured by Net Revenues” herein.
 - (5) Debt Service for Revenue Bonds reflects amount of Principal and Interest Requirements recorded by the City for such Fiscal Years, based on accrual method of accounting.
 - (6) Represents estimated, unaudited Revenues and Current Expenses for such Fiscal Year.

CAPITAL IMPROVEMENT PROGRAM

General

Each year the City Commission adopts a Community Investment Plan detailing upgrades and improvements needed for City facilities and infrastructure for the immediately succeeding 5 year period. The Community Investment Plan for Fiscal Years 2018 through 2022 (the “2018 Community Investment Plan”) identifies \$227 million in expenditures for such 5 year period, including more than \$74.6 million in renewal and replacement improvements for the Sewer System and \$152.6 million in improvements identified in the various updates to the 2000 Master Plan. Of the \$152.6 million in total planned improvements, \$104.3 million were identified as unfunded. A portion of the unfunded improvements will be included in the Series 2018 Project and the remainder will remain unfunded until current or future revenues or reserves of the Water and Sewer System or other funding sources are made available for such improvements.

Major Sewer System projects contained in the 2018 Community Investment Plan include the renewal and replacement projects for the Lohmeyer WWTP and plant rehabilitation of its prestressed concrete cylinder pipes. See “WATER AND SEWER SYSTEM - The Sewer System - Wastewater Treatment Facility” herein. Major Water System projects contained in the 2018 Community Investment Plan include the Fiveash WTP disinfection/reliability upgrades, the Fiveash WTP chemical system improvements, a large water main replacement, and pump station rehabilitation. See “WATER AND SEWER SYSTEM - The Water System - Water Treatment Facilities” and “- Water Transmission, Distribution and Storage” herein.

In addition, improvements to the Water and Sewer System for Fiscal Years 2018 through 2022 (i) were recommended in the 2017 Master Plan, including renewal and replacement projects at the Lohmeyer WWTP and projects to improve the City’s water supply and wastewater collection systems, and (ii) are required to comply with the terms of the Sewer System Consent Order. See “WATER AND SEWER SYSTEM - The Sewer System - Regulatory Impact Consent Order” herein. The 2017 Master Plan provided a holistic evaluation of the entire Water and Sewer System. Recognizing that portions of the Water and Sewer System infrastructure are approaching the end of their expected life cycle, the 2017 Master Plan identified numerous improvements needed to operate, maintain and enhance the Water and Sewer System’s performance, efficiency, quality, and level of service to meet current and projected needs for the next 20 years.

The Sewer System Consent Order includes wastewater repair projects and operational improvements the City must complete to reduce risk and improve resiliency within the wastewater collection system. These projects replace aged pipe networks and construct additional infrastructure to increase the capacity

and redundancy of the Sewer System. The Sewer System Consent Order improvements provide for systematic replacement of outdated technology within the wellfields, the water and wastewater treatment plants, the water distribution system, and the wastewater collection system. Finally, the projects modernize utility management tools and operational control systems to improve efficiency.

The CIP includes funding for the proposed capital improvements identified in the 2018 Community Investment Plan, including the identified renewal and replacement projects, certain projects identified in the 2017 Master Plan, and the improvements required to comply with the terms of the Sewer System Consent Order. Set forth below is a summary, by source, of the projects included in the CIP.

Proposed CIP Projects						
(\$ In Millions)						
<u>Source Document</u>	<u>Sewer System</u>					<u>Total⁽¹⁾</u>
	<u>Water System</u>	<u>Lohmeyer WWTP</u>	<u>General</u>	<u>General and Lohmeyer WWTP</u>	<u>Unfunded⁽²⁾</u>	
2018 Community Investment Plan ⁽³⁾	\$192.9	\$ 74.6	\$15.0	\$ 0.0	\$49.0	\$331.5
2017 Master Plan ⁽⁴⁾	27.5	0.0	35.6	0.0	36.2	99.4
Sewer System Consent Order	<u>0.0</u>	<u>53.1</u>	<u>16.7</u>	<u>11.5</u>	<u>0.0</u>	<u>81.3</u>
Total	<u>\$220.4</u>	<u>\$127.7</u>	<u>\$67.3</u>	<u>\$11.5</u>	<u>\$85.2</u>	<u>\$512.2</u>

Source: The Feasibility Report. See “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 5.4 in the Feasibility Report.

- (1) Totals may not add due to rounding.
- (2) Represents projects that are contemplated to be implemented after the Forecast Period but have been identified as projects that will be accelerated and implemented during the Forecast Period if funding becomes available for such implementation during the Forecast Period.
- (3) Approximately \$55.3 million of previously unfunded 2018 Community Investment Plan projects will be financed with a portion of the proceeds from the Series 2018 Bonds, which reduces the unfunded amount of such projects from the \$104.3 million mentioned in “CAPITAL IMPROVEMENT PROGRAM - General” to approximately \$49.0 million. Also, see “CAPITAL IMPROVEMENT PROGRAM - Series 2018 Project” herein.
- (4) Approximately \$58.0 million of projects identified in the 2017 Master Plan are also projects that are required to be implemented pursuant to the provisions of the Sewer System Consent Order. To prevent double counting, such projects are reflected as funded pursuant to the Sewer System Consent Order and, therefore, deducted from \$94.1 million of projects under the 2017 Master Plan that were previously considered unfunded, as described in footnote 1 of this table. As a result, approximately \$36.2 million constitutes the actual amount of 2017 Master Plan unfunded projects described herein.

The City has identified several funding sources it currently intends to use to fund the improvements identified in the CIP, including Impact Fees, other Water and Sewer System revenues available after payments required by the terms of the Bond Resolution and other required transfers have been made and proceeds from the issuance of Bonds. Set forth below are the sources currently projected to fund the CIP.

CIP Estimated Sources of Funding

<u>Funding Source</u>	<u>Estimated CIP Funding during Forecast Period⁽¹⁾</u>	<u>Percent of Total CIP Funding</u>
Series 2018 Bonds	\$199,761,657	39.0%
Currently Available Revenues and Reserves ⁽²⁾	<u>227,211,829</u>	<u>44.4</u>
Approved Amount ⁽³⁾	426,973,486	83.4
Undetermined ⁽⁴⁾	<u>85,155,263</u>	<u>16.6</u>
Total	<u>\$512,128,749</u>	<u>100.0%</u>

Source: City of Fort Lauderdale, Florida Public Works Department.

- (1) Constitutes amount currently estimated to be available to pay for projects included in the CIP.
- (2) Represents revenues generated by the Water and Sewer System from prior Fiscal Years that are unencumbered and currently available to fund CIP projects or revenues projected to be generated by the Water and Sewer System and available to fund CIP projects after payments required under the Bond Resolution and all other required transfers have been made.
- (3) Represents the amount of projects in the CIP that have undergone the City's formal review and approval of funding process.
- (4) Represents projects that are contemplated to be implemented after the Forecast Period but have been identified as projects that will be accelerated and implemented during the Forecast Period if funding becomes available for such implementation during the Forecast Period.

Water System Improvements

Planned improvements to the Water System included in the 2018 Community Investment Plan total \$192.9 million. Such improvements include disinfection and reliability improvements at the Fiveash WTP, chemical system improvements, renewal and replacement projects at the Peele-Dixie WTP, and numerous large and small water main improvements. The 2017 Master Plan recommended \$274 million in improvements to the Water System for Fiscal Years 2018 through 2022. The improvements to the Water System recommended in the 2017 Master Plan that were considered most critical were included in the \$192.9 million of planned improvements in the 2018 Community Investment Plan. For a more detailed explanation of the planned improvements to the Water System, see "APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report," including, in particular, Section 5.2.1 in the Feasibility Report.

Sewer System Improvements

The 2018 Community Investment Plan provides for a total of \$89.6 million in Sewer System improvements during the Forecast Period. Such improvements include \$74.6 million in upgrades to the Lohmeyer WWTP and \$15.0 million in improvements the City's retail wastewater collection system. The Lohmeyer WWTP improvements include plant renewal and replacement projects, rehabilitation of the plant's prestressed concrete cylinder pipes, rehabilitation of motor controls, and clarifier pipe replacements. The wastewater collection system improvements include repairs and rehabilitation of force mains, repairs, replacements, or relocations of gravity mains, and rehabilitation of pump stations. The 2017 Master Plan recommended additional Lohmeyer WWTP and wastewater collection system improvements. Approximately \$35.6 million of such wastewater collection system improvements are included in the Series 2018 Project.

Series 2018 Project

The City plans to fund 53 projects from the CIP with proceeds from the issuance of the Series 2018 Bonds (collectively, the “Series 2018 Project”). These projects were identified as the most critical to be implemented from the list of projects included in (i) the 2018 Community Investment Plan which were previously classified as unfunded, (ii) the 2017 Master Plan, and (iii) the Sewer System Consent Order. The Series 2018 Project is estimated to total \$199.8 million, of which approximately (i) \$55.3 million is from the 2018 Community Investment Plan and represents projects previously listed as “deferred,” (ii) \$63.2 million constitutes priority projects from the 2017 Master Plan, and (iii) \$81.3 million represents projects required to be implemented to satisfy the requirements of the Sewer System Consent Order.

The number and general categories of projects included in the Series 2018 Project are as follows:

Categories of Improvements Included in the Series 2018 Project*

<u>Project</u>	<u>2018 Community Investment Plan</u>		<u>2017 Master Plan</u>		<u>Sewer System Consent Order</u>		<u>Total</u>	
	<u>Number of Projects</u>	<u>Cost of Project</u>	<u>Number of Projects</u>	<u>Cost of Project</u>	<u>Number of Projects</u>	<u>Cost of Project</u>	<u>Number of Projects</u>	<u>Cost of Project</u>
Fiveash WTP Improvements	1	\$33,500,000	6	\$24,860,000	- 0 -	\$ - 0 -	7	\$ 58,360,000
Peele-Dixie WTP Improvements	- 0 -	- 0 -	4	1,310,000	- 0 -	- 0 -	4	1,310,000
Water Supply Projects for Water Treatment Plants	<u>- 0 -</u>	<u>- 0 -</u>	<u>3</u>	<u>985,000</u>	<u>- 0 -</u>	<u>- 0 -</u>	<u>3</u>	<u>985,000</u>
Total Water System Plant Improvements	1	33,500,000	13	27,155,000	- 0 -	- 0 -	14	60,655,000
Water Distribution System Improvements	7	21,850,568	2	363,000	- 0 -	- 0 -	9	22,213,568
Wastewater Collection System Improvements	- 0 -	- 0 -	11	35,639,090	13	69,754,679	24	105,393,769
Operational System Improvements	- 0 -	- 0 -	- 0 -	- 0 -	5	5,700,000	5	5,700,000
Program Coordination and Management	<u>- 0 -</u>	<u>- 0 -</u>	<u>- 0 -</u>	<u>- 0 -</u>	<u>1</u>	<u>5,799,320</u>	<u>1</u>	<u>5,799,320</u>
Total	<u>8</u>	<u>\$55,350,568</u>	<u>26</u>	<u>\$63,157,090</u>	<u>19</u>	<u>\$81,253,999</u>	<u>53</u>	<u>\$199,761,657</u>

Source: City of Fort Lauderdale, Florida Public Works Department.

* Projects represent the current list of improvements expected to comprise the Series 2018 Project, subject to changes that may be made by the City in accordance with the terms of the Resolution. All costs represent current, estimated project costs.

For a more detailed description of the improvements to the Water and Sewer System that are currently contemplated to be financed in whole or in part with proceeds of the Series 2018 Bonds, including a description of each project expected to be funded, see “APPENDIX B - Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 5.5 in the Feasibility Report.

CONCLUSIONS OF THE FEASIBILITY CONSULTANTS

CH2M HILL, Inc., Hazen and Sawyer, P.C. and Stantec, Inc., have been engaged by the City to serve as Feasibility Consultants for the Water and Sewer System in connection with the issuance of the Series 2018 Bonds and, in such capacity, have prepared the Feasibility Report. The Feasibility Report provides a summary of the overall condition of the Water and Sewer System to support the issuance of the Series 2018 Bonds. The information contained in the Feasibility Report is a combination of information obtained from recent investigations and discussions with management and operations personnel of the Water and Sewer System and includes a review of, among other sources, the CIP, the 2000 Master Plan, the 2007 Master Plan Update, the 2017 Master Plan, the comprehensive annual financial reports of the City for the Fiscal Years ended September 30, 2013 through 2016, unaudited financial information and work papers for the Fiscal Year ended September 30, 2017, the City’s annual operating budgets for Fiscal Years September 30, 2013 through 2018, the City’s SFWMD water use permit, financial, billing and operating data of the City, the 2009 Rate Study, the 2011 Rate Study, and other files of the City and of the Water and Sewer System maintained by the Feasibility Consultants.

Set forth below are certain conclusions reached by the Feasibility Consultants in the Feasibility Report. Reference is made to the complete Feasibility Report for a more detailed discussion of the information relied upon by the Feasibility Consultants to reach the following conclusions and the assumptions upon which such conclusions are based. See “APPENDIX B - City of Fort Lauderdale, Florida Series 2018 Water and Sewer Revenue Bonds Feasibility Report,” including, in particular, Section 1.2 in the Feasibility Report. In the opinion of the Feasibility Consultants, the assumptions upon which the following conclusions are based are reasonable.

1. The facilities of the Water System are well-maintained, well-managed and in good operating condition. Effective planning policies provide for the inspection, repair, improvement and replacement of such facilities, and have enabled the City to meet State and federal regulations.

2. With the exception of aging force mains that are approaching the end of their useful service, the Sewer System is well-maintained, well-managed and in good condition. In recent years, the City has experienced force main breaks that have resulted in the discharge of untreated wastewater into the surface waters and/or ground waters near the Sewer System. In response, the City has entered into the Sewer System Consent Order to reduce risk and improve resiliency within the wastewater collection system by replacing aging pipe networks and constructing additional infrastructure to increase the capacity and redundancy of the Sewer System. See “WATER AND SEWER SYSTEM - The Sewer System - Regulatory Impact - Consent Order” herein.

3. The water demand and wastewater flow projections presented in the Feasibility Report are based on the projections presented in the 2017 Master Plan; the City and the Feasibility Consultants each believe such projections are reasonable.

4. The financial model presented in the Feasibility Report uses unaudited Fiscal Year 2017 results as the basis for its demand, expenditure and revenue projections, adjusted for assumed inflation, rate increases, growth and elasticity of demand impacts from assumed rate increases. Such methodology was determined to be a reasonable basis for the analysis set forth in the Feasibility Report, based on a review

of multiple years of historical water and wastewater sales and an understanding of current environmental, regulatory, and economic conditions.

5. The Water System has sufficient physical capacity to meet existing and projected demands throughout the Forecast Period.

6. The Sewer System has sufficient capacity for projected flows throughout the Forecast Period. Measures to reduce I&I levels may further extend the permitted capacity of the Lohmeyer WWTP and, thereby, delay the need for its expansion. During the past several years, as additional customers have connected to the Sewer System, flow increases have been offset by reductions in I&I and wastewater flow to the Lohmeyer WWTP has not increased proportionately with the increase in customers. Construction of a capacity upgrade at the Lohmeyer WWTP is not expected to be needed until sometime after calendar year 2025. However, overall capacity of the Lohmeyer WWTP will be limited by the facility's effluent disposal system, specifically the injection well capacity, which is expected to not meet emergency condition capacity requirements beginning in calendar year 2021. Reductions in I&I levels may postpone the need for an additional injection well due to capacity issues. The City is accelerating its efforts to reduce I&I in the Sewer System to delay the need for constructing a new deep injection well.

7. The City has sufficient water supply to meet the projected demands of the Water System through calendar year 2035. To meet future demands in excess of the withdrawal limits from the Biscayne Aquifer, the City anticipates utilizing Floridan Aquifer water at the planned Peele-Dixie WTP reverse osmosis water treatment facility. In addition, the City is studying the feasibility of several alternative water sources and offset projects, including additional Floridan Aquifer use, stormwater capture projects, reuse, and other alternative water supply projects. See "WATER AND SEWER SYSTEM - The Sewer System - Wastewater Treatment Facility" and "- Regulatory Impact" herein.

8. Except for the couple instances of significant volumes of wastewater flows being discharged due to force main breaks, the City is meeting the regulatory requirements for the Water and Sewer System and is planning for regulatory requirements that the City anticipates may be imposed on the Water and Sewer System in the future. The CIP includes improvements to address anticipated regulatory requirements and the financial plan presented in Feasibility Report incorporates plans for the funding of improvements that will, or are expected to, be required to satisfy anticipated regulatory requirements.

9. In 2014, there were minor surface water discharges from the Lohmeyer WWTP to the emergency surface water outfall of the Sewer System during peak flow conditions. Thereafter, the City rehabilitated its injection wells to restore their injection capacity to original permitted levels. The improvements restored the capability of the Sewer System to handle peak flows and avoid future surface water overflows.

10. Key staff of the Water and Sewer System are well-qualified, capable of managing current responsibilities of the Water and Sewer System and are planning for implementation of future improvements.

11. Under the assumptions described in the Feasibility Report, including annual rate increases pursuant to the rate indexing policy adopted in response to the 2011 Rate Study, Revenues will be sufficient to meet operating and other expenses, including debt service payments, bond debt service reserve requirements, and coverage requirements during the Forecast Period. Projected Revenues will also provide funds for planned capital improvement expenditures that are expected to be funded from current Revenues.

12. Current rates for services of the Water and Sewer System are among the lowest charged by municipalities in South Florida.

13. The projected Revenues and Current Expenses and the sources of funds projected to be available to fund scheduled or anticipated improvements throughout the Forecast Period are reasonable.

14. Improvements to be made to the Water and Sewer System have been or are expected to be designed in accordance with usual and customary engineering practices and involve proven technology and proven configurations of that technology. Proposed improvements will require the City to obtain permits for their construction. Such permits are expected to be obtained in the due course of business.

15. In the opinion of the Feasibility Consultants, issuance of the Series 2018 Bonds by the City in an aggregate principal amount not exceeding \$200 million for the purposes described in the Feasibility Report is an advisable undertaking.

LITIGATION

There is no litigation or administrative proceeding, other than as is disclosed in this Official Statement, of any nature, now pending or, to the best knowledge of the City, threatened against the City which, in the opinion of the City Attorney, will have any material adverse effect on the Revenues derived by the City from the Water and Sewer System. At the time of the delivery of the Series 2018 Bonds, the City will deliver a certificate to the effect that no litigation or other proceedings are pending or, to the best knowledge of the City, threatened against the City in any way (a) restraining or enjoining the issuance, sale or delivery of the Series 2018 Bonds or (b) questioning or affecting the validity of (i) the Series 2018 Bonds or any proceedings of the City taken with respect to the authorization, sale, execution or issuance of the Series 2018 Bonds or (ii) the pledge of any moneys or other security provided for the Series 2018 Bonds.

The City experiences routine litigation and claims incidental to the conduct of municipal affairs. In the opinion of the City, there are no lawsuits presently pending or, to the best of the City's knowledge, threatened, the adverse outcome of which would impair the City's ability to perform its obligations to the owners of the Series 2018 Bonds.

LEGAL MATTERS

Certain legal matters incident to the issuance of the Series 2018 Bonds, including their legality and enforceability and the exclusion of interest on the Series 2018 Bonds from gross income for federal income tax purposes, are subject to the legal opinion of Greenberg Traurig, P.A., Fort Lauderdale, Florida, Bond Counsel, whose legal services as Bond Counsel have been retained by the City. The signed legal opinion of Bond Counsel, substantially in the form attached hereto as APPENDIX E, dated and premised on law in effect as of the original delivery of the Series 2018 Bonds, will be delivered to the City and the Underwriters on the date of issuance of the Series 2018 Bonds.

The actual legal opinion to be delivered may vary from the form attached hereto to reflect facts and law on the date of delivery. The opinion will speak only as of its date, and subsequent distribution of the opinion by recirculation of this Official Statement or otherwise shall create no implication that Bond Counsel has reviewed or expresses any opinion concerning any of the matters referenced in the opinion subsequent to its date of issuance.

Certain legal matters incident to the issuance of the Series 2018 Bonds relating to disclosure will be passed on for the City by the Law Offices of Steve E. Bullock, P.A., Miramar, Florida, whose legal services as Disclosure Counsel have been retained by the City. The signed legal opinion, dated and premised on law in effect as of the date of original delivery of the Series 2018 Bonds, will be delivered to the City and the Underwriters on the date of issuance of the Series 2018 Bonds.

The proposed text of the legal opinion of Disclosure Counsel is set forth as APPENDIX F to this Official Statement. The actual legal opinion to be delivered may vary from the text attached hereto if necessary to reflect facts and law on the date of delivery. The opinion will speak only as of its date, and subsequent distribution of it by recirculation of this Official Statement or otherwise shall create no implication that Disclosure Counsel has reviewed or expresses any opinion concerning any of the matters referenced in the opinion subsequent to its date of issuance.

Certain legal matters will be passed on for the City by Cynthia A. Everett, Esquire, Fort Lauderdale, Florida, City Attorney.

The legal opinions and other letters of counsel to be delivered concurrently with the delivery of the Series 2018 Bonds express the professional judgment of the attorneys rendering the opinions or advice regarding the legal issues and other matters expressly addressed therein. By rendering a legal opinion or advice, the giver of such opinion or advice does not become an insurer or guarantor of the result indicated by that opinion, or the transaction on which the opinion or advice is rendered, or of the future performance of parties to the transaction. Nor does the rendering of an opinion guarantee the outcome of any legal dispute that may arise out of the transaction.

ENFORCEABILITY OF REMEDIES

The remedies available to the owners of the Series 2018 Bonds upon an event of default under the Resolution are in many respects dependent upon judicial actions which are often subject to discretion and delay. Under existing constitutional and statutory law and judicial decisions, the remedies specified by the Resolution and the Series 2018 Bonds may not be readily available or may be limited. The various legal opinions to be delivered concurrently with the delivery of the Series 2018 Bonds will be qualified, as to the enforceability of the various legal instruments, by limitations imposed by bankruptcy, reorganization, insolvency or other similar laws affecting the rights of creditors enacted before or after such delivery and to general principles of equity (whether sought in a court of law or equity).

TAX MATTERS

General Matters

The Internal Revenue Code of 1986, as amended (the "Code"), includes requirements which the City must continue to meet after the issuance of the Series 2018 Bonds in order that the interest on the Series 2018 Bonds be and remain excludable from gross income for federal income tax purposes. The City's failure to meet these requirements may cause the interest on the Series 2018 Bonds to be included in gross income for federal income tax purposes retroactive to the date of issuance of the Series 2018 Bonds. The City has covenanted to take the actions required by the Code in order to maintain the exclusion from gross income for federal income tax purposes of interest on the Series 2018 Bonds.

In the opinion of Bond Counsel, under existing statutes, regulations, rulings and court decisions and assuming the accuracy of certain representations and continuing compliance with the covenants described in the preceding paragraph, interest on the Series 2018 Bonds is excludable from gross income of the

owners thereof for federal income tax purposes. Interest on the Series 2018 Bonds is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals. Federal legislation enacted in 2017 eliminates alternative minimum tax for corporations for taxable years beginning after December 31, 2017. For taxable years beginning before January 1, 2018, corporations should consult their tax advisor regarding the alternative minimum tax implications of owning the Series 2018 Bonds. Bond Counsel is also of the opinion that the Series 2018 Bonds and the income thereon are not subject to taxation under the laws of the State of Florida, except as to estate taxes and taxes under Chapter 220, Florida Statutes, on interest, income or profits on debt obligations owned by corporations as defined in Chapter 220, Florida Statutes. Bond Counsel will express no opinion as to any other tax consequences regarding the Series 2018 Bonds. Prospective purchasers of the Series 2018 Bonds should consult their own tax advisors as to the status of interest on the Series 2018 Bonds under the tax laws of any state other than the State of Florida.

Bond Counsel's opinions are based on existing law, which is subject to change. Such opinions are further based on factual representations made to Bond Counsel as of the date thereof. Bond Counsel assumes no duty to update or supplement its opinions to reflect any facts or circumstances that may thereafter come to Bond Counsel's attention, or to reflect any changes in law that may thereafter occur or become effective. Moreover, Bond Counsel's opinions are not a guarantee of a particular result, and are not binding on the Internal Revenue Service or the courts. Rather, such opinions represent Bond Counsel's professional judgment based on its review of existing law, and in reliance on the representations and covenants that it deems relevant to such opinion.

Except as described above under this heading "TAX MATTERS," Bond Counsel will express no opinion regarding the federal income tax consequences resulting from the receipt or accrual of the interest on the Series 2018 Bonds, or the ownership or disposition of the Series 2018 Bonds. Prospective purchasers of Series 2018 Bonds should be aware that the ownership of Series 2018 Bonds may result in other collateral federal tax consequences, including (a) the denial of a deduction for interest on indebtedness incurred or continued to purchase or carry the Series 2018 Bonds, (b) the reduction of the loss reserve deduction for property and casualty insurance companies by the applicable statutory percentage of certain items, including the interest on the Series 2018 Bonds, (c) the inclusion of the interest on the Series 2018 Bonds in the earnings of certain foreign corporations doing business in the United States of America for purposes of a branch profits tax, (d) the inclusion of the interest on the Series 2018 Bonds in the passive income subject to federal income taxation of certain Subchapter S corporations with Subchapter C earnings and profits at the close of the taxable year, and (e) the inclusion of interest on the Series 2018 Bonds in the determination of the taxability of certain Social Security and Railroad Retirement benefits to certain recipients of such benefits. The nature and extent of the other tax consequences described above will depend on the particular tax status and situation of each owner of the Series 2018 Bonds. Prospective purchasers of the Series 2018 Bonds should consult their own tax advisors as to the impact of these other tax consequences.

Original Issue Discount and Premium

The Series 2018 Bonds maturing on September 1, 2048 (the "Discount Bonds") were offered and sold to the public at an original issue discount ("OID"). OID is the excess of the stated redemption price at maturity (the principal amount) over the "issue price" of a Discount Bond determined under Code Section 1273 or 1274 (i.e., for obligations issued for money in a public offering, the initial offering price to the public (other than to bond houses and brokers) at which a substantial amount of the obligation of the same maturity is sold pursuant to that offering). For federal income tax purposes, OID accrues to the owner of a Discount Bond over the period to maturity based on the constant yield method, compounded semiannually (or over a shorter permitted compounding interval selected by the owner). The portion of OID that accrues

during the period of ownership of a Discount Bond (i) is interest excludable from the owner's gross income for federal income tax purposes to the same extent, and subject to the same considerations discussed above, as other interest on the Series 2018 Bonds, and (ii) is added to the owner's tax basis for purposes of determining gain or loss on the maturity, redemption, prior sale or other disposition of that Discount Bond.

The Series 2018 Bonds maturing on March 1 and September 1 in the years 2037 to and including 2038 and on September 1, 2040, 2041 and 2043 and on March 1, 2047 (collectively, the "Premium Bonds") were offered and sold to the public at prices in excess of their stated principal amount. That excess constitutes bond premium. For federal income tax purposes, bond premium on a Premium Bond callable prior to its stated maturity is amortized over the period that minimizes the yield to the owner, compounded semiannually (or over a shorter permitted compounding interval selected by the owner). No portion of that bond premium is deductible by the owner of a Premium Bond. For purposes of determining the owner's gain or loss on the sale, redemption (including redemption at maturity) or other disposition of a Premium Bond, the owner's tax basis in the Premium Bond is reduced by the amount of bond premium that accrues during the period of ownership. As a result, an owner may realize taxable gain for federal income tax purposes from the sale or other disposition of a Premium Bond for an amount equal to or less than the amount paid by the owner for that Premium Bond.

Information Reporting and Backup Withholding

Interest paid on tax-exempt obligations such as the Series 2018 Bonds is subject to information reporting to the Internal Revenue Service in a manner similar to interest paid on taxable obligations. This reporting requirement does not affect the excludability of interest on the Series 2018 Bonds from gross income for federal income tax purposes. However, in connection with that information reporting requirement, the Code subjects certain noncorporate owners of Series 2018 Bonds, under certain circumstances, to "backup withholding" at the rates set forth in the Code, with respect to payments on the Series 2018 Bonds and proceeds from the sale of Series 2018 Bonds. Any amount so withheld would be refunded or allowed as a credit against the federal income tax of such owner of Series 2018 Bonds. This withholding generally applies if the owner of Series 2018 Bonds (a) fails to furnish the payor such owner's social security number or other taxpayer identification number, (b) furnishes the payor an incorrect taxpayer identification number, (c) fails to properly report interest, dividends or other "reportable payments" as defined in the Code or, (d) under certain circumstances, fails to provide the payor or such owner's securities broker with a certified statement, signed under penalty of perjury, that the taxpayer identification number provided is correct and that such owner is not subject to backup withholding. Prospective purchasers of the Series 2018 Bonds may also wish to consult with their tax advisors with respect to the need to furnish certain taxpayer information in order to avoid backup withholding.

Changes in Federal and State Tax Law

From time to time, there are legislative proposals in the Congress and in the states that, if enacted, could alter or amend the federal and state tax matters referred to under this heading "TAX MATTERS" or adversely affect the market value of the Series 2018 Bonds. It cannot be predicted whether or in what form any such proposal might be enacted or whether if enacted it would apply to bonds issued prior to enactment. In addition, regulatory actions are from time to time announced or proposed and litigation is threatened or commenced which, if implemented or concluded in a particular manner, could adversely affect the market value of the Series 2018 Bonds. It cannot be predicted whether any such regulatory action will be implemented, how any particular litigation or judicial action will be resolved, or whether the Series 2018 Bonds or the market value thereof would be impacted thereby. Purchasers of the Series 2018 Bonds should consult their tax advisors regarding any pending or proposed legislation, regulatory initiatives or litigation. The opinions expressed by Bond Counsel are based on existing legislation and regulations as interpreted

by relevant judicial and regulatory authorities as of the date of issuance and delivery of the Series 2018 Bonds, and Bond Counsel has expressed no opinion as of any date subsequent thereto or with respect to any pending legislation, regulatory initiatives or litigation.

PROSPECTIVE PURCHASERS OF THE SERIES 2018 BONDS ARE ADVISED TO CONSULT THEIR OWN TAX ADVISORS PRIOR TO ANY PURCHASE OF THE SERIES 2018 BONDS AS TO THE IMPACT OF THE CODE UPON THEIR ACQUISITION, HOLDING OR DISPOSITION OF THE SERIES 2018 BONDS.

CONTINUING DISCLOSURE

For the benefit of the holders and beneficial owners from time to time of the Series 2018 Bonds, the City will covenant, in accordance with and as the only obligated person with respect to the Series 2018 Bonds under Rule 15c2-12 of the Securities and Exchange Commission (the “Rule”), to provide or cause to be provided certain financial information and operating data relating to the City and the Net Revenues, not later than 243 days following the end of each Fiscal Year (the “Annual Report”), and notices of material events, in such manner as may be required for purposes of paragraph (b)(5) of the Rule. The Annual Report and notices of material events will be electronically filed by the City with the Municipal Securities Rulemaking Board at <http://emma.msrb.org/>. The specific nature of the information to be contained in the Annual Report and the notices of material events are contained in “APPENDIX G - Form of Continuing Disclosure Commitment.” The covenants of the Continuing Disclosure Commitment have been made in order to assist the Underwriters in complying with clause (b)(5) of the Rule.

Within the last five (5) years the City has complied in all material respects with its previous undertakings made with respect to the Rule and is currently in compliance in all material respects with such undertakings. Any failure to comply with the provisions of the Continuing Disclosure Commitment shall not constitute a default under the Resolution and any failure of the City to comply with its previous continuing disclosure undertakings are not defaults under the authorizing resolutions or continuing disclosure commitments pursuant to which prior continuing disclosure undertakings were created.

In order to provide certain continuing disclosure with respect to the Series 2018 Bonds in accordance with the Rule, the City will retain the services of Digital Assurance Certification, L.L.C. (“DAC”) to serve as Dissemination Agent pursuant to the City’s Continuing Disclosure Commitment. The obligation of DAC to deliver information at the times and with the contents described in the Continuing Disclosure Commitment is limited by, and in all respects subject to, the receipt by DAC of such information from the City in the time periods required for its delivery. The specific obligations and responsibilities of DAC with respect to the continuing disclosure requirements of the Rule and its duties and limitations of liability as Dissemination Agent under the Continuing Disclosure Commitment are described in “APPENDIX G - Form of Continuing Disclosure Commitment.”

PENSION PLANS

Defined Benefit Plans

General Employees Retirement System. The General Employees Retirement System (the “GERS”) is a single-employer defined benefit plan administered by an eight (8) member board of trustees (the “GERS Board of Trustees”). The GERS covers all City employees, except police and firefighters. Through collective bargaining with the general, supervisory and professional City employees, a new single-employer defined contribution pension plan was established for Teamster Union employees hired on or after October

1, 2007, supervisory union employees hired on or after November 7, 2007, and all other non-union employees hired on or after February 20, 2008. The GERS was then closed to new entrants.

Under Ordinance No. C-11-34 adopted by the City Commission on December 6, 2011, a Bonus Incentive Program was offered to members of the GERS eligible for either early or normal retirement as of December 1, 2011. Eligible members were granted thirty (30) additional months of service for both benefit and eligibility purposes if, during the election period from December 7, 2011 through February 1, 2012, they elected to retire between December 14, 2011 and March 16, 2012. There were 134 members who elected to retire under the Bonus Incentive Program for GERS members. The impact of the Bonus Incentive Program reflects the replacement of twenty percent (20%) of the members who retired under the program with promotions of the highest-paid remaining active members. The salaries of expected promoted members were increased by five percent (5%).

The City's payroll for employees covered by the GERS after the plan change applicable to the September 30, 2016 actuarial valuation (which is the most recent actuarial valuation for the GERS) was \$49,898,957. The total City payroll at that time was approximately 183,425,408. As of the valuation date, employee membership data related to the GERS was as follows:

GERS Employee Membership

Retirees and beneficiaries currently receiving benefits	1,369
Terminated employees entitled to benefits but not yet receiving them	104
Fully, partially and non-vested active plan participants	771
Participants in DROP (as hereinafter defined)	17

Source: City of Fort Lauderdale, Florida General Employees Retirement System Actuarial Report
as of September 30, 2016, Gabriel Roeder Smith & Company, March 1, 2017.

Under the vesting provisions of the GERS, employees are entitled to one hundred percent (100%) of normal retirement benefits after five (5) years of service. Employees who are terminated prior to vesting are entitled to a refund of employee contributions, plus interest at three percent (3%) per year. Employees are eligible to retire after thirty (30) years of service, regardless of age, or at age fifty-five (55), with five (5) years of service. Members who continue in employment past normal retirement may either accrue larger pensions or freeze their accrued benefit and enter the Deferred Retirement Option Plan (the "DROP"). Each participant of the GERS in the DROP has an account credited with benefits not received, plus interest. Participation in the DROP must end no later than thirty-six (36) months after normal retirement. Certain employees hired on or after October 1, 1983 electing reduced benefits are entitled to one hundred (100%) of normal retirement benefits after ten (10) years of service, beginning at age sixty-five (65).

Employees contribute from four to six percent (4% to 6%) of their earnings to the plan. The City is required to contribute the remaining amounts necessary to fund the plan, based on an amount determined by the plan's actuaries as of September 30 each year. For Fiscal Year 2016, the City's contribution rate, as a percentage of annual covered payroll, was 27.00%. Based on the City's most recent actuarial report for the GERS prepared by Gabriel Roeder Smith & Company, dated March 1, 2017 (the "GERS Actuarial Report"), the required City contribution for the Fiscal Year ended September 30, 2017, as a percentage of

annual covered payroll, will be 28.78%, an increase of 1.78% compared to 27.00% for the Fiscal Year ended September 30, 2016. The GERS Actuarial Report provided that the City's dollar contribution would be \$14,650,881 for Fiscal Year 2017, compared to \$14,393,012 for Fiscal Year 2016.

The investment return assumption for the GERS is 7.50%. The GERS investment return assumption was lowered from 7.65% to 7.55% for the Fiscal Year ended September 30, 2014 valuation and was further lowered to 7.50% for the Fiscal Year ended September 30, 2015 valuation. The assumption rate has not been changed since the valuation for Fiscal Year 2015. In addition, for the Fiscal Year ended September 30, 2016 valuation, the inflation rate for the GERS was lowered from 3.25% to 3.00%. Actual inflation for the five year historical period ended September 30, 2016 averaged 1.30%.

Beginning in Fiscal Year 2013, the GERS Board of Trustees lowered the base of the amortization period for new unfunded actuarial accrued liability for the GERS from 29 years to 28 years. Such base is to be lowered by one (1) year in each year following Fiscal Year 2013.

Annual Pension Cost and Net Pension Liability. Annual pension cost is a measure of the periodic cost of an employer's participation in a defined benefit pension plan. The annual pension cost for the GERS for the last three (3) Fiscal Years for which actuarial reports have been provided are as follows:

City of Fort Lauderdale, Florida
GERS Annual Pension Fund Costs

<u>Fiscal Year Ended September 30</u>	<u>Actuarially Determined Contribution</u>	<u>Amount Contributed</u>	<u>Percent Contributed</u>	<u>Covered Payroll</u>	<u>Actual Contribution as a Percent of Covered Payroll</u>
2014	\$15,061,353	\$15,061,353	100%	\$59,303,500	25.40%
2015	15,501,180	15,501,180	100	57,804,651	26.82
2016	14,393,012	14,393,012	100	53,303,766	27.00
2017*	14,650,881	14,650,881	100	50,904,658	28.78

Source: City of Fort Lauderdale, Florida General Employees Retirement System Actuarial Report as of September 30, 2016, Gabriel Roeder Smith & Company, March 1, 2017.

* Estimated.

The City's net pension liability and related ratios for the GERS for the Fiscal Years ended September 30, 2014 through 2016, and estimated for the Fiscal Year ended September 30, 2017 are as follows:

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City of Fort Lauderdale, Florida
GERS Net Pension Liability

	Fiscal Year Ended September 30			
	<u>2017*</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total Pension Liability				
Service Cost	\$ 9,607,674	\$ 9,940,115	\$ 9,917,828	\$ 10,774,138
Interest	46,353,311	45,329,190	44,655,792	43,346,733
Changes of Benefit Terms	—	—	—	—
Differences between Actual and Expected Experience	(1,676,484)	(657,609)	(6,253,927)	—
Assumption Changes	14,797,406	3,054,924	5,940,974	—
Benefit Payments	(41,181,824)	(38,030,549)	(36,967,771)	(36,087,008)
Refunds of Employee Contributions	<u>(2,332)</u>	<u>(138,606)</u>	<u>(127,423)</u>	<u>(153,598)</u>
Net Change in Total Pension Liability	27,897,751	19,497,465	17,165,473	17,880,265
Total Pension Liability (Beginning of Year)	<u>629,028,556</u>	<u>609,531,091</u>	<u>592,365,618</u>	<u>574,485,353</u>
Total Pension Liability (End of Year) (a)	<u><u>\$656,926,307</u></u>	<u><u>\$629,028,556</u></u>	<u><u>\$609,531,091</u></u>	<u><u>\$592,365,618</u></u>
Plan Fiduciary Net Position				
Contributions - Employer	\$ 14,650,881	\$ 14,393,012	\$ 15,501,180	\$ 15,061,353
Contributions - Employees	3,043,709	3,152,504	3,200,689	3,264,583
Net Investment Income	43,694,144	56,764,958	(22,561,456)	59,588,725
Benefit Payments	(41,181,824)	(38,030,549)	(36,967,771)	(36,087,008)
Refunds of Employee Contributions	(2,332)	(138,606)	(127,423)	(153,598)
Administrative Expense	<u>(551,683)</u>	<u>(551,683)</u>	<u>(398,274)</u>	<u>(469,862)</u>
Net Change in Plan Fiduciary Net Position	19,652,895	35,589,636	(41,353,055)	41,204,193
Plan Fiduciary Net Position (Beginning of Year)	<u>587,283,771</u>	<u>551,694,135</u>	<u>593,047,190</u>	<u>551,842,997</u>
Plan Fiduciary Net Position (End of Year) (b)	<u><u>\$606,936,666</u></u>	<u><u>\$587,283,771</u></u>	<u><u>\$551,694,135</u></u>	<u><u>\$593,047,190</u></u>
City's Net Pension Liability (End of Year) (a) - (b)	\$ 49,989,641	\$ 41,744,785	\$ 57,836,956	\$ (681,572)
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	92.39%	93.36%	90.51%	100.12%
Covered Employee Payroll	\$ 50,904,658	\$ 53,303,766	\$ 57,804,651	\$ 59,303,500
City's Net Position Liability as a Percentage of Covered-Employee Payroll	98.20%	78.31%	100.06%	-1.15%

Source: City of Fort Lauderdale, Florida General Employees Retirement System Actuarial Report as of September 30, 2016, Gabriel Roeder Smith & Company, March 1, 2017.

* Estimated.

Police and Firefighters Retirement System. In addition to the GERS, the City provides pension coverage for all of its police and firefighters through the Police and Firefighters Retirement System (the “PFRS”). The PFRS is a single-employer defined benefit plan administered by an eight (8) member board of trustees. All City employees providing service for the Water and Sewer System receive pension coverage under the GERS.

Additional Information. For detailed information relating to the actuarial methods and assumptions used to determine annual required contributions for the GERS, or for detailed information relating to the PFRS, see “APPENDIX C - Excerpts from Comprehensive Annual Financial Report of the City of Fort Lauderdale, Florida for the Fiscal Year ended September 30, 2016” and, in particular, Note 14 of the Notes to the Financial Statements.

The GERS issues a publicly available financial report that includes financial statements and required supplementary information. That report may be obtained online at www.citypension.com or by writing the Board of Trustees for the GERS at the following address:

Board of Trustees of the City of Fort Lauderdale
General Employees’ Retirement System
316 NE Fourth Street, Suite 2
Fort Lauderdale, Florida 33301

The PFRS also issues a publicly available financial report that includes financial statements and required supplementary information. That report may be obtained online at www.ftlaudpfpension.com or by writing the Board of Trustees for the PFRS at the following address:

Board of Trustees of the City of Fort Lauderdale
Police and Firefighters’ Retirement System
888 South Andrews Avenue, Suite 202
Fort Lauderdale, Florida 33316

Defined Contribution Plans

General Employees Defined Contribution Plan. The General Employees Defined Contribution Plan is a single-employer defined contribution plan administered for the City by ICMA Retirement Corporation (“ICMA-RC”). The plan covers all City employees hired on or after October 1, 2007, except police and firefighters. The City’s Fiscal Year 2016 payroll for employees covered by the plan was approximately \$29,875,932. The total City payroll for Fiscal Year 2016 was approximately \$183,425,408.

The City contribution requirement of nine percent (9%) on earnings of participants in the General Employees Defined Contribution Plan was paid on a biweekly basis and amounted to \$2,691,268 for Fiscal Year 2016. Employee contributions are neither required nor permitted under the plan. Employees become fully vested in the plan upon entry.

General Employees Special Class Plan. The General Employees Special Class Plan is a single-employer defined contribution plan administered for the City by ICMA-RC. The plan is available to City employees, except police and firefighters, as an alternative to participation in the GERS. The City’s Fiscal Year 2016 payroll for employees covered by the plan was approximately \$49,096. The total City payroll for Fiscal Year 2015 was approximately \$183,425,408.

The City contribution requirement of 29.59% on earnings of participants in the General Employees Special Class Plan was paid on a biweekly basis and amounted to \$14,528 for Fiscal Year 2016. Employee contributions are neither required nor permitted under the plan. Employees become fully vested in the plan upon entry. The plan is no longer available to new entrants.

Non-classified Employees Retirement Plan. The Non-classified Employees Retirement Plan is a single-employer defined contribution plan administered for the City by ICMA-RC. The plan covers certain non-classified City employees who have elected not to participate in the GERS. The City's Fiscal Year 2016 payroll for employees covered by the plan was approximately \$2,305,705. The total City payroll for Fiscal Year 2015 was approximately \$183,425,408.

The City contribution requirement of 19.39% on earnings of participants in the Non-classified Employees Retirement Plan was paid on a biweekly basis and amounted to \$446,483 for Fiscal Year 2016. Employee contributions are neither required nor permitted under the plan. Employees become fully vested in the plan upon entry. Effective October 1, 2012, the plan was closed to new entrants.

The benefit provisions and all other requirements of the City's defined contribution plans are established by ordinance enacted by the City Commission.

GASB STATEMENT NO. 45

The Government Accounting Standards Board ("GASB"), which establishes financial reporting and accounting requirements for governmental entities, issued its Statement No. 45 in June 2004 ("GASB 45"). GASB 45 details the financial reporting guidelines that require state and local governmental entities to report their unfunded actuarial accrued liabilities for health care and other non-pension post-employment benefits (collectively referred to as "OPEB") as well as their annual OPEB costs. Historically, governmental entities generally accounted for OPEB on a pay-as-you-go basis, reporting only the cost of OPEB due in the current fiscal year. As a result of GASB 45, governmental entities are required to utilize an actuarial method of accounting that takes into account unfunded liabilities related to OPEB. In order to receive an unmodified opinion in its annual audit, governmental entities have to comply with the requirements of GASB 45.

The City provides a single employer defined benefit post-employment health insurance benefit for its general employees, sworn police officers and certified firefighters. Employees entitled to the benefit are paid from \$100 to \$400 per month upon normal retirement for the purchase of health insurance. The benefit continues until age sixty-five (65). In addition, retiring general employees and certified firefighters are eligible to continue their participation in one of the City's health and/or dental insurance plans at the same premium applicable to active employees. Since retiree claims are expected to result in higher costs to the plans, on average, than those for active employees on an actuarial basis, there is an implicit subsidy included in the premiums for the retirees. As of September 30, 2016, there were 799 retired employees receiving a monthly benefit, with an additional 2,046 employees eligible for participation in the future. Payments made totaled \$3,902,000 for the year. Retiree implicit subsidies amounted to \$257,854 of that total.

The City established an OPEB Trust Fund on September 16, 2014 for the purpose of receiving and investing contributions made by the City to reduce the unfunded portion of the City's actuarially determined OPEB annual required contribution. The OPEB Trust Fund covers former City employees who are eligible for certain post employment benefits. The fund is administered by the City, with the City Commission serving as the Board of Trustees and a Trust Administrator responsible for daily administration. As of September 30, 2016, \$12,806,790 was invested in the OPEB Trust Fund.

Annual OPEB costs is a measure of the periodic cost of an employer's participation in a defined benefit OPEB plan. Set forth below is a description of the City's annual OPEB costs and net OPEB obligation for the Fiscal Year ended September 30, 2016:

City of Fort Lauderdale, Florida
OPEB Annual Costs and
Net Obligation for Fiscal Year 2016

Annual Required Contribution	\$ 6,572,000
Interest on Net OPEB Obligation	554,000
Amortization of Net OPEB Obligation	<u>(499,000)</u>
Annual OPEB Cost	6,627,000
Actual Contributions Made	<u>(3,581,000)</u>
Increase in Net OPEB Obligation	3,046,000
Beginning of Year Net OPEB Obligation	<u>7,916,200</u>
End of Year Net OPEB Obligation	<u><u>\$10,962,200</u></u>

Source: City of Fort Lauderdale, Florida Comprehensive Annual Financial Report for Fiscal Year Ended September 30, 2016.

Set forth below is a description of the City's annual OPEB costs for the last three (3) Fiscal Years and the amount contributed annually by the City towards such costs.

City of Fort Lauderdale, Florida
OPEB Annual Costs and Contributions

<u>Fiscal Year</u> <u>Ended</u> <u>September 30</u>	<u>Annual</u> <u>OPEB Cost</u>	<u>Contribution</u>	<u>Percent</u> <u>Contributed</u>	<u>Net OPEB</u> <u>Obligation</u>
2014	\$5,276,000	\$11,158,466	211.5%	\$ 8,847,021
2015	4,962,000	5,892,821	118.8	7,916,200
2016	6,627,000	3,581,000	54.0	10,962,200

Source: City of Fort Lauderdale, Florida Comprehensive Annual Financial Report for Fiscal Year Ended September 30, 2016.

As of the October 1, 2015 valuation date, the City's OPEB obligation was 20.8% funded, actuarial accrued liability for benefits was \$56,706,000 and the actuarial value of assets was \$11,806,000, resulting in an unfunded actuarial accrued liability of \$44,900,000. The payroll for active participating employees for that period was approximately \$147,574,000 and the unfunded actuarial accrued liability as a percentage of payroll was 30.0%.

Historically, the City has been able to satisfy its annual OPEB obligation and currently expects that it will continue to have funds available to satisfy such obligation in the foreseeable future. Also, the City's practice historically has been to provide approximately \$1,000,000 each year toward the unfunded liability portion of its actuarially determined OPEB annual required contribution. Such practice provides for an annual increase in the OPEB annual required contribution. For more detailed information concerning the City's OPEB, including the actuarial valuations and assumptions about future events relating to OPEB, see "APPENDIX C - Excerpts from Comprehensive Annual Financial Report of the City of Fort Lauderdale, Florida for the Fiscal Year ended September 30, 2016" and, in particular, the subsection entitled "Actuarial Methods and Assumptions" in Note 15 of the Notes to the Financial Statements.

In 2012, the City Commission enacted an Ordinance which, among other things, established that certain employees hired on or after October 1, 2012 are not entitled to receive any retiree health insurance benefits. Such Ordinance reduced the actuarial assumptions for future employees of the City and the benefits to which such employees are entitled. The Ordinance is intended to have a significant, positive impact on the reduction of the City's OPEB unfunded liability.

FINANCIAL STATEMENTS

The basic financial statements of the City for the Fiscal Year ended September 30, 2016 and the report of Crowe Horwath LLP, independent certified public accountants, in connection therewith, dated April 13, 2017, are included in Appendix C as part of the public records of the City. The consent of Crowe Horwath LLP was not requested for the reproduction of its audit report in this Official Statement. The auditor has not performed any services in connection with the preparation of this Official Statement and is not associated with the offering of the Series 2018 Bonds.

RATINGS

Moody's Investors Service, Inc. ("Moody's") and S&P Global Ratings, a division of Standard & Poor's Financial Services LLC ("S&P") have assigned ratings of "Aa1" and "AA+," each with a "stable outlook," to the Series 2018 Bonds. The ratings and outlook assigned by the rating agencies reflect the view of such organizations. An explanation of the significance of such ratings and outlook may be obtained only from Moody's and S&P, respectively. An explanation of the rating and outlook assigned by Moody's may be obtained from Moody's at 7 World Trade Center, 250 Greenwich Street, 23rd Floor, New York, New York 10007, (212) 553-0300. An explanation of the rating and outlook assigned by S&P may be obtained from S&P at 55 Water Street, 38th Floor, New York, New York 10041, (212) 438-2124.

Generally, a rating agency bases its rating and outlook on the information and materials furnished to it and on investigations, studies and assumptions of its own. A securities rating and outlook is not a recommendation to buy, sell or hold securities. There is no assurance that the rating and outlook provided by Moody's and S&P, respectively, will continue for any given period of time or that they will not be revised downward or withdrawn entirely by such rating agencies if, in their judgment, circumstances so warrant. Any downward revision or withdrawal of any such ratings or outlooks may have an adverse effect on the market price of the Series 2018 Bonds.

FINANCIAL ADVISOR

Hilltop Securities Inc., Orlando, Florida, is serving as financial advisor to the City with respect to the sale of the Series 2018 Bonds. The financial advisor assisted in the preparation of this Official Statement and in other matters relating to the planning, structuring and issuance of the Series 2018 Bonds and provided other advice. The Financial Advisor is not obligated to undertake and has not undertaken to

make an independent verification of or to assume responsibility for the accuracy, completeness or fairness of the information contained in this Official Statement.

UNDERWRITING

The Series 2018 Bonds are being purchased by Citigroup Global Markets Inc., as the representative of the syndicate purchasing the Series 2018 Bonds (collectively, the “Underwriters”), in accordance with and subject to the terms and conditions set forth in the Official Notice of Bond Sale, including the approval of certain legal matters by Bond Counsel, delivery of a certificate from the City regarding information set forth in this Official Statement, and the existence of no material adverse change in the condition of the City from that set forth in this Official Statement.

The net aggregate purchase price payable by the Underwriters for the Series 2018 Bonds is \$200,818,910.85 (equal to the principal amount of the Series 2018 Bonds, plus a net original issue premium of \$6,003,248.55, minus an Underwriters’ discount of \$1,219,337.70). The Series 2018 Bonds are offered for sale to the public at the prices or yields set forth on the inside cover page of this Official Statement. The Series 2018 Bonds may be offered and sold to certain dealers at prices lower than or yields higher than such offering prices or yields, and such public offering prices and yields may be changed, from time to time, by the Underwriters.

CONTINGENT FEES

The City has retained Bond Counsel, Disclosure Counsel and the Financial Advisor with respect to the authorization, sale, execution and delivery of the Series 2018 Bonds. Payment of the fees of such professionals and an underwriting discount to the Underwriters are each contingent upon the issuance of the Series 2018 Bonds.

DISCLOSURE REQUIRED BY FLORIDA BLUE SKY REGULATIONS

Section 517.051, Florida Statutes, and Rule 3E400.003, Florida Administrative Code, requires the City to disclose each and every default as to payment of principal and interest after December 31, 1975 with respect to obligations issued or guaranteed by the City. Rule 3E400.003 further provides, however, that if the City in good faith believes that such disclosure would not be considered material by reasonable investors, such disclosure may be omitted. Certain obligations issued by the City in which the City has acted merely as a conduit for payment do not constitute an actual debt, liability or obligation of the City, but are instead secured by payments to be made from certain users of bond financed property. Because such other obligations are not dependent upon the City for repayment, they do not affect or reflect the strength of the City. Accordingly, any prior default with respect to such obligations issued by the City would not in the City’s judgment be considered material by reasonable investors in the Series 2018 Bonds. Accordingly, the City has not taken affirmative steps to contact the various trustees of conduit bond issues of the City to determine the existence of prior defaults.

Although no affirmative steps have been taken to determine if any defaults occurred with conduit issues of the City, the City has been provided notice of the occurrence of a default with respect to one of its prior conduit issues. The City’s \$3,675,000 Industrial Development Revenue Bonds, Series 1982 (Days Inn of America, Inc. Project) (the “Days Inn Bonds”) went into default as to the payment of principal and interest on September 15, 1991. On November 3, 1997, First Union National Bank, as Indenture Trustee for the Days Inn Bonds, issued a “Notice of Final Distribution” as to the Days Inn Bonds. The Days Inn Bonds were special, limited obligations of the City payable solely from the revenues and other amounts derived by the City from the loan agreement with the borrower of the proceeds of the Days Inn Bonds or

otherwise from the project in respect of which the Days Inn Bonds were issued. Neither the faith and credit nor the taxing power of the City was pledged to the payment of the Days Inn Bonds. There was no lien upon any property owned by or situated within the jurisdictional limits of the City, except the project in respect of which the Days Inn Bonds were issued. For the foregoing reasons, the City has concluded that all disclosures required by the aforementioned Rule pertaining to the Days Inn Bonds are not deemed material to a reasonable investor.

Except as described in the preceding paragraph, to the best knowledge of the Director of Finance of the City, the City has not received actual notice of a default in the payment of principal or interest after December 31, 1975 with respect to any obligations issued or guaranteed by the City.

AUTHORIZATION OF OFFICIAL STATEMENT

The delivery of this Official Statement has been duly authorized by the City Commission. At the time of the delivery of the Series 2018 Bonds, the Mayor and City Manager of the City will furnish a certificate to the effect that nothing has come to their attention which would lead them to believe that this Official Statement (excluding information under the captions “DESCRIPTION OF THE SERIES 2018 BONDS – Book-Entry Only System” and “UNDERWRITING”), as of its date and as of the date of delivery of the Series 2018 Bonds, contains an untrue statement of a material fact or omits to state a material fact which should be included therein for the purpose for which this Official Statement is intended to be used, or which is necessary to make the statements contained herein, in the light of the circumstances under which they were made, not misleading.

A limited number of copies of the final Official Statement will be provided, at the City’s expense, on a timely basis.

CONCLUDING STATEMENT

All information included herein has been provided by the City, except where attributed to other sources. The summaries of and references to all documents, statutes, reports, and other instruments referred to herein do not purport to be complete, comprehensive or definitive, and each such reference or summary is qualified in its entirety by reference to each such document, statute, report or other instrument. The information herein has been compiled from official and other sources and, while not guaranteed by the City, is believed to be correct. To the extent that any statements made in this Official Statement and the appendices attached hereto involve matters of opinion or of estimates, whether or not expressly stated, they are set forth as such and not as representations of fact, and no representation is made that any of the estimates will be realized.

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This Official Statement has been duly executed and delivered by the Mayor, the City Manager and the Chief Financial Officer of the City of Fort Lauderdale, Florida.

CITY OF FORT LAUDERDALE, FLORIDA

/s/ John P. Seiler
Mayor

/s/ Lee R. Feldman
City Manager

/s/ Linda A. Logan-Short
Chief Financial Officer

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APPENDIX A

General Information Regarding the City of

Fort Lauderdale, Florida and Broward County, Florida

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GENERAL INFORMATION

Introduction

Founded in 1911, the City of Fort Lauderdale (the “City”) is located in the heart of a robust, diversified growth region on the southeast coast of Florida midway between Miami and West Palm Beach. The City encompasses approximately 36 square miles with a population of approximately 179,063, as of April 1, 2017. Fort Lauderdale ranks as the eighth largest city in Florida and the largest municipality in Broward County, a metropolitan area that includes 31 cities and more than 1.8 million people.

Embraced by the Atlantic Ocean, New River and a myriad of scenic inland waterways, Fort Lauderdale truly lives up to its designation as the *Venice of America*. With an average temperature of 77 degrees, nearly seven miles of beautiful beaches and 3,000 hours of sunshine per year, Fort Lauderdale attracts millions of visitors each year for business, recreation and relaxation.

The City offers an array of cultural, recreational and entertainment amenities, combined with an exceptional economic climate and an outstanding quality of life. Fort Lauderdale features a thriving uptown and downtown business district; a revitalized beachfront; picturesque Riverwalk; vibrant arts, science and historic district; and an array of upscale shopping, dining and entertainment venues.

All of these assets combine to make Fort Lauderdale a year round, world-class family resort and business center.

Vision

The City is committed to improving productivity, streamlining expenses and developing a stronger, more effective organization. The City has embraced a vision that is based on fiscal responsibility, accountability, high ethical standards and quality delivery of services. It is a vision that rewards excellence, not mediocrity, and, above all, places the people of Fort Lauderdale first.

As the City moves forward, it will continue to work in partnership with its most important asset - its citizens - to develop the strategies necessary to ensure a safe and secure community, provide quality programs and services, enhance quality of life, protect the environment, promote smart growth, and maintain fiscal responsibility.

By remaining focused on its mission, the City is confident that it can address the challenges that lie ahead, and work to preserve and enhance the unique characteristics that make Fort Lauderdale such a special City.

Administration

The City has been operating under a Commission-Manager form of government since 1925. The City Commission is comprised of the Mayor, who is elected at-large, and four Commissioners, who are elected in non-partisan district races. Elections take place every three years and each elected official is eligible to serve three consecutive three-year terms. The next election will take place in March 2018. As the City’s legislative body, the City Commission sets policy, enacts ordinances, adopts resolutions and makes appointments to advisory boards and committees.

The City Manager is appointed by and reports directly to the City Commission. As Chief Executive Officer, the City Manager is responsible for directing the City's day-to-day operations and carrying out the policies set forth by the Commission. Lee R. Feldman, Fort Lauderdale's current City Manager, began his service as City Manager on June 13, 2011.

The City's departmental structure is comprised of the offices of the City Commission, City Manager, City Attorney, City Auditor and City Clerk, along with the following nine departments that are responsible for the provision and delivery of municipal services: Finance, Fire-Rescue, Human Resources, Information Technology Services, Parks and Recreation, Police, Public Works, Sustainable Development, and Transportation and Mobility.

As of September 30, 2017, the City employed a full-time work force of approximately 2,655 full-time employees, more than 2,000 of which are represented by four bargaining agents: Fraternal Order of Police, Lodge 31 ("FOP"), International Brotherhood of Teamsters Local 769 ("Teamsters"), Federation of Public Employees ("Federation") and International Association of Fire Fighters ("IAFF"). In 2017 the City ratified a new collective bargaining agreement with Federation which will govern through September 30, 2019.

The City has entered into two (2) collective bargaining agreements with FOP on behalf of (i) Police Officers and Sergeants and (ii) Police Lieutenants and Captains. The current agreements have an effective date of October 1, 2017 and expire on September 30, 2020. In addition, the City has entered into two (2) collective bargaining agreements with IAFF on behalf of (i) Firefighters and (ii) Battalion Chiefs. The current agreements with IAFF also have an effective date of October 1, 2017 and expire on September 30, 2020. The City's collective bargaining agreement with Teamsters expired on September 30, 2016 and negotiations have been conducted in an effort to reach a new agreement. However, Teamsters has declared that the negotiations have reached an impasse. As a result, a special magistrate is expected to be assigned within the next sixty (60) days for the purpose of submitting findings and conclusions to the City Commission. The City anticipates that such submittal will take between six (6) to nine (9) months after the special magistrate has been assigned. The City Commission will determine, in its sole discretion, how it desires to proceed after the submittal by the special magistrate. The City and Teamsters currently operate under the terms of the expired agreement.

The City's Fiscal Year 2018 adopted operating budget is \$770,353,226, through which the City provides a full range of municipal programs and services. The Fiscal Year 2018 budget is premised upon the following:

- Providing superior public safety including intelligence-led policing to reduce crime;
- Providing community service programs that meet a variety of interests and needs;
- Creating public-private partnerships with mutual economic and service benefit;
- Replacing assets and rehabilitating city-owned buildings based on comparative cost of required maintenance for safety and performance efficiency;
- Improving the public image and physical appearance of the City with proper maintenance of buildings, public rights-of-way, and code enforcement of private properties; and
- Enhancing employee skills and opportunities to attract and maintain the best qualified staff ensuring the highest level of public service possible.

Resumes

Mayor John P. “Jack” Seiler was sworn in as Mayor of the City on March 17, 2009 and reelected in 2012 and 2015. Prior to his election as Mayor of the City, Mayor Seiler served eight years in the Florida House of Representatives. During his tenure as a State Representative, he chaired the Broward Legislative Delegation in 2007-2008 and was Vice Chair of the Delegation in 2006-2007. Mayor Seiler is a graduate of the University of Notre Dame, where he received his B.B.A. and a graduate of the University of Miami, where he received his Juris Doctorate. Mayor Seiler has been in elected public service since 1993. He has served and continues to serve on numerous boards and organizations and is the recipient of numerous awards and recognitions. Mayor Seiler is a practicing attorney at the firm of Seiler, Sautter, Zaden, Rimes & Weihe. He is married and has four children.

Vice Mayor Bruce G. Roberts was elected to the City Commission on March 10, 2009 and reelected in 2012 and 2015. Vice Mayor Roberts graduated from Cardinal Gibbons High School in Fort Lauderdale, holds a bachelor’s degree in Public Administration Criminal Justice from St. Thomas University and is a graduate of the University of Louisville’s Southern Police Institute, Command Officers Development Course. He entered the law enforcement profession as a police officer for the City in 1973, was promoted to detective and, thereafter, through the ranks of law enforcement, culminating with his appointment as Chief of Police from October 2001 until May 2008. He has served professional and civic organizations, including the Greater Fort Lauderdale Chamber of Commerce, the Florida and Broward County Police Chiefs Associations, the Advisory Board of the Broward County Crime Commission, the Broward County Commission on Substance Abuse, the Broward Workshop Criminal Justice Committee, the Fort Lauderdale Police Officers Association and the Fraternal Order of Police. Present appointments include the Broward County Metropolitan Planning Organization, the Transportation Management Association and the Florida League of Cities - Urban Administration Committee.

Commissioner Robert L. McKinzie was appointed by the City Commission on November 4, 2014 to replace Commissioner Bobby B. Dubose and was elected to the City Commission on March 10, 2015. Commissioner McKinzie received his Bachelor of Science in Business Administration from Bethune-Cookman University. A native of Fort Lauderdale, Commissioner McKinzie has devoted his time to serve many civic and community organizations, such as serving as a volunteer for HOMES, Inc., Sunland Elementary School and the Local Boys and Girls Club. He is a past president of several organizations including, Omega Psi Phi Fraternity, Inc., Broward County Alumni Association of Bethune-Cookman University and the Bethune-Cookman University Associate Trustee Board. He is also a member and trustee of the First Baptist Church Piney Grove, Inc. and a member of the Broward County Housing Finance Authority. Commissioner McKinzie owns and operates Harper and Sons Construction, Inc., a general contracting firm specializing in affordable housing and construction management.

Commissioner Romney Rogers was elected to the City Commission on March 10, 2009 and reelected in 2012 and 2015. He received a bachelor’s degree in business administration from Rutgers University in 1975 and a Juris Doctorate from Mercer University Law School in 1978. He has been a partner in the law firm of Rogers, Morris & Ziegler since 1981. A native of Fort Lauderdale, Commissioner Rogers has been actively involved in the community for more than three decades. His professional and civic affiliations include serving as a President of the Broward County Bar Association, young lawyer section, and as a board member or chair of numerous business and community organizations. He has served as Secretary/Trustee of the City of Fort Lauderdale’s Police and Fire Pension Board, overseeing a \$500 million pension fund. He is a founding member of the Board of Directors for the Broward Housing Partnership, Co-Chair of the Fort Lauderdale Mayor’s Prayer Breakfast Committee and a member of the Board of Directors of SunTrust Bank/South Florida. As President of Stranahan House, Commissioner Rogers initiated an endowment to ensure its continued maintenance and support. During

his tenure as President of the Fort Lauderdale Rotary Club, he established a partnership with the City and neighborhood residents to create Virginia Young Park. He has served on the City's Historic Preservation Board and coached youth soccer, football and baseball in the City for 17 years. Professionally, Commissioner Rogers has served as the City Attorney for two separate cities. He is an active member of First Baptist Church of Fort Lauderdale, where he has served as Chairman of the Deacons and as a trustee.

Commissioner Dean J. Trantalis was elected to the City Commission on March 12, 2013 and reelected in 2015. Commissioner Trantalis previously served on the City Commission from 2003 to 2006 and held the position of vice mayor between 2005 and 2006. Since returning to the City Commission, his colleagues have selected him to represent the City on the board of directors of the Broward League of Cities, the Broward County Homeless Continuum of Care Task Force and the Broward County-Palm Beach County Joint C-51 Reservoir Work Group. Born and raised in Norwich, Connecticut, Commissioner Trantalis attended high school at Norwich Free Academy before moving on to Boston University where he majored in political science. He received a Juris Doctorate in 1979 from Stetson University School of Law. Commissioner Trantalis has practiced law in Broward County since 1982. He currently maintains a successful general law practice in Broward County with some emphasis in the areas of real estate, probate, estate planning, bankruptcy, and corporate matters. Commissioner Trantalis has been extremely active in the community, serving on numerous boards and committees, including the Fort Lauderdale Citizen Review Board, Broward House, Dolphin Democrats, Riviera Towers Co-Operative Board, Broward County Planning Council, and John Graves Foundation Board of Trustees. Commissioner Trantalis also received the Small Business Award from the Greater Fort Lauderdale Chamber of Commerce in 2007.

Lee R. Feldman, ICMA-CM - City Manager for the City of Fort Lauderdale (June 2011 - Present), served as City Manager from October 2002 for the City of Palm Bay, Florida prior to accepting the position of City Manager for the City of Fort Lauderdale. Prior to his appointment as the Palm Bay City Manager, Mr. Feldman was employed by the City of North Miami, Florida, where he served as the City Manager from May 1996 to October 2002 and as the Deputy City Manager beginning in 1989. Mr. Feldman also served as an Assistant to the City Manager and as Assistant City Manager for the City of North Miami Beach. He is a graduate of Washington and Lee University, where he received a Bachelor of Arts in Liberal Arts. He earned a Master's Degree in Governmental Administration from the Fels Center of Government at the University of Pennsylvania, where he has also been appointed as a Distinguished Alumni Fellow. Additionally, he is a graduate of the Senior Executive in State and Local Government Program at Harvard University's Kennedy School of Government.

Mr. Feldman's numerous professional affiliations include serving as a President (2016-2017) of the International City/County Management Association (ICMA), as a member of the Board of Directors of ICMA-RC, as a member of the Board of the National Civic League, as a member of the Board of Directors for the Alliance for Innovation (AFI), and as a member of the National League of Cities Steering Committee on Public Safety and Crime Prevention and Advocacy. Mr. Feldman previously served as a Vice President (Southeast Region) of ICMA, as President of the Florida City and County Management Association, and as a member of the United States Federal Emergency Management Agency National Advisory Council. He is a past recipient of the Florida League of Cities' "City Manager of the Year" Award. Additionally, he has served as the past chair of the National League of Cities' City Futures Panel on Public Finance, the past chair of the ICMA Governmental Affairs and Policy Committee, the past chair of the ICMA Sustainable Communities Advisory Committee, and as a member of the ICMA Task Force on Community Tools for Ending Racism.

Mr. Feldman teaches newly elected municipal officials the principles of finance and taxation in Florida and is frequently called upon to speak to professional groups on a variety of municipal issues.

Cynthia A. Everett, Esquire - City Attorney for the City of Fort Lauderdale (July 2013 - Present), is an AV-rated attorney with over 35 years of legal experience counseling and representing government and private-sector clients in the areas of land use and zoning, labor and employment, contracts, public records, real estate, insurance and public finance. She is a member of the Bar in Florida and the District of Columbia, and she is admitted to practice in the United States District Courts for the Southern and Middle Districts of Florida, the 11th Circuit Court of Appeals and the United States Supreme Court. Ms. Everett is Board Certified in Labor and Employment Law by The Florida Bar and currently serves as President-Elect of the Florida Municipal Attorneys Association. Ms. Everett received her Bachelor of Arts degree from The Florida State University and her Juris Doctor degree from The George Washington University.

John C. Herbst, CPA, CGFO, CGMA - City Auditor for the City of Fort Lauderdale (August 2006 - Present), is the first individual to hold the position of independent City Auditor created through a charter revision in 2004. Mr. Herbst has over 32 years of diversified audit, accounting and finance experience in both the public and private sectors. Prior to coming to the City of Fort Lauderdale, he held several positions with the City of Jacksonville, Florida, including Chief Financial Officer for the Jacksonville Housing Commission, Director of Finance for the Jacksonville Children's Commission and Principal Budget Analyst for the City of Jacksonville. Mr. Herbst holds a Bachelors of Business Administration in Accounting from Bernard M. Baruch College - City University of New York and a Masters of Business Administration from the University of North Florida. In addition to being a Florida licensed Certified Public Accountant, he also holds the designation of Certified Government Finance Officer from the Florida Government Finance Officers Association.

Jeffrey A. Modarelli - City Clerk for the City of Fort Lauderdale (November 2015 - Present), has over 19 years municipal experience with the City of Fort Lauderdale. Prior to becoming City Clerk, Mr. Modarelli served as Senior Assistant City Clerk/Assistant City Clerk for over 8 years. He has also served the City as Business Enterprises Director, Economic Development Director and Public Information Director. He holds a Bachelor of Science and Master of Public Administration, both from Florida State University.

Kirk W. Buffington, CPFIM, CPPO, C.P.M., MBA - Director of Finance for the City of Fort Lauderdale (January 2014 - Present), has over 26 years of government and private sector procurement experience. Prior to becoming the Director of Finance for the City, Mr. Buffington served as the Deputy Director of Finance for approximately two years. Prior to accepting a position in the City's Department of Finance, Mr. Buffington served as Director of Procurement Services for the City, and was also the Assistant Director of Administrative Services. He is a Past President of the National Institute of Governmental Purchasing. He holds a Bachelors of Science in Business from Florida State University and an MBA from Webster University. Mr. Buffington is an Adjunct Instructor at Florida Atlantic University in the School of Public Administration. He is a Certified Public Purchasing Officer and a Certified Purchasing Manager.

Linda A. Logan-Short, CGFO, CPM - Chief Financial Officer/Deputy Director of Finance for the City of Fort Lauderdale (February 2014 - Present), has over 22 years of accounting and finance experience with both the public and private sectors. Ms. Logan-Short joined the City as its Controller in May 2012 until accepting the position as the City's Chief Financial Officer/Deputy Director of Finance. Prior to joining the City, Ms. Logan-Short was the Assistant Finance Director for the City of Palm Bay, Florida. Ms. Logan-Short holds a Bachelors of Science in Accounting from Saint Leo University. Additionally, she holds the designations of Certified Government Finance Officer ("CGFO") from the Florida Government Finance Officers Association ("FGFOA") and Certified Public Manager from the Florida Center for Public Management at Florida State University. She is currently serving as President of the South Chapter of the FGFOA and serves on the CGFO Certification Committee for the FGFOA.

Laura L. Garcia, CGFO - Controller for the City of Fort Lauderdale (February 2014 - Present), has over 26 years of banking, accounting and finance experience with both the public and private sectors. Ms. Garcia joined the City as a Senior Accountant in January 2013. Prior to joining the City, Ms. Garcia was the Budget Administrator for the City of Palm Bay, Florida. Ms. Garcia holds a Bachelors of Business Administration from Universidad Metropolitana (UMET). She currently serves as a reviewer for the Government Finance Officers Association (GFOA) Award for Outstanding Achievement - Popular Annual Financial Reporting Program. She also holds the designations of Certified Government Finance Officer from the Florida Government Finance Officers Association.

Economy and Business

An advantageous economic climate coupled with an exceptional quality of life is helping the City establish itself as a world-class center for international commerce and one of the most desirable locations for new, expanding or relocating businesses. Once known strictly as a tourism-based economy, Fort Lauderdale now supports a diverse range of industries, including marine, manufacturing, finance, healthcare, insurance, real estate, high technology, avionics/aerospace, film and television production.

Marine Industry. The marine industry is the largest industry in the Greater Fort Lauderdale area, accounting for more than 136,000 jobs, gross wages and earnings of approximately \$3.7 billion and \$11.5 billion of total economic impact in South Florida. The City hosts the Fort Lauderdale International Boat Show which, each year, has a regional economic impact of approximately \$857.3 million. With more than 300 miles of waterways, marinas and marine manufacturing and repair facilities, Greater Fort Lauderdale is a world-renowned port of call for the yachting industry.

Tourism. Tourism is the second largest industry for the Greater Fort Lauderdale area, employing more than 180,000 individuals in the area. New hotels and related venues are consistently being constructed and renovated in South Florida to accommodate the area's extensive tourism industry. The Greater Fort Lauderdale Convention and Visitors Bureau reports that the area hosted more than 16.0 million visitors in 2016 and such visitors are estimated to have spent more than \$14.2 billion. Based on hotel bed tax revenues, tourism generated an estimated \$60.4 million in tax revenues in 2016, an increase of approximately 6.5% from 2015 and the highest amount ever collected of such revenues.

Trade and Business Development. Fort Lauderdale has emerged as one of the fastest growing markets for global trade, with more than forty percent (40%) of local businesses engaged in or supporting international commerce. The City also remains at the forefront of South Florida's emerging *InternetCoast*, a region that is home to more than 6,000 high technology firms. In addition, a growing list of nationally-recognized corporations have established business operations in Fort Lauderdale with corporate or Latin American headquarters, including: AT&T, AutoNation, BankAtlantic, Citicorp, Citrix Systems, Galaxy Latin America, Hewlett-Packard, Microsoft Latin American, Motorola Latin America, Republic Industries, South African Airways, Spherion Corporation, SportsLine.com, and Voicestream Wireless.

National publications have noted Fort Lauderdale's economic vitality and fertile environment for trade and business development. The Wall Street Journal recently profiled the City in a report that highlighted the array of upscale hotels, resorts and residential properties recently developed along the City's beachfront. Such developments have strengthened the City's national reputation as a premiere destination to live, work or visit. In addition to the Wall Street Journal, over 63 media sources and industry publications have included the City among others receiving complimentary national designations. For example, Fort Lauderdale has been named: All-America City by the National Civic League, Top 10 Best Downtowns by Livability.com, Top 10 Most Exciting Places in Florida and Top 10 Most Exciting Mid-Sized Cities in America by Movoto National Real Estate, Top 10 American Dream Cities by Xavier

University and The Burghard Group, Top 10 Best U.S. Cities for Small Businesses by Biz2Credit.com, Top 10 Best Cities for Millennial Job Seekers in Florida by NerdWallet.com, Most Diverse City in Florida and Best City to Find a Job in Florida by WalletHub.com, one of the Best Places for Business and Careers and one of the Happiest Cities for Young Professionals by *Forbes Magazine* and Top 10 Best Places to Retire by *Money Magazine*.

Growth and Development

Following the economic downturn experienced throughout the country beginning in 2009, Fort Lauderdale has experienced steady and significant growth in residential, commercial and business development. Projections for population growth in the City were recently revised to reflect slightly slower growth than was projected previously. Economic growth and development, however, is expected to continue at a relatively high rate.

In the coming years, to meet the challenge of maintaining consistent growth and development in the face of change and continued competition, the City plans to concentrate on strengthening the assets that diversify the City's economy, while focusing on quality of life issues. The City expects to improve its infrastructure and neighborhoods and to expand transit, cultural and recreational opportunities. The success of such concentration and focus will play an integral role in helping the City continue the successful growth and development it has enjoyed historically. Many of these efforts are identified by existing studies and plans that have been implemented or are expected to be implemented in the near future. The results of the implementation of certain of these efforts are visible through various public and private investments in public spaces, parks, streets, waterways, transit and other urban amenities and infrastructure improvements that have occurred throughout the City in recent years.

Fiscal Health. Following the recovery period that began after the economic downturn, the City's economy has continued on a positive trajectory, with noteworthy increases in the taxable property tax base within the City. As a result, the City has maintained its very low operating millage rate of 4.1193 mills for eleven (11) consecutive years. During Fiscal Year 2016, the taxable property tax base in the City totaled \$28.5 billion, an increase of approximately 8.8% from the prior year final valuation. For Fiscal Year 2017, the total taxable property tax base totaled \$31.1 billion, an increase of approximately 9.1% from the prior year final valuation. For Fiscal Year 2018, the taxable property tax base in the City has been estimated to be \$33.8 billion, an increase of approximately 8.7% from the prior year final valuation. The projected increase in the City's Fiscal Year 2018 taxable property tax base is expected to result in approximately \$10.6 million of additional revenue for Fiscal Year 2018. The taxable property tax base in the City has increased each of the past six (6) Fiscal Years.

In addition to a positive trend for property tax revenues, in recent Fiscal Years, the City's budget continues to be structurally balanced, to support sound financial and operational policies, and to provide safeguards for maintaining a healthy fiscal outlook.

The City has also implemented several key strategic initiatives to streamline expenses, while maintaining optimal service levels. Significant progress has been made in aligning priorities, adopting a cross-departmental approach to addressing issues, and managing within the City's means, while strategically planning for the future. Successful initiatives include (i) reorganizing the structure of the City to reduce the number of City departments and positions, (ii) offering an early retirement incentive program, and (iii) mitigating pension costs by reducing (a) the unfunded actuarial accrued liability through the issuance of pension obligation bonds and (b) benefits for newly hired police officers. Such initiatives, among others, have resulted in cost savings, which have facilitated the maintenance of high quality fundamental services for the residents of the City.

The adopted budget for Fiscal Year 2018 is a strategic budget that aligns financial and human resources with the City's 2035 Vision - "*Fast Forward Fort Lauderdale*," the City's Five-Year Strategic Plan - "*Press Play Fort Lauderdale*," the City Commission's Annual Action Plan, and various priorities identified by the residents of the City. The Fiscal Year 2018 budget provides for investments in public safety, mobility, infrastructure maintenance, high performance management and continuous quality improvement. The City's Five-Year Community Investment Plan is the fiscal blueprint for both major and minor infrastructure improvements, new construction and capital maintenance projects designed to protect and preserve the City's exceptional quality of life, standards and objectives.

The City's outlook for the future is favorable, with continued improvement in economic conditions (and resulting growth in revenues and optimism) anticipated. Real estate values are expected to continue to grow modestly and reductions in revenues provided by the State appear to be leveling off. Current trends suggest that the City is well prepared to manage its fiscal challenges, meet its commitments and take advantage of opportunities for growth and further positive development as they arise. The City plans to stay on its current course and is committed to making intelligent decisions about where and how its resources are invested. Hard-earned tax dollars are being spent responsibly by experienced and industrious City officials and staff to advance the City's most positive goals and objectives. The City expects to continue to be a leader in effective municipal governance, while maintaining a high quality of life for its residents.

Downtown. Although not as rapid as in prior years, development has continued to occur in downtown Fort Lauderdale. Numerous commercial, residential and mixed-use projects have been completed or are in various stages of development, including several that obtained extensions on their development plans. These projects have increased and are expected to continue to increase the tax base of the downtown area of the City and will help to create a vibrant urban lifestyle for residents and visitors in South Florida.

Beach Area. Several significant residential/hotel projects are either under construction or have been approved for construction on the barrier island. Additionally, a very large scale development project at the existing 38.6 acre (16 acres of dry land) Bahia Mar site has been approved by the City. Plans for the Bahia Mar development consist of seven high-rise buildings with 651 rental apartments, one high-rise hotel with 256 rooms, one five-story grocery-parking-office building, an above-ground parking garage, a yachting amenities complex, a small building that serves as a parking garage entrance, a two-story restaurant, a strip of one- and two-story buildings that serve as a marina village with kiosks and outdoor eating and a 1,900-space underground, two-level parking garage. A public promenade is planned to wrap around the peninsular property. The extensive, multi-phased development is expected to take ten years to complete.

Fort Lauderdale Community Redevelopment Agency ("CRA"). The CRA consists of three redevelopment areas, the Central Beach Community Redevelopment Area, the Central City Community Redevelopment Area and the Northwest-Progresso-Flagler Heights Community Redevelopment Area. The central beach area of the City has experienced a revitalization resulting from the investment by the CRA in improvements to inspire commercial and residential development in that area. In addition, several large improvement projects are currently planned or underway in the Northwest-Progresso-Flagler Heights Community Redevelopment Area of the CRA and projects for development in the Central City Community Redevelopment Area are also being planned. Within the three redevelopment areas of the CRA, an estimated \$200 million worth of projects are currently planned or have commenced.

WaterWorks 2011. *WaterWorks 2011*, the City's comprehensive, originally estimated \$500 million (in Fiscal Year 2001 dollars) water and sewer infrastructure modernization project, completed design and/or construction work for 330 water system projects, valued at \$178.8 million, and 367 sewer system projects,

valued at \$321.3 million, by the end of Fiscal Year 2010. Improvements to the City's water and sewer system under *WaterWorks* 2011 have resulted in (i) a significant upgrade of the City's Peele-Dixie Water Treatment Plant, which upgrade was designed to improve the quality and reliability of drinking water for all of the City's water customers, and (ii) the extension of the sanitary sewer system to the vast majority of the areas of the City that did not receive sanitary sewer system service prior to the implementation of *WaterWorks* 2011.

Transportation

The City offers an extensive transportation network that includes Fort Lauderdale/Hollywood International Airport, Port Everglades, Fort Lauderdale Executive Airport, a Water Taxi system, two major railways and an extensive highway and mass transit system, water taxis and city trolleys.

Surface Transportation. The City is served by three bus lines, two railroads (Florida East Coast Railway and CSX) and major freight carriers. The road system in Broward County totals approximately 4,800 miles and includes more than 140 miles of interstate and other expressways (I-95, I-75, I-595, Florida Turnpike and Sawgrass Expressway) and approximately 375 miles of divided highways. The County operated bus system includes an active fleet of 275 transit vehicles that serve approximately 40 million passengers annually.

Tri-Rail, a commuter rail system, provides service along a 72-mile corridor from Miami-Dade County to Palm Beach County. Tri-Rail recently completed the expansion of its system to double tracks along the entire corridor, enabling an expanded schedule and increased ridership. Connecting buses are available at all stations, with designated shuttles at Fort Lauderdale/Hollywood Airport and other regional airports. The Amtrak Silver Service links Fort Lauderdale to the rest of the nation, including daily trips to New York.

The Fort Lauderdale Downtown Development Authority is currently working to develop and implement a light rail system that would provide an additional public transportation option in the City. The light rail system would help to alleviate traffic congestion in the downtown areas of the City as more people relocate to the City's urban center in the coming years.

"All Aboard Florida" is an intercity passenger rail project that will connect Miami to Orlando with intermediate stations in Fort Lauderdale and West Palm Beach. The rail service will provide Floridians and visitors a viable transportation alternative to congested highways and airport terminals. All Aboard Florida will provide a high quality travel experience for passengers and will be the first privately owned, operated and maintained passenger rail system in the United States.

All Aboard Florida's downtown Fort Lauderdale station will provide a new gateway into the City and Broward County. Poised to further Fort Lauderdale's position as a fully connected "City of Tomorrow," the planned 60,000 square foot station and platform includes a modern, multi-story lobby spanning, an elevated passenger lounge area for travelers, and parking facilities. The Fort Lauderdale station for All Aboard Florida is expected to:

- Connect to the Sun Trolley, Broward County Transit system, future WAVE Streetcar in downtown Fort Lauderdale and planned Tri-Rail station;
- Stimulate a currently underutilized area, driving new visitors into downtown Fort Lauderdale and the surrounding cultural, economic and shopping destinations;

- Create more than \$333 million in economic impact for Broward County through 2021, generating over \$34 million in additional tax revenue and 800 jobs in Broward County through the construction of the station and rail line.

Service on All Aboard Florida is expected to begin in South Florida during the first quarter of 2018, with service from South Florida to Orlando expected to begin in 2020.

Fort Lauderdale/Hollywood International Airport. Fort Lauderdale/Hollywood International Airport ranks as one of the fastest growing airports in the United States, with over 29.2 million travelers passing through the airport annually. More than 325 flights depart from Fort Lauderdale/Hollywood International Airport daily on 26 different airlines to more than 140 destinations in the United States, Latin America, Canada and the Caribbean. Fort Lauderdale/Hollywood International Airport is ranked 21st in the United States, based on the number of passengers served. The airport serves more cities in the United States than any other airport in South Florida and is the second largest carrier of international passengers in Florida. Passenger traffic at the airport is expected to grow between 1.0% to 3.0% each year for the next several years.

Fort Lauderdale/Hollywood International Airport serves as a major economic force for greater Fort Lauderdale, contributing an estimated \$13.2 billion in total annual economic impact and generating more than 12,500 jobs at the airport and an additional 135,000 jobs through ancillary services. The airport is located three miles from downtown Fort Lauderdale, with easy access to I-95, I-595 and Port Everglades.

Fort Lauderdale Executive Airport. Owned and operated by the City, Fort Lauderdale Executive Airport ranks as one of the nation's 10 busiest general aviation airports. Fort Lauderdale Executive Airport generates approximately \$7.0 million in annual revenue and \$2.1 million in annual tax revenues from airport leases. Total annual economic activity of Fort Lauderdale Executive Airport, as determined by the Florida Department of Transportation, is \$815,788,400. Fort Lauderdale Executive Airport generates a total of approximately 8,900 jobs. The facility operates a 200 acre Industrial Airpark, with approximately 2.0 million square feet of office and warehouse space. Fort Lauderdale Executive Airport is home to 6 full service, fixed-base operators, 700 aircraft, 115 jets and 40 helicopters. The facility handles approximately 150,000 takeoffs and landings per year.

Fort Lauderdale Executive Airport recently constructed a new, high-tech control tower that enables the airport's approximately 500 flights per day to be handled more safely and efficiently. At a cost of \$16.4 million, the new control tower is 117 feet tall and is equipped with the latest radar, communications and weather technology. Complete views of the entire airfield are provided from the tower's 525 square foot top floor.

Fort Lauderdale Executive Airport also serves as the hub site for the City's Foreign-Trade Zone #241. The Foreign-Trade Zone, which includes five sites and encompasses nearly 915 acres, offers businesses significant cost savings and economic incentives, while promoting job retention and growth for the City and surrounding communities.

Downtown Helistop. The Downtown Fort Lauderdale John Fuhrer Helistop is designed to accommodate intermediate category general aviation helicopters with a maximum takeoff weight of 11,900 pounds and a 46-foot rotor diameter. Used extensively by corporate and charter operators, the state-of-the-art facility is situated above the City Park Mall parking garage in the heart of the City's downtown area. The Helistop features a landing area and one helicopter parking position on a 14,500 square-foot elevated platform. A fully furnished lobby provides travelers with a comfortable area to converse and conduct business, along with access to plentiful parking and convenient ground transportation.

Port Everglades. Port Everglades, the deepest commercial port in the United States south of Norfolk, Virginia and one of the world's leading international cruise ports, is located in Broward County and administered by a separate governing body with separate taxing authority. The port generates approximately \$29 billion in business activity annually and, through its cruise travel and international trade activity, annually provides approximately 11,700 jobs locally and over 224,000 jobs statewide. The port handles nearly 4.0 million cruise ship passengers annually and more than 22.0 million tons of cargo. The port generates annual revenue of approximately \$1 billion without utilizing any local property tax dollars.

Port Everglades is home to Florida's first Foreign-Trade Zone (FTZ), where foreign components can be assembled, packaged and shipped without usual customs duties. The FTZ now includes five sites within and outside the boundaries of Port Everglades and encompasses a total of 250 acres. Port Everglades has launched an aggressive 20-year, \$1.6 billion expansion project. Major capital projects recently completed or currently underway have created 7,000 jobs directly and 135,000 indirect jobs.

Water Taxi. Fort Lauderdale features a unique Water Taxi system, which transports passengers to and from the downtown area via the City's New River and network of inland waterways.

Education

The Broward County Public School system is an operating and taxing entity that is separate from the City and the County. The Broward County School District (the "District") has a student enrollment that is the second largest in the State and the sixth largest in the United States. By virtue of its accreditation by AdvancEd, (formerly the Southern Association of Colleges and Schools), the District is the second largest fully accredited school system in the nation and is Florida's first fully accredited school system since 1962. The District serves over 271,500 students in pre-kindergarten through grade 12 and 175,000 adult students in 324 schools and education centers (comprised of 136 elementary schools, 37 middle schools, 33 high schools, 17 adult/vocational schools and other centers) and 93 charter schools. The District is Broward County's largest single employer. As of June 30, 2017, the District had approximately 27,139 permanent employees, including over 15,084 classroom instructors. The District's General Fund, its primary operating fund, has an annual operating budget of \$2.23 billion for its fiscal year ending June 30, 2018.

There are three four-year colleges and universities in Broward County: Florida Atlantic University and Florida International University, which are public, and Nova Southeastern University, which is private. Florida Atlantic University and Florida International University are two of the nine universities in the State of Florida University system. The campuses of Florida Atlantic University and Florida International University are located in downtown Fort Lauderdale, as is the campus of Broward College (formerly Broward Community College). Broward College, Prospect Hall College, City College, Fort Lauderdale College, the Art Institute of Fort Lauderdale, and Keiser Institute of Technology are each two-year colleges located in Broward County. There are also seven educational institutions in the County with degree or certificate programs providing vocational and technical education.

Quality of Life

Fort Lauderdale offers an outstanding quality of life, highlighted by a semi-tropical climate, rich natural beauty and an array of cultural, entertainment and educational amenities. World famous Fort Lauderdale Beach offers premier opportunities for recreation, relaxation and enjoyment. The picturesque Riverwalk serves as the cornerstone of the City's arts, science, cultural and historic district which features the Broward Center for the Performing Arts, Museum of Discovery and Science, Museum of Art and Old Fort Lauderdale Village and Museum. Las Olas Boulevard has gained international acclaim as Fort

Lauderdale's centerpiece of fashion, fine dining and entertainment. In addition, the City's downtown area is home to Broward College, Florida Atlantic University, Florida International University, the award-winning Broward County Main Library, and to federal, county and Broward County School District offices.

Through the cooperative efforts of residents, businesses and local government, Fort Lauderdale has evolved into a City that offers the best of both worlds - an attractive business environment and an outstanding quality of life. With an average daily temperature of 77 degrees during the winter months and 89 degrees in the summer, outdoor activities are endless, with golf courses, parks, playgrounds and miles of coral reefs available to residents and visitors of Fort Lauderdale. Activities enjoyed in the area include boating, scuba diving, snorkeling, fishing and a multitude of other outdoor and indoor recreational pursuits. The Fort Lauderdale area provides to residents and visitors professional sports teams in football, baseball, basketball, hockey and soccer and world-class swimming and diving events hosted at the International Swimming Hall of Fame/ Fort Lauderdale Aquatic Complex.

For more information about the City of Fort Lauderdale, please visit the City's website at www.fortlauderdale.gov.

Population

From its origination in 1911 with a population of 300 people, Fort Lauderdale has grown to an estimated 179,063 people, as of April 1, 2017, and is currently ranked eighth among cities within the State of Florida.

City of Fort Lauderdale, Florida Population, Personal Income and Unemployment⁽¹⁾

Fiscal Year Ended September 30	Fort Lauderdale Population	Broward County Population	Broward County Personal Income ⁽²⁾	County Per Capita Personal Income	Unemploy- ment Rate
2007	175,500	1,751,100	\$65,213,329	\$37,241	4.2%
2008	179,700	1,763,600	70,454,147	39,949	6.4
2009	180,100	1,756,500	71,994,871	40,988	10.9
2010	180,400	1,742,900	73,590,969	42,223	12.1
2011 ⁽³⁾	165,500	1,748,100	72,752,112	41,618	10.7
2012	166,200	1,753,162	76,133,577	43,426	8.5
2013	170,065	1,815,137	78,687,882	43,351	5.2
2014	171,544	1,838,844	80,525,783	43,792	5.2
2015	175,123	1,827,367	80,905,552	44,274	4.9
2016	176,747	1,854,513	85,167,498	45,924	4.6

Source: City of Fort Lauderdale, Florida Comprehensive Annual Financial Report for Fiscal Year Ended September 30, 2016.

Footnotes for the immediately preceding table are continued on the next page.

- (1) Fort Lauderdale population obtained from the Bureau of Economic and Business Research, University of Florida. Broward County population and personal income obtained from the Bureau of Economic Analysis, United States Department of Commerce. Unemployment rates obtained from the Bureau of Labor Statistics, United States Department of Labor.
- (2) Personal income in thousands of dollars.
- (3) Reduction in population for Fiscal Year 2011 is the result of lower population estimates provided from the United States census conducted for 2010.

City of Fort Lauderdale, Florida
General Revenues by Source⁽¹⁾

<u>Fiscal Year Ended Sept. 30</u>	<u>Property Taxes</u>	<u>Utility Taxes</u>	<u>Franchise Taxes</u>	<u>Insurance Premium Taxes</u>	<u>Licenses and Permits</u>	<u>Fines and Forfeitures</u>	<u>Inter- Govern- mental</u>	<u>Charges for Services</u>	<u>Other</u>	<u>Total ⁽²⁾</u>
2007	\$138,104	\$33,344	\$18,247	\$5,873	\$13,351	\$3,630	\$50,650	\$19,013	\$51,638	\$333,849
2008	127,981	33,936	18,192	5,262	10,994	6,643	42,315	17,792	50,606	313,721
2009	124,597	35,441	18,059	4,410	8,374	2,518	49,339	16,746	53,414	312,899
2010	112,812	34,754	18,225	4,817	8,032	2,534	50,969	17,859	52,772	302,774
2011	101,788	34,726	16,439	4,736	13,734	3,769	50,171	19,639	51,915	296,916
2012	96,618	35,386	15,872	5,321	14,913	3,537	51,666	20,401	67,503	311,216
2013	99,537	35,882	15,380	6,353	17,375	5,019	42,816	20,651	76,084	319,098
2014	102,486	37,005	22,022	5,326	17,292	5,406	47,636	21,612	90,254	349,039
2015	108,208	37,623	22,909	6,646	23,167	5,186	45,648	23,591	104,707	377,684
2016	117,778	37,517	22,390	5,563	21,232	5,564	45,973	23,827	96,855	376,699

Source: City of Fort Lauderdale, Florida Comprehensive Annual Financial Report, September 30, 2016.

- (1) Includes all governmental fund types. Amounts reflected are in thousands of dollars.
- (2) Totals may not add due to rounding.

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City of Fort Lauderdale, Florida
Property Tax Millage Rate⁽¹⁾
Direct and Overlapping Governments

OVERLAPPING RATES ⁽²⁾														
FORT LAUDERDALE					OTHER TAXING DISTRICTS					SPECIAL DISTRICTS ⁽³⁾				
FISCAL YEAR ENDED SEPTEMBER 30	TAX ROLL YEAR	OPERATING	DEBT SERVICE	TOTAL CITY	BROWARD COUNTY	BROWARD COUNTY SCHOOLS	SO. FLORIDA WATER MANAGEMENT DISTRICT	FLORIDA INLAND NAVIGATION DISTRICT	BROWARD CHILDREN'S SERVICES COUNCIL	TOTAL CITY-WIDE	DOWNTOWN DEVELOPMENT AUTHORITY			
											OPERATING	DEBT SERVICE	NORTH BROWARD HOSPITAL DISTRICT	HILLSBORO INLET
2009	2008	4.1193	0.1302	4.2495	5.3145	7.4170	0.6240	0.0345	0.3754	18.0149	0.4802	0.4289	1.7059	0.0860
2010	2009	4.1193	0.1343	4.2536	5.3889	7.4310	0.6240	0.0345	0.4243	18.1563	0.4970	0.4313	1.7059	0.0860
2011	2010	4.1193	0.2173	4.3366	5.5530	7.6310	0.6240	0.0345	0.4696	18.6487	0.4970	0.4313	1.8750	0.0860
2012	2011	4.1193	0.1695	4.2888	5.5530	7.4180	0.4363	0.0345	0.4789	18.2095	0.5171	0.4489	1.8750	0.0860
2013	2012	4.1193	0.2149	4.3342	5.5530	7.4560	0.4289	0.0345	0.4902	18.2968	0.5020	0.5302	1.8564	0.0860
2014	2013	4.1193	0.2070	4.3263	5.7230	7.4800	0.4110	0.0345	0.4882	18.4630	0.5080	0.5366	1.7554	0.0860
2015	2014	4.1193	0.1958	4.3151	5.7230	7.4380	0.3842	0.0345	0.4882	18.3830	0.5882	0.5366	1.5939	0.0860
2016	2015	4.1193	0.1759	4.2952	5.7230	7.2740	0.3551	0.0320	0.4882	18.1675	0.5173	0.5232	1.4425	0.0860
2017	2016	4.1193	0.1610	4.2803	5.6690	6.9063	0.3307	0.0320	0.4882	17.7065	0.5525	0.4749	1.3462	0.0860
2018	2017	4.1193	0.0691	4.1884	5.6690	6.5394	0.3100	0.0320	0.4882	17.2270	0.5272	0.4099	1.2483	0.0860

Source: Broward County Property Appraiser.

- (1) State law requires all counties to assess at 100% valuation and limits millage for operating purposes to ten mills.
- (2) Overlapping rates are those of local and county governments that apply to property owners within the City. Not all overlapping rates apply to all City property owners (e.g., the rates for special districts apply only to the proportion of the City's property owners whose property is located within the geographic boundaries of the special district).
- (3) Special Districts are taxing entities that levy taxes on limited areas within the City of Fort Lauderdale city limits.

City of Fort Lauderdale, Florida
Building Permit Activity

<u>Fiscal Year Ended</u>	<u>Building Permits Issued</u>	<u>Estimated Building Permit Value</u>
9/30/08	22,246	\$ 626,995,334
9/30/09	21,748	408,859,952
9/30/10	21,543	421,617,819
9/30/11	23,166	783,220,377
9/30/12	22,404	589,997,269
9/30/13	23,095	676,757,795
9/30/14	23,581	808,189,242
9/30/15	26,342	820,600,925
9/30/16	25,529	1,071,225,706
9/30/17	26,047	1,285,338,122

Source: City of Fort Lauderdale, Florida, Department of Sustainable Development, Building Services Division.

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APPENDIX B

City of Fort Lauderdale, Florida

Series 2018 Water and Sewer Revenue Bonds

Feasibility Report

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FINAL REPORT

Series 2018 Water and Sewer Revenue Bonds Feasibility Report

Prepared for

City of Fort Lauderdale

January 26, 2018

Prepared by



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Contents

Section	Page
1 Introduction	1-1
1.1 Authorization and Purpose	1-1
1.2 Study Assumptions	1-2
2 Public Works Department	2-1
2.1 History.....	2-1
2.1.1 Water System.....	2-1
2.1.2 Sewer System.....	2-2
2.2 Organizational Structure.....	2-3
2.3 Service Area Population Projections.....	2-4
2.4 Training Programs and Certifications	2-7
3 Water System	3-1
3.1 General Description	3-1
3.1.1 Service Area and Customer Base	3-1
3.2 Water Production and Demands	3-1
3.3 Raw Water Supply.....	3-5
3.3.1 Dixie Wellfield	3-5
3.3.2 Prospect Wellfield.....	3-5
3.3.3 Saltwater Intrusion	3-6
3.3.4 Sea Level Rise.....	3-6
3.3.5 Climate Change	3-7
3.3.6 Water Use Permit	3-7
3.4 Water Treatment Facilities	3-9
3.4.1 Peele-Dixie Water Treatment Plant.....	3-9
3.4.2 Fiveash Water Treatment Plant.....	3-10
3.5 Water Transmission, Distribution, and Storage.....	3-12
3.5.1 Pipe Age	3-15
3.5.2 Pipe Breaks.....	3-15
3.5.3 Hydraulic Model Results	3-17
3.6 Billing and Collection	3-18
3.7 Regulatory Impacts	3-18
3.7.1 Broward County Health Department Consent Orders.....	3-21
3.8 Conservation	3-21
4 Sewer System	4-1
4.1 General Description	4-1
4.1.1 Service Area and Customer Base	4-1
4.2 Wastewater Flows	4-3
4.3 Wastewater Collection and Transmission	4-5
4.4 Wastewater Treatment Facility	4-9
4.5 Regulatory Impacts	4-10
5 Capital Improvements.....	5-1
5.1 Community Investment Plan Improvements.....	5-1
5.2 Comprehensive Utility Strategic Master Plan Improvements	5-1
5.2.1 Proposed Water System Capital Improvements.....	5-19

5.2.2	Proposed Sewer System Capital Improvements.....	5-19
5.2.3	Proposed Other Capital Improvements.....	5-19
5.3	Consent Order Improvements.....	5-20
5.4	Total Proposed Capital Improvements.....	5-20
5.5	Proposed Bond Funded Capital Improvements.....	5-21
5.6	Total Planned and Proposed Capital Improvement Program.....	5-21
6	Financial Analysis.....	6-1
6.1	Financial Evaluation of the System.....	6-1
6.2	Customer/Usage Growth.....	6-1
6.3	Ten Largest Water Customers.....	6-1
6.4	Historical and Projected Costs and Revenues.....	6-4
6.5	Projected Debt Issues and Coverage.....	6-8
6.6	Water and Sewer Rates.....	6-14
6.7	Comparison to Bills in Other Communities.....	6-16
7	References.....	7-1

Table

Table 2-1. Wholesale Water User Contracts.....	2-2
Table 2-2. Population Forecast City of Fort Lauderdale Water Service Area.....	2-6
Table 2-3. Population Projections for Fort Lauderdale Wastewater Service Area 2015–2035.....	2-7
Table 3-1. City of Fort Lauderdale Water Service Area Historical AADF Finished and Raw Water Pumping Data.....	3-1
Table 3-2. City of Fort Lauderdale Water Service Area Overall Water Demand Forecast.....	3-3
Table 3-3. SFWMD Permit.....	3-8
Table 3-4. SFWMD Permit.....	3-8
Table 3-5. Available Water Storage (million gallons).....	3-12
Table 3-6. Water Distribution System Piping Age (feet of pipe).....	3-15
Table 3-7. Water System Pipe Break Data.....	3-15
Table 3-8. MIT Schedule.....	3-21
Table 4-1. Sewered Population Projections 2005–2035.....	4-3
Table 4-2. Historical Wastewater Flow Rates.....	4-3
Table 4-3. Projected Wastewater Flows (mgd).....	4-4
Table 4-4. Current MIT Deadlines.....	4-12
Table 5-1. Community Investment Plan Fiscal Years 2018 to 2022.....	5-3
Table 5-2. Community Investment Plan Additional Projects (2017 Master Plan).....	5-7
Table 5-3. Capital Improvements from Community Investment Plan, CUSMP, and Consent Order (in millions).....	5-20
Table 5-4. Bond Funded Improvements.....	5-22
Table 5-5. Proposed Water and Wastewater Funded Capital Improvements (in millions).....	5-27
Table 6-1. Water and Sewer Services (as of December 31).....	6-2
Table 6-2. Service Forecasts for Water and Sewer Systems (as of December 31).....	6-3
Table 6-3. City of Fort Lauderdale Top Ten Water Users for Calendar Year 2016.....	6-4
Table 6-4. Statement of Revenues, Expenses, and Changes in Net Assets.....	6-5

Table 6-5. Historical and Projected Revenue Bond and State Revolving Fund Loan Coverage FYs 2012 through 2022	6-9
Table 6-6. Revenue Bonds - Projected Debt Service.....	6-10
Table 6-7. State of Florida Revolving Fund Loan Program - Projected Debt Service	6-11
Table 6-8. Total Projected Debt Service.....	6-12
Table 6-9. City of Fort Lauderdale, Florida, Projected Sources and Uses of Funds	6-13
Table 6-10. Monthly Water and Sewer Service Rates - Effective Oct. 1, 2017	6-15
Table 6-11. Historical and Indicated Future Rate Adjustments	6-17
Table 6-12. City of Fort Lauderdale Water and Sewer System Monthly Residential Bill Comparison with Other Communities.....	6-18

Figures

Figure 2-1. City of Fort Lauderdale Public Works Department Organizational Chart	2-5
Figure 3-1. City of Fort Lauderdale Water Service Area	3-2
Figure 3-2. Biscayne Aquifer Raw Water Demand Forecast Annual Average Day (mgd)	3-4
Figure 3-3. Finished Water Treatment Capacity Needed Maximum Day (mgd).....	3-4
Figure 3-4. Peele-Dixie WTP Process Flow Diagram	3-9
Figure 3-5. Fiveash WTP Process Flow Diagram	3-11
Figure 3-6. Water Distribution System Pipe Network.....	3-13
Figure 3-7. Water Piping Age	3-16
Figure 3-8. Water System Pipe Break Data	3-17
Figure 3-9. Water Main Capacity Improvement Projects Recommended by the CUSMP.....	3-19
Figure 4-1. Current Boundaries of the Sewer Service Area	4-2
Figure 4-2. Historical and Projected Flows for the G.T. Lohmeyer WWTP and Permitted Capacity	4-6
Figure 4-3. City of Fort Lauderdale Gravity Main Ages	4-7
Figure 4-4. City of Fort Lauderdale Force Main Ages.....	4-8

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Acronyms and Abbreviations

AADF	annual average daily flow
ADF	average daily flow
AMI	automated metering infrastructure
AWWA	American Water Works Association
BEBR	Bureau of Economic and Business Research (University of Florida)
BG	billion gallon(s)
CERP	Comprehensive Everglades Restoration Plan
CIP	Capital Improvement Program
CPI	U. S. Consumer Price Index
CUSMP	Comprehensive Utility Strategic Master Plan
DIP	ductile iron pipe
DOH	Department of Health (Broward County)
EPA	U.S. Environmental Protection Agency
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FM	force main
FPL	Florida Power & Light
FY	fiscal year
GIS	geographic information system
gpm	gallon(s) per minute
GTL	George T. Lohmeyer (RWWTP)
HDPE	high-density polyethylene
I/I	Infiltration and inflow
IGA	Investment Grade Audit
ISO	International Organization for Standardization
IW	injection well
LECRWSP	Lower East Coast Regional Water Supply Plan
LOS	level of service
LSI	Langelier Saturation Index
M3MADF	maximum 3-month average daily flow
MBR	membrane bioreactor
MDD	maximum day to annual average day
MG	million gallon(s)
mg/L	milligram(s) per liter
mgd	million gallon(s) per day
PCCP	prestressed concrete cylinder pipe

ACRONYMS AND ABBREVIATIONS

ppm	part(s) per million
PVC	polyvinyl chloride
R&R	renewal and replacement
RO	reverse osmosis
SAP	Sustainability Action Plan
SCADA	supervisory control and data acquisition
SRF	State Revolving Fund
TSS	total suspended solids
USDW	underground source of drinking water
USGS	U.S. Geological Survey
VFD	variable-frequency drive
WM	water main
WTP	water treatment plant
WUP	Water Use Permit
WWTP	wastewater treatment plant



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January 26, 2018

Mr. Kirk Buffington
Finance Director
City of Fort Lauderdale
100 North Andrews Avenue
Fort Lauderdale, FL 33301

Dear Mr. Buffington:

Subject: City of Fort Lauderdale, Florida, Water and Sewer Revenue Bonds Series 2018 Feasibility Report (the "Report")

CH2M HILL, Inc. (CH2M), Hazen and Sawyer, P.C. (Hazen), and Stantec, Inc. (Stantec) are pleased to submit this Report to be included in the official statement (the "Official Statement") prepared by the City of Fort Lauderdale (the "City") in connection with the issuance of no more than \$200 million par amount of Water and Sewer Revenue Bonds, Series 2018 (the "Series 2018 Bonds"). This Report presents the findings of an evaluation of the City's existing Water and Sewer System and presents financial factors associated with the sale of the Series 2018 Bonds. This Report is based on an analysis of the City's records, reports, and capital improvement program, as well as discussions with City personnel. Unless otherwise noted, or unless the context provides otherwise, capitalized terms used in this report shall have the meaning assigned to such terms in the Official Statement.

The evaluation of the City's Water and Sewer System includes a discussion of system history and organization, service area, water treatment and distribution system, wastewater collection and transmission system, regional wastewater treatment facilities (RWWTF, or "Regional Facilities"), and capital improvement program. This Report also includes a review of historical operating results and presents projected operating results for Fiscal Year (FY) 2017–2018 (FY 2018) through FY 2022, with the projected debt service. Projected debt service includes all Outstanding Bonds, after the issuance of the Series 2018 Bonds. For the purposes of this Report, unless a year or years are designated as a Fiscal Year(s) (by inclusion of "FY" prior to the year), the year or years should be considered calendar year(s).

The City's Water and Sewer Capital Improvement Program (CIP) presented herein includes improvements that have been identified in the City's FY 2018–FY 2022 Community Investment Plan and adopted by the City Commission. In addition to the improvements identified in the Community Investment Plan, the CIP presented herein includes projects identified in the Comprehensive Utility Strategic Master Plan (CUSMP) (Reiss Engineering, Inc, 2017) and the City's consent order with the Florida Department of Environmental Protection (FDEP) filed September 29, 2017 (the "Consent Order"). In addition, the City is contemplating an additional project that is not included in the CUSMP nor in the Consent Order. This project involves adding an automated metering infrastructure (AMI) system. Proceeds from the Series 2018 Bond are not expected to be used for funding of the proposed AMI system.

CH2M currently serves as the City's wastewater collection and transmission system engineering consultant, has been engaged by the City on numerous wastewater engineering studies and improvements

Mr. Kirk Buffington

January 26, 2018

as well as economics-related studies during the past 22 years, and served as the City's program manager for the *WaterWorks* 2011 Program. Because of these earlier studies and program management responsibilities, CH2M has detailed knowledge of and experience with the City's wastewater collection and treatment system (the "Sewer System"), the City's water treatment and distribution system (the "Water System"), and collectively the Water System and Sewer System (the "Water and Sewer System", or collectively the "System"), operations, and the City's operating procedures.

Hazen currently serves as the City's water treatment and distribution system engineering consultant, has been engaged by the City on numerous water engineering studies during the past 19 years, and has extensive knowledge of the Water System. Hazen was also recently selected to be the program manager for the design and construction of the improvements that were identified in the Consent Order that the City negotiated with FDEP. Hazen prepared the City's Water Master Plans in 2000 and updated it in 2007, and more recently also prepared the City's 2014 water demand forecast and associated 10-year water supply plan. Hazen also prepared numerous designs and planning documents related to the City's water treatment plants. As a result of these earlier studies, Hazen has detailed knowledge of and experience with the Water System and the System's operations and operating procedures.

Stantec (formerly Hawksley Consulting, and prior to Hawksley as Burton and Associates) has also been engaged by the City since 2008 in preparing rate and financial analyses for the Water and Sewer System, and is familiar with the funding and financing of the System.

Based on CH2M's, Hazen's, and Stantec's evaluation and analysis and the assumptions stated in the this Report, the following findings are noted:

1. The City's Water System facilities are well-maintained, well-managed, and in good operating condition. Effective planning policies provide for the inspection, repair, improvement, and replacement of facilities, and have enabled the City to meet state and federal regulations.
2. With the exception of aging force mains that are approaching the end of their useful service, the Sewer System is well-maintained, well-managed, and in good condition. The City has experienced 35 force main breaks from January 1, 2014, to August 31, 2017, including two simultaneous force main breaks in June 2016 that resulted in the discharge of approximately 14.67 million gallons (MG) of untreated wastewater, and a break in December 2016 that resulted in discharge of approximately 2.5 MG of untreated wastewater. Because of the large volumes discharged, FDEP contemplated enforcement action for noncompliance. Subsequently, the City voluntarily entered into a Consent Order with FDEP in September 2017 that includes projects that are intended to reduce risk and improve resiliency within the wastewater collection system. These projects replace aging pipe networks, and construct additional infrastructure to increase the capacity and redundancy of the Sewer System.
3. The water demand and wastewater flow projections presented herein are based on the projections that were presented in the CUSMP (Reiss Engineering, 2017), and that the City and the firms preparing this Report believe are reasonable.
4. The financial model presented in this Report uses unaudited FY 2017 results as the basis for its demand, expenditure, and revenue projections, adjusted for assumed inflation, rate increases, growth, and elasticity of demand impacts from assumed rate increases. This was determined to be a reasonable basis for the analysis based on a review of multiple years of historical water and wastewater sales and an understanding of current environmental, regulatory, and economic conditions.
5. The Water System has sufficient physical capacity to meet existing and projected demands throughout the study period of this analysis (FY 2018–FY 2022) (the "Study Period").

6. The Sewer System, including the City's George T. Lohmeyer regional wastewater treatment plant (RWWTP), has sufficient capacity for projected flows throughout the Study Period. Regulatory approval of the expansion of the RWWTP's permitted capacity, up to its physical capacity of 56.6 mgd, was approved by FDEP on March 16, 2004. The City's wastewater facility permit for the RWWTP (permit no. FLA041378) was renewed by FDEP on September 7, 2017. The new expiration date is September 6, 2021. FDEP did not impose any significant changes to the permit conditions.

Measures to reduce infiltration and inflow (I/I) levels may further extend the permitted capacity of the RWWTP, and therefore delay its expansion. The City continues to conduct a significant amount of sewer rehabilitation to reduce I/I into the Sewer System. During the past several years as additional customers have connected to the Sewer System, flow increases have been offset by reductions in I/I, and the flow to the treatment plant has not increased proportionately with the increase in customers. Therefore, because of the I/I program and potential implementation of reuse activities, construction of an RWWTP capacity upgrade can be postponed beyond 2025. The CUSMP (Reiss Engineering, 2017) concludes that based on the service area population projections, and associated projected flow rates, the current capacity of the RWWTP is expected to be sufficient beyond 2025.

While the capacity of the RWWTP is expected to meet the service area needs through 2025, overall capacity will be limited by the facility's effluent disposal system, specifically the injection well capacity, which is expected to not meet emergency condition capacity requirements beginning in 2021. Reducing I/I flow can temporarily eliminate the need for an additional injection well due to capacity issues. Among other measures, the CUSMP recommended that the City accelerate the investigation and implementation of methods to reduce I/I flows, to positively impact all capacity-related limitations, and to initiate design, permitting, and construction of a sixth injection well to expand effluent disposal capacity by 2019. It further recommended that the City investigate methods for avoiding tertiary treatment requirements associated with the addition of the sixth injection well, including potential for categorizing the new well as a nonhazardous industrial waste stream. The City is accelerating its efforts to reduce I/I in the system to delay the need for constructing a new deep injection well.

The South Florida Water Management District (SFWMD) issued a new Water Use Permit (WUP) (No. 06-00123-W) to the City on September 11, 2008. This is a 20-year permit that expires September 11, 2028. The WUP specifies that the annual water withdrawal shall not exceed 22,334 MG, with the maximum monthly allocation not to exceed 2,157.6 MG. The City has sufficient water supply to meet its demands through 2035.

To meet future demands in excess of the withdrawal limits from the Biscayne Aquifer, the City anticipates utilizing Floridan Aquifer water at the Peele-Dixie reverse osmosis (RO) water treatment facility. The City is studying the feasibility of several alternative water sources and offset projects, including additional Floridan Aquifer use, stormwater capture projects, reuse, and other alternative water supply projects.

7. Except for the couple instances of significant volumes of wastewater flows being discharged due to force main breaks described herein, the City is meeting the regulatory requirements for its Water and Sewer System and is planning for regulatory requirements that the City anticipates may be imposed on the System in the future. The City's CIP includes improvements to address these anticipated requirements, and the financial plan presented herein incorporates plans for funding these improvements.
8. In 2014, there were some minor surface water discharges from the RWWTP to the emergency surface water outfall during peak flow conditions. The City has since rehabilitated the injection wells

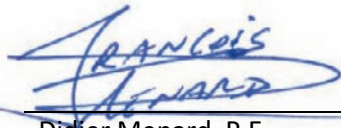
Mr. Kirk Buffington

January 26, 2018

to restore their injection capacity to their original permitted levels. The improvements also restored the capability to handle peak flows and avoid future surface water overflows. FDEP did not issue any citations for these discharges.

9. Key staff of the System are well-qualified and capable of managing current responsibilities and are planning for implementation of future improvements.
10. The findings herein assumed that the City will continue to adjust its rates annually based on the approved indexing adjustment policy embodied in its rate ordinance and described in this Report. The City, except in 2000, has been following a practice of increasing its water and wastewater rates annually since 1993 to meet operating cost increases, with occasional supplemental increases, as needed, to meet other financial needs.
11. Under the assumptions described in this Report, revenues under the projected rates presented herein will be sufficient to meet operating and other expenses, including debt service payments, bond debt service reserve requirements, and coverage requirements during the Study Period. The projected rates will also provide funds for planned capital improvement expenditures that are expected to be funded from current revenues. The City's current Water and Sewer System rates are among the lowest charged by municipalities in South Florida.
12. The projected Current Expenses of the Water and Sewer System, revenues to be generated by the Water and Sewer System, and the sources of funds projected to be available to fund scheduled or anticipated improvements throughout the Study Period covered by this Report are reasonable.
13. The improvements to be made to the Water and Sewer System have been or are expected to be designed in accordance with usual and customary engineering practices and involve proven technology and proven configurations of that technology. The proposed improvements will require the City to obtain permits for construction of these improvements. It is assumed that the City will obtain the required permits in the due course of business.
14. In the opinion of the firms preparing this Report, the City's issuance of the Series 2018 Bonds in the aggregate principal amount not exceeding \$200 million for the purposes described in this Report, dated the date hereof, is an advisable undertaking.

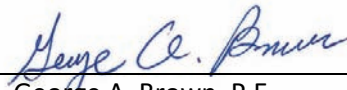
Sincerely,



Didier Menard, P.E.
Vice President
CH2M HILL, Inc.



Mike Burton
Vice President
Stantec



George A. Brown, P.E.
Senior Associate
Hazen and Sawyer

Introduction

1.1 Authorization and Purpose

The City of Fort Lauderdale, Florida (the “City”) authorized CH2M HILL, Inc. (hereafter, “CH2M”), along with Hazen and Sawyer, P.C. (hereafter “Hazen”), and Stantec, Inc. (hereafter, “Stantec”) to analyze the feasibility of the City issuing no more than \$200 million in Water and Sewer Revenue Bonds, Series 2018 (the “Series 2018 Bonds”). The City is proposing to issue the Series 2018 Bonds to provide funds for capital improvements to the City’s existing water and sewer system (the “Water and Sewer System” or the “System”). The Series 2018 Water and Sewer Bonds Feasibility Report (the “Report”) provides information pertinent to the issuance of the Series 2018 Bonds for inclusion in the Official Statement for the Series 2018 Bonds.

This report describes the organization and management of the City’s Public Works Department and the Water and Sewer System’s respective service areas, facilities, operations, capital improvement program (CIP), and historical and projected financial performance. The City’s fiscal year (FY) is from October 1 to September 30 of the following calendar year. Historical operating results are presented for FY 2012 through FY 2017. Results for FY 2017 are unaudited. Projected operating results are presented for FY 2018 through FY 2022 (the “Study Period”). Descriptions of the principal assumptions and limitations of the analysis are also included.

Beginning in FY 2011 to the present, CH2M has served as the Engineer of Record for the City’s wastewater collection and transmission system. In that role, CH2M performs reviews and reports on various aspects of facilities engineering, management, operations, maintenance, and finances of the wastewater Collection and Transmission System, as detailed herein, for which the Public Works Department is responsible. CH2M served as program manager for the City’s *WaterWorks* 2011 Program from 2002 until its completion in 2010. As the *WaterWorks* 2011 program manager, CH2M was responsible for directing a major element of the City’s CIP that was intended to modernize the Water and Sewer System and extended sewer service to the entire City.¹ From 1991 until the start of the *WaterWorks* 2011 Program in 2002, CH2M served as the Engineer of Record for the City’s wastewater collection and transmission system and the regional wastewater treatment facilities (the “Sewer System”). CH2M’s ongoing work with the City provides familiarity with the City’s wastewater treatment system, and the City’s water treatment and distribution system (the “Water System”), as described herein, and its facilities and operations.

Hazen has been the City’s water consultant since 1998 and has extensive knowledge of the Water System. Hazen was also recently selected as program manager for the design and construction of improvements that the City agreed to in the Consent Order with the Florida Department of Environmental Protection (FDEP). Hazen prepared the City’s Water Master Plans in 2000 and updated it in 2007. Additionally, Hazen prepared the City’s 2014 water demand forecast and associated 10-year water supply plan. Furthermore, Hazen has prepared numerous designs and planning documents related to the City’s water treatment plants (WTPs).

Stantec (formerly known as Hawksley Consulting, and prior to Hawksley, as Burton and Associates) was retained by the City in 2008 to prepare comprehensive Water and Wastewater Rate Studies in 2009 and an update in 2011. In addition, Stantec has also provided other rate and financial planning consulting

¹There are several small areas in the City near the Executive Airport, and approximately half of the Rock Island area that the City annexed in late 2005, that will continue to receive water service from Broward County. In addition, the Riverland Village and Melrose Park areas of the City receive wastewater service from Broward County.

services to the City relative to the Water and Sewer System in the areas of customer class cost allocation studies, drought surcharge analysis, and financial elements of engineer’s reports.

1.2 Study Assumptions

In preparing this report, CH2M, Hazen, and Stantec relied on information provided by the City and others. While offering no assurances with respect to this information, which has not been independently verified, CH2M, Hazen, and Stantec believe that this information is valid for the purposes of this report. The following sources of information were used to prepare this report:

- Comprehensive annual financial reports for the City for FY 2012 through FY 2016;
- Financial reports and work papers for FY 2012 through FY 2017;
- City’s annual operating budgets for FY 2012 through FY 2018;
- City’s 2007 *Water Master Plan Update* (Hazen and Sawyer, 2008a);
- City’s 2007 *Wastewater Master Plan Update* (CDM, 2007a);
- City’s 2000 *Water and Wastewater Master Plan* (the “Master Plan” or the “2000 Master Plan”) (CH2M HILL and Hazen and Sawyer, 2001);
- City’s *Comprehensive Utility Strategic Master Plan* (Reiss Engineering, 2017)
- City’s *FY 2009 Utility Rate Study* (Burton and Associates, 2009);
- City’s *FY 2011 Utility Rate Study* (Burton and Associates, 2011);
- *Central Region Wastewater System, 2017 Renewal and Replacement Requirement Analysis* (CDM Smith, 2017a);
- *Capacity Analysis Report Annual Update George T. Lohmeyer Regional Wastewater Treatment Plant. 2017* (CDM Smith, 2017b);
- City’s FY 2018–FY 2022 Community Investment Plan (City of Fort Lauderdale, 2017);
- City’s Fast Forward Fort Lauderdale 2035 Strategic Plan (City of Fort Lauderdale, 2013);
- *2013 Lower East Coast Water Supply Plan* (South Florida Water Management District);
- City’s 2014 *10-Year Water Supply Facilities Work Plan* (Hazen and Sawyer, 2014)
- *WaterWorks 2011 Program Delivery Plan Update* (CH2M HILL et al., 2002 and 2004) and associated CIP;
- Southeast Florida Regional Climate Action Plan (Southeast Florida Regional Climate Change Compact, 2012)
- South Florida Water Management District (SFWMD) Water Use Permit No. 06-00123-W;
- Financial, billing and operating data; and
- Discussions with City staff, consultants, and advisers.

This report is based on the following assumptions and information:

- The CUSMP (Reiss Engineering, 2017) population projections for the City’s Water System service area and associated water demands are reasonable for purposes of projecting the financial results of operations.
- The CUSMP (Reiss Engineering, 2017) projections of wastewater flows are reasonable for purposes of projecting the financial results of operations.

- FY 2017 water and sewer billing data and corresponding revenues provided by City staff are reasonable for purposes of projecting water and sewer revenues.
- Debt service information provided to the City by its financial advisor for the proposed Series 2018 Bonds is reasonable for the purposes of this report.
- Historical financial and operating results are reasonable for purposes of projecting future financial and operating results.

In preparing this report, CH2M, Hazen, and Stantec also made assumptions about future conditions; however, actual conditions may differ from those assumed. To the extent that future conditions differ from those assumed, results will vary from those forecasted. The principal assumptions regarding future conditions are as follows:

- The local economy will remain relatively stable, growing moderately in accordance with the projected rate of population growth (approximately 0.5 percent annually) through FY 2022. Impact fees from new development and interest income reflect current economic conditions and recent updates to population projections.
- The forecasted annual escalation in the System's cash Current Expenses during the 5-year Study Period reflects anticipated system growth, inflation, and the anticipated increase in depreciable capital assets requiring maintenance and repair. The average annual escalation in System cash Current Expenses is projected to be 1.8 percent during the Study Period.
- Capital outlays will occur in general accordance with the schedules and cost estimates outlined in Section 5, Capital Improvements.
- Any future changes in management and/or administration within the City or the Public Works Department will provide managerial skills comparable to those of the present City staff.
- Any future changes in management and/or administration of the construction program will provide managerial skills comparable to those of the present City staff.
- Unaccounted for water will remain at or below the current levels as a percentage of total Water System water production.²
- The City will continue to make significant investments during the 5-year study period to rehabilitate portions of the City's wastewater collection system. It is expected that these rehabilitation projects will reduce infiltration and inflow (I/I) levels in the Sewer System. I/I levels have declined as a result of the ambitious sewer rehabilitation program that the City has undertaken, and I/I levels are expected to remain at or below these reduced levels.
- The water demands and wastewater discharge characteristics of future customers will be comparable to those of existing customers. Water and sewer volume sales will be comparable to those observed in FY 2016.
- Uncollected service billings as a percent of total Water and Sewer System service revenue billed will remain at or below historical levels.³
- The projected sources of funding for the City's CIP will be available in the approximate amounts and terms assumed herein throughout the Study Period.

²Unaccounted for water has fluctuated significantly during the last 10 years. In FY 2015–16, unaccounted for water amounted to approximately 13.1 percent of total annual finished water production during this period. For FY 2016–17 (through August 2017), the unaccounted for water was 7.5 percent of total water production.

³Uncollected service billings were reported to have been approximately 3.9 percent of total utility billings in FY 2017.

SECTION 1 – INTRODUCTION

- The City has adopted the water and wastewater rate increases presented herein, and will comply with its ordinance requiring that on October 1, 2018, and October 1 of each year thereafter, charges shall be adjusted by 5 percent per annum as established and adopted by resolution.
- The City will connect new customers to the Water and Sewer Systems in accordance with the projected system growth forecast herein and will connect any remaining customers that have not yet transitioned from septic tanks to the Sewer System, though they are being charged for sewer service.
- The City will comply with its debt covenants, as set forth in the Bond Resolution and the State of Florida Revolving Fund Loans.

Public Works Department

The Public Works Department is responsible for the operation of the Water System, the Sewer System, stormwater collection system (the “Stormwater System”), the City’s solid waste collection system (the “Solid Waste System”), and the City’s fleet services (hereafter, “Fleet Services”). The Water and Sewer Enterprise Fund accounts for the Water and Sewer Systems’ Current Expenses and revenues, while the Stormwater System’s and Solid Waste System’s expenses and revenues are accounted for in the Stormwater Enterprise Fund and Sanitation Enterprise Fund, respectively. The expenses and revenues of Fleet Services are accounted for in an internal service fund (Vehicle Rental Fund). The City’s expenditures for fleet services are recovered through internal charges to City departments that use the City’s fleet of vehicles and equipment.

2.1 History

2.1.1 Water System

In 1911, the City was incorporated with a population of 143 people. The following year, the City’s Water System began operating, serving less than 100 people. This initial Water System was replaced with a larger well, pumping station, and treatment plant in 1919. The construction of the Peele-Dixie Water Treatment Plant (the “Peele-Dixie WTP”) (now known as the Walter E. Peele-Dixie WTP) began in 1926. The Peele-Dixie WTP was enlarged in 1939 to 14 million gallons per day (mgd). The number of customers (accounts) served nearly doubled between 1935 and 1945 and again by 1950, growing from 2,365 in 1935, to 5,721 in 1945, and 11,577 by 1950.

In 1950, the City purchased the Fiveash Water Treatment Plant (the “Fiveash WTP”) from the Twin Lake Heights Water Company. The capacity of the Fiveash WTP was increased from 8 to 16 mgd in 1958. By the early 1970s, the capacity of the Peele-Dixie WTP was increased to 20 mgd and the Fiveash WTP to 40 mgd. Together these WTPs provided service to approximately 35,700 customers. The Fiveash WTP was expanded by an additional 24 mgd of design capacity, for a total of 64 mgd in the early 1980s as the Water System neared capacity. Today the Fiveash WTP has a capacity of 70 mgd.

The City serves most of the area within its corporate limits, except for several areas near the Fort Lauderdale Executive Airport (the “Executive Airport”) and approximately half of the area that the City annexed in the Rock Island area in late 2005 that is served by Broward County, Florida (hereafter, “Broward County”).

The City began providing water service to other nearby communities in 1953, when it signed a contract with the Town of Lauderdale-by-the-Sea. Until 2008, the Town of Lauderdale-by-the-Sea owned the water lines within its boundaries, and the City maintained those lines and otherwise provided retail water service to the residents of that community. In 2008, the City purchased the water lines it previously leased from the Town of Lauderdale-by-the-Sea. The City continues to provide retail water service to the residents of the Town of Lauderdale-by-the-Sea.

Other entities also purchase water from the City under similar terms as the Town of Lauderdale-by-the-Sea, including the Village of Sea Ranch Lakes and parts of unincorporated Broward County. Together, the Town of Lauderdale-by-the-Sea and the Village of Sea Ranch Lakes comprise less than 4 percent of the total population served by the City’s Water System. The number of retail customers that the City serves in unincorporated Broward County is less than 6 percent.

Several other entities purchase water from the City on a wholesale or bulk user basis through a master meter.

These entities include:

- City of Wilton Manors

- City of Oakland Park
- Broward County's Port Everglades⁴
- Portions of the City of Tamarac
- Town of Davie

In total, the City's Water System served an estimated population of approximately 228,546 at the end of calendar year 2015 (Reiss Engineering, 2017). The agreements for water supply between these wholesale customers and the City all have 30-year terms, except for Wilton Manors, which has a 25-year term. Table 2-1 shows the dates when each contract is scheduled to expire. The City has one contract, with the Town of Davie, which expired in 2017. The City and the Town of Davie have been negotiating a renewal of this contract, and the City anticipates that this contract will be renewed in the due course of business. The City continues to serve the Town of Davie under the terms of the expired contract. The City does not anticipate any of these wholesale customers seeking alternative sources of water supply when these contracts expire.

Table 2-1. Wholesale Water User Contracts

Large Users	Effective Dates of Agreement	Percent of Total Fort Lauderdale Consumption ^a
Town of Davie	1987 to 2017	0.27 percent
Broward County	1994 to 2024	0.04 percent
City of Oakland Park	1994 to 2024	8.15 percent
Broward County's Port Everglades ^b	2002 to 2032	3.19 percent
City of Tamarac	1994 to 2024	0.42 percent
City of Wilton Manors	2005 to 2030	4.26 percent
Total		16.33 percent

^a Total metered consumption in FY 2016 amounted to approximately 12.279 billion gallons (BG).

^b Since 2004, the City has provided retail water service to some tenants at Broward County's Port Everglades but also continues to provide wholesale water service to the Port.

2.1.2 Sewer System

Prior to the construction of the G.T. Lohmeyer Regional Wastewater Treatment Plant (the "RWWTTP", or "Regional Facilities"), in accordance with the Broward County 201 Facilities Plan in the 1970s, the Sewer System was comprised of numerous small sewer treatment facilities housed at various locations around the City. Though the construction of the Sewer System began in 1927, it was not completed until 1937 because of the impacts of a hurricane and local economic downturn. Expansion of the collection system was limited until 1957, when the City began expanding the Sewer System into areas that were not serviced, beginning from the beach area and extending west. As part of the *WaterWorks* 2011 Program, the City pursued the expansion of the Sewer System into the remaining areas not previously serviced by the Sewer System. Almost all of the City's residents now have been connected or at least have access to the Sewer System.⁵

⁴Since 2004, the City has been providing retail water service to some Port tenants, but continues to provide wholesale water service to the Port.

⁵The Riverland Village and Melrose Park portions of the City currently receive and are expected to continue to receive wastewater service from Broward County. While wastewater service is available throughout the remainder of the City, approximately 1,500 customers in the City are billed for service, but have not yet connected to the City's Sewer System.

In the mid-1970s, the City began to construct the RWWTP. The RWWTP was designed to serve the entire City and the following surrounding communities and entities:

- Portions of the Town of Davie
- City of Oakland Park
- City of Wilton Manors
- Broward County’s Port Everglades
- Portions of the City of Tamarac

The City has negotiated contractual agreements with each of these large regional Sewer System users.⁶ These contracts were amended in 2001 and are now scheduled to expire in 2021. The City expects these agreements to be renewed when they expire in 2021. To date, none of the large regional Sewer System users have indicated any intention to seek alternative sources of wastewater treatment.

After constructing the RWWTP, the City subsequently closed the smaller treatment facilities in the City. The RWWTP has had a permitted capacity of 56.6 mgd since completion of various improvements and a re-rating process, which was completed in March 2004.

2.2 Organizational Structure

The Water and Sewer System is part of the City’s Public Works Department (the “Department”). The Department, which manages the operation of the Water and Sewer System, the Stormwater System, and the Solid Waste System, is currently budgeted for approximately 464 full-time equivalent staff. The Department is composed of four divisions:

- Strategic Support
- Engineering
- Sustainability
- Utilities

The Strategic Support division provides financial services and administrative support activities for the Department, including budget, utilities finance, personnel and payroll, grant management, and neighborhood call center. The engineering division responsibilities include engineering and project management services for the City’s community investment plan and other City departments. The Sustainability Division is comprised of five sections: solid waste and recycling, fleet services, environmental and regulatory affairs, sustainability and climate resilience, and stormwater. The division serves as an internal business consultant to other City departments to integrate sustainable practices and climate resiliency into their daily operations. The Utilities Division is responsible for operation of the Water System and Sewer System, and is organized into the Distribution and Collection section and the Treatment section.

The Director of the Department is Mr. Paul Berg, who has held that position since October 2015. Prior to serving as Director, Mr. Berg served as the Acting Director of the Department for approximately 1 year, and as the Deputy Director for the Department for approximately 1.5 years. Mr. Berg, has more than 30 years of experience serving in a senior management capacity within the public sector. Prior to serving as the Deputy Director for the Department, Mr. Berg served as the City Manager for the City of Eustis, Florida, from 2007 to 2013, and as the Assistant City Manager for Champaign, Illinois, from 1987 through 2007.

⁶Since 2004, the City has provided retail wastewater service to some Port tenants, but continues to provide wholesale wastewater service to the Port.

Figure 2-1 provides an overview of the organization of the Department. The divisions and sections composing the Department are also shown on the chart. Each of the Department's four divisions is headed by a Deputy or Assistant Public Works Director, one of which is currently vacant (Engineering Division). The Deputy or Assistant Public Works Directors are: Alan Dodd, P.E. (Strategic Support Division), Talal Abi-Karam, P.E. (Utilities Division), and Dr. Nancy Gassman (Sustainability Division).

The Utility's Division's two subdivisions or sections are:

- Distribution and Collection – operates and maintains the potable water distribution facilities and sewer collection and pumping facilities.
- Treatment – operates the City's two WTPs, the RWWTP, and environmental lab.

2.3 Service Area Population Projections

The water demand and wastewater flow forecasts presented in the CUSMP (Reiss Engineering, 2017) comprises current, baseline demand conditions and population growth projections through 2035. The population projections were compiled by Broward County Planning and Redevelopment Division (Broward County Planning) using the Traffic Analysis Zones and Municipal Forecasts Update (2014) populations from the University of Florida's Bureau of Economic and Business Research (BEBR) "Projections of Florida Population by County, 2015–2040, with Estimates for 2014" (BEBR, 2015). The population forecast was then disaggregated into Broward County's 2010 Traffic Analysis Zones (TAZ) by municipality to reflect the Water System service area and Sewer System service area.

The City of Fort Lauderdale provides water to City customers within the Water System service area as well as the following jurisdictions:

- Entirety of the City of Lauderdale-by-the Sea
- Entirety of the Village of Sea Ranch Lakes
- Small areas of Unincorporated Broward County (that is, Roosevelt Gardens, Franklin Park, Washington Park, and Boulevard Gardens communities)
- Small area of the Town of Davie
- Small area of the City of Lauderdale Lakes
- Small area of the City of Lauderhill
- Entirety of the Village of Lazy Lake
- Small area of the City of North Lauderdale
- Entirety of the City of Oakland Park
- Portions of the City of Tamarac
- Entirety of the City of Wilton Manors
- Port Everglades

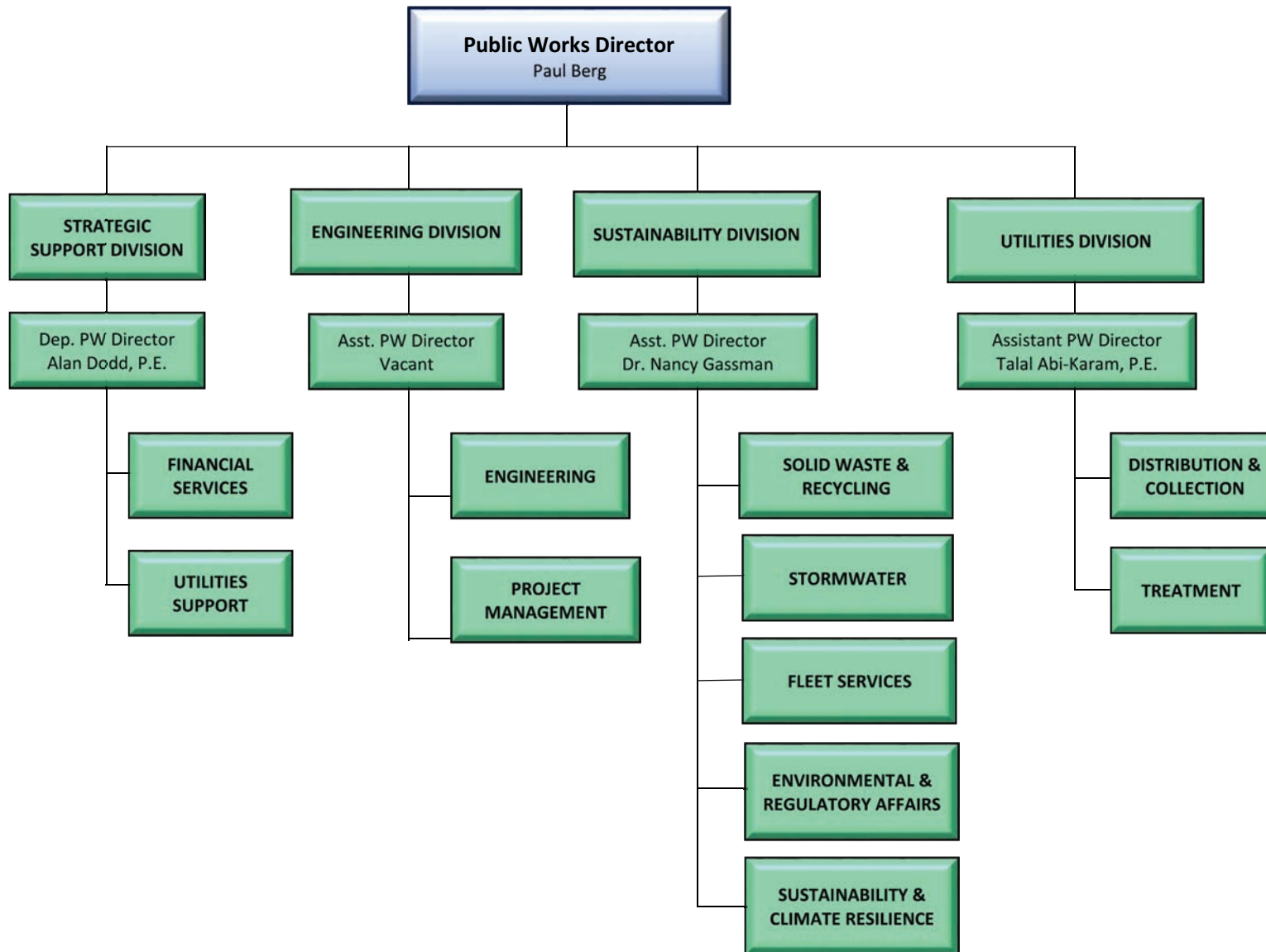


Figure 2-1. City of Fort Lauderdale Public Works Department Organizational Chart

The City measures water consumption to the following jurisdictions via master meters:

- Broward County Water and Wastewater Services
- City of Oakland Park
- City of Tamarac
- City of Wilton Manors
- Port Everglades
- Florida Department of Transportation (FDOT) Cypress Creek Toll Plaza
- Town of Davie

Certain jurisdictions are fed through master meter accounts of an upstream consecutive user, as follows:

- Lauderdale Lakes is fed through an Oakland Park Master Meter.
- Lazy Lake is a village contained entirely within the borders of the City of Wilton Manors and is fed through a Wilton Manors master meter.

The balance of the City's customers is supplied with water through individual retail customer water meters (multi-family, single family, commercial, and irrigation accounts), including the following:

- City of Fort Lauderdale
- City of Lauderdale-by-the Sea
- Village of Sea Ranch Lakes
- Unincorporated Broward County
- City of Lauderhill

The City's water service area encompasses a total area of 43 square miles, approximately one-tenth the total area of urban Broward County. The City's land use is unique within Broward County and is composed of residential, commercial, and industrial uses along with a significant beach community of high-rise hotels and condominiums with seasonal populations. Additionally, the City serves Port Everglades through five water meters. The Port's water demand can vary significantly on a day-to-day basis, with the high demand period occurring when ships are in port and are being filled with water.

Table 2-2 presents the population forecast for the City's water service area from 2020 through 2035 as presented in the CUSMP (Reiss Engineering, 2017) and used as the basis for the water demand projections presented in the CUSMP. Historical population estimates for 2010 and 2015 are also included.

Table 2-2. Population Forecast City of Fort Lauderdale Water Service Area

Source: Reiss Engineering, 2017

Location	2010	2015	2020	2025	2030	2035
Fort Lauderdale	162,715	169,094	174,316	189,166	198,394	201,880
Lauderdale-by-the Sea	3,463	3,841	4,009	3,960	3,922	3,894
Sea Ranch Lakes	663	703	720	709	704	697
Unincorporated Broward County	6,745	6,265	6,652	7,005	7,297	7,414
BCOES (Irrigation at FL Int. Airport)	0	0	0	0	0	0
Davie	525	528	530	527	534	585
Lauderdale Lakes	374	381	383	378	386	386
Lauderhill	2,923	2,890	2,881	2,840	2,927	2,969

Table 2-2. Population Forecast City of Fort Lauderdale Water Service Area*Source: Reiss Engineering, 2017*

Location	2010	2015	2020	2025	2030	2035
Lazy Lake	25	26	26	26	26	26
North Lauderdale	345	349	352	1,060	1,291	1,403
Oakland Park	29,851	30,706	31,718	32,257	33,477	33,825
Tamarac	1,497	2,152	2,162	2,137	2,179	2,188
Wilton Manors	11,374	11,611	11,740	11,693	11,931	11,929
Port Everglades	0	0	0	0	0	0
FDOT Cypress Creek Toll Plaza	0	0	0	0	0	0
Total	220,500	228,546	235,489	251,758	263,068	267,196

The Sewer System service area is similar to the Water System service area, and can be expected to be influenced by the same factors that are influencing the Water System service area population. Table 2-3 presents the projected population of the Sewer System service area as presented in the CUSMP (Reiss Engineering, 2017).

Table 2-3. Population Projections for Fort Lauderdale Wastewater Service Area 2015–2035*Source: Reiss Engineering, 2017*

Service Area	2015	2020	2025	2030	2035
Fort Lauderdale & Unincorporated Broward Co.	140,717	145,429	160,108	168,078	171,240
Oakland Park	27,095	28,107	28,646	29,866	30,214
Wilton Manors	11,611	11,740	11,693	11,931	11,929
Tamarac & Davie	410	422	394	443	503
Total Population	179,833	185,698	200,841	210,318	213,886

The population forecasts for the Water and Sewer System service areas were incorporated into the forecast of System revenues. The forecast of System revenues is based on unaudited FY 2017 results. The revenue forecasts for subsequent periods reflect the anticipated population growth in the service area from the estimated FY 2017 results.

2.4 Training Programs and Certifications

The City has an active training program for its field crews and operation and maintenance staff, including monthly safety meetings and quarterly courses on various safety-related subjects. All of the City's water, wastewater, and storm water system operators and distribution and collection field crew leaders are licensed and certified under the Florida Administrative Code (FAC). The City's distribution and collection field crew leaders and staff wishing to be eligible for promotion to these roles are training to meet these certification requirements. Currently, the City is rotating staff to ensure that a licensed crew member is assigned to each job or project. The City is also requiring that vacancies be filled by licensed operators or by individuals who agree to train to be licensed operators.

The City's environmental laboratories are certified by FDEP and the Florida Department of Health for collecting environmental water samples and conducting water quality analyses per International Organization for Standardization (ISO) 17025.

All new hires and promotions to Utilities Serviceworker III, Utilities Serviceworker IV, and Utility Field Representative must be licensed at the time of application. The City is still negotiating with the Teamsters Union to address current employees in these classifications who are not licensed. The City and the Teamsters Union have tentatively agreed that current Utilities Serviceworker IIIs, Utilities Serviceworker IVs, and Utility Field Representatives assigned to water distribution would acquire and maintain a Level 3 or higher water distribution system operator license. Assuming the parties complete negotiations and agree to a new contract, this licensing requirement would take effect January 1, 2019.

Water System

The Water System operated by the City consists of groundwater withdrawal, treatment, transmission, pumping, storage, and distribution facilities. This section describes the Water System and identifies capital improvements that are in various stages of planning, design, and construction. This section also discusses the potential impact of the existing regulatory framework and drinking water regulations on future Water System capital improvement projects. The projects described in this section are included in the CIP presented in Section 5 of this report.

3.1 General Description

3.1.1 Service Area and Customer Base

The City provides water across several governmental jurisdictions in central Broward County. In some areas, the City owns and maintains the water distribution system. In others, the City sells bulk water for redistribution by another agency. Figure 3-1 generally depicts the City's water service area (inclusive of all retail and wholesale customers). The Water System includes two WTPs with associated wellfields, a distribution system consisting of approximately 782 miles of pipe, and water storage and pumping facilities.

The City provides retail water service to most of the area within its corporate limits (except for several areas north, east, and west of the Executive Airport and approximately half of the Rock Island area that was annexed by the City in November 2005, which is served by Broward County). The City also provides direct retail water service to the Town of Lauderdale-by-the-Sea, the Village of Sea Ranch Lakes, some tenants in Port Everglades, and parts of unincorporated Broward County.

3.2 Water Production and Demands

The population projections for the Water System service area are shown in Table 2-2.

Table 3-1 presents historical annual average daily flow (AADF) pumping data from the City's WTPs and wellfields along with the estimated populations from 2009 to 2015. The historical per capita water demands during this time frame are also presented. The data are provided from the City's 2017 Master Plan and the 2014 Water Supply Plan (Hazen and Sawyer, 2014).

Table 3-1. City of Fort Lauderdale Water Service Area Historical AADF Finished and Raw Water Pumping Data

Year	Water Service Area Population	AADF Finished Water Pumped		AADF Raw Water Pumped	
		Pumping Rate (mgd)	Per Capita (gallons per person per day)	Pumping Rate (mgd)	Per Capita (gallons per person per day)
2009	224,145	43.6	195	44.6	199
2010	220,500	40.6	184	41.9	199
2011	222,109	40.3	181	41.4	186
2012	223,718	38.3	171	39.6	177
2013	225,328	37.7	167	39.2	174
2014	226,937	37.5	165	39.3	173
2015 ^a	228,546	41.4	181	42.5	186
2009 to 2015 Average:		39.9	178	41.2	184

^a The finished water per capita rate for 2015 was estimated based on the average of the 2009 to 2013 per capita data, in accordance with the SFWMD's *Applicant's Handbook for Water User Permit Applications* (SFWMD, 2015), and used in the City's Comprehensive Strategic Utility Master Plan and 10-Year Water Supply Plan.

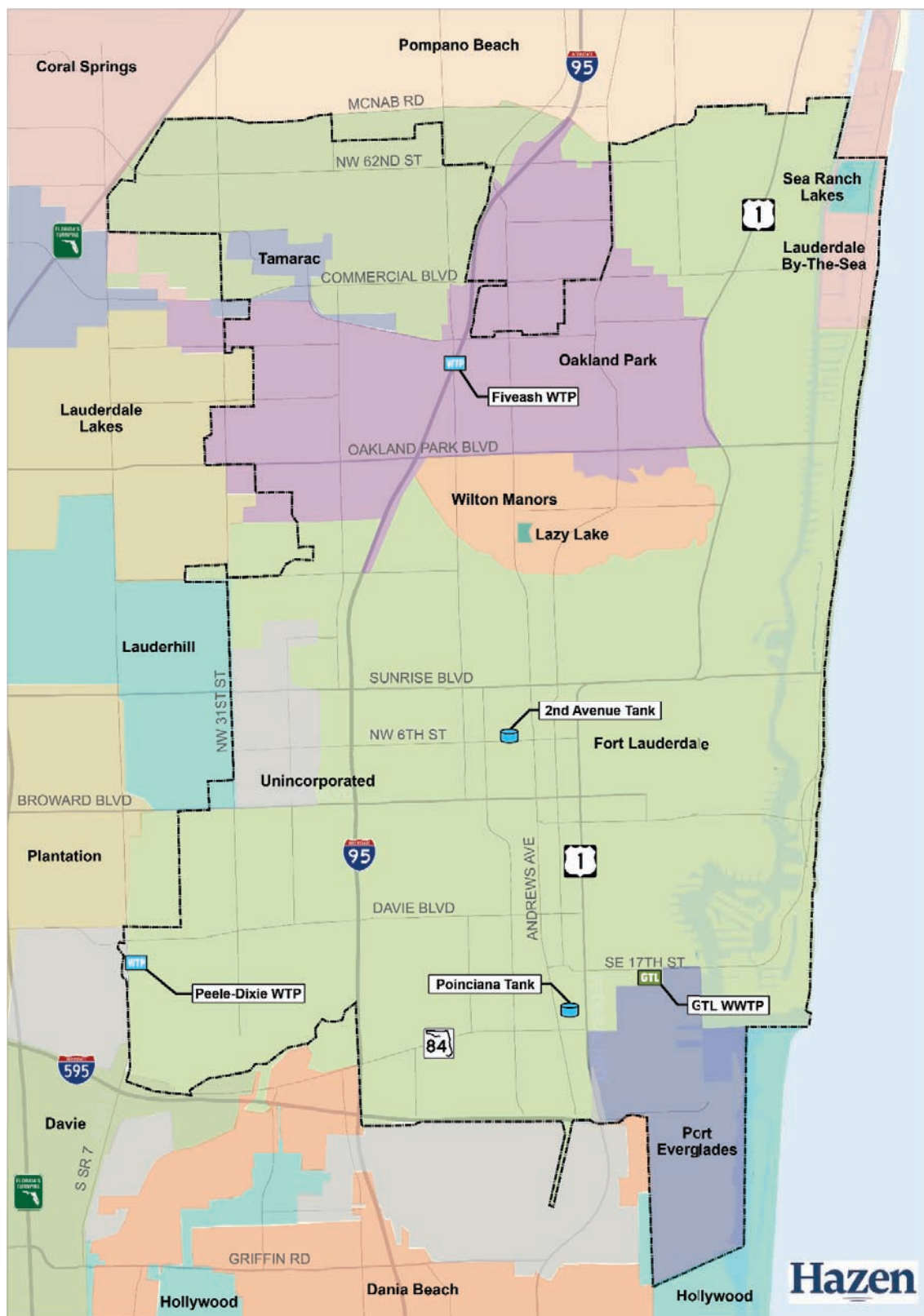


Figure 3-1. City of Fort Lauderdale Water Service Area

Source: Hazen and Sawyer, 2014

The above data represent the overall water consumption rate within the City's water service area including: 1) residential; 2) commercial; 3) industrial; 4) wholesale customers such as Wilton Manors, etc.; and 5) Port Everglades. These data indicate the following:

- 2009 to 2015 average raw water per capita demand: 184 gallons per person per day
- 2009 to 2015 average finished water per capita demand: 178 gallons per person per day

The above 7-year per capita averages for raw water and finished water demand are used to assess future forecasts based on the water service and population forecast.

The City has established a finished water per capita goal of 170 gallons per person per day by 2028 per its strategic planning documents.

Table 3-2 presents the overall water demand forecast for the City's water service area from 2020 through 2035. Historical water demand data for 2005 through 2015 are also included. Forecasts are presented for the Biscayne Aquifer raw water and finished water demands on an AADF basis. Additionally, the maximum day water demand is based on the historical maximum day to annual average day ratio of 1.27. The CUSMP used a conservative peaking factor of 1.3 for projected maximum day demand (MDD) calculations. The data in the table below assumes that the City achieves its finished water per capita goal of 170 gallons per person per day by 2028.

Ongoing conservation efforts to achieve the City's finished water per capita goal of 170 gallons per person per day are presented in Section 3.8.

Table 3-2. City of Fort Lauderdale Water Service Area Overall Water Demand Forecast

Year	Population	Overall Raw Water Per Capita (gpcd) ^a	Overall Finished Water Per Capita (gpcd) ^a	Biscayne Aquifer Raw Water Demand AADF (mgd)	AADF Finished Water Demand (mgd)	Max Day Finished Water Demand (mgd)
2005	238,725	202	200	48.2	47.8	56.3
2006	235,080	214	213	50.4	50.1	63.1
2007	231,435	187	186	43.4	43.1	53.6
2008	227,790	192	188	43.6	42.8	56.4
2009	224,145	199	195	44.6	43.6	54.4
2010	220,500	190	184	41.9	40.6	49.5
2011	222,109	186	181	41.4	40.3	50.3
2012	223,718	177	171	39.6	38.3	48.1
2013	225,328	174	167	39.2	37.7	49.7
2014	226,937	173	165	39.3	37.5	49.4
2015	228,546	186	181	42.5	41.4	53.8
2020	235,489	181	177	42.6	41.7	54.2
2025	251,758	178	172	44.8	43.3	56.3
2030	263,068	176	170	46.3	44.7	58.1
2035	267,196	176	170	47.0	45.4	59.1

^a The finished water demand in the year 2028 is assumed to be 170 gallons per person per day based on the City's goal and Water Use Permit. The finished water per capita demands for 2028 through 2035 is assumed to remain constant at 170 gallons per person per day. These assumptions are considered reasonable by the firms preparing this Report. This is consistent with the approach outlined in the SFWMD's *Applicant's Handbook for Water User Permit Applications*.

Note:

gpcd = gallon(s) per capita per day

Figure 3-2 illustrates the raw water demand forecast on an annual average day basis graphically, and illustrates that the annual average day raw water demand does not exceed the annual average day Biscayne Aquifer allocation through the year 2035.

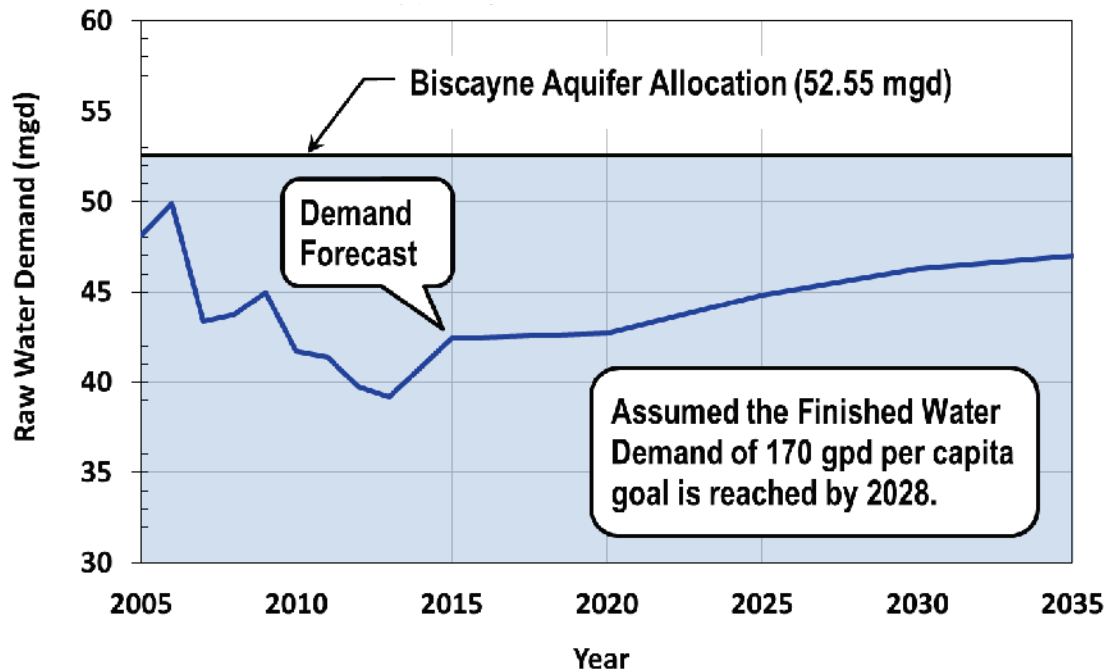


Figure 3-2. Biscayne Aquifer Raw Water Demand Forecast Annual Average Day (mgd)
Source: Hazen and Sawyer (2014)

Assessing the available treatment capacity versus the maximum day finished water demand is critical for determining the timing for planning treatment capacity expansion to meet future demand. Figure 3-3 illustrates that the City's design treatment capacity of 82 mgd (12 mgd treatment capacity at the Peele-Dixie WTP plus 70 mgd for the Fiveash WTP) is sufficient through the year 2035 to meet the maximum day demand with all treatment units in service.

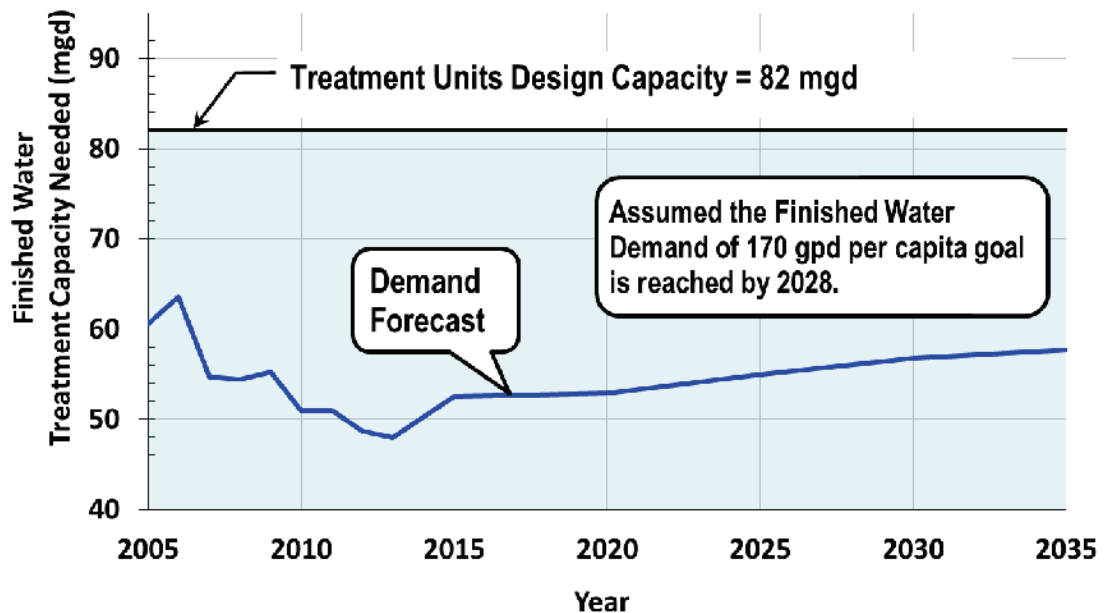


Figure 3-3. Finished Water Treatment Capacity Needed Maximum Day (mgd)
Source: Hazen and Sawyer (2014)

The Fiveash WTP design capacity is permitted at 70 mgd. The CUSMP indicated that, based on plant age, the plant has a reduced capacity of 55 mgd resulting from an inefficient layout of the piping between the aeration basin and the treatment units. If the Fiveash limitation exists, the overall treatment capacity (Fiveash plus Peele-Dixie) would be 67 mgd. This WTP still exceeds the 2035 demand forecast as shown in Figure 3-3.

3.3 Raw Water Supply

The City currently obtains all of its raw water supply from two wellfields that draw water from the Biscayne Aquifer system. Water is withdrawn from the Dixie Wellfield to provide raw water to the Peele-Dixie WTP and from the Prospect Wellfield to supply raw water to the Fiveash WTP. Both wellfields are permitted by the SFWMD under Water Use Permit No. 06-00123-W.

The City has constructed two test/production wells, and has completed preliminary planning for an alternative water supply project at the Peele-Dixie WTP. This project will provide approximately 6 mgd of additional finished water capacity from the Floridan Aquifer, which will be treated by a reverse osmosis (RO) treatment process that will be constructed at the Peele-Dixie WTP. The production wells and treatment facility were originally scheduled to be completed in FY 2013. However, because of reductions in current population estimates and projections, future investment in withdrawal, transmission, and treatment of raw water from the Floridan Aquifer has been deferred until water demands dictate the need. Based on population projections and water demands, it is currently estimated that this facility will not be needed until after 2035.

Both wellfields were inspected as part of the CUSMP (Reiss Engineering, 2017). The findings of the CUSMP are presented in the following sections.

3.3.1 Dixie Wellfield

Raw water to the Peele-Dixie WTP is supplied from groundwater from the Dixie Wellfield. The Dixie Wellfield includes eight Biscayne Aquifer wells. The wells and pumping equipment were constructed in 2008. Each well has an approximate capacity of 2.5 mgd. The wells are located within the Fort Lauderdale County Club golf course. The total capacity of all wells is approximately 20 mgd. The wellfield withdrawal permit limits the maximum withdrawal to 15 mgd on a maximum day basis.

In 2007, the City completed the construction of two Floridan Aquifer test wells at the Dixie Wellfield site (in Broadview Park). The purpose of these wells was to collect water quality and drawdown data for the planning of the addition of RO treatment at the Peele-Dixie WTP. In May 2008, the City completed the Floridan Aquifer Conceptual Plan for the Dixie Wellfield. This report provides a plan for quickly implementing alternative water supply if needed to meet future demands.

The Dixie Wellfield infrastructure is well-maintained. The CUSMP recommended continued normal maintenance.

3.3.2 Prospect Wellfield

The wellfield supplying the Fiveash WTP contains 29 active Biscayne Aquifer production wells that are located around Prospect Lake (referred to as the Prospect Wellfield). The 29 active production wells (Wells 25 through 28, and 30 through 54) were constructed from 1969 through 2006. Production well No. 35 is only utilized on a standby basis. The wells have pumping capacities of approximately 2,100 gallons per minute (gpm) each, which equates to a total wellfield capacity of approximately 87 mgd.

An additional 24 wells are located on the Executive Airport property in the northwestern corner of the City (referred to as the Executive Airport Wellfield). These 24 wells are not being used because of previous volatile organic compound contamination. The abandoned wells at the Executive Airport are

located near the Prospect Wellfield. For a number of years (up to 2008), the City injected raw water from uncontaminated production wells into the westernmost wells of the Executive Airport Wellfield to maintain a hydraulic barrier between the contaminant plume and the production wells in the Prospect Wellfield. The City has an on-going sampling program for the wells, and the results show that the contaminant levels have declined to non-detectable levels, indicating no continuing concerns with this contaminant.

Wells 1 through 24 are at the Executive Airport property. Wells 1 through 18 and 21 and 23 have been plugged and abandoned. Wells 19, 20, and 24 were formerly used to inject water underground to create a hydraulic barrier to prevent the westward movement of volatile organic compound contamination. The City was permitted to stop the injection of water in 2007 because of attenuation of the contamination. The City's does not use wells 19, 20, and 24 for withdrawals. Well 22 has been disconnected from the pipe network and is not in use.

The active wells used for water consumption (Wells 25 through 28, and 30 through 54) are aging. The CUSMP recommended an extensive well replacement and well rehabilitation program to maintain the integrity of the existing infrastructure. The CIP has partially funded the recommended program to a level sufficient to maintain raw water pumping capacity. In addition, the proposed bond-funded projects include funding for approximately \$700,000 of well rehabilitation projects. The City's 2017 Master Plan recommended \$7.2 million to be invested in well replacement and rehabilitation during the next 5 years.

3.3.3 Saltwater Intrusion

Both the Dixie Wellfield and Prospect Wellfield are located near salinity-control structures. The City has constructed new wells at the Dixie Wellfield that are located to minimize impacts from saltwater intrusion. The City operates a Saline Intrusion Monitoring Program (the "SALT Program"). The goal of the SALT Program is to locate and monitor the saltwater interface in and around the City's wellfields. The purpose of the Program is to provide an early warning monitoring system to assist wellfield managers in tracking the location and to manage withdrawals to limit the inland movement of the salt front. The City currently has 10 saltwater monitoring wells. To date, these wells have shown no indication of saltwater intrusion.

The CUSMP recommended continued monitoring of salinity along with development of variable density model in the short term. Long-term recommendation included installation of additional saline monitoring wells by 2026. The City continues to monitor its wells for saltwater intrusion. The CUSMP recommendation for model development has not been funded in the 2017 CIP. Given that the monitoring data have shown no significant increase in salinity, delaying development of a variable-density model is reasonable.

3.3.4 Sea Level Rise

The City contributed funding for Broward County and the U.S. Geological Survey (USGS) to develop a SEAWAT Saltwater Intrusion Model to evaluate various sea level rise scenarios. According to USGS Report 2016-5022 (Hughes et al., 2016), under the high sea level rise scenario, the Dixie Wellfield will experience a slight increase in salinity to 50 milligrams per liter (mg/L) in 2060; no impact to the Prospect Wellfield is expected.

As noted above, the City has ten saltwater intrusion monitoring wells strategically located to provide an early warning of advancing chlorides. The City collects data from its saltwater monitor wells monthly. However, if the monitoring wells indicate an increase in salinity, the City can manage wellfield pumping to protect its Biscayne Aquifer water supply.

3.3.5 Climate Change

The City has made climate change adaptation a goal of its strategic planning and closely follows adaptation strategies (including the draft Climate Adaptation Implementation Plans available through EPA) and participates in regional initiatives including membership in the Southeast Florida Regional Climate Change Compact.

The Southeast Florida Regional Climate Change Compact’s purpose is to collectively create a more resilient infrastructure in South Florida. The Compact is a collaborative effort entered into by Palm Beach, Broward, Miami-Dade, and Monroe Counties in January 2010. The goal of this collaboration is to create a unified plan to prepare for the effects of climate change, specifically regarding rising sea levels and greenhouse gas emissions. As part of the Regional Climate Action Plan (Southeast Florida Regional Climate Change Compact, 2012), 110 recommendations were compiled, with 18 of these recommendations being specific to “Water Supply, Management, and Infrastructure.”

The recommendations’ primary focus centers on sea level rise, salt water intrusion, extreme weather conditions, and infrastructure development. Improvements to both water and wastewater infrastructure will be needed to address these issues, not only to minimize climate impacts to the City, but to reduce the City’s effects on the environment.

To date, the City has implemented 53 of the 110 recommendations outlined in the 2012 Compact, ranking Fort Lauderdale in the top 8 of the 108 communities in Monroe, Miami Dade, Broward, and Palm Beach Counties.

The CUSMP identified the following risks associated with climate change:

- The Dixie Wellfield’s close location seaward of the G-54 Control Structure appears more vulnerable than the Prospect Wellfield.
- Restricted stormwater gravity discharge through the SFWMD control structures during extreme high tides and/or major storm events would promote wellfield flooding that may cause impaired water quality from surface water infiltration into improperly sealed production wells. This is less of a potential issue at the Dixie Wellfield compared to the condition of the wells at the Prospect Wellfield. Seven of the eight Biscayne Aquifer wells in the Dixie Wellfield are on elevated concrete structures approximately 4 feet above the ground surface.
- Operation of the C12/C13 interconnect may facilitate enhanced discharge of regional system flows to tide. This will lower water table elevations in the area, which will reduce potential flooding associated with extreme climatic events.
- Increased water demand, in particular for irrigation, due to higher evapotranspiration (ET) rates in combination with reduced rainfall could require a request for additional allocation sooner than currently authorized in the City’s Water Use Permit (WUP). However, climate change projections regarding future precipitation trends are uncertain.
- Hurricanes damaging water supply facilities.
- Fortunately, the Peele-Dixie WTP uses membrane treatment that can effectively decrease the low levels of salt that could possibly impact the wellfield after a catastrophic storm surge or tidal flooding event.

3.3.6 Water Use Permit

The SFWMD issued a WUP (No. 06-00123-W) to the City on September 11, 2008. This is a 20-year permit that expires on September 11, 2028. The permit provides for withdrawals from the Floridan Aquifer system via 2 existing and 14 proposed withdrawal wells, and from the Biscayne Aquifer via 64 existing and 2 proposed withdrawal facilities. Biscayne Aquifer withdrawals from the Dixie Wellfield are treated

by nanofiltration (NF), and the Floridan Aquifer withdrawals will be treated by RO in the future. Biscayne Aquifer water withdrawn from the Prospect Wellfield will continue to be treated by lime softening.

Tables 3-3 and 3-4 list the WUP limitations for both the Biscayne and Floridan Aquifers. The permit also specifies that the annual water withdrawal shall not exceed 22,334 MG, with the maximum monthly withdrawal not to exceed 2,157.6 MG.

Table 3-3. SFWMD Permit
Biscayne Aquifer Withdrawal Limits

Category	Limitation		
	Million Gallons per Year	Million Gallons per Month	Million Gallons per Day
Annual Biscayne Aquifer Withdrawal	19,181	--	52.55
Maximum Month Biscayne Aquifer Withdrawal	--	1,857	59.90
Dixie Wellfield Biscayne Withdrawal	5,475	465.0	15.00
Prospect Wellfield Biscayne Withdrawal	15,853	1,534.5	43.43

Table 3-4. SFWMD Permit
Floridan Aquifer Withdrawal Limits (million gallons)

Category	Floridan Aquifer
Annual Allocation	3,153
Maximum Month Allocation	300.6

The eight Biscayne Aquifer wells at the Dixie Wellfield, which supply water to the Peele-Dixie WTP, have the capacity to provide up to 20 mgd of raw water (permitted capacity is 15.0 mgd) to serve the Peele-Dixie WTP 12-mgd NF facility and the proposed 6-mgd Floridan Aquifer RO treatment facility. The Prospect Wellfield has a total of 29 wells rated at approximately 2,100 gpm each, for a total raw water pumping capacity of 87 mgd for the Fiveash WTP.

Previously, it was projected that the City would only be able to meet its demands until 2013 with its permitted water withdrawal of 52.55 mgd from the Biscayne Aquifer. However, because of the reduction in population projections and reduced water use from conservation measures, the City is now expected to meet its demands beyond 2035.

To meet future demands in excess of the Biscayne Aquifer withdrawal limits, the City will utilize Floridan Aquifer water at the planned Peele-Dixie WTP RO facility. The new RO facility will have a finished water capacity of 6 mgd. Expenditures for the treatment facility have been deferred until forecast demands dictate the need for additional capacity, which is now predicted to be beyond 2035.

Though the City has a permitted water supply that will meet projected demand beyond 2035, the City is also studying the feasibility of several alternative water sources and offset projects including additional Floridan Aquifer use, stormwater capture projects, reuse, and other alternative water supply projects. Currently, the City is reviewing the alternative water supply C-51 Reservoir project, which may be more cost-effective than the Floridan RO WTP option. The C-51 Reservoir could replace the proposed 6-mgd of Floridan Aquifer raw water supply anticipated for future growth.

The CUSMP provided the following conclusions based on the potable water demand forecast; the City of Fort Lauderdale:

- a. Has sufficient water supplies to meet 2035 planning period demands, considering a 1 in 10-year drought conditions.

- b. Does not require alternative water supplies, such as the Upper Floridan Aquifer and C-51 Reservoir, during the next 20 years and the City should only consider these sources for quality, efficiency, risk minimization, reliability, or redundancy reasons.
- c. Has not experienced significant advancements in the Biscayne Aquifer saline interface nor are such advancements predicted for the 20-year planning period. However, the City should continue to monitor in cooperation with Broward County and SFWMD.
- d. Should closely monitor the unit potable water demands for the next few years to evaluate further potential reductions in the per capita target level of water consumption.
- e. Continue to protect and minimize the vulnerability of the City's water supply from saltwater intrusion, treatment plant disruption, wellfield contamination, raw water line breaks, etc.

3.4 Water Treatment Facilities

The City operates two regional WTPs: the Walter E. Peele-Dixie WTP and the Charles W. Fiveash WTP. The combined treatment capacity exceeds demand through the year 2035.

3.4.1 Peele-Dixie Water Treatment Plant

In 2008, the Peele-Dixie WTP NF membrane facility was completed and placed in service, and the existing lime-softening equipment was removed from service. The project also included a deep injection well for concentrate disposal and two 4-million gallon (MG) finished water storage tanks. The capacity of the Peele-Dixie WTP is 12 mgd with all membrane units in service. Figure 3-4 illustrates a process flow diagram for the Peele-Dixie WTP.

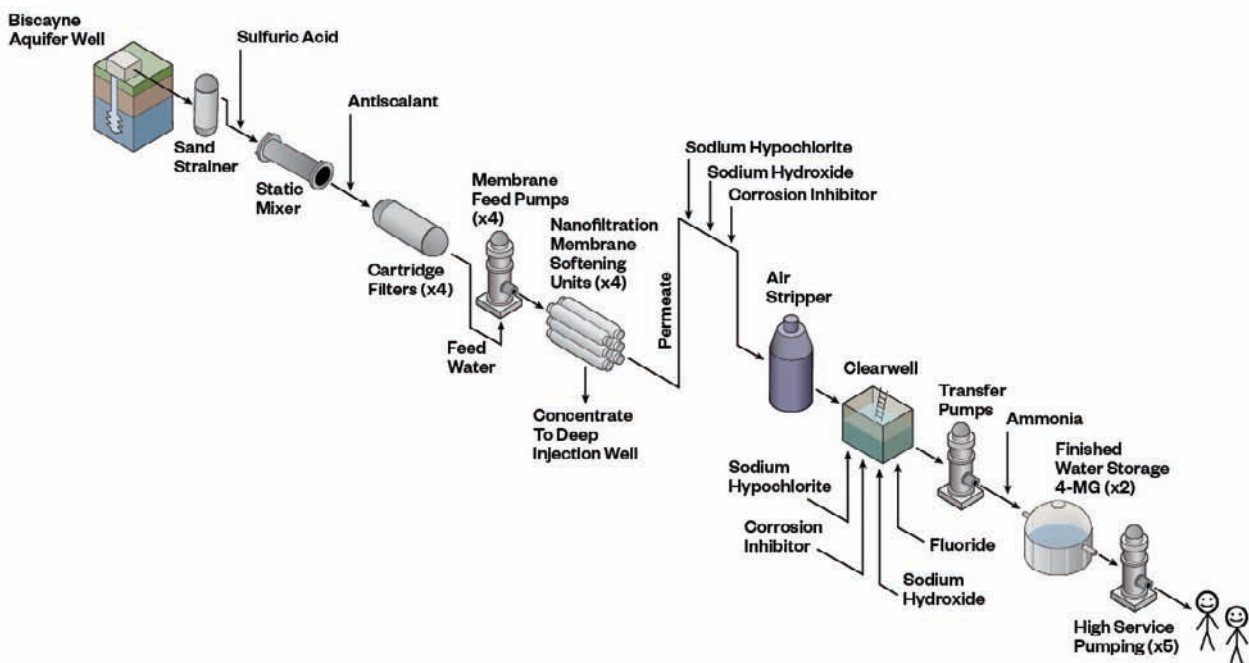


Figure 3-4. Peele-Dixie WTP Process Flow Diagram

The City has studied the addition of 6 mgd of finished water RO treatment capacity at the Peele-Dixie WTP. The Peele-Dixie Reverse Osmosis Basis of Design Report was completed in April 2008 (Hazen and Sawyer, 2008b). This additional capacity would draw raw water from the Floridan Aquifer, and would be used during peak demand periods, usually during the dry season. The City has drilled two Floridan

Aquifer test wells in the Dixie Wellfield, and constructed a section of raw water main from the new wellfield to the Peele-Dixie WTP.

The facility was designed to be expanded by the addition of three RO trains that would utilize the Floridan Aquifer. If the RO system is constructed, the total installed potable water production capacity at the Peele-Dixie WTP site would increase from 12 to 18 mgd. Wellfield modeling, facility planning, and a basis of design report has been completed for the proposed RO facility. However, future investment in the withdrawal, transmission, and treatment of raw water from the Floridan Aquifer has been deferred until water demands dictate the need (currently projected to be beyond 2035).

The treatment at the Peele-Dixie WTP consists of sulfuric acid and antiscalant addition as pre-treatment prior to cartridge filtration and NF treatment. The membrane permeate is chlorinated, pH-adjusted, and treated with corrosion inhibitor prior to being directed to the degasifiers. After the degasifiers, the water feeds into a single clearwell with partial interior baffle walls. In the clearwells, chlorine, ammonia, fluoride, and corrosion inhibitor are added prior to the final pH adjustment using caustic. From the clearwells, the water is pumped to the ground storage tanks. After the ground storage, the water can be polished with additional chlorine and ammonia before being distributed into the water distribution system via the City's high-service pumps.

The Peele-Dixie WTP finished water meets all current regulatory requirements. Current finished water quality at the Peele-Dixie WTP has a slightly positive Langelier Saturation Index (LSI), elevated pH, and low hardness and alkalinity. While the Peele-Dixie WTP discharge water is stabilized and non-corrosive, distribution conditions including nitrification infrequently cause stability issues in the far reaches of the system. The increase in capacity by the addition of brackish water RO treatment will not alleviate these water quality concerns. The elevated pH of the finished water is required to reduce the corrosive nature of the water, mitigate nitrification, and match the pH from the Fiveash WTP. However, infrequent corrosion issues will likely continue to occur. Post-stabilization treatment should be considered to fully alleviate corrosivity issues. The addition of calcium chloride or calcite will render the water non-corrosive and increase the calcium and total hardness.

Much of the equipment and mechanical items at the Peele-Dixie WTP will extend through the 5-year planning period, as the WTP was constructed in 2008. In addition, most of the equipment is contained indoors, where it is protected from atmospheric conditions.

Based on the CUSMP Peele-Dixie WTP evaluation, improvements and investigations are recommended to ensure a reliable water quality that meets primary and secondary drinking water standards. In addition, these improvements, including membrane replacement and chemical day tank replacement, will reduce energy consumption and enhance operability and safety. Peele-Dixie WTP recommendations are summarized in a 20-year Community Investment Plan table included in the CUSMP (Reiss Engineering, 2017). These include:

- Decommissioning the old lime softening plant facility
- Additional chemical storage
- Variable-speed, high-service pumps
- Maintenance workshop
- Post-treatment stabilization

3.4.2 Fiveash Water Treatment Plant

The Fiveash WTP is the primary water treatment facility for the Water System service area. Its designed capacity is 70 mgd; however, hydraulic restrictions limit its actual capacity to 55 mgd on a maximum day basis. Actual treated flow averaged approximately 32 mgd in FY 2016, with a maximum day flow of 42 mgd. The treatment of raw water consists of aeration, followed by lime and polymer addition in a hydrotreater. The Fiveash WTP has two 12.5-mgd hydrotreaters and two 22.5-mgd hydrotreaters that

provide coagulation, flocculation, and clarification in one unit. After softening, the water is filtered, chlorinated, and fluoridated. Lime sludge is pumped directly to the Prospect Wellfield sludge pit for disposal.

The City has decided to continue lime-softening treatment at the Fiveash WTP and has identified improvements to extend the life of the facility including replacement of the major rotating assemblies in the two largest water treatment units, Hydrotreaters 3 and 4. A \$33.5-million disinfection and reliability improvement project is scheduled for bid in late 2018. Options to enhance treatment to improve color removal were reviewed as part of the CUSMP and incorporated in the CIP in Section 5.

The Fiveash WTP produces safe, reliable potable water but there are finished water quality issues. Plant process control issues affect the finished water quality and stability. The disinfection residual control is difficult to maintain because the plant process flow does not follow a single, uniform path. The finished water color is greater than 15 Pt-Co color units, which leads to numerous water quality complaints. Process improvements will need to be implemented to provide an aesthetically pleasing finished water to residents and visitors. The City continues to actively study treatment options to improve water aesthetics. This is not a regulatory concern.

Much of the equipment and mechanical items for the lime softening system are at the end of their useful life. The City intends to invest \$58 million from the Series 2018 Bonds to maintain the Fiveash WTP. Figure 3-5 illustrates a process flow diagram for the Fiveash WTP.

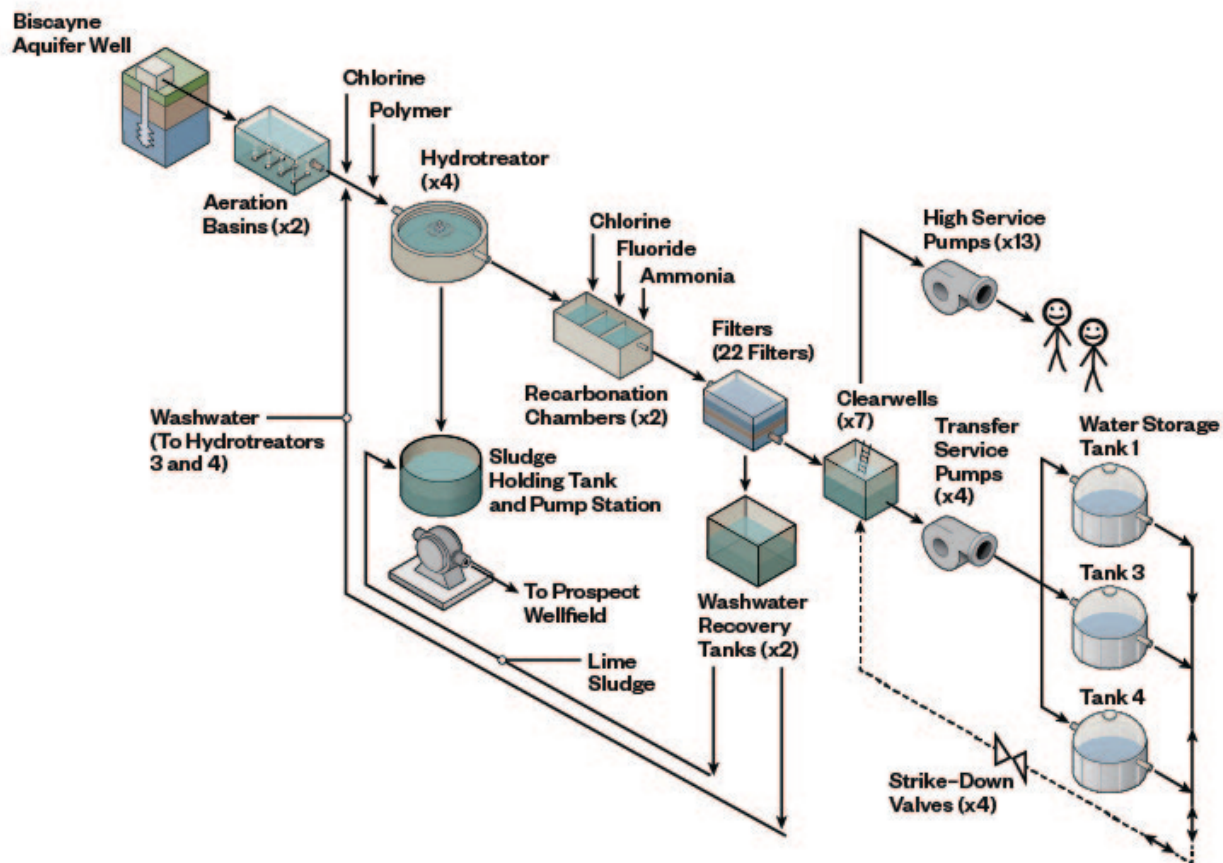


Figure 3-5. Fiveash WTP Process Flow Diagram

The CUSMP Community Investment Plan provides for:

- Pilot testing ozone and granular activated carbon as the preferred color removal process to confirm cost viability.
- Modifications to the aeration basins to eliminate the hydraulic restriction, allow for operational control, and increase the efficiency of the Fiveash WTP thereby reducing electrical costs.
- Improving the ground storage tanks and clearwells to provide a single flow path for a consistent water and operational control over the disinfection process and water distribution.

Section 5 provides Community Investment Plan costs for the Fiveash WTP process improvements.

3.5 Water Transmission, Distribution, and Storage

The City's water transmission and distribution system, illustrated in Figure 3-6, consists of approximately 782 miles of water mains, 18,308 water valves, 6,168 fire hydrants, approximately 57,000 water meters, an elevated tank at Northwest 2nd Avenue, a ground level tank at Poinciana Park, and ground level storage tanks at the Fiveash and Peele-Dixie WTPs. High-service pumps at the WTPs also supply the transmission and distribution system, and maintain system pressures.

The water transmission system was defined in the Master Plan to include 10 inches or larger diameter lines that primarily deliver water to major areas of the City. The City's transmission lines include lined and unlined cast and ductile iron pipe ranging in size from 10 to 54 inches in diameter. The main transmission line from the Fiveash WTP was installed in 1986 and is the predominant supply to the downtown area and other areas north, south, and east of the Fiveash WTP.

The City has a total of 29.9 MG of storage in its water system, as summarized in Table 3-5.

Table 3-5. Available Water Storage (million gallons)

Location	Amount
Fiveash WTP	
Clearwell	1.9
Tank 1	5.0
Tank 3	5.0
Tank 4	7.0
Peele-Dixie WTP	
Clearwell	0.026
Tank 1	4.0
Tank 2	4.0
Poinciana Park Tank	2.0
Northwest 2nd Ave. Tank	1.0
Total	29.9

FAC 62-555.320(19) established a minimum requirement of 25 percent of maximum day use plus maximum fire flow volume with all tanks in service. Based on a 5,000-gpm fire flow over a 4-hour duration, the year 2035 required storage volume is 15.6 MG. Hence, storage capacity is in compliance with FAC 62-555.320(19).

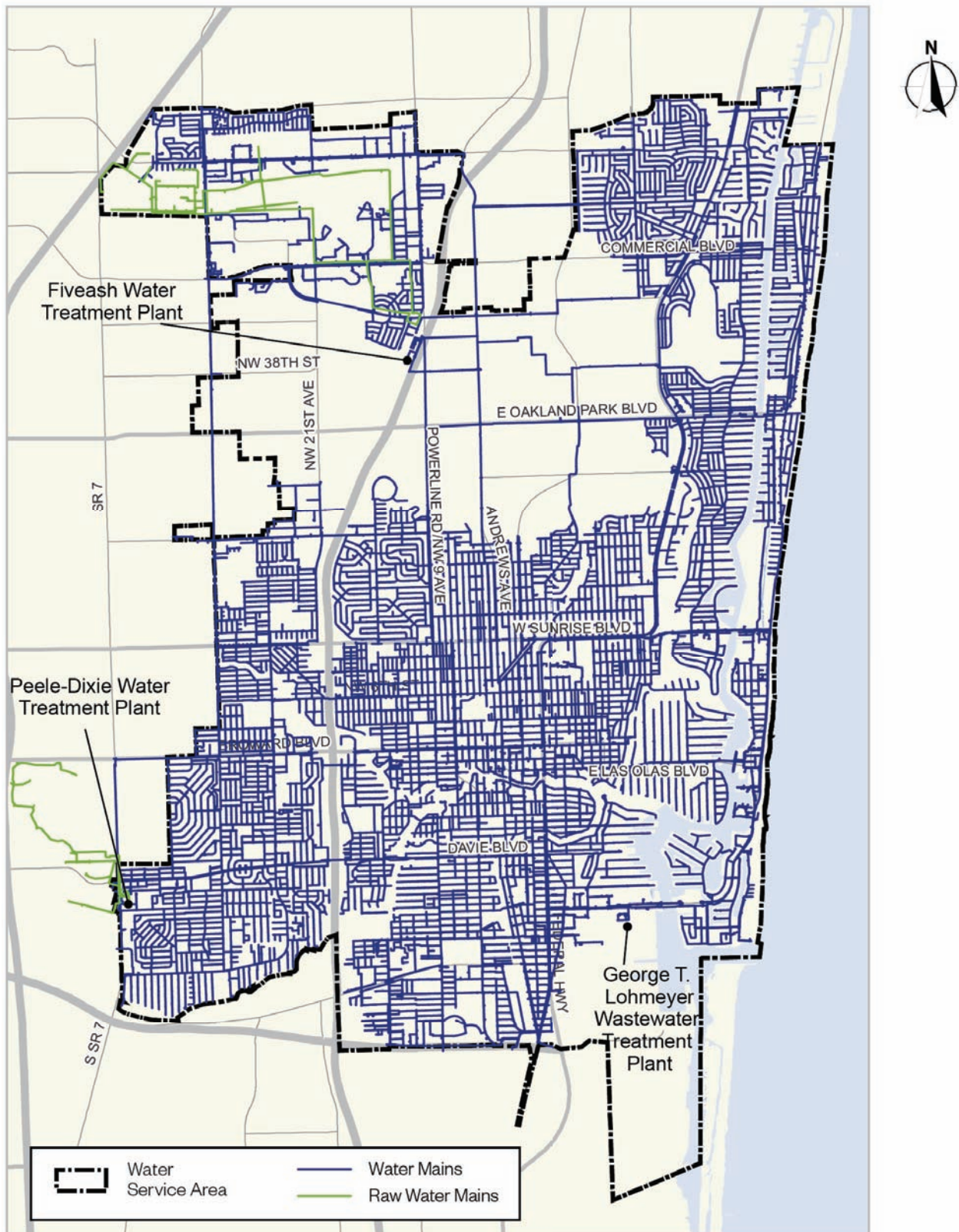


Figure 3-6. Water Distribution System Pipe Network

Source: CUSMP (Reiss Engineering, 2017)

The Fiveash WTP and Peele-Dixie WTP have a combined high-service pumping capacity of 155 mgd. The peak hour demand is estimated at 2.2 times the annual average day flow. Year 2035 peak hour demand is forecasted to be 100 mgd. Hence, the City has adequate high-service pumping capacity through the year 2035.

The Peele-Dixie WTP finished water storage tanks and the Poinciana Park Tank are less than 10 years old and have no major renewal and replacement (R&R) needed currently. The Fiveash WTP finished water storage tanks and the 2nd Avenue storage tank require regular inspections and R&R to prolong service life and to maintain the level of service (LOS) to customers. Finished water storage R&R includes tank cleaning, patching, repairing, and re-coating. FDEP requires tank inspections every 5 years as well.

The CUSMP (Reiss Engineering, 2017) provides the following conclusions from the finished water storage evaluation:

- The City has sufficient storage capacity in service to meet LOS criteria with and without the largest tank in service.
- At least one storage tank, Poinciana Park, has a pump cavitation issue that restricts tank drawdown, resulting in a reduced usable tank capacity.
- The City rehabilitated/replaced the Poinciana Park distribution storage facility within the last 10 years.
- The 2nd Avenue storage tank is scheduled for maintenance/recoating. The last repair/repainting was performed in 1991.
- The 2nd Avenue distribution storage tank does not currently meet the storage capacity criteria of 4 hours storage at peak flow; the CUSMP recommends that the City operate this tank in such a manner to ensure that the tank adequately supplies the later portion of the peak hour demand window.
- Any expansion of the 2nd Avenue storage capacity would likely be located at a different site because of the successful public opposition of expansion at the current location.
- Based on an onsite evaluation, the Fiveash WTP storage tanks require immediate piping modifications to allow more efficient flow and improved disinfection control and monitoring.
- Hydraulic modeling results indicate that distribution storage at Poinciana Park Tank plays a key role in maintaining adequate pressure issues in the Harbor Beach area.
- Hydraulic modeling results indicate that distribution storage at 2nd Avenue tank helps supply peak hour demands, fire flow, and emergency storage during WTP power issues and pipe breaks.

The City has an ongoing project to upgrade and rehabilitate the water distribution system. The completed *WaterWorks* 2011 Program replaced more than 42 miles of small water mains. The City's CIP (for FY 2018 to FY 2022) includes \$44 million in funding for water main improvements and replacements. The CIP identified \$58.3 million in unfunded water piping improvement projects. The City plans to use \$22.2 million in 2018 Series Bond funds to implement a portion of the "unfunded" water main projects.

The current CIP continues the practice of replacing aging water mains. In addition, the City has been following a pattern of examining the Water System for leaks every 3 to 5 years, which has been effective at managing unaccounted water. Unaccounted for water loss was 13.1 percent of finished water production in FY 2016. For FY 2017 (through August 31, 2017), unaccounted for water was 7.5 percent of finished water production. According to the 2013 Validated Water Audit Data by the American Water Works Association (AWWA) Water Loss Control Committee, real losses average approximately 14 percent for the 25 utilities evaluated by the AWWA. The City's water loss is well below this average.

3.5.1 Pipe Age

Table 3-6 summarizes the age of the water distribution system piping.

Table 3-6. Water Distribution System Piping Age (feet of pipe)

Diameter	Years Old					Total
	0–20 Yrs	21–40 Yrs	41–60 Yrs	>60 Yrs	Unknown	
≥4"	6,393	10,853	47,238	27,228	219,036	310,748
6"	529,110	158,319	312,882	372,785	567,615	1,940,711
8"	323,796	209,904	100,179	87,365	170,977	892,220
10"	4,895	14,412	25,394	28,427	79,841	152,970
12"	36,053	76,496	57,325	27,597	64,307	261,779
14" to 16"	20,238	24,266	33,846	21,255	33,458	133,064
18" to 20"	3,718	56,058	24,038	12,055	9,078	104,948
24" to 30"	32,679	58,727	39,087	30,551	6,635	167,680
36" to 60"	7,482	29,740	12,532	0	2,181	51,934
Total	964,364	638,776	652,522	607,264	1,153,128	4,016,053
%	24%	16%	16%	15%	29%	100%

Source: CUSMP (Reiss Engineering, 2017)

Figure 3-7 illustrates the age of piping within the Water System service area. The expected useful life of water piping is approximately 75 to 100 years.

3.5.2 Pipe Breaks

Table 3-7 lists pipe break data for FY 2011 to FY 2015, provided by the City. Figure 3-8 graphically illustrates these data.

Table 3-7. Water System Pipe Break Data

Year	No. of Breaks	Miles of Water Main	Breaks per mile Pipe	Breaks per 100-mile Pipe
FY11	55	761	0.072	7.2
FY12	36	761	0.047	4.7
FY13	53	761	0.070	7.0
FY14	95	761	0.125	12.5
FY15	93	761	0.122	12.2

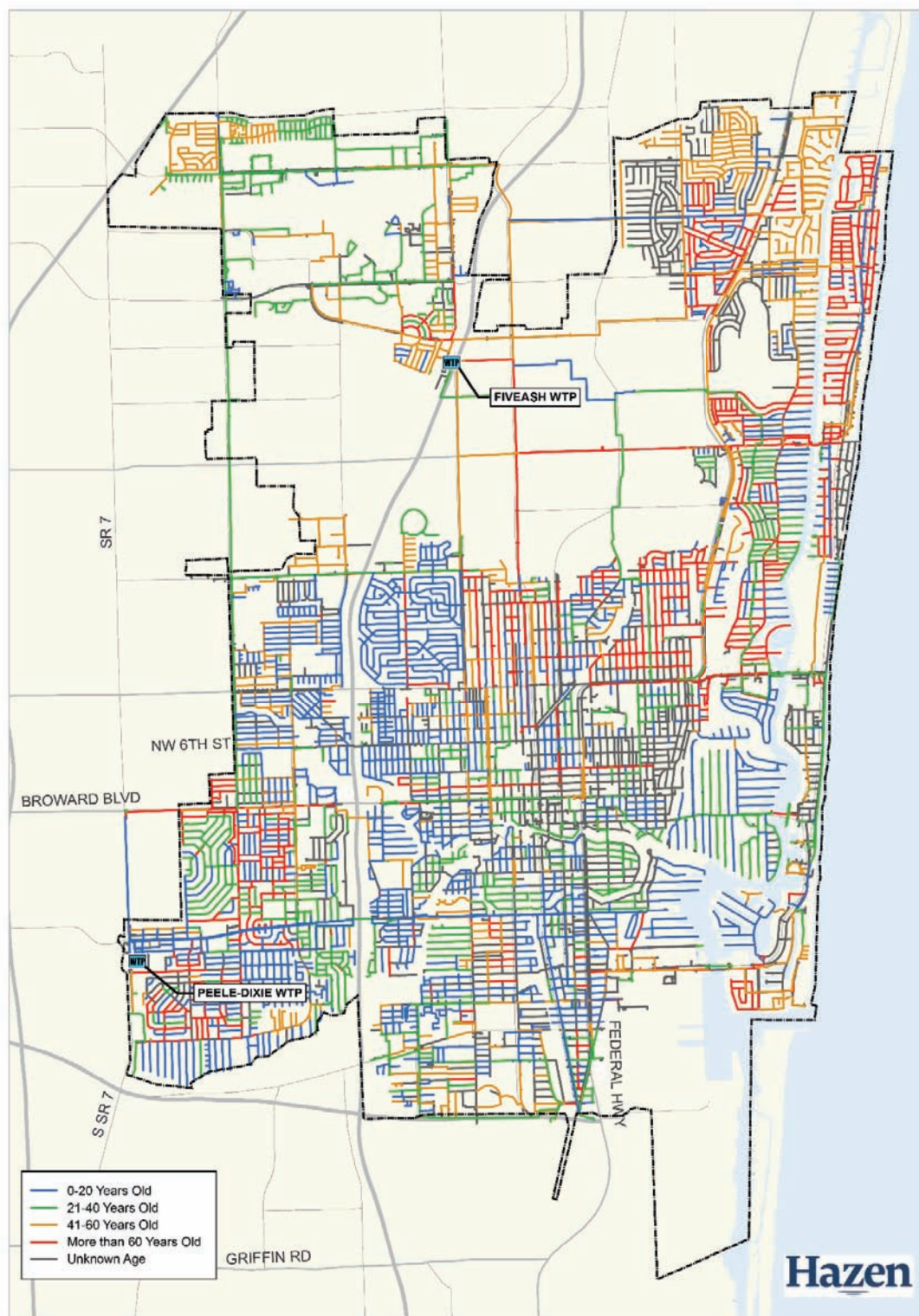


Figure 3-7. Water Piping Age
 Source: Fort Lauderdale 2017 GIS System Data

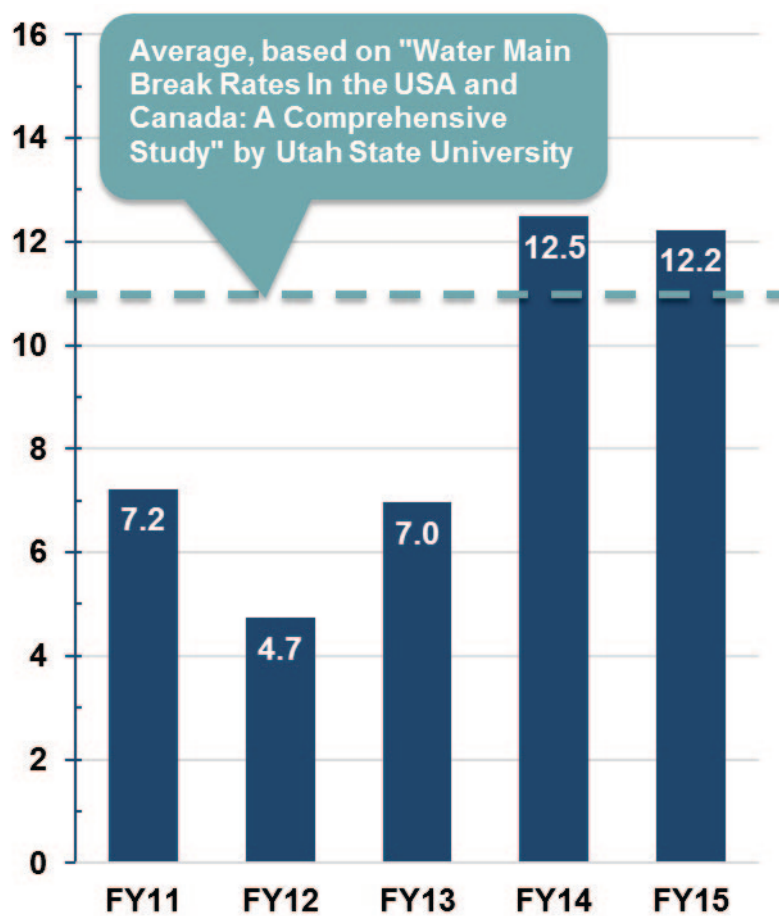


Figure 3-8. Water System Pipe Break Data

In FY 2015 the pipe break rate was 12.2 breaks per 100 miles. A study conducted by the Utah State University assessed systems with a combined 118,000 miles across the U.S. and Canada and determined an average water main break rate of 11.0 breaks per 100 miles (Utah State University, 2012). The FY 2014 and 2015 water main break rate was slightly greater than the average reported by Utah State University.

Given the age of the City's water mains, the City should expect the water main break rate to increase in coming years.

3.5.3 Hydraulic Model Results

The City created a hydraulic model of the Water System as part of the recently prepared CUSMP (Reiss Engineering, 2017). The CUSMP drew the following conclusions based on the hydraulic evaluation:

- Engineering tools, including the hydraulic and water quality model (the "Water Model"), developed as part of this CUSMP, are now available to the City for planning, operating, and troubleshooting the potable water distribution system.
- Water Model scenarios were developed and adjusted to the City's unique operating conditions to evaluate capacity LOS in the potable water distribution system.
- The hydraulic evaluations identified necessary improvements within the potable water distribution system to meet the City's standard LOS.

- The hydraulic evaluation concluded that the City’s potable water distribution system has sufficient capacity to meet existing demands.
- Figure 3-9 illustrates pipeline improvements to increase capacity. These upgrades are advisable to effectively plan for future needs and growth in the service area while working to improve level and reliability of service to the customer.
- The City should investigate the significant discrepancies in water model vs. field fire hydrant tests identified in the hydraulic evaluation and build/maintain a fire hydrant flow database for asset management purposes. The City is currently developing a water system asset management plan.

Section 5 lists potable water distribution capacity related Community Investment Plan projects identified in the hydraulic evaluation.

The CUSMP (Reiss Engineering, 2017) recommended that the City implement a Water System integrity program in the next 5 years, as follows:

- Evaluate pipe integrity assessment technologies
- Conduct pipe sampling and testing
- Use a rapid response trailer equipped with tools and materials to facilitate rapid leak repair
- Schedule pipe renewal and replacement per the prioritized CUSMP

3.6 Billing and Collection

The City bills customers for water, sewer, sanitation, and stormwater service on a single monthly bill. Unpaid billings amounted to approximately 3.9 percent total billings for FY 2017, which is relatively low compared to past periods. The City has at its disposal a number of options to collect unpaid bills that it makes use of, including use of collection agencies, reporting unpaid bills to credit rating agencies, and placing liens on properties. The City replaced its current billing system in mid-2010.

3.7 Regulatory Impacts

With the increasing urbanization of South Florida and the recognition of accelerating negative impacts upon the natural environment, state (SFWMD) and federal (U.S. Army Corps of Engineers) government entities have begun implementing major regulatory (Lower East Coast Regional Water Supply Plan [LECRWSP]) and construction programs (Comprehensive Everglades Restoration Plan [CERP]) that are intended to balance the demands for regional water supplies and to restore and protect the Everglades National Park ecosystem.

These programs have impacted the City’s Water Use Permit and allowable withdrawals from the Biscayne and Floridan Aquifers. In September 2003, the SFWMD implemented new permitting criteria that defined the Biscayne Aquifer as a Minimum Flow and Levels Water Body Subject to a Recovery Strategy. The intent of this rule was to ensure that requested allocations would not directly or indirectly (through induced seepage) withdraw water from Everglades System Water Bodies (the “Regional System”). Applications for increased withdrawals could only be granted if the applicant quantified the amount of water induced from these water bodies and counterbalanced that amount by implementing alternative water sources so that no net loss from the Everglades System Water Bodies occurs from the proposed increased withdrawals.

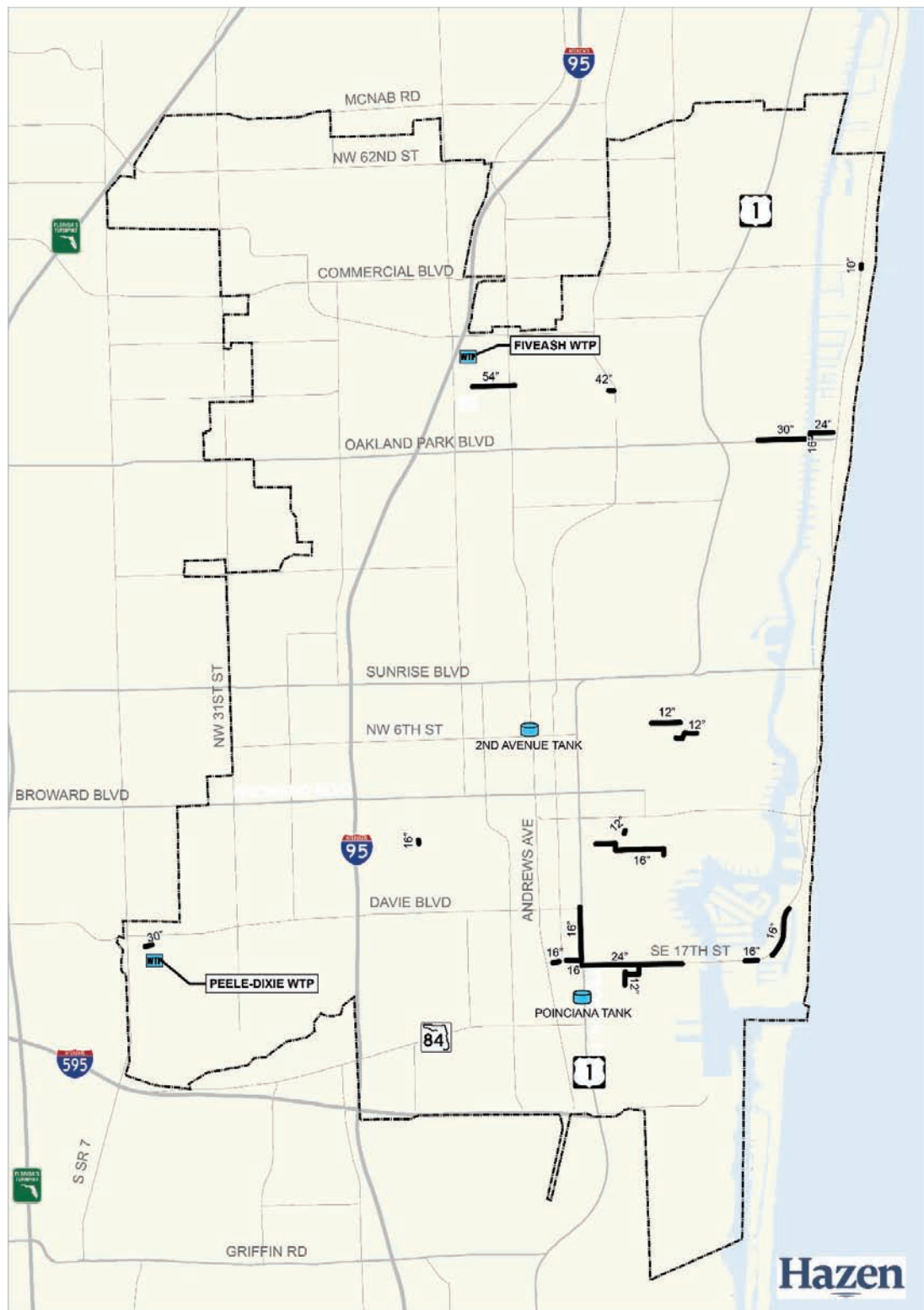


Figure 3-9. Water Main Capacity Improvement Projects Recommended by the CUSMP
Source: Reiss Engineering, 2017

In April 2007, additional rule criteria were incorporated into the Water Use Basis of Review that further defined and codified the criteria under which additional withdrawals from the Regional System could be allowed (the “Regional Water Availability Rule”). The intent of the Regional Water Availability Rule is that requested increases in allocation cannot cause a net increase in the volume or cause a change in the timing on a monthly basis of the surface water and groundwater withdrawn from the Lower East Coast Water bodies (freshwater portions of Everglades National Park and Water Conservation Areas) over the base condition water use. The implementation of the Regional Water Availability Rule serves as an initial reservation of water for environmental water supply. As additional CERP projects are constructed, additional water will be reserved by the SFWMD, and these reservations will build on the Regional Water Availability Rule. Water not reserved for the environment under the Regional Water Availability Rule, or a CERP Plan project reservation, can be available for permitted consumptive use as long as all consumptive use permitting criteria are met. For public water supplies, the base condition water use is that withdrawn over any consecutive 12-month period during the 5 years preceding April 1, 2006, provided these withdrawals do not exceed the permitted allocation. Subsequently, the City requested that their permit be structured in such a manner that their Biscayne Aquifer allocation conforms to the Regional Water Availability Rule, with their additional demands obtained from alternative water sources, such as the Floridan Aquifer.

The City’s WUP was issued in 2008. The permit limits withdrawals from the Biscayne Aquifer to 52.55 mgd. Based on the raw water demand forecast, development of traditional water supply, alternative water supply, and reuse projects are not required to meet the demand within the Water System service area through at least 2035. However, the City will continue assessing the need for alternative water supplies, such as the Floridan Aquifer. If the City determines that implementation of Floridan Aquifer supply and treatment is required to meet demand, the City would plan these improvements in cooperation with the SFWMD.

The City has addressed finished water color concerns at the Peele-Dixie WTP by adopting membrane water treatment technology in 2008. Membrane treatment produces a higher quality of finished water and is less sensitive to raw water quality than lime softening treatment technology. An added benefit of this approach is that membrane treatment systems can readily be designed to meet the increasingly stringent requirements of the Safe Drinking Water Act. A shortcoming of membrane treatment is that as much as 15 percent of the raw water is wasted as concentrate from the process, thus increasing raw water demands and further stressing the limits of the Water Use Permit.

The City has continuously invested in improvements to extend the life of the Fiveash WTP. For example, the City replaced the major rotating assemblies in the two largest water treatment units, Hydrotreaters 3 and 4 in 2010. A \$33.5-million disinfection and reliability improvement project is scheduled for bid in 2018.

The City is pursuing multiple avenues of alternative supply, including reclaimed water offsets, regional water supply solutions that would capture stormwater in the C-51 Canal, and developing alternative sources of potable water supplies such as brackish water from the Floridan Aquifer. In 2007, the City completed two Floridan Aquifer test wells at the Dixie Wellfield. Wellfield modeling, facility planning, and a basis of design study and report to construct a 6-mgd finished Floridan Aquifer brackish water RO treatment facility was completed in 2008 (Hazen, 2008b). Construction of the Floridan Aquifer wells and treatment facilities at the Dixie Wellfield and Peele-Dixie WTP have been deferred based on the 2014 water demand forecast.

The City has met with other South Florida utilities to discuss the possibility of collaborative sub-regional, multi-jurisdictional solutions to affect more cost-effective and environmentally sound methods of obtaining water supplies. A potential project has been identified as the C-51 Reservoir Project. Under this option, stormwater that currently causes environmental concerns in the Lake Worth Lagoon and certain estuarine environments would be captured and stored in the C-51 Reservoir for subsequent re-

introduction into the regional water supply system. This water would be available for Biscayne Aquifer transfer, and potentially available to those portions of the Biscayne Aquifer benefiting multiple utilities in Palm Beach, Broward, and Miami-Dade Counties, including the City. Studies have indicated that the project has the potential to be economically advantageous to public water supply utilities compared with other alternative water supply options for environmental, economic, and sustainability reasons, and the City continues to participate in studies related to developing this option.

The primary means of disposal of concentrate from the membrane treatment facility at the Peele-Dixie WTP is through an injection well that was constructed in 2006. A back-up means of disposal is through a force main that runs from the Peele-Dixie WTP to the D-54 pump station. This force main was completed in 2006. The injection well discharges into the Boulder Zone, which is approximately 3,000 to 5,000 feet underground.

This disposal is regulated under FDEP's Underground Injection Control (UIC) Program. FDEP issues operating permits for the injection wells on a 5-year cycle. The permit requires that the City conduct interim casing tests and mechanical integrity testing (MIT) of the well on a 5-year cycle and that the City monitor for upward movement of effluent out of the injection zone via dedicated monitoring wells in overlying transmissive intervals. Table 3-8 lists completed and outstanding permit requirements.

Table 3-8. MIT Schedule

Peele-Dixie WTP Concentrate Disposal Well

Date Due	Permit Requirement
10-19-2005 ^a	Pressure test on 24-inch casing during initial construction
11-10-2005 ^a	Pressure test on 16-inch tubing during initial construction
06-18-2009 ^a	Interim casing pressure test No. 1
09-15-2010 ^a	5-year MIT test No. 1
02-13-2013 ^a	Interim casing pressure test No. 2
07-15-2015 ^a	5-year MIT test No. 2
07-18-2016 ^a	Operating permit renewal issued
07-15-2017 ^a	Required completion date for annual review of cost estimate for plugging and abandonment of the Dixie Injection Well per operating permit
07-14-2020	5-year MIT test No. 3 (pending) – Required Completion Date for MIT No. 3

^a Actual date completed

3.7.1 Broward County Health Department Consent Orders

During the last 3 years the City has received seven consent orders from the Florida Department of Health - Broward County relating to the Water System. The consent orders were for technical violations requiring corrective actions that could be taken without the implementation of major repairs to the Water System. Examples of the violations include the use of an improper seal at a wellhead, improper public notification of a failure to comply with Water System regulatory requirements, inadvertent discharge of filter backwash water to a storage tank, and use of an unapproved chemical for cleaning. All necessary actions were taken by the City to re-establish full compliance. Civil penalties and administrative fines for the consent orders totaled \$19,500. Such fines and penalties have been paid.

3.8 Conservation

The City has been promoting water conservation for more than 25 years, and water conservation continues to be a key part of the City's water supply strategy. The City established an ultimate goal of

reducing finished water demand to 170 gallons per person per day by the year 2028 and has set water conservation initiatives as part of its strategic planning effort for achieving this goal. The City's water conservation plan has been effective, and includes 14 major ongoing water conservation activities. These efforts are:

- Broward Water Partnerships
- Conservation Pay\$ Program
- NatureScape Irrigation Services
- Water Matters Day
- Conservation Rate
- Florida-Friendly Landscaping Structure
- Florida-Friendly Landscaping
- Irrigation System Design Code
- Landscape Irrigation Restrictions
- Water Conservation Education Program
- Sustainability Action Plan 2011 Update
- 2035 Fast Forward Vision Plan
- 2018 Press Play Strategic Plan
- New Utility Rates promote conservation

Since 2009, the City's potable water demand per capita has decreased by 11 percent, from approximately 195 gpcd to 173 gpcd in 2015. The City developed and published the Sustainability Action Plan (SAP), updated in 2015 to assist the City to continue to achieve its water consumption goal of 170 gpcd. The SAP includes continuing to increase potable water fees in single-family zoning, requiring landscape that needs little watering, and engaging all large water users to implement water conservation techniques. The City currently uses an increasing block rate structure, where customers that consume more water pay more for each additional unit consumed. It also encourages the use of Florida-friendly drought-resistant vegetation, and constantly informs wholesale customers about water conservation methods and opportunities.

The CUSMP recommends the following nine additional water conservation measures to further reduce water demands:

1. Continue to fund current water conservation programs.
2. Initiate an ozone Laundry Program to reduce water usage.
3. Develop a more efficient unidirectional flushing plan.
4. Develop a Smart Home Program to reduce single-family home water usage.
5. Implement a Strategic Water Auto Flushing (SWAF) Program to maximize the effectiveness of flushing operations.
6. Investigate the feasibility of implementing an Energy Performance Contracting Program.
7. Implement an Automated Metering Program.
8. Develop a Green Lodging Program to upgrade visitor facilities.
9. Expand the Individual Water Metering Program by sub-metering facilities.

Sewer System

The Sewer System operated by the City consists of wastewater collection and transmission to the G.T. Lohmeyer RWWTP, treatment, disposal of treated wastewater, and disposal of residuals from the treatment process. This section describes the Sewer System and identifies capital improvements that are either under construction or being planned. This section also discusses the potential impact of the existing regulatory framework and possible future regulations that may impact the Sewer System's capital improvement projects. The capital improvement projects described in this section are included in the CIP presented in Section 5.

4.1 General Description

4.1.1 Service Area and Customer Base

Sewer System service areas in Broward County have been developed through regional planning studies carried out under Section 201 of Public Law 92-500. The Sewer System service areas were initially delineated in 1978 (Montgomery Watson, 1978) and have been modified somewhat in various 201 wastewater facilities plan amendments, most notably in 1982 and 1984 (Russell and Axon, 1982, 1984).

These regional planning studies designated the City as the lead agency for wastewater transmission and treatment in the central wastewater region of Broward County. This region includes most of the City, the City of Wilton Manors, and Broward County's Port Everglades; most of the City of Oakland Park; portions of the City of Tamarac, the Town of Davie, and portions of unincorporated Broward County. Figure 4-1 shows the current boundaries of the central region, which delineate the planning area for this study.

Each municipality and entity in the planning area, except the unincorporated areas, owns and operates the sewer collection facilities within its boundaries and performs its own customer billing. The transmission and RWWTF, which serve a regional function through "large user" agreements, are owned and operated by the City. The City has large user wastewater agreements with the Cities of Oakland Park, Wilton Manors, and Tamarac, the Town of Davie, and Broward County's Port Everglades. The large users are treated as wholesale customers, and each is issued a single bill for sewer services provided by the City.

In the 1940s and 1950s, the population of the City grew more rapidly than the Sewer System. New development was often served by septic systems. By the late 1950s, the City began to expand the Sewer System to serve all areas. Most new developments since the late 1950s were required to install sanitary sewers. However, expansion of the gravity Sewer System slowed considerably in the late 1970s and 1980s as available capital funds were used to consolidate and upgrade the multiple wastewater treatment plants that were in existence at that time. As part of the *WaterWorks* 2011 program, sewer service was extended to the majority of the population of the City.

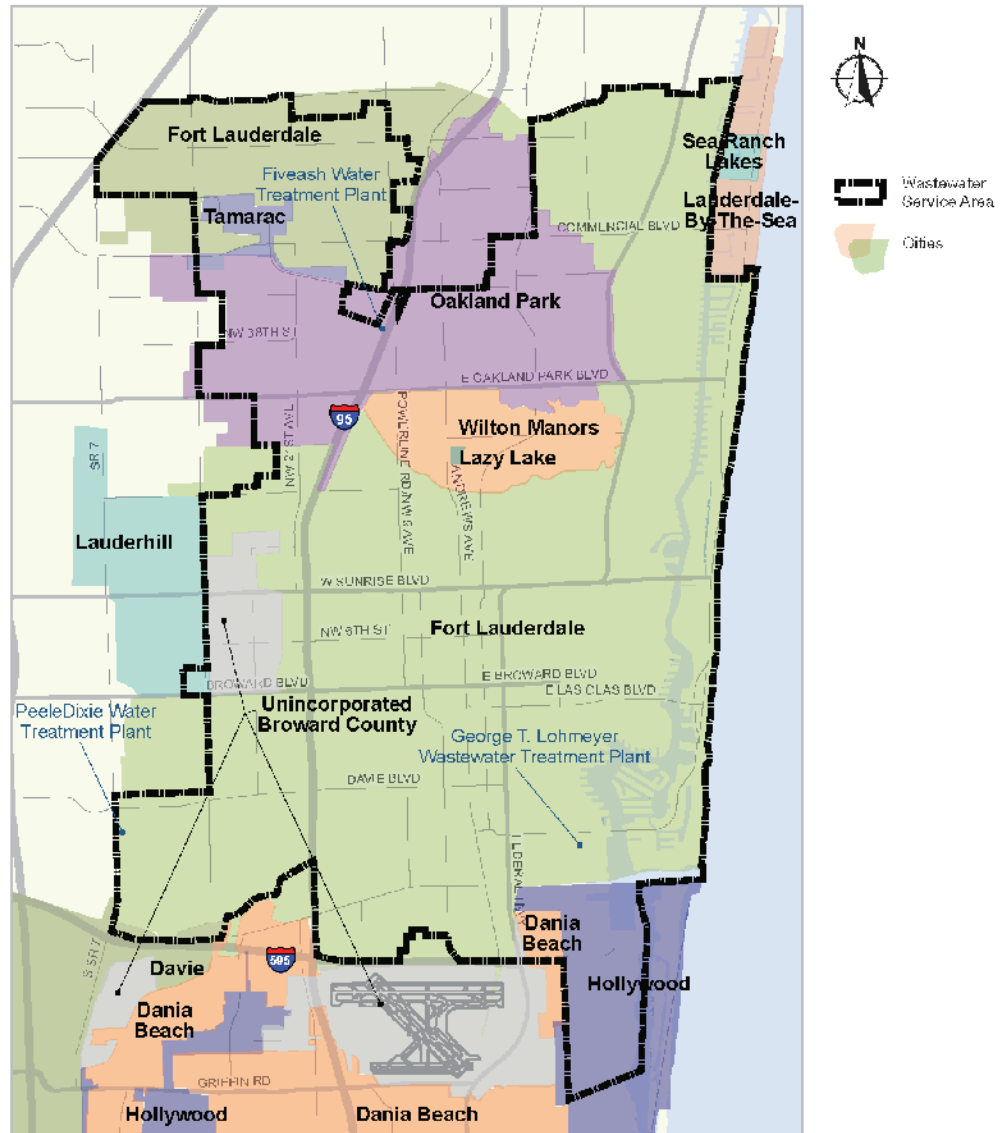


Figure 4-1. Current Boundaries of the Sewer Service Area

The vast majority (99 percent) of the population of the City is now provided with sewer service. There are approximately 1,500 residents that have not yet transitioned from septic tanks to the Sewer System, despite being charged for this service.⁷ All new construction in the City is required to connect to the Sewer System.

The City wastewater service area population forecast was compiled and provided by the City based on the latest Census of Population and Housing Publication, the SFWMD, and the University of Florida's BEBR "Projections of Florida Population by County, 2015–2040, with Estimates for 2014" (BEBR, 2015). The City's wastewater service area population, in 5 year increments for the 20-year planning period, is presented in Table 4-1. As shown in Table 4-1, the City's wastewater service area population is expected to grow from approximately 179,833 in 2015 to 213,886 in 2035, nearly a 19-percent increase. The increase in population will result in increased wastewater influent flows to the George T. Lohmeyer (GTL) RWWTP over the planning period, unless City efforts to curtail inflow and infiltration are successful or if the large users further curtail their wastewater discharges by reducing their water use or infiltration and inflow into their systems.

Table 4-1. Sewered Population Projections 2005–2035

Source: CUSMP (Reiss Engineering, 2017)

Year	Fort Lauderdale and Unincorporated Broward County				Total
	Oakland Park	Wilton Manors	Tamarac and Davie		
2005	147,319	28,366	12,230	429	188,344
2015	140,717	27,095	11,611	410	179,833
2020	145,429	28,107	11,740	422	185,698
2025	160,108	28,646	11,693	394	200,841
2030	168,078	29,866	11,931	443	210,318
2035	171,240	30,214	11,929	503	213,886

Note: Totals may differ from figures presented in CUSMP.

4.2 Wastewater Flows

As shown in Table 4-2, the average daily wastewater flows have ranged from 35.1 mgd to 40.9 mgd for the period from 2001 to 2016.

Table 4-2. Historical Wastewater Flow Rates

Year	Annual Average Daily Flow (mgd)
2001	36.0
2002	37.5
2003	36.2
2004	35.1
2005	37.5
2006	36.2

⁷The Riverland Village and Melrose Park areas of the City receive wastewater service from Broward County.

Table 4-2. Historical Wastewater Flow Rates

Year	Annual Average Daily Flow (mgd)
2007	38.1
2008	36.8
2009	37.2
2010	37.4
2011	37.9
2012	40.9
2013	39.7
2014	38.6
2015	39.0
2016	39.4

Table 4-3 shows the Sewer System’s projected wastewater flows as presented in the CUSMP (Reiss Engineering, 2017). This table summarizes the annual average daily flow forecast and the forecast maximum 3-month average daily flow (M3MADF). The M3MADF forecast assumes a 1.27 M3MADF/AADF peaking factor, which is the M3MADF/AADF ratio over the last 20 years. The permitted capacity of the GTL RWWTP (currently 56.6 mgd) is based on treating the M3MADF.

Based on data compiled in the ADS Environmental Services (2014) *Infiltration & Inflow Study*, I/I is lower than projected in the 2007 Wastewater Master Plan Update. While specific flow monitoring has not been conducted for each of the I/I projects, flow reductions have been observed at the RWWTP. The annual average daily flow, based on a 12-month rolling average, prior to beginning the I/I program was approximately 41.6 mgd. For FY 2015–16, the 12-month rolling average was 40.4 mgd, a 1.2-mgd reduction overall, though additional sewer connections have been added during this time frame.

I/I was estimated at 21.0 mgd by the City and projected to remain constant over the 20-year planning period. While the City of Fort Lauderdale has made I/I reduction a priority and makes investments of about \$3 million annually to rehabilitate its gravity sewer pipes, for conservatism the 21 mgd of I/I contribution was held constant until substantial reductions in I/I can be quantified and forecast by the City as a result of the ongoing I/I program.

Table 4-3. Projected Wastewater Flows (mgd)

Source: Reiss Engineering, 2017

Year	Wastewater Service Area Population	Residential Average Annual Daily Flow (AADF)	Non Residential Average Annual Daily Flow	Infiltration & Inflow	Total AADF	Maximum Month ADF
2015 ^a	179,833	12.6	6.3	21.0	39.9	50.7
2020	185,698	13.0	7.0	21.0	41.0	52.0
2025	200,841	14.1	8.0	21.0	43.1	54.7
2030	210,318	14.7	8.9	21.0	44.6	56.7
2035	213,886	15.0	9.6	21.0	45.6	57.9

^a Flows for FY 2015 are estimated assuming 21.0 mgd of I/I flows, and may differ from actuals.

Figure 4-2 shows the historical and projected wastewater flow and permitted capacity of the GTL RWWTP for the next 10 years based on projections from the CUSMP (Reiss Engineering, 2017). The projections show that no additional GTL RWWTP capacity will be needed until beyond 2025. The City intends to continue its efforts to reduce I/I levels to delay the need to expand the capacity of the RWWTP and/or construct a new deep injection well.

4.3 Wastewater Collection and Transmission

The City owns and operates the wastewater collection and transmission system located within the City boundaries and within the sewer unincorporated areas of the wastewater planning area. As the lead agency for wastewater transmission and treatment in the central wastewater region of Broward County, the City also owns and operates some regional transmission facilities located outside of the City. The City's large user customers, including the Cities of Oakland Park, Tamarac, and Wilton Manors, the Town of Davie, and Broward County's Port Everglades, own and operate their own local wastewater collection and transmission systems.⁸

The gravity collection system contains approximately 475 miles of pipeline, of which nearly 270 miles was constructed prior to 1970. Most of the Sewer System constructed prior to 1970 was built in the 15-year period between 1955 and 1970. Construction during this period used vitrified clay pipe with compression-type joint gaskets, though cast iron pipe was also used in conditions where problems of differential settlement were thought to be severe. Recent and current construction generally uses polyvinyl chloride (PVC) pipe with rubber gasket joints. Figure 4-3 presents a map showing the City's gravity sewer mains and their ages.

The City maintains its collection system by a variety of means. The City has two video inspection crews, three sewer cleaning crews, one wet well cleaning crew, five pump station maintenance crews, and two pump station heavy maintenance crews. In addition, the City-owned pump stations are electronically and remotely monitored.

The City's force main network is comprised of approximately 119 miles of pipeline, ranging from 4 inches to 54 inches in diameter. Most of the force mains are constructed of cast iron or ductile iron pipe, but some are high-density polyethylene (HDPE) or C-900 PVC pipe. Problem sections in the 54-inch force main that is the main line to the RWWTP have been replaced. Thirty-five breaks in the force main system have occurred from the beginning of 2014 through August 2017, with 24 of those breaks occurring in 2015 and 2016. However, two simultaneous force main breaks in June 2016 resulted in the discharge of approximately 14.67 MG of untreated wastewater and a break in December 2016 resulted in a discharge of 2.5 MG of untreated wastewater. Because of the large volumes discharged, FDEP contemplated enforcement action for noncompliance. Subsequently, the City voluntarily entered into a Consent Order with FDEP in September 2017 that includes projects that are intended to reduce risk and improve resiliency within the wastewater collection system. These projects replace aged pipe networks and construct additional infrastructure to increase capacity and redundancy of the sewer utility system. The Consent Order projects are being funded with the proceeds of the Series 2018 Bonds.

Figure 4-4 presents a map of the City's force mains and their ages.

⁸Since 2004, the City provides retail wastewater service to some of Port Everglades' tenants, but continues to provide wholesale wastewater service to the Port.

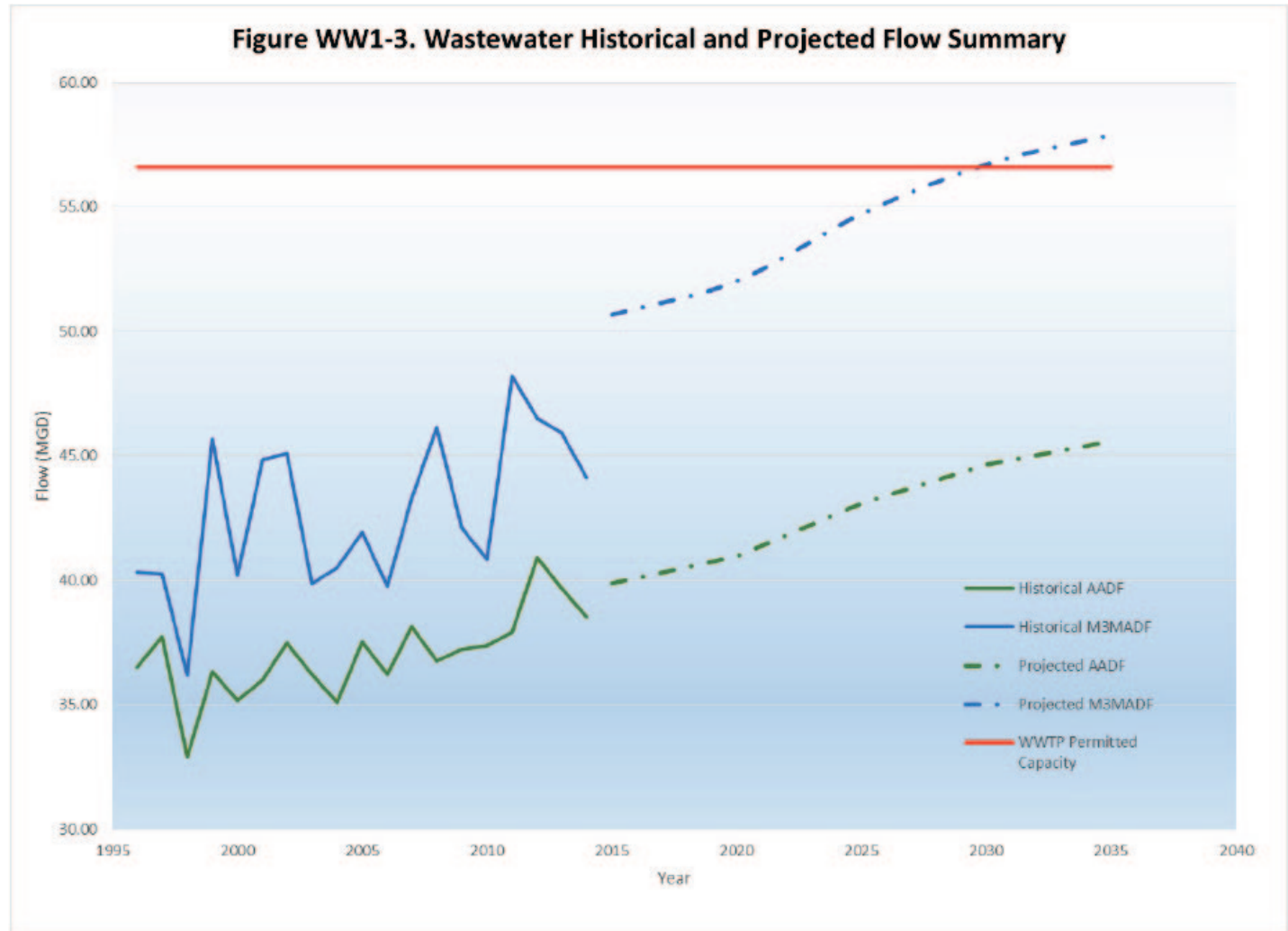


Figure 4-2. Historical and Projected Flows for the G.T. Lohmeyer WWTP and Permitted Capacity
 Source: Reiss Engineering, 2017

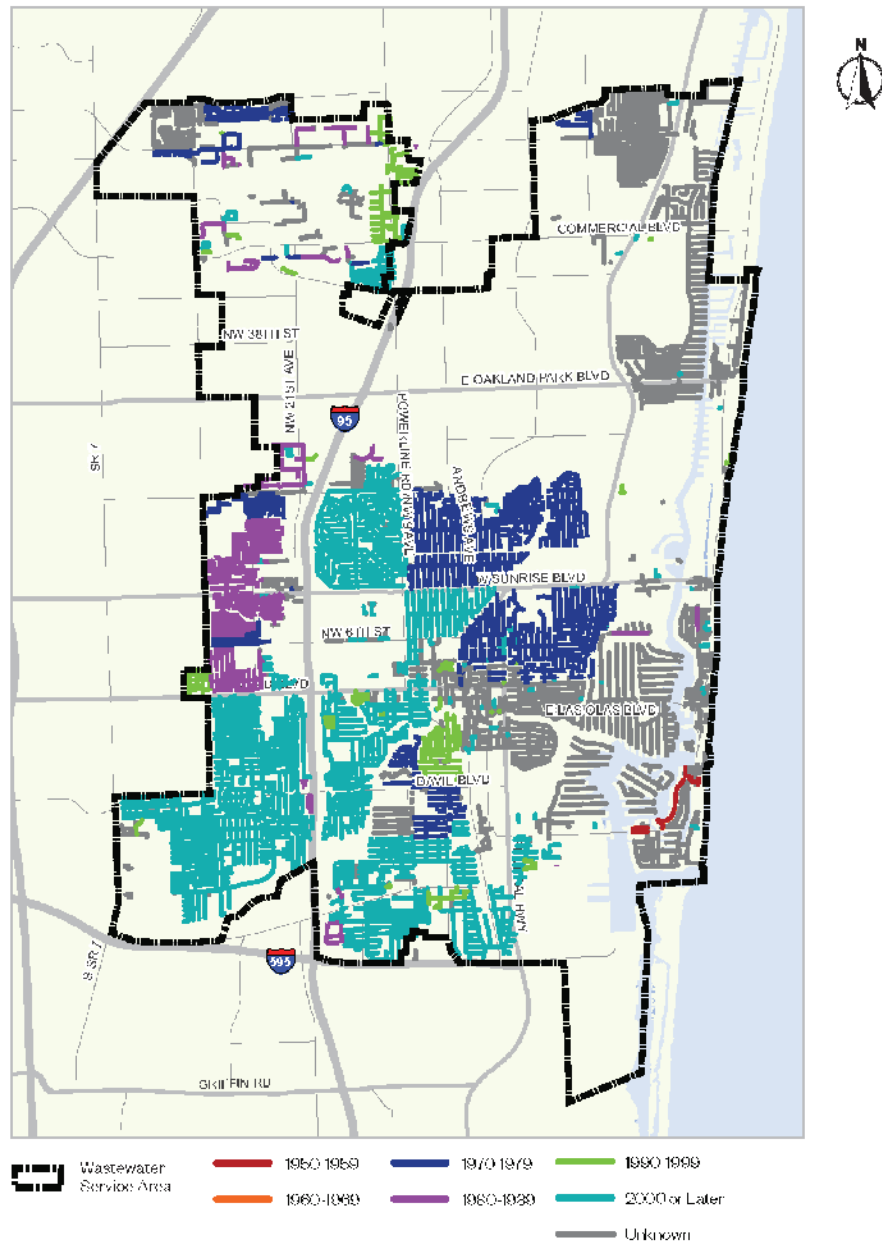


Figure 4-3. City of Fort Lauderdale Gravity Main Ages

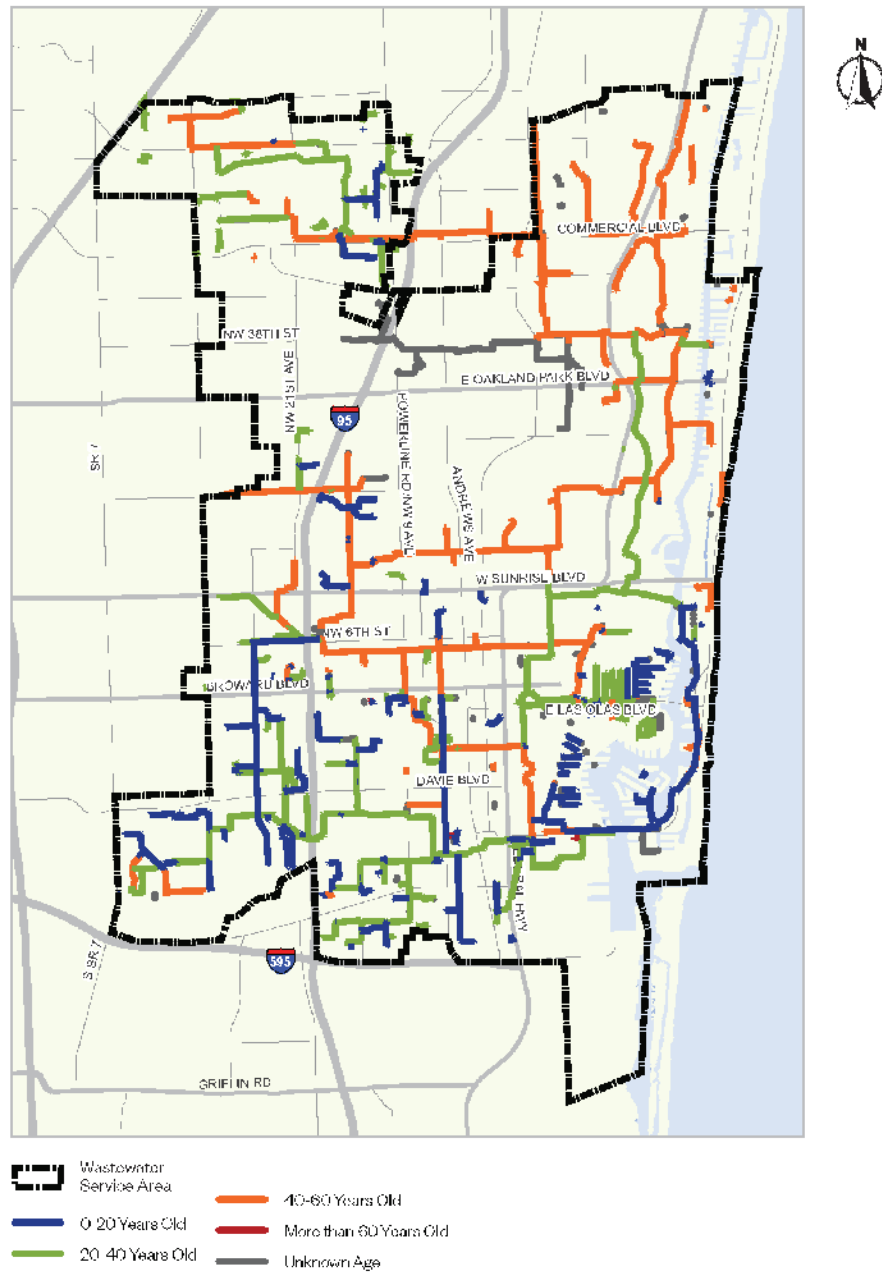


Figure 4-4. City of Fort Lauderdale Force Main Ages

The force main system consists of approximately 186 City-owned pump stations and approximately 64 small, privately owned pump stations. The City-owned pump stations are electronically monitored. Several isolated developments and individual businesses in the areas that were not originally serviced by the Sewer System (septic areas) have constructed their own private lift stations that pump either to the force main system, the gravity system, or one of the City's existing pump stations. Private lift stations have also been constructed in areas where the existing City pump station in the area could not accommodate additional flow. As previously discussed, the City now provides sewer service to most of the areas previously using septic systems.

4.4 Wastewater Treatment Facility

Wastewater generated in the City's direct service area and wastewater received from large users is treated at the RWWTP. The RWWTP, located in the southern section of the City, just north of Broward County's Port Everglades, was upgraded to the present configuration in 1999. The original design capacity on a M3MADF basis was 38 mgd. As a result of improvements to the effluent pumping station, deep injection wells, clarifiers and solids handling processes, the RWWTP was re-rated to an M3MADF capacity of 55.7 mgd in March 2004 and then to 56.6 mgd in September 2011. Major liquid treatment processes include screening, grit removal, pure-oxygen activated sludge, clarification, and chlorination. Sludge is dewatered on belt filter presses and then hauled off by a contractor for beneficial reuse processing. Treated effluent from the RWWTP is discharged to five deep injection wells at a nearby site.

Beginning in 1990, residuals produced by the RWWTP were mixed with polymer and dewatered by belt filter presses to meet regulatory requirements for Class B pathogen and vector attraction reduction for disposal at the Broward County landfill. Currently the treated residuals (biosolids) are hauled by a private contractor (Biosolids Distribution Services) for 100 percent beneficial reuse. They haul the residuals to a facility that treats the residuals to Class AA standards using a Bioset process and provides for beneficial reuse of the residuals. Disposal at the Broward County landfill is still available as a back-up option.

The RWWTP is forecast to have adequate capacity for continued growth, even with the addition of the new flow from the newly sewered areas beyond 2025. The need to add additional plant capacity will depend on the type and success of continued residential growth and the continued success of I/I control efforts. No expansion of treatment or effluent disposal capacity is planned during the Study Period, but a number of R&R projects are proposed. Overall, the RWWTP is in good physical condition. The R&R projects include upgrades and repairs to belt filter presses, clarifier pipe replacements, rehabilitation of motor control centers, rehab of prestressed concrete cylinder pipe (PCCP), cryogenic plant, electrical upgrades, odor control dewatering building, and connection to the emergency generator.

As a condition of the City's agreement with its large users, the City is required to have an annual study prepared that inspects the condition of the RWWTP and that projects R&R needs for a 20-year forecast period. The analysis then estimates the amount of funds that should be set aside in an R&R account for the RWWTP on an annual basis to provide sufficient funding for these anticipated expenditures. The City maintains a separate account for the R&R of the RWWTP per the requirements of its large user agreements and the Renewal, Replacement and Improvement Account established in Section 512 of the Bond Resolution. In general, most of the RWWTP and equipment is in good or better condition, and those components that are considered to be in fair or poor condition are scheduled for repair or replacement in the next few years from funds held in the Renewal and Replacement Fund.

The RWWTP is permitted based on the M3MADF and has a current permitted capacity of 56.6 mgd. Table 4-3 lists the projected M3MADF. The table shows that the current capacity of the RWWTP is expected to be reached sometime after 2025.

Based on an annual capacity analysis, the RWWTP treatment processes have sufficient capacity to treat wastewater for the projected 2035 flow of 57.9 mgd M3MADF. However, overall capacity will be limited by the facility's effluent disposal system, specifically the injection well capacity, which will not meet

emergency condition capacity requirements beginning in the year 2021. Additionally, projected flows will begin to exceed RWWTP's current permitted capacity of 56.6 mgd in the year 2030. Reducing I/I flow can temporarily eliminate the need for an additional injection well and RWWTP expansion due to capacity issues. Among other measures, the CUSMP recommended that the City accelerate the investigation and implementation of methods to reduce I/I flows, to positively impact all capacity-related limitations, and initiate design, permitting, and construction of a sixth injection well to expand effluent disposal capacity by the year 2019. It further recommended that the City investigate methods for avoiding tertiary treatment requirements associated with the addition of the sixth injection well, including potential for categorizing the new well as a nonhazardous industrial waste stream. The City is accelerating its I/I reduction program, and is delaying construction of a new injection well.

FDEP requires in Chapter 62-600.405(8) FAC that plant expansion activities be conducted following a schedule that requires that if the permitted capacity will be reached in 5 years, that planning and preliminary design be initiated. Design must be initiated if the capacity is to be reached in 4 years, permitting must be initiated if the capacity will be reached within 3 years, and construction and operation permitting completed, if capacity is to be reached within 6 months.

Following this schedule, the planning and preliminary design of the RWWTP expansion is not expected to be needed in the Study Period. Construction of the expansion of the RWWTF is expected to require approximately 2 years, and construction would not need to begin until 2023 or later.

4.5 Regulatory Impacts

FDEP has given consideration to requiring Class A or AA biosolids stabilization before land application or immediate incorporation of the solids into the soil. Timing for promulgation of any new rule is unknown. However, it is anticipated that a lengthy implementation schedule of 7 to 10 years will be allowed. Provision II.43 in the RWWTP permit provides for reopening the permit "at any time to require additional monitoring or reduced phosphorus loading rates for the land application sites." The City contracted with a private company for beneficial reuse of the biosolids residuals. Under the terms of this contract, the Contractor will treat the biosolids at a residuals management facility to Class AA standards and then use it beneficially for land application or as a biofuel. The new contract allows for the contractor to dispose of the dewatered sludge at the Broward County landfill, if for some reason it is unable to process or dispose of all of the biosolids through its residuals management facility.

The RWWTP has consistently met all federal, state, and local requirements for residuals and effluent quality. Pretreatment permits are in place with all significant industrial dischargers, who are meeting the terms of those permits.

The City's Sewer System service area is located in a critical water supply area, as designated by the SFWMD. As such, FAC Section 62-40.416 requires a reasonable amount of reuse of reclaimed water unless it is not economically, environmentally, or technically feasible. Section 403.064 of the Florida Statutes also requires domestic wastewater treatment plant permit applicants in a critical water supply problem area to submit a reuse feasibility study as part of their permit applications.

A wastewater reuse feasibility study was performed by the City in 1994 (CH2M HILL, 1994) (hereafter, the "1994 Study"). The 1994 Study evaluated a wide range of alternatives for the beneficial reuse of wastewater in the Sewer System service area. The 1994 Study concluded that wastewater reuse was not economically feasible in the City. However, conditions have changed in recent years, increasing the urgency of implementing a wastewater reuse system. The City initiated an Alternative Water Supply Feasibility Study in 2007 (CDM, 2007b) that considered five potential project alternatives for a reclaimed water system that would treat sufficient flow to postpone or eliminate projected upgrades to the treatment plant (up to 12 mgd) and provide high-quality reclaimed water for recharge purposes and potentially provide offsets or credits to the City's raw water withdrawal limitations. The 2007 Alternative Water Supply Study identified the use of membrane bioreactor (MBR) treatment process to be sited at the City's former composting facility site as the most beneficial reclaimed water alternative. This

location offers the potential to recharge the Dixie Wellfield, the North New River Canal, and Pond Apple Slough, as well as provide water to Florida Power & Light (FPL) for industrial uses. The proposed facility could provide for treatment of 12 mgd of potential reuse water. The study concluded that while this alternative is the most beneficial, the economic practicality of the proposed project must be compared to the costs associated with the projects it is intended to offset: such as the expansion of the RWWTP and those projects required for the infrastructure to meet the City's future water demand. Based on the preliminary cost estimate (opinion of probable cost), the reuse treatment facility would cost \$53 million more than conventional water capacity and wastewater treatment capital improvements. However, there is implicit value in the implementation of reclaimed water projects, both in the goodwill of permitting agencies and regulators, and in the consciousness of the public. As part of its Water Use Permit, the City is required to implement a Water Conservation Plan that includes ongoing evaluation and implementation of alternatives including reuse. To date, the City has implemented water conservation efforts, such as limiting irrigation hours, low-flow plumbing, and a conservation-based rate structure.

The City currently disposes of treated wastewater via five existing deep injection wells that discharge into the Boulder Zone, which is located between 3,000 and 5,000 feet underground. This disposal is regulated under FDEP's Underground Injection Control (UIC) Program. FDEP issues operating permits for the injection wells on a 5-year cycle, which require that the City conduct mechanical integrity testing of each well at the end of the 5-year period and that the City monitor for upward movement of effluent out of the injection zone via dedicated monitoring wells in overlying transmissive intervals. The operational permit for the five Class I underground injection wells was renewed on May 5, 2017, with the permit scheduled for expiration on May 4, 2022.

In 2013, there were some minor surface water discharges from the WWTP to the emergency surface water outfall during peak flow conditions. The City rehabilitated the injection wells to restore their injection capacity to their original permitted levels, which also improved the capability to handle peak flows and avoid future surface water overflows.

In 1991, a monitoring well at the disposal site gave evidence that secondary effluent was appearing in an interval in the Floridan Aquifer above the injection zone. While this did not represent a threat to underground sources of drinking water (USDW), it did constitute a violation of the conditions of the UIC operating permits for the four then-existing injection wells. The City entered into a consent agreement with FDEP that established the conditions under which the wells would continue to operate and laid out the protocol for the investigation and remediation of the permit violation. The subsequent investigation showed that the cause of migration was not confinement of the injection zone but rather the failure of the mechanical integrity of the monitoring well. The City remediated the failed monitoring well, identified a new monitoring interval below the impacted zone, constructed two new monitoring wells, and conducted MIT on the four existing injection wells. This work demonstrated the integrity of the disposal system. In December 1995, FDEP issued new operating permits for the injection wells and issued a construction permit for the fifth, final deep injection well to be constructed at the site. In January 2000, the City completed the successful MIT of the four existing deep injection wells and submitted operating permit applications to FDEP. So that all five injection wells might be subject to future testing and permitting on the same time cycle, FDEP agreed to delay the start of the 5-year operating permit period until the fifth deep injection well was completed and entered into operation status. In March 2001, the City completed the operational testing of the fifth deep injection well and submitted the operating permit application.

The established MIT schedule does not coincide with the permitting cycle, but adheres to a 5-year plan as listed in Table 4-4.

Table 4-4. Current MIT Deadlines

Injection Well	MIT Deadline
IW-1	September 9, 2019
IW-2	August 26, 2019
IW-3	August 14, 2019
IW-4	October 28, 2019
IW-5	September 18, 2019

In 2005, EPA issued new regulations for Class I municipal injection wells in 24 Florida counties, including Broward. These federal regulations, 40 CFR 146.15 and 40 CFR 146.16, which were adopted and incorporated by reference in FAC 62-528, require High Level Disinfection (HLD) of municipal effluent for injection well systems with fluid migration problems and for all new Class I municipal injection wells. The “Revision to the Federal Underground Injection Control Requirements for Class I Municipal Injection Wells in Florida” is therefore referred to informally as the HLD rule. The effect of the new treatment requirements was to provide an alternative for existing systems with effluent migration problems to continue operating, while preserving the intent of providing a level of protection to USDWs consistent with the no-fluid movement standard.

In 2007, FDEP released a Program Guidance Memo (OWM-07-01) entitled *High-Level Disinfection for Class I Injection Wells Subject to 40 CFR 146.15 and 40 CFR 146.16* (Appendix B). This memo provides a detailed explanation of the HLD rule, reuse water quality, total suspended solids (TSS) and chlorination requirements, affected Counties, and specific guidance for both existing and new systems.

HLD treatment is defined in FAC Rule 62-600.440. HLD treatment requires the reduction of TSS to 5.0 parts per million (ppm) prior to disinfection, 75 percent or more of the fecal coliform samples must be below the detection limits, chlorine contact time must be at least 15 minutes at peak flow rates, and the total chlorine residual must be 1.0 ppm or greater.

The City monitors migration of its effluent on a daily basis. Should the City decide to construct a new disposal well, it will need to comply with the HLD rule.

Capital Improvements

This section discusses the planned and proposed capital improvements for the City's Water and Sewer System that have been identified in the FY 2018–FY 2022 Community Investment Plan and adopted by the City Commission. The Community Investment Plan improvements include R&R projects at the RWWTF and in the water supply and wastewater collection systems. In addition, the improvements that have been identified in the CUSMP, and the City's Consent Order with the Florida Department of Environmental Protection are also presented. Together, the CIP for the Water and Sewer System includes all of the improvements described herein.

The financial plan presented herein includes funding for the proposed capital improvements identified in the Community Investment Plan, CUSMP and the Consent Order.

5.1 Community Investment Plan Improvements

The improvements identified in the Community Investment Plan amount to over \$227 million in expenditures between FY 2018 and FY 2022. This includes more than \$74.6 million in Renewal and Replacement improvements for the Central Regional Wastewater System (Fund 451), and \$152.6 million in Water System and wastewater collection improvements that were identified in prior master plan updates (Fund 454). The improvements that were identified as unspent balance as of September 30, 2017, and for FY 2018–FY 2022 are expected to be funded from current revenues and reserves. Of the total planned improvements, \$104.3 million of improvements were identified as unfunded, as the City did not have funding for these improvements without the proposed Series 2018 Bonds. Many improvements that were identified as unfunded will be funded from the proceeds of Series 2018 Bonds. The remaining unfunded improvements are deferred, pending formal City Commission review and budget adoption.

Major Central Region R&R projects include the Regional Renewal and Replacement Improvements and plant rehabilitation. Water and Sewer System improvements in Fund 454 include: Fiveash WTP Disinfection/reliability upgrades, Fiveash WTP chemical system improvements, 17th Causeway large water main replacement, and Downtown Sewer Basin Pump Station A-7 Rehabilitation. Table 5-1 presents these planned Community Investment Plan improvements.

5.2 Comprehensive Utility Strategic Master Plan Improvements

The City recently completed the CUSMP, which provided a holistic evaluation of the entire Water and Sewer System. The CUSMP recognizes that portions of the City's infrastructure are approaching the end of their expected life cycle. It also identified numerous improvements needed to operate, maintain and enhance Water and Sewer System performance, efficiency, quality, and level of service to meet current and projected needs for the next 20 years.

The CUSMP (Reiss Engineering, 2017), includes proposed capital improvements and System renewal and replacements through 2035. The near-term improvements (through FY 2022) as identified in the CUSMP are discussed herein. Table 5-2 includes improvements included in the CUSMP that were not included in the Community Investment Plan CIP.

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Table 5-1. Community Investment Plan Fiscal Years 2018 to 2022

Data Provided by the City of Fort Lauderdale

Project #	Project Title	Unspent Balance as of September 30, 2017	FY 2018*	FY 2019	FY 2020	FY 2021	FY 2022	FY 2018 - FY 2022 CIP Total **	Unfunded
Central Region/Wastewater Fund (451)									
P11854	REGIONAL WASTEWATER METER REPLACEMENT	99,961	-	-	-	-	-	99,961	-
P12132	RICE/NESHAP UPGRADE TO GENERATORS	43,390	-	-	-	-	-	43,390	-
P12174	UNDERGROUND INJECTION CONTROL (UIC) PERMITS	100,440	-	-	-	-	-	100,440	-
P12173	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	157,338	-	-	-	-	-	157,338	-
P12107	SLUDGE WEIGHTING SCALES	42,716	-	-	-	-	-	42,716	-
P12169	GEORGE T. LOHMEYER (GTL) ODOR CONTROL SYSTEM	174,894	-	-	-	-	-	174,894	-
P12172	G T LOHMEYER WWTP ELECTRICAL MAINTENANCE	226,765	-	-	-	-	-	226,765	-
P11731	48 IN WASTEWATER PIPE EMERGENCY REPL	217,537	-	-	-	-	-	217,537	-
P12106	GTL DRAINAGE SYSTEM	190,525	-	-	-	-	-	190,525	-
P12254	CRYOGENIC COMPRESSOR (MACS)	311,669	-	-	-	-	-	311,669	-
P12114	ELECTRICAL/ SCADA EVALUATION	379,937	-	-	-	-	-	379,937	-
P12253	REGIONAL RE-PUMP CABLE CONDUCTIVITY AND WIRING	467,896	-	-	-	-	-	467,896	-
P11876	GTL GRIT CHAMBER REHAB: PRELIM DESIGN	682,885	-	-	-	-	-	682,885	-
P11710	GTL EMERGENCY GENERATOR CONNECTION	1,873,954	-	-	-	-	-	1,873,954	-
P11781	CRYOGENIC PLANT	5,124,521	-	-	-	-	-	5,124,521	-
P11773	GTL PLANT REHABILITATION OF PCCP PIPE	7,088,365	1,003,626	-	1,692,126	3,306,248	-	13,090,365	-
P12171	BUTLER BUILDING UPGRADE AT GTL WELLFIELD	265,282	246,200	-	-	-	-	511,482	-
P12170	GEORGE T. LOHMEYER CONCRETE RESTORATION	275,698	746,975	-	-	-	-	1,022,673	-
P00401	REGIONAL RENEWAL & REPLACEMENT	551,236	2,019,251	2,359,002	3,281,570	2,297,222	8,030,633	18,538,914	-
P12176	GTL MOTOR CONTROL CENTERS REHABILITATION	2,323,637	1,911,421	-	-	-	-	4,235,058	-
P11917	ELECTRICAL UPGRADES	2,492,394	915,000	-	-	-	-	3,407,394	-
P12252	GEORGE T. LOHMEYER (GTL) INTERIOR PAINTING	475,091	455,091	468,538	468,538	468,538	-	2,335,796	-
P12190	UTILITIES ASSET MANANGEMENT SYSTEM	261,364	85,000	85,000	-	-	-	431,364	-
P12175	GEORGE T. LOHMEYER WWTP BELT PRESSES	855,162	-	676,890	856,017	1,035,144	-	3,423,213	-
P12251	CLARIFIER PIPE REPLACEMENT	1,235,248	-	-	1,236,270	1,236,270	1,236,270	4,944,058	1,236,270
P12255	GEORGE T. LOHMEYER (GTL) EXTERIOR PAINTING	271,380	-	-	-	267,637	-	539,017	-
P12256	REGIONAL RE-PUMP SCADA	267,370	-	-	-	267,636	-	535,006	-
P12257	REGIONAL RE-PUMP ELECTRONIC MAINTENANCE	233,948	-	-	-	12,258	-	246,206	-
P12258	REGIONAL RE-PUMP HOISTING EQUIPMENT FOR PUMPS B&E	196,588	-	-	-	-	-	196,588	-
P12345	GEORGE T. LOHMEYER (GTL) SLUDGE SCREW CONVEYOR	-	801,198	-	-	-	-	801,198	-
P12346	GTL PRE-TREATMENT CHANNEL STOP GATES	-	527,104	-	-	-	-	527,104	-
P12347	GEORGE T. LOHMEYER (GTL) CHLORINE SYSTEM	-	300,000	-	-	-	-	300,000	-
P12348	GTL EFFLUENT PUMPS REPLACEMENT	-	300,000	1,455,258	-	-	-	1,755,258	-
P12349	G.T. LOHMEYER WWTP BELT PRESS SLUDGE FEED PUMP	-	85,516	142,527	-	-	-	228,043	-
FY 20150293	GEORGE T. LOHMEYER (GTL) MECHANICAL INTEGRITY	-	-	1,700,000	-	-	-	1,700,000	-
FY 20170525	UNDERGROUND INJECTION CONTROL (UIC) PERMITS	-	-	1,700,000	-	-	-	1,700,000	-
FY 20150292	GEORGE T. LOHMEYER (GTL) CHLORINE SCRUBBER	-	-	365,459	-	-	-	365,459	-
FY 20150291	REGIONAL B RE-PUMP VARIABLE FREQUENCY DRIVE	-	-	300,000	-	-	-	300,000	-
FY 20150294	GTL ODOR CONTROL DEWATERING BLDG	-	-	264,000	2,274,300	-	-	2,538,300	-
FY 20170513	GTL FREIGHT ELEVATOR REPLACEMENT	-	-	-	-	-	-	-	1,000,000
FY 20170520	GEORGE T. LOHMEYER SLUDGE HOLDING TANK DECANTING V	-	-	-	-	273,652	-	273,652	-

Table 5-1. Community Investment Plan Fiscal Years 2018 to 2022

Data Provided by the City of Fort Lauderdale

Project #	Project Title	Unspent Balance as of September 30, 2017	FY 2018*	FY 2019	FY 2020	FY 2021	FY 2022	FY 2018 - FY 2022 CIP Total **	Unfunded
FY 20170524	GTL ELECTRICAL MAINTENANCE AND TESTING (ARCFLASH)	-	-	-	-	233,947	-	233,947	-
FY 20170521	GEORGE T. LOHMEYER INJECTION WELL BACKFLUSH PUMP	-	-	-	-	70,281	-	70,281	-
FY 20170517	GEORGE T. LOHMEYER (GTL) GRIT PUMPS REPLACEMENT	-	-	-	-	57,011	-	57,011	-
FY 20170518	GEORGE T. LOHMEYER (GTL) SLUDGE TRANSFER PUMPS	-	-	-	-	38,447	-	38,447	-
FY 20170519	GEORGE T. LOHMEYER (GTL) PT SEAL WATER SYSTEM	-	-	-	-	33,854	-	33,854	-
FY 20150275	FLORIDA DEPARTMENT ENVIRONMENTAL PROTECTION PERMIT	-	-	-	-	-	162,498	162,498	-
Central Region/Wastewater Fund (451) Total		26,887,191	9,396,382	9,516,674	9,808,821	9,598,145	9,429,401	74,636,614	2,236,270
Water/Sewer Master Plan Fund (454)									
P12319	EMERG REPAIR 30" FM - REPUMP GTL WWTP	13,031,550	-	-	-	-	-	13,031,550	-
P12211	WAVE STREETCAR WATER & SEWER RELOCATION	5,634,110	-	-	-	-	-	5,634,110	-
P12182	LAKE ESTATES SMALL WATER MAINS	4,655,422	-	-	-	-	-	4,655,422	-
P12124	CENTRAL BEACH ALLIANCE PUMP STATION REPLACE	1,759,157	-	-	-	-	-	1,759,157	-
P12294	FIVEASH WTP RENEWAL & REPLACEMENT	2,050,000	-	-	-	-	-	2,050,000	-
P12196	RELOCATE 16" DIP WTR MN AT E LAS	1,300,986	-	-	-	-	-	1,300,986	-
P11880	PUMP STATION A-12 REHABILITATION	357,114	-	-	-	-	-	357,114	-
P12177	EAST LAS OLAS 12 FORCE MAIN REPLACEMENT	1,257,464	-	-	-	-	-	1,257,464	-
P12049	FLAGLER HEIGHTS SEWER BASIN A-21 LATERALS	868,010	-	-	-	-	-	868,010	-
P12270	LARGE FORCE MAINS PIPE DESIGN AND REHAB	849,635	-	-	-	-	-	849,635	-
P12272	FORCE MAIN VALVE & AIR RELEASE VALVE REHABILITATION	848,477	-	-	-	-	-	848,477	-
P11247	DISTRIBUTION & COLLECTION R&R	763,892	-	-	-	-	-	763,892	-
P12295	PLE DIXIE AIR STRIPPERS & HYPOCHOL	589,158	-	-	-	-	-	589,158	-
P12181	WATER TREATMENT PLANT FACILITIES CONCRETE REST	475,879	-	-	-	-	-	475,879	-
P12202	LIFT STATN D-11 FLOW ANALYSIS & REDESIGN	378,265	-	-	-	-	-	378,265	-
P12222	REHAB 3 SCADA PUMP PANELS AT FIVEASH WTP	370,960	-	-	-	-	-	370,960	-
P12050	FDOT BROWARD BLVD BRIDGE REPLACEMENT - 30"	377,566	-	-	-	-	-	377,566	-
P11685	WATER MONITORING SYSTEM (SCADA)	69,331	-	-	-	-	-	69,331	-
P12110	SW 9 STREET RIVERSIDE SANITARY SEWER	312,334	-	-	-	-	-	312,334	-
P11877	FLCC REMEDIATION ACTION PLAN	302,723	-	-	-	-	-	302,723	-
P12111	ANNUAL ASPHALT RESURFACING/SMALL WATER MAIN RESURFACING	294,009	-	-	-	-	-	294,009	-
P12109	SW 8TH STREET (SW 3RD AVE AND SW 4TH AVE) SANITARY SEWER IMPROVEMENTS	67,753	-	-	-	-	-	67,753	-
P12197	FIVEASH HYDROTREATERS 3 & 4 INFL	151,035	-	-	-	-	-	151,035	-
P11719	SUNRISE BVD MIDDLE RVR BDGE WM RELOC/DES	254,839	-	-	-	-	-	254,839	-
P11905	UTILITIES RESTORATION	214,799	-	-	-	-	-	214,799	-
P12275	PEELE DIXIE WTP RENEWAL & REPLACEMENT	200,000	-	-	-	-	-	200,000	-
P11246	WATER TREATMENT PLANT REPAIRS	198,050	-	-	-	-	-	198,050	-
P12237	ABANDON WELLS AT FORT LAUDERDALE EXECUTIVE AIRPORT	280,261	-	-	-	-	-	280,261	400,000
P12179	TANBARK LANE SMALL WATER MAIN REPLACEMENT	143,056	-	-	-	-	-	143,056	-
P11766	PUMP STATION D-37 REHAB	137,750	-	-	-	-	-	137,750	-
P12259	PUBLIC WORKS ADMINISTRATION BUILDING AIR CONDITION	120,750	-	-	-	-	-	120,750	755,000
P12306	SECURITY GATE REPLACEMENT PW ADM COMPOUND	40,000	-	-	-	-	-	40,000	-
P12132	RICE/NESHAP UPGRADE TO GENERATORS	69,610	-	-	-	-	-	69,610	-

Table 5-1. Community Investment Plan Fiscal Years 2018 to 2022

Data Provided by the City of Fort Lauderdale

Project #	Project Title	Unspent Balance as of September 30, 2017	FY 2018*	FY 2019	FY 2020	FY 2021	FY 2022	FY 2018 - FY 2022 CIP Total **	Unfunded
P11567	PUMP ST REHABS A12, B10, B22, D37 & D45	16,107	-	-	-	-	-	16,107	-
P10851	LAKE RIDGE SUNRISE BLVD SMALL WATER MAIN IMPR	4,454	-	-	-	-	-	4,454	-
P11571	OAKLAND PARK BEACH AREA WATER MAIN	38,783	-	-	-	-	-	38,783	2,631,665
P10508	FIVEASH WATER PLANT PHASE 2 IMPROVEMENT	34,983	-	-	-	-	-	34,983	-
P12075	10 IN SEWER MN TARPON RIV AT ANDREWS AV	25,757	-	-	-	-	-	25,757	-
P12101	NW 2ND AVE PUMP STATION APPEARANCE MOD	16,701	-	-	-	-	-	16,701	-
P12100	PEELE-DIXIE WTP INJECTION WELL MIT	15,093	-	-	-	-	-	15,093	-
P11932	AERATION BASIN REHAB AT FIVEASH WTP	11,653	-	-	-	-	-	11,653	-
P11565	CORAL RIDGE CLUB ESTATES: SEWER BASIN B-1 REHAB	1,136	-	-	-	-	-	1,136	6,236,587
P11864	BERMUDA RIVIERA SEWER BASIN B-2 REHAB	1,156	-	-	-	-	-	1,156	1,636,820
P11865	CORAL RIDGE ISLES SEWER BASIN B-13 REHAB	1,735	-	-	-	-	-	1,735	4,760,124
P11664	BASIN B-6 SANITARY SEWER SYSTEM REHAB	1,304	-	-	-	-	-	1,304	5,903,462
P12185	DAVIE BLVD. 18 WATER MAIN ABANDONMENT TO ANDREWS AVE	500	-	-	-	-	-	500	225,000
P12051	CONTRACT FOR SUPERVISORY CONTROL AND DATA ACQ	350,000	-	100,000	200,000	200,000	-	850,000	-
P11882	PUMP STATION B-22 REPLACEMENT	423,189	-	-	-	331,962	423,038	1,178,189	-
P12190	UTILITIES ASSET MANANGEMENT SYSTEM	912,797	-	-	152,000	305,000	-	1,369,797	152,000
P12133	PUMP STN A-13 REDIRECTION E OF F	2,244,195	598,796	-	-	-	-	2,842,991	-
P11887	NW SECOND AVENUE TANK RESTORATION	1,905,520	1,165,000	-	-	-	-	3,070,520	-
P10850	VICTORIA PARK A - NORTH SMALL WATER MAIN	1,387,495	(1,312,913)	-	-	-	-	74,582	4,886,053
P11563	VICTORIA PARK SEWER BASIN A-19 REHAB	1,324,178	2,565,000	1,456,692	-	553,823	-	5,899,693	-
P12055	BASIN A-18 SANITARY SEWER COLLECTION SYSTEM	1,914,357	1,135,000	-	755,939	379,061	-	4,184,357	-
P11879	PUMP STATION B-10 REHABILITATION	1,724,503	414,419	-	-	-	-	2,138,922	-
P11586	C12 & 13 INTERCONNECT - BRW CTY INTRCL	360,000	(360,000)	-	-	-	-	-	-
P11856	PEELE DIXIE R & R	345,650	1,321,600	-	-	-	-	1,667,250	-
P12203	441 NW 7TH AVENUE SEWER EXTENSION	294,447	(100,000)	-	-	-	-	194,447	-
P11859	ANNUAL WATER SERVICE REPLACEMENT 2012-13	245,373	(245,373)	-	-	-	-	-	-
P12156	NE 57TH ST SMALL WATER MAIN IMP	-	(118,646)	-	-	-	-	(118,646)	-
P11720	IMPERIAL POINT LARGE WATER MN - PHASE 2	-	(116,375)	-	-	-	-	-	-
P11566	RIO VISTA SEWER BASIN REHAB PUMP STATION D-43	511,108	1,216,376	-	1,215,964	-	-	2,943,448	-
P11080	PORT CONDO LARGE WATER MAIN IMPROVEMENTS	556,906	(528,076)	-	-	-	-	28,830	713,328
P11881	PUMP STATION D-45 REPLACEMENT	474,619	30,710	-	-	-	-	505,329	-
P12184	DAVIE BLVD. 18 WATER MAIN ABANDONMENT I-95 TO SW 9 AVE	218,450	(218,450)	-	-	67,750	-	67,750	457,750
P11901	VICTORIA PARK B- SOUTH SMALL WATERMAINS IMPR	219,885	(125,773)	-	-	-	-	94,112	5,325,425
P12178	UTILITIES STORAGE BUILDING (STEEL PREFAB)	250,000	205,080	-	-	-	-	455,080	-
P11991	DOWNTOWN SEWER BASIN PUMP STATION A-7 REHAB	4,716,720	3,480,903	-	-	-	-	8,197,623	-
P11889	DEMOLITION & ABANDONMENT OF PUMP STATIONS	180,911	135,621	-	-	-	-	316,532	-
P12180	CROISSANT PARK SMALL WATER MAINS	2,852,049	(2,621,723)	500,000	-	-	-	730,326	-
P11589	FIVEASH DISINFECTION/ RELIABILITY UPGRADES	958,701	(359,550)	7,000,001	5,000,000	3,701,908	-	16,301,060	-
P12350	IMPERIAL POINT SEWER BASIN B10 REHABILITATION	-	46,983	1,189,396	2,374,164	1,189,396	-	4,799,939	-
P12351	BAYSHORE DRIVE FORCE MAIN INTRACOASTAL CROSSING FORCEMAIN	-	1,395,872	-	-	-	-	1,395,872	-
P12352	SOUTH MIDDLE RIVER FORCE MAIN RIVER CROSSING	-	2,200,000	-	-	-	-	2,200,000	-
P12353	UTILITY COORDINATION FLORIDA DEPARTMENT OF TRANSPORTATION	-	750,000	-	-	-	-	750,000	-

Table 5-1. Community Investment Plan Fiscal Years 2018 to 2022*Data Provided by the City of Fort Lauderdale*

Project #	Project Title	Unspent Balance as of September 30, 2017	FY 2018*	FY 2019	FY 2020	FY 2021	FY 2022	FY 2018 - FY 2022 CIP Total **	Unfunded
FY 20150188	CORAL RIDGE SMALL WATER MAIN IMPROVEMENTS	-	-	3,840,097	-	-	-	3,840,097	-
FY 20150213	HARBOR BEACH SEWER BASIN D34 REHAB	-	-	1,057,355	-	-	-	1,057,355	-
FY 20150211	TARPON RIVER SEWER BASIN A-11 REHABILITATION	-	-	493,715	-	1,481,145	987,430	2,962,290	-
FY 20150183	CORAL SHORES SMALL WATER MAIN IMPROVEMENTS	-	-	834,704	834,704	-	-	1,669,408	-
FY20180618	FIVE-ASH WELLFIELD PUMP REPLACEMENT	-	-	500,000	500,000	769,195	230,805	2,000,000	-
FY 20150215	DOLPHIN ISLES SEWER BASIN B14 REHABILITATION	-	-	-	2,354,431	-	-	2,354,431	-
FY 20150187	LAUDERDALE BY THE SEA SMALL WATER MAIN IMPROVEMENTS	-	-	-	2,020,575	-	-	2,020,575	-
FY 20150191	LAUDERGATE ISLES SMALL WATER MAIN IMPROVEMENTS	-	-	-	565,446	-	-	565,446	-
FY 20150189	LAKE AIRE PALM VIEW SMALL WATER MAINS	-	-	-	471,000	-	-	471,000	-
FY 20150228	ANALYSIS OF CHEMICAL ADDITION SYSTEMS-PEELE DIXIE	-	-	-	90,000	-	-	90,000	-
FY 20150185	SEA RANCH LAKES SMALL WATER MAINS	-	-	-	1,990,393	1,607,333	-	3,597,726	-
FY 20150190	BAY COLONY SMALL WATER MAIN IMPROVEMENTS	-	-	-	1,461,628	1,238,832	-	2,700,460	-
FY 20150227	COMPREHENSIVE EVAL & IMPR AT PEELE DIXIE	-	-	-	-	3,470,000	-	3,470,000	-
FY 20150214	LAS OLAS ISLES BASIN D37 REHABILITATION	-	-	-	-	1,702,500	-	1,702,500	5,384,801
FY 20150222	MIDDLE RIVER TERRACE A-27 SEWER SYSTEM REHAB	-	-	-	-	898,920	-	898,920	1,243,605
FY 20150218	CORAL RIDGE COUNTRY CLUB ESTATES B11 BASIN REHAB	-	-	-	-	857,779	-	857,779	1,843,808
FY 20150186	BERMUDA RIVIERA SMALL WATER MAIN IMPROVEMENTS	-	-	-	-	638,350	-	638,350	4,638,350
FY 20150182	POINSETTIA DRIVE SMALL WATER MAIN IMPROVEMENTS	-	-	-	-	616,660	-	616,660	2,917,137
P11594	FIVEASH CHEMICAL SYSTEM IMPROVEMENTS	-	-	-	-	1,313,006	3,939,019	5,252,025	-
P11465	17TH STREET CAUSEWAY - LARGE WATER MAIN REPLACEMENT	-	-	-	-	-	4,550,455	4,550,455	3,891,280
FY 20150184	CORAL RIDGE COUNTRY CLUB SMALL WATERMAIN	-	-	-	-	-	3,660,000	3,660,000	-
FY 20150216	CORAL RIDGE BASIN B4 REHABILITATION MAINS	-	-	-	-	-	3,538,617	3,538,617	-
FY20130220	DILLARD PARK SEWER BASIN A-1 REHAB	-	-	-	-	-	3,329,811	3,329,811	-
FY 20150202	RIVER OAKS A-23 SEWER BASIN LATERALS	-	-	-	-	-	-	-	3,570,836
FY 20150204	DURRS A-23 SEWER BASIN LATERALS	-	-	-	-	-	-	-	3,313,808
FY 20150212	VICTORIA PARK A-17 BASIN PUMP STATION REHAB	-	-	-	-	-	-	-	3,536,787
10814	CENTRAL NEW RIVER WATERMAIN RIVER CROSSINGS	-	-	-	-	-	-	-	1,632,562
11163	SOUTH MIDDLE RIVER SEWER BASIN A-29 REHAB	-	-	-	-	-	-	-	4,446,078
FY 20150170	LANDINGS OF BAYVIEW DRIVE SMALL WATERMAIN	-	-	-	-	-	-	-	1,568,742
FY 20150175	TWIN LAKES (NW) WATERMAIN	-	-	-	-	-	-	-	4,132,946
FY 20150176	SW 29 STREET SMALL WATERMAINS	-	-	-	-	-	-	-	50,000
FY 20150177	2535 NORTH FEDERAL HIGHWAY SMALL WATERMAINS	-	-	-	-	-	-	-	50,000
FY 20150178	SW 1 STREET (SW 28 AVE THRU SW 29 AVE) WATER MAINS	-	-	-	-	-	-	-	50,000
FY 20150181	LAUDERHILL SMALL WATERMAINS IMPROVEMENTS	-	-	-	-	-	-	-	2,091,962
FY 20150219	ADVANCED METERING INFRASTRUCTURE IMPLEMENTATION	-	-	-	-	-	-	-	22,900,000
FY20180630	NEW UTILITIES CENTRAL LABORATORY - PEELE DIXIE WATER	-	-	-	-	-	-	-	713,500
Water/Sewer Master Plan Fund (454) Total		62,964,360	10,554,481	16,971,960	19,986,244	21,322,620	20,659,175	152,575,215	102,059,416
GRAND TOTAL		89,851,551	19,950,863	26,488,634	29,795,065	30,920,765	30,088,576	227,211,829	104,295,686

Table 5-2. Community Investment Plan Additional Projects (2017 Master Plan)

Fund	Primary Task		PROJECT #	PROJECT TITLE	PROJECT DESCRIPTION	JUSTIFICATION	Unspent Balance as of 9/29/16	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2017- FY 2021 CIP Total	FY 2022- FY 2026 CIP Total	FY 2027- FY 2031 CIP Total	FY 2032- FY 2036 CIP Total	UN-FUNDED
454	WA04	Distribution	WA4-1	WATERMAIN IMPROVEMENTS AREA 1	<ul style="list-style-type: none"> Bring the 54-inch water main on 38th Street back into service. Add approximately 400 feet of 30-inch discharge from the Peel-Dixie high service pumps to the old west existing 30-inch discharge. Upsize approximately 100 feet of 36 and 30- inch from the 42-inch reducer to the intersection of NE 37th Street and NE 11th Avenue with 42-inch. 	This is a 2016 CUS Master Plan recommendation. The 54-inch was closed for maintenance but it has not been put back into service because of inability to disinfect. There are a variety of head loss and capacity issues around WTP with it offline. The other locations have a variety of head loss and capacity issues around the WTP (Velocity > 5 ft/s). This project is included in the "Infrastructure Renewal" Strategic Initiative.		-	-	\$260,000	\$78,000	-	\$338,000	-	-	-	
454	WA04	Distribution	WA4-2	WATERMAIN IMPROVEMENTS AREA 2	<ul style="list-style-type: none"> Upsize approximately 100 feet of the 6-inch from the 6x6x12 tee to 36x30x6 tee to 12-inch at the intersection of SE 12th Avenue and E Broward Boulevard. Upsize approximately 100 feet of 8-inch from the 16x8x8 tee to the 16x8x6 tee with a 16-inch water main at the intersection of Middle Street and SW 14th Avenue. Upsize approximately 50 feet of 6-inch from the 6x6x10 tee to the 6x10x10 tee with a 10-inch water main at the intersection of Commercial Boulevard to Bougainvillea Drive. 	This is a 2016 CUS Master Plan recommendation. These projects were identified through the hydraulic model as having insufficient capacity (Velocity > 5 ft/s). This project is included in the "Infrastructure Renewal" Strategic Initiative.		-	-	-	-	-	-	\$100,000	-	-	
454	WA05A	Wellfield	WA5A-1	PROSPECT WELLFIELD TESTING	Comprehensive wellfield testing for twenty-nine Biscayne Aquifer wells located in the Prospect Wellfield.	Evaluate individual production well condition to develop strategies to optimize wellfield performance.		-	\$58,000	-	-	-	\$58,000	-	-	-	
454	WA05A	Wellfield	WA5A-2	DIXIE WELLFIELD TESTING	Comprehensive wellfield testing for eight Biscayne Aquifer wells located in the Prospect Wellfield.	Evaluate individual production well condition to develop strategies to optimize wellfield performance.		-	\$16,000	-	-	-	\$16,000	-	-	-	
454	WA05A	Wellfield	WA5A-3	REPLACEMENT OF WELLS > 30 YEARS OLD	Identify and replace, as needed, oldest production wells (4 per year).	Improve wellfield performance to minimize operational and maintenance costs.		-	\$1,800,000	\$1,800,000	\$1,800,000	\$1,800,000	\$7,200,000	\$3,600,000	-	-	
454	WA05A	Wellfield	WA5A-4	REPLACEMENT OF WELLS < 30 YEARS OLD	Identify and replace, as needed, production wells less than 30 years old (2 per year).	Improve wellfield performance to minimize operational and maintenance costs.		-	-	-	-	-	-	\$2,700,000	\$900,000	-	
454	WA05A	Wellfield	WA5A-5	WELL REHABILITATION	Rehabilitation work on wells less than 30 years old prior to replacement. This includes maintaining pumps and motors, and replacement of mechanical and electrical components	Improve wellfield performance to minimize operational and maintenance costs.		-	\$296,000	\$148,000	\$148,000	\$148,000	\$740,000	\$740,000	\$148,000	-	
454	WA05A	Wellfield	WA5A-6	GROUNDWATER MODELING	Combine historical and ongoing saline monitoring data with variable density model simulations specific to City operations.	Evaluate risks of wellfield to saline intrusion, especially with respect to sea level rise projections.		-	\$50,000	\$50,000	-	-	\$100,000	-	-	-	
454	WA05A	Wellfield	WA5A-7	MONITORING WELL INSTALLATION	Contingent upon groundwater modeling results, field testing and construction of additional monitoring well(s).	Evaluate risks of wellfield to saline intrusion, especially with respect to sea level rise projections.		-	-	-	-	-	-	\$300,000	-	-	

Table 5-2. Community Investment Plan Additional Projects (2017 Master Plan)

Fund	Primary Task		PROJECT #	PROJECT TITLE	PROJECT DESCRIPTION	JUSTIFICATION	Unspent Balance as of 9/29/16	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2017- FY 2021 CIP Total	FY 2022- FY 2026 CIP Total	FY 2027- FY 2031 CIP Total	FY 2032- FY 2036 CIP Total	UN-FUNDED
454	WA05B	Water Treatment	WA5B-1	FIVEASH WTP COLOR REMOVAL SYSTEM INVESTIGATION AND IMPLEMENTATION	Investigate and implement a color removal system to alleviate organics and assist in the removal of the "yellow tint" currently in the water. This will help keep the color levels below 8 Pt-Co Units.	This is a 2016 CUS Master Plan recommendation. Enhancing the aesthetics of the finished water will reduce complaints and remove the need for blowers/diffusers (if ozone is selected). Customer relations will be improved and energy savings could be established if ozone is used. Energy savings will reduce costs and help the City meet its "Green Initiative" goals.		-	-	-	-	\$1,000,000	\$1,000,000	\$36,000,000	-	-	
454	WA05B	Water Treatment	WA5B-2	FIVEASH WTP GST AND CLEARWELL UPGRADES	Modify the existing piping and system such that the water from the filters drops into a clearwell which the transfer pumps will deliver to the ground storage tanks. The water from the ground storage tanks will flow to a common clearwell for the high service pumps to deliver water.	The following items are 2016 CUS Master Plan recommendations. <ul style="list-style-type: none"> Pipe upgrades will establish more stable disinfectant residuals, prevent "short-circuiting" and stagnant water, and allow for a more stable and controllable system for redundancy/maintenance and metering (for chemical injection). 		-	-	-	-	\$800,000	\$800,000	\$7,200,000	-	-	
454	WA05B	Water Treatment	WA5B-3	FIVEASH AERATION BASIN IMPROVEMENTS	<ul style="list-style-type: none"> Replace the diffusion apparatus with a more efficient diffuser rod system, possibly rubber, in order to limit the potential clogging. Replace the existing blower with a more efficient turbo blower. Reduce energy costs. Replace the isolation slide gates and operators for the aeration basins, including the addition of motorized operators: Allow each aeration basin to function independently. 	The following items are 2016 CUS Master Plan recommendations. <ul style="list-style-type: none"> Reduction in energy costs and provide a higher oxygen transfer efficiency and sulfide removal. Replacing the blower with a turbo blower will reduce energy consumption and operating cost as well as helping the City meet its "Green Initiative" goals. Improvements to the isolation gates will allow each aeration basin to be isolated for maintenance purposes, and create a better flow split and automated control of the system. 		-	-	-	-	\$3,500,000	\$3,500,000	-	-	-	
454	WA05B	Water Treatment	WA5B-4	FIVEASH WTP PCCP REPLACEMENT	Replace PCCP pipe feeding the high service pumps.	This is a 2016 CUS Master Plan recommendation. The pipe is old, a high risk asset, and is at the end of its useful life. This critical pipeline should be upgraded for reliability to a new ductile iron pipe or rehabilitated with an interior structural liner.		-	-	-	\$4,000,000	-	\$4,000,000	-	-	-	
454	WA05C	Water Treatment	WA5C-1	PEEE DIXIE WTP IRON REMOVAL MODIFICATIONS	The plant is constrained from running at its 12 MGD capacity by iron precipitation in the raw water. This project adds filtration and oxidation to remove the iron.	This is a 2016 CUS Master Plan recommendation. It allows the facility to operate at its 12 MGD capacity and is a capacity recovery project.		-	-	\$3,600,000	-	-	\$3,600,000	-	-	-	

Table 5-2. Community Investment Plan Additional Projects (2017 Master Plan)

Fund	Primary Task		PROJECT #	PROJECT TITLE	PROJECT DESCRIPTION	JUSTIFICATION	Unspent Balance as of 9/29/16	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2017- FY 2021 CIP Total	FY 2022- FY 2026 CIP Total	FY 2027- FY 2031 CIP Total	FY 2032- FY 2036 CIP Total	UN-FUNDED
454	WA05C	Water Treatment	WASC-2	PEELE-DIXIE WTP CHEMICAL STORAGE IMPROVEMENTS	The anti-scalant and corrosion inhibitor bulk chemical tanks do not allow for a full load delivery of chemicals. Investigate the addition of another tank and/or the replacement with multiple, smaller tanks. Also the day tanks for the sodium hydroxide and sulfuric acid do not hold enough chemical to last a whole day and additional storage is required.	This is a 2016 CUS Master Plan recommendation. Due to additional chemical addition, the bulk tanks cannot accept a full delivery which wastes money spent on a full load of chemical that is not utilized by the City.		-	-	-	\$850,000	-	\$850,000	-	-	-	
454	WA05C	Water Treatment	WASC-3	PEELE-DIXIE WTP POST TREATMENT STABILIZATION	Utilize portions of the existing, decommissioned lime softening facility to store and provide treatment options for the addition of chemicals to the membrane permeate.	This is a 2016 CUS Master Plan recommendation. The finished water delivered from the Peele-Dixie WTP has a high corrosivity and a low (sometimes negative) LSI. The pH is raised to reduce the corrosion potential of the water in the distribution system. This project would add minerals, specifically calcium, to increase hardness, alkalinity, and the LSI providing the overall benefit of a stable, non-corrosive water.		-	-	-	-	-	-	\$6,500,000	-	-	
454	WA05C	Water Treatment	WASC-5	PEELE-DIXIE WTP GRATING INSTALLATION	At each of the chemical storage and pumping areas, there is a stepdown right near the door which is a safety concern. Install grating to create a flat surface.	This is a 2016 CUS Master Plan recommendation. Installing grating to create a flat surface without a stepdown will help improve safety, prevent workplace accidents and still provide the necessary chemical containment.		-	-	-	-	\$100,000	\$100,000	-	-	-	
454	WA05C	Water Treatment	WASC-6	PEELE-DIXIE WTP INVESTIGATION AND CREATION FOR WORKSHOP ADDITION	There is not a current workshop area for the operations and maintenance staff to perform repairs and maintain machinery. Evaluate locations within the plant and construct a suitable maintenance workshop.	This is a 2016 CUS Master Plan recommendation. The addition of a defined workshop section will allow for a proper, permitted area for the operations staff to perform repairs on the equipment as needed and potentially reduce costs by having to hire outside staff to perform the repairs.		-	-	-	-	\$100,000	\$100,000	\$1,000,000	-	-	
454	WA05C	Water Treatment	WASC-8	PILOT MEMBRANE SYSTEM UNIT INSTALLATION	To allow operations/engineering staff to test different dosages of various chemicals in operation and test different membranes to obtain the most optimum dosages, develop and purchase a pilot membrane system unit.	This is a 2016 CUS Master Plan recommendation. This will allow operations/engineering staff to test different dosages of various chemicals in operation and test different membranes to obtain the most optimum dosages and potentially reduce chemical costs and energy costs.		-	-	-	-	-	-	\$500,000	-	-	
454	WA05C	Water Treatment	WASC-9	OPERATIONAL UPGRADES (PEELE DIXIE MEMBRANE PLANT)	Add actuators and controls for major valves and provide a SCADA program to allow the operators to perform a periodic open/close ("cycling") of the valves for maintenance purposes.	This is a 2016 CUS Master Plan recommendation. This will allow operations/engineering staff to perform a periodic open/close automation of the valves for maintenance purposes.		-	-	\$2,500,000	-	-	\$2,500,000	-	-	-	

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454	WA05E	Water Treatment	WA5E-1	LIME SOFTENING PROCESS TRAIN DECOMMISSIONING	Decommissioning the lime softening plant at Peele Dixie (includes Concrete, and metal pipe removal, Aluminum plate removal and tank/building demolition.	This is a 2016 CUS Master Plan recommendation. This will allow operations/engineering staff to investigate the potential reuse of the lime softening storage tanks and existing infrastructure left over from the decommissioned lime softening process train.		-	-	-	\$667,000	-	\$667,000	-	-	-	
454	WA05F	Distribution	WA5F-1	MODEL DEMAND ALLOCATION UPDATE	In depth model demand allocation to remove some false high water age indications.	This is a 2016 CUS Master Plan recommendation. Removing false high water age indications in the model will allow the City to improve their treatment process and provide more accurate assessments of areas with in the distribution system that are in need of improvements.		-	-	\$25,000	-	-	\$25,000	-	-	-	
454	WA05F	Distribution	WA5F-2	MISCELLANEOUS WATER QUALITY IMPROVEMENTS	Investigate adding additional automatic flushers at the following locations to reduce water age: PLUG_F10015 – Snyder Park/PLUG_F5472 – SW 15th Avenue/SW 33rd Street PLUG_F4373 – SW 32nd Place PLUG_F4366 – SW 32nd Street	This is a 2016 CUS Master Plan recommendation. Auto flushers reduce water age and help prevent nitrification. Using auto flusher instead of manual flushing will also decrease water wasted when flushing is required.		-	\$25,000	-	-	-	\$25,000	-	-	-	
454	WA05F	Distribution	WA5F-3	MINOR WATER MAIN PIPE LOOPING PROJECTS	Complete small pipe looping projects in areas such as NW 59th Street/NW 31st Avenue and Mills Pond Park, for example.	This is a 2016 CUS Master Plan recommendation. Pipe looping projects improve water quality in the distribution system.		-	-	-	-	\$200,000	\$200,000	-	-	-	
454	WA05F	Distribution	WA5F-4	VALVE AND HYDRANT REPAIR	Inspect and repair UDF valves and hydrants.	This is a 2016 CUS Master Plan recommendation. This project will prepare the City's assets for UDF, which helps improve water quality and color by moving debris in the pipeline, and also improves water age in the distribution system.		-	-	-	\$300,000	-	\$300,000	-	-	-	
454	WA06	Distribution	WA6-1	2ND AVENUE TANK REPLACEMENT/RELOCATION INVESTIGATION	Begin planning and selection of a new site for the future, expanded 2nd Avenue storage tank, with a minimum usable volume of 1.3 MG. Additionally the current tank takes about 12 hours to fill, so the distribution system around the tank is not adequate either.	Plans to remove the 2nd Avenue elevated tank and replace it with a larger ground storage tank were halted due to opposition by the local community. Increasing the capacity and relocating the tank will ease public tension and increase storage capacity and discharge time during emergency and peak events in the water distribution system.		-	-	-	\$25,000	-	\$25,000	-	-	-	
454	WA06	Distribution	WA6-2	2ND AVENUE TANK REPLACEMENT/RELOCATION IMPLEMENTATION	Installation of 1.3 MG ground storage/repump station or elevated storage tank to replace the outdated 2nd Avenue storage tank.	The 2nd Avenue storage tank volume is just under the 4 hour peak flow criteria, to ensure adequate storage volume the tank is to be replaced by a new 1.3 MG storage tank.		-	-	-	-	-	-	-	-	\$4,150,000	
454	WA08	Water Treatment	WA8-1	FIVEASH WATER TREATMENT PLANT R&R	General R&R services for Fiveash WTP not specifically called out in other CIP projects. (Reference Water R&R Report provided in the Master Plan for a list of projects to be included).	This is a 2016 CUS Master Plan recommendation. This project is for R&R for items at the Fiveash WTP.		-	\$28,148,282	\$6,514,107	\$0	\$12,848,936	\$47,511,324	\$21,786,466	\$65,565,534	\$9,233,727	

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454	WA08	Water Treatment	WA8-2	PEELE-DIXIE WATER TREATMENT PLANT R&R	General R&R services for Peele-Dixie WTP not specifically called out in other CIP projects. (Reference Water R&R Report provided in the Master Plan for a list of projects to be included).	This is a 2016 CUS Master Plan recommendation. This project is for R&R for items at the Peele-Dixie WTP.		-	\$2,518,026	\$1,413,709	\$0	\$2,238,823	\$6,170,558	\$5,702,816	\$15,189,145	\$9,860,154	
454	WA08	Wellfield	WA8-3	PROSPECT WELLFIELD R&R	General R&R services for Prospect Wellfield not specifically called out in other CIP projects. (Reference Water R&R Report provided in the Master Plan for a list of projects to be included).	This is a 2016 CUS Master Plan recommendation. This project is for R&R for items at Prospect Wellfield.		-	\$11,133,040	\$12,029,936	\$10,574,402	\$8,078,687	\$41,816,066	\$14,935,885	\$5,416,504	\$1,528,257	
454	WA08	Wellfield	WA8-4	DIXIE WELLFIELD R&R	General R&R services for Dixie Wellfield not specifically called out in other CIP projects. (Reference Water R&R Report provided in the Master Plan for a list of projects to be included).	This is a 2016 CUS Master Plan recommendation. This project is for R&R for items at Dixie Wellfield.		-	\$48,973	\$390,885	\$301,661	\$21,633	\$763,152	\$834,450	\$1,947,949	\$466,239	
454	WA08	Distribution	WA8-5	NW 2 nd AVE ELEVATED STORAGE TANK & PUMP R&R	General R&R services for the NW 2nd Ave elevated storage tank not specifically called out in other CIP projects.	This is a 2016 CUS Master Plan recommendation. This project is for R&R for items for the NW 2nd Ave elevated storage tank.		-	\$70,450	\$70,450	\$120,450	\$70,450	\$331,800	\$380,500	\$606,500	\$1,340,500	
454	WA08	Distribution	WA8-6	POINCIANA ELEVATED STORAGE TANK & PUMP R&R	General R&R services for the Poinciana elevated storage tank not specifically called out in other CIP projects.	This is a 2016 CUS Master Plan recommendation. This project is for R&R for items for the Poinciana elevated storage tank.		-	\$70,000	\$120,000	\$72,500	\$70,000	\$332,500	\$417,063	\$2,927,250	\$417,500	
454	WA08	Distribution	WA8-7	DISTRIBUTION SYSTEM R&R	General R&R services for the City's distribution system not specifically called out in other CIP projects. (Reference Water R&R Report provided in the Master Plan for a list of projects to be included)	This is a 2016 CUS Master Plan recommendation. This project is for R&R for the City's distribution system.		-	\$0	\$0	\$0	\$0	-	\$49,785,000	\$42,285,000	\$27,935,000	
454	WA09	Citywide	P90008	CONTINUOUS WATER CONSERVATION EDUCATION	Provide education to the public via pamphlets, brochures, and meetings to provide education on ways to conserve water.	Improved sustainability and reduction in cost		-	\$20,000	\$20,000	\$20,000	\$20,000	\$80,000	\$100,000	\$100,000	\$100,000	-
454	WA09	Citywide	P90009	WATER CONSERVATION POLICY MAKING & INCENTIVES	Create policies to establish new water conservation methods. Add incentives to policies ensure goals are achieved.	Improved sustainability and reduction in cost		-	-	\$300,000	-	-	\$300,000	\$300,000	\$300,000	\$600,000	-
454	WA09	Citywide	WA9-1	CURRENT WATER CONSERVATION PROGRAMS	Maintain current level of water conservation effort, including rebating high efficiency toilets, promoting Florida-friendly landscaping and green infrastructure, educational programs, system wide leak detection, replacing old water meters, etc.	The City's current water conservation programs have proven to be effective in reducing water consumption. Since 2009, the City's potable water demand per capita has decreased by 15%, from 195 gpcd to 165 gpcd in 2014. It's important to keep implementing the existing programs to keep moving towards a lower gallons per capita consumption. City should congratulate the users and encourage them to continue their efforts.		-	\$100,000	\$50,000	\$0	\$0	\$250,000	\$250,000	\$250,000	\$250,000	

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454	WA09	Distribution	WA9-2	UNIDIRECTIONAL FLUSHING PROGRAMS	UDF involves using clean water to flush the system from the source outward by isolating portions of the distribution system to achieve water flow in one direction. UDF sequences are designed to achieve velocities of five feet per second. By achieving such high velocities in the target pipe(s), pipe(s) can be properly scoured. Scouring the pipe(s) removes deposits and debris from the water main and removes them from the distribution system. UDF uses hydraulic modeling to achieve the unidirectional flow patterns.	UDF uses approximately 40 percent less water than conventional flushing. The benefits of a UDF program include increased hydraulic capacity, prolonged water main life expectancy, lower turbidity and color water, higher chlorine residuals, reduced flushing volumes, significantly lower customer complaints, etc.		-	\$1,000,000	\$1,000,000	-	\$300,000	\$2,300,000	\$1,500,000	\$1,500,000	\$1,500,000	
454	WA09	Citywide	WA9-3	IMPLEMENT & EVALUATE OTHER NEW WATER CONSERVATION PROGRAMS	Further investigate and implement other recommended water conservation programs including Strategic Water Auto Flushing (SWAF) Program, Water Smart Home Program, Ozone Laundry Program, and Energy Performance Contracting Program. Also periodically re-evaluate City's water conservation program and identify new programs for implementation.	In order to help maintain the City's water consumption goal of 170 gpcd by 2028, City needs to keep implementing new water conservation programs to help reduce water consumption. The recommended programs have been proven effective in reducing water consumption by other utilities. With future population and economic growth and climate change implication it is also imperative to re-evaluate the City's water conservation program and identify new programs.		-	\$100,000	\$100,000	\$100,000	\$100,000	\$400,000	-	\$30,000	\$30,000	
454	WA09	Distribution	WA9-4	LEAK DETECTION PROGRAM	Detecting and repairing leaks is one of the main components of water conservation. This system wide leak detection program includes acoustic leak detection on the smaller and metal pipes and helium leak detection on larger and plastic pipes.	Leak detection is a water conservation method that is widely used by utilities. A successful leak detection program can offer important information that can help improve operational efficiency, lower water system operational cost, reduce potential for contamination, extend life of facilities, reduce potential property damage, etc.		-	\$50,000	\$0	\$0	\$0	\$200,000	\$250,000	-	-	
454	WA12	Water Treatment	WA12-1	REDUNDANT LIME SLUDGE DISPOSAL SYSTEM	Add parallel pipeline from Fiveash lime sludge pumps to wellfield or gravity thickener at Fiveash WTP for redundant disposal.	This is a 2016 CUS Master Plan recommendation. Adding redundancy to the lime sludge disposal system is necessary for emergencies and maintenance.		-	-	\$4,900,000	-	-	\$4,900,000	-	-	-	
454	WA12	Water Treatment	WA12-2	EXCAVATE AND DISPOSE OF DRY LIME SLUDGE	This project includes the excavation and disposal of dry lime sludge from the west cell sludge pit or delivery to a cement kiln.	This is a 2016 CUS Master Plan recommendation. Disposal of sludge is necessary for upkeep and sludge maintenance.		-	-	\$2,600,000	-	-	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	-
		Distribution	WA13-1							\$41,000	\$41,000	\$41,000	\$123,000	\$82,000			
		Water Treatment	WA13-10							\$5,000	\$5,000	\$5,000	\$15,000	\$10,000			
		Water Treatment	WA13-11							\$10,000	\$1,000	\$10,000	\$30,000	\$20,000			
		Wellfield	WA13-2											\$126,000			

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		Water Treatment		WA13-3						\$2,000	\$2,000	\$2,000	\$6,000	\$2,000			
		Water Treatment		WA13-4						\$6,527	\$16,047	\$3,892	\$26,466	\$3,892			
		Water Treatment		WA13-5							\$5,000		\$5,000				
		Water Treatment		WA13-6						\$22,000	\$22,000	\$22,000	\$66,000	\$44,000			
		Water Treatment		WA13-7						\$5,000	\$5,000	\$5,000	\$15,000	\$10,000			
		Water Treatment		WA13-8						\$1,000	\$1,000	\$1,000	\$3,000	\$1,000			
		Water Treatment		WA13-9						\$16,500	\$16,500	\$16,500	\$49,500	\$33,000			
454	WA14	Distribution	WA14-01	NW 62ND ST AND NW 39TH ST WATER MAIN IMPROVEMENTS	This project includes rehabilitation or replacement of approximately 90 feet of 30-inch DIP water main installed in 1974 along NW 62nd Street crossing under Powerline Road and approximately 500 feet of 24-inch ductile iron water main installed in 1983 along NW 39th Street from NW 31st Avenue to approximately 350 feet east of NW 30th Terrace including inspection, and all related work.	This is a 2016 CUS Master Plan recommendation. The purpose of this project is to reduce the risk associated with a portion of the transmission system. This project is part of the "Infrastructure Renewal" Strategic Initiative.		-	-	-	-	-	-	-	\$261,800	-	
454	WA14	Distribution	WA14-02	NE 45TH ST, NE 18TH AVE, AND N ANDREWS AVE PROSPECT RD WATER MAIN IMPROVEMENTS	This project includes the evaluation, and rehabilitation or replacement of: approximately 92 feet of 36-inch and approximately 20 feet of 30-inch water main of unknown material installed in 1957 along N Andrews Avenue from the intersection with E Prospect Road to approximately 115 feet north of the intersection, approximately 4,700 feet of 36-inch water main of unknown material along E Prospect Road from N Andrews Avenue to N Dixie Highway and then north along N Dixie Highway to NE 45th Street, as well as rehabilitation or replacement of approximately 4,060 feet of 30-inch water main of mostly unknown material along NE 45th Street from N Dixie Highway to NE 18th Avenue and 2,060 feet of 24-inch water main of unknown material along NE 18th Avenue from NE 45th Street to E Commercial Boulevard, all including inspection and all related work.	This is a 2016 CUS Master Plan recommendation. The purpose of this project is to reduce the risk associated with a portion of the transmission system. This project is part of the "Infrastructure Renewal" Strategic Initiative.		-	-	-	-	-	-	-	\$6,074,280	-	

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454	WA14	Distribution	WA14-03	POWERLINE RD, NW 9TH AVE, N ANDREWS SQ, N ANDREWS AVE WATER MAIN IMPROVEMENTS	Includes the evaluation, and rehabilitation or replacement of approximately: 4,500 feet of 36-inch CIP water main (WM) along Powerline Road., near Fiveash WTP east across Powerline Road/SR 845 north of the intersection of Powerline Road, and I-95 to W Oakland Park Boulevard, 1.8 miles of 30-inch and 0.25 miles of 24-inch WM of mostly CIP along NW 9th Avenue from W Oakland Park Boulevard to W Sunrise Boulevard, approximately 95 feet of 30-inch WM of unknown material crossing SR-845 S from the Fiveash WTP, and 1.86 miles of 30-inch mostly CIP water main along N Andrews Avenue from NW 42nd Street to 175 feet south of the intersection with NE 19th Court including a 67 foot section at the intersection of NW 21st Court along NW 21st Court, 65 feet along NE 26th Street at the intersection with N Andrews Avenue, 1.05 miles of 24-inch WM of CIP along N Andrews Square. From about 170 feet south of NE 19th Court then turning and continuing along NW 1st Avenue to Sunrise Boulevard including inspection and all related work.	This is a 2016 CUS Master Plan recommendation. The purpose of this project is to reduce the risk associated with a portion of the transmission system. This project is part of the "Infrastructure Renewal" Strategic Initiative.		-	-	-	-	-	-	-	-	\$15,957,270	
454	WA14	Distribution	WA14-04	WATER MAINS FROM FIVEASH TREATMENT PLANT IMPROVEMENTS	This project includes rehabilitation or replacement of approximately 200 feet of 42- inch water main of unknown material along SR- 845 S/Powerline Road at the intersection with I- 95 from the Fiveash WTP, approximately 65 feet of 48-inch water main of unknown material along SR-845 S/Powerline Road at the intersection with I-95 from the Fiveash WTP, approximately 111 feet of 54-inch water main of unknown material along SR-845 S/Powerline Road at the intersection with I-95 from the Fiveash WTP and approximately 15 feet of 60- inch water main of unknown material along SR- 845 S/Powerline Road at the intersection with I- 95 from the Fiveash WTP including inspection, and all related work.	This is a 2016 CUS Master Plan recommendation. The purpose of this project is to reduce the risk associated with a portion of the transmission system. This project is part of the "Infrastructure Renewal" Strategic Initiative.		-	-	-	-	-	-	\$358,000	-	-	
454	WA14	Distribution	WA14-05	NW 42ND ST WATER MAIN IMPROVEMENTS	This project includes rehabilitation or replacement of approximately 2,260 feet of 30- inch water main of CIP along NW 42nd Street from about 190 feet east of I-95 to N Andrews Avenue including inspection, and all related work.	This is a 2016 CUS Master Plan recommendation. The purpose of this project is to reduce the risk associated with a portion of the transmission system. This project is part of the "Infrastructure Renewal" Strategic Initiative.		-	-	-	-	-	-	\$1,175,200	-	-	

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454	WA14	Distribution	WA14-06	SE 20TH ST WATER MAIN IMPROVEMENTS	This project includes rehabilitation or replacement of approximately 730 feet of 24- inch CIP water main along SE 20th Street from approximately the intersection with SE 1st Avenue to approximately 55 feet east of SE 4th Avenue and approximately 150 feet of 24-inch CIP south along SE 4th Avenue including inspection, and all related work.	This is a 2016 CUS Master Plan recommendation. The purpose of this project is to reduce the risk associated with a portion of the transmission system. This project is part of the "Infrastructure Renewal" Strategic Initiative.		-	-	-	-	-	-	-	\$402,050	-	
454	WA14	Distribution	WA14-07	E SUNRISE BLVD WATER MAIN IMPROVEMENTS	This project includes rehabilitation or replacement of approximately 1,020 feet of 24- inch CIP water main along E Sunrise Boulevard from NE 17th Way to the intersection of E Sunrise Boulevard and US-1 and approximately 80 feet of 12-inch water main of unknown material near N Birch Road and E Sunrise Boulevard behind the Mexican restaurant, including inspection, and all related work.	This is a 2016 CUS Master Plan recommendation. The purpose of this project is to reduce the risk associated with a portion of the transmission system. This project is part of the "Infrastructure Renewal" Strategic Initiative.		-	-	\$554,600	-	-	\$554,600	-	-	-	
454	WA14	Distribution	WA14-08	W BROWARD BLVD WATER MAIN IMPROVEMENTS	This project includes rehabilitation or replacement of approximately 1,810 feet of 30- inch CIP water main along W Broward Boulevard from NW 18th Avenue to River Highlands Avenue including inspection, and all related work. The portion of this water main running along the bridge of North Fork New River will be completed in the 2017-2021 CIP project P12050.	This is a 2016 CUS Master Plan recommendation. The purpose of this project is to reduce the risk associated with a portion of the transmission system. This project is part of the "Infrastructure Renewal" Strategic Initiative.		-	-	-	-	-	-	-	\$941,200	-	
454	WA14	Distribution	WA14-09	US-441 AND W BROWARD BLVD WATER MAIN IMPROVEMENTS	This project includes rehabilitation or replacement of approximately 425 feet of 30- inch CIP water main along US-441 just south of the intersection with W Broward Boulevard which crosses over from US441 N to US441 S and runs along US441 S as well and approximately 1.84 miles of 30-inch CIP water main along W Broward Boulevard east of the intersection with US-441 to NW 22nd Avenue including inspection, and all related work.	This is a 2016 CUS Master Plan recommendation. The purpose of this project is to reduce the risk associated with a portion of the transmission system. This project is part of the "Infrastructure Renewal" Strategic Initiative.		-	-	-	-	-	-	-	-	\$5,230,000	
454	WA14	Water Treatment	WA14-10	FIVEASH WTP TRANSFER PUMP IMPROVEMENTS	This project includes replacement of the control valve and motors for the transfer pumps.	This is a 2016 CUS Master Plan recommendation. The purpose of this project is to reduce the risk associated with a portion of the treatment processes at Fiveash WTP. This project is part of the "Infrastructure Renewal" Strategic Initiative.		-	-	-	\$1,720,510	-	\$1,720,510	-	-	-	

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454	WA14	Water Treatment	WA14-11	FIVEASH WTP HIGH SERVICE PUMP IMPROVEMENTS	This project includes replacement of the distribution system headers for the south, northwest, and southeast HSPs.	This is a 2016 CUS Master Plan recommendation. The purpose of this project is to reduce the risk associated with a portion of the treatment processes at Fiveash WTP. This project is part of the "Infrastructure Renewal" Strategic Initiative.		-	-	-	-	-	-	-	\$1,000,000	-	
454	WA14	Water Treatment	WA14-12	FIVEASH WTP CLEARWELL AND RECARBONATION IMPROVEMENTS	This project includes replacement of the sluice gate for Clearwell #1 and the replacement of the sluice gates for the recarbonation system.	This is a 2016 CUS Master Plan recommendation. The purpose of this project is to reduce the risk associated with a portion of the treatment processes at Fiveash WTP. This project is part of the "Infrastructure Renewal" Strategic Initiative.		-	-	-	-	-	-	-	\$250,000	-	
454	WA14	Water Treatment	WA14-13	HYDROTREATER SYSTEM IMPROVEMENTS	This project includes replacement of hydro recirculation pumps 1, 2, 3, and 4.	This is a 2016 CUS Master Plan recommendation. The purpose of this project is to reduce the risk associated with a portion of the treatment processes at Fiveash WTP. This project is part of the "Infrastructure Renewal" Strategic Initiative.		-	-	-	-	-	-	-	\$30,000	-	
Water Totals							\$ -	\$ -	\$ 45,503,771	\$ 38,555,714	\$ 20,892,070	\$ 31,502,921	\$ 136,713,476	\$ 159,347,272	\$ 148,725,212	\$ 81,198,647	\$ -
451	UW2	Wastewater Treatment	UW2-5	GT LOHMEYER WWTP SCADA IMPROVEMENTS	Upgrade/improve SCADA Systems	Refer to CUSMP Section UW2-6 and Table UW2-5 for justification and cost breakdown.		-	-	-	2,475,000	-	2,475,000	540,000	740,000	740,000	
451	UW3	Wastewater Treatment	UW3-19	GTL CITY ELECTRICAL UPGRADE PROJECTS	Perform Electrical Maintenance Testing; Replace Service Point 1 - 4.16kV Switchgear; 4.16kV feeders to Cryogenic Bldg; Generator Building Unit Substation; add 5kV load break switch for portable generator connection; Motor Control Centers Rehabilitation.	Age/Reliability		-	2,490,321	158,000	-	4,250,000	6,898,321	-	-	500,000	
451	UW3	Wastewater Treatment	UW3-20	GTL R&R ELECTRICAL PROJECTS	Unit Substations R&R and future Service Point 1 -3 4.16 kV feeder replacement.	Age/Reliability		-	-	1,717,042	1,717,043	1,717,043	5,151,128	2,575,562	2,575,563	-	-
451	UW3	Wastewater Treatment	UW3-21	GTL ELECTRICAL STUDIES AND TESTING	Update Plant Electrical Documents; Commission Study of Grounding and Surge Protective System and Lightning Protection System. Perform Electrical Maintenance Testing (Arc Flash).	Safety/Code		-	155,000	-	-	203,535	358,535	203,535	203,535	203,535	
451	UW3	Wastewater Treatment	UW3-22	GTL LIGHTNING PROTECTION	Make improvements to lightning protection and grounding/bonding system based on surveys/testing.	Safety/Reliability		-	100,000	100,000	100,000	100,000	400,000	-	-	-	
451	UW3	Wastewater Treatment	UW3-23	GTL ELECTRICAL REPLACEMENTS (2015-2020)	Replace medium voltage solid state reduced voltage starters for Effluent Pumps; Replace control instrumentation and power wire for SPS No. 1 and Clarifiers 1, 2 and 3; Replace control instrumentation and power wire for Chlorine Building; Rehabilitate Scum Pump, Plant Drain, Sanitary Lift Station with new electrical	Age/Reliability		-	450,000	900,000	700,000	1,848,975	3,898,975	-	1,500,000	-	-

Table 5-2. Community Investment Plan Additional Projects (2017 Master Plan)

Fund	Primary Task		PROJECT #	PROJECT TITLE	PROJECT DESCRIPTION	JUSTIFICATION	Unspent Balance as of 9/29/16	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2017- FY 2021 CIP Total	FY 2022- FY 2026 CIP Total	FY 2027- FY 2031 CIP Total	FY 2032- FY 2036 CIP Total	UN-FUNDED
					and control and other preventative maintenance.												
451	UW3	Wastewater Treatment	UW3-24	GTL ELECTRICAL REPLACEMENTS (2021-2035)	Replace control instrumentation and power wire for SPS No. 2 and Clarifiers 4, 5, 6 and 7; Replace control instrumentation and power wire for Sludge Holding Tanks; Replace medium voltage feeders and other preventative maintenance.	Age/Reliability		-	-	-	-	-	-	4,848,975	348,975	348,975	
451	UW3	Wastewater Treatment	UW3-25	GTL VFD R&R	Replace 480V Variable Frequency Drives.	Age/Reliability		-	-	-	-	-	-	400,000	-	400,000	
451	UW3	Wastewater Treatment	UW3-26	GTL LOCAL GENERATOR CONNECTIONS	Apply 5KV Fused Disconnect Switch to Feeder 2F5 in SWGR5203; Apply 480V generator connection switchboard to USS_5311 or USS_5312 in Sludge Pump Station No.3; Apply 480V generator connection switchboard to USS_5307 or USS_5308 in Effluent Pump Station.	Age/Reliability		-	-	-	-	-	-	900,000	-	-	
451	UW3	Wastewater Treatment	UW3-27	GTL INJECTION WELL ELECTRICAL STUDIES AND TESTING	Perform Short Circuit Device Coordination and Arc Flash Study; Perform Electrical Maintenance Testing; Perform a survey of plant grounding and bonding system including lightning protection. Generate accurate as-built one line diagrams of the entire wellfield. Generate accurate plan drawings of the well field to depict locations of direct buried power, signal and control wiring, as well as, FPL facilities contained in the well field.	Safety/Code		-	115,000	100,000	-	-	215,000	120,000	120,000	140,000	-
451	UW3	Wastewater Treatment	UW3-28	GTL INJECTION WELL ELECTRICAL REPLACEMENTS (2017-2021)	Replace electrical panels, disconnect switches, raceways and wiring at Injection Wells 1 and 2. Replace in-ground power, control and signal raceway and wiring from Well Control House to Wells 1, 2, 3, and 5 including new in-ground pull boxes; Perform site lighting replacement for Injection Well Field site including Wells, roadway and control building exterior.	Age/Reliability/Safety		-	350,000	600,000	300,000	-	1,250,000	-	-	-	-
451	UW3	Wastewater Treatment	UW3-29	GTL INJECTION WELL ELECTRICAL REPLACEMENTS (2021-2025)	Replace electrical panels, disconnect switches, raceways and wiring at Injection Wells 3 and 5. Perform electrical systems rehabilitation of the Well Control Building including new utility service disconnect, 480V motor control center, 240V motor control center, circuit breaker panelboards, lighting transformers, lighting, receptacles and other electrical appurtenances. Add generator connection means and manual transfer switch to facilitate portable emergency generator connection if utility power is lost for an extended period of time.	Safety/Code		-	-	-	-	-	-	1,300,000	-	350,000	-

Table 5-2. Community Investment Plan Additional Projects (2017 Master Plan)

Fund	Primary Task		PROJECT #	PROJECT TITLE	PROJECT DESCRIPTION	JUSTIFICATION	Unspent Balance as of 9/29/16	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2017- FY 2021 CIP Total	FY 2022- FY 2026 CIP Total	FY 2027- FY 2031 CIP Total	FY 2032- FY 2036 CIP Total	UN-FUNDED
451	UW3	Wastewater Treatment	UW3-30	GTL INJECTION WELL ELECTRICAL REPLACEMENTS (2026-2030)	Replace electrical panels, disconnect switches, raceways and wiring at Injection Well 4. Replace in ground power, control and signal raceway and wiring from Well Control House to Well 4 including new in ground pull boxes.	Safety/Reliability		-	-	-	-	-	-	-	500,000	-	
Waste water Totals							-	-	3,660,321	3,575,042	5,292,043	8,119,553	20,646,959	10,888,072	5,988,073	2,682,510	-
Grand Total (Water + Wastewater)									\$49,164,092	\$42,130,756	\$26,184,113	\$39,622,474	\$157,360,435	\$170,235,344	\$154,713,285	\$83,881,157	

5.2.1 Proposed Water System Capital Improvements

Planned Water System improvements identified for funding in the Community Investment Plan CIP, as presented in Table 5-1, total to \$137.6 million for FY 2018–FY 2022, including improvements at the Fiveash WTP, as well as chemical system improvements and R&R projects at the Peele-Dixie WTP, and numerous large and small water main improvements. With the Series 2018 bond proceeds, an additional \$55.3 million of improvements to the water system will be funded, bringing the total Community Investment Plan water system improvements to \$192.9. The CUSMP (completed after the FY 2018 to FY 2022 budget was adopted), recommended \$274 million in water system improvements from FY 2018 to FY 2022 (Reiss Engineering, 2017). The improvements recommended in the CUSMP include the water system improvements identified in the Community Investment Plan.

5.2.2 Proposed Sewer System Capital Improvements

The Community Investment Plan CIP includes a total of \$89.6 million in Sewer System improvements for FY 2018–FY 2022. This includes \$74.6 million in improvements to the RWWTP, and another \$15.0 million in improvements the City’s retail wastewater collection system. The RWWTP improvements include Regional System Renewal and Replacements, Rehabilitation of PCCP, Rehabilitation of Motor Controls, and Clarifier Pipe Replacements. The sewer collection system improvements include repairs and rehabilitation of force mains, and repairs, replacements, or relocations of gravity mains, and rehabilitation of pump stations.

The CUSMP recommended additional RWWTP and collection system improvements. With the proceeds of the Series 2018 Bonds, approximately \$23.4 million of RWWTP improvements, and collection system improvements of \$39.4 million will be funded. This is in addition to the improvements to the RWWTP and Collection System that were identified both in the CUSMP and in the Consent Order that will also be funded, as discussed in Section 5.4.

5.2.3 Proposed Other Capital Improvements

The CIP also includes some other improvements that are related to SCADA applications and automated meter infrastructure (AMI). The City does not have a funding strategy at this time but is considering alternative funding to support the AMI program. The City is currently investigating modernizing more than 62,000 existing potable water meters using AMI. The feasibility of this project is being evaluated through an Investment Grade Audit (IGA) contract with Siemens, Inc. Implementation of AMI would provide multiple benefits to the City, including, but not limited to, smart metering to allow both the City and its neighbors to monitor water consumption electronically in real time; a full inventory of the metering assets throughout its service area; substantial operational savings through elimination of the contracted meter readers; increased revenues from use of more accurate water meters; near elimination of routine/annual meter replacement with 20-year warranty; improved operational efficiency of remote turn on and shut off water service; and improved leak detection through real-time alerts.

To date, Siemens has provided the following preliminary estimates of the financial impacts of the project: \$40 to \$45 million in total project cost, \$0.9 million in annual operational savings and \$2.8 to \$4.4 million in increased annual revenue, depending on the meter system selected. This project is intended to be executed under an Energy Performance Contract, which will provide guaranteed performance for the duration of the contract. The additional revenues and operational savings will pay for the infrastructure improvements. The IGA report is expected to be completed in early 2018 and will include guaranteed project cost and guarantees for savings and increased meter accuracy. The City intends to execute and begin implementation of the Energy Performance Contract in 2018.

5.3 Consent Order Improvements

The Consent Order includes wastewater repair projects and operational improvements the City must complete to reduce risk and improve resiliency within the wastewater collection system. These projects replace aged pipe networks and construct additional infrastructure to increase capacity and redundancy of the utility systems. The projects provide for systematic replacement of outdated technology within the wellfields, water and wastewater treatment plants, the water distribution system, and the wastewater collection system. Finally, the projects modernize utility management tools and operational control systems to improve efficiency. Of the total \$127.1 million of improvements identified in the Consent Order, \$45.8 million were included in the Community Investment Plan improvements, and the remaining \$81.3 will be funded from the Series 2018 Bond proceeds.

5.4 Total Proposed Capital Improvements

Table 5-3 presents the total proposed capital outlays for projects identified in the Community Investment Plan, CUSMP, and Consent Order. The table shows total expenditures between FY 2018–FY 2022 of \$512.2 million. Table 5-3 includes improvements that will be funded from the proceeds of the Series 2018 Bonds. With the proceeds from the Series 2018 Bonds, some of the Community Investment Plan improvements identified in Table 5-1 as unfunded are shown as funded. In addition, some of the improvements shown in Table 5-2 as part of the CUSMP were also identified in the Consent Order. These projects are shown in the Consent Order and have not been included in the CUSMP projects presented in Table 5-3.

Table 5-3. Capital Improvements from Community Investment Plan, CUSMP, and Consent Order (in millions)
FY 2018–FY 2022

Source Document	Fund					Total
	454 Water	451 Regional Wastewater	454 Wastewater	451/454 Joint	Unfunded ^c	
Community Investment Plan	\$192.9	\$74.6	\$15.0	\$0.0	\$49.0 ^a	\$331.5
CUSMP	\$0.4	\$23.4	\$39.4	\$0.0	\$36.2 ^c	\$99.4 ^b
Consent Order	\$0.0	\$53.1	\$16.7	\$11.5	\$0.0	\$81.3
Total	\$193.3	\$151.1	\$71.1	\$11.5	\$85.2	\$512.2

^a Approximately \$55.3M of unfunded projects identified in Table 5-1 will be funded from the Series 2018 Bond proceeds, reducing the unfunded amount to \$49M.

^b There are approximately \$58.0M of projects identified in the CUSMP that are also requirements of the Consent Order. To prevent double counting, they are shown as funded from the Consent Order and deducted from the CUSMP projects. Thus, the total CUSMP projects presented in this table is less than the total CUSMP projects shown in Table 5.2.

^c There are an additional \$36.2M of projects identified in the CUSMP that the City has not identified funding. These improvements will be deferred, pending formal City Commission review and budget adoption.

^d The unfunded projects are not funded in the City's adopted capital improvement program. If funding becomes available, these projects will be accelerated and constructed as funding allows.

Notes:

1. Community Investment Plan is in 2017 dollars.

2. Capital expenditures do not include unspent balance as of September 30, 2016, of projects that are in various stages of completion that were funded in prior years.

5.5 Proposed Bond Funded Capital Improvements

Table 5-4 lists 53 projects that the City intends to fund with the proceeds of the proposed Series 2018 Bonds. These projects were identified as most critical within three sources: 1) unfunded projects already in the current Community Investment Plan; 2) the CUSMP; and 3) the Consent Order agreement with FDEP.

Table 5-4 includes bond funded projects totaling \$199.7 million, of which \$81.3 million are from the Consent Order, \$55.3 million are deferred or previously unfunded projects from the Community Investment Plan, and \$63.2 million are priority projects from the CUSMP. In addition, it includes \$227.3 million of projects that are anticipated to be funded from reserves and current revenues during the Study Period.

5.6 Total Planned and Proposed Capital Improvement Program

Total capital improvement funding for the Water and Sewer System from FY 2018 through FY 2022 amounts to \$427 million. Table 5-5 summarizes these projected expenditures and their funding.

Approximately \$85.2 million of improvements included in the total capital improvement program presented in Table 5-3 are not funded. These improvements will be deferred, pending formal City Commission review and budget adoption. If funding becomes available, these unfunded projects will be accelerated and constructed as funding allows.

Table 5-4. Bond Funded Improvements

DRAFT WATER AND WASTEWATER BOND PROJECTS

AS OF: January 24, 2018

CONSENT ORDER					
PROJECT REFERENCE #	FUND	TOTAL PROJECTED COST	PROJECT TITLE	PROJECT DESCRIPTION	Type Project
WW6-02	451	\$ 4,349,900	NE 25TH AVE 24" FORCE MAIN REPLACEMENT	This project is for the replacement of a deteriorated 24-inch diameter DIP sewer force main measuring approximately 5500 linear feet (LF). The force main is located along NE 25th Avenue, from Commercial Blvd. to Oakland Park Avenue.	Wastewater Collection System
WW6-04	451	\$ 10,087,900	NE 38TH ST 42" FM AND NE 19TH AVE 24" FORCE MAIN REPLACEMENTS	This project includes rehabilitation of approximately 8,000 feet of deteriorated DIP force main along NE 38th St., from N Dixie Hwy to Coral Ridge Country Club, including installation of approximately 3,000 feet of new 24" force main along NE 19th Ave., from NE 38th St to NE 32nd St, inspection of existing pipe, and performance of all related work.	Wastewater Collection System
WW6-07	451	\$ 17,919,500	SE 10TH AVE 48" FORCE MAIN REPLACEMENT AND 36" BYPASS	This project consists of replacing approximately 13400 linear feet of deteriorated 48-inch diameter sewer force main along SE 10th Ave., between E. Sunrise Blvd and P.S. A15, and installing approximately 5400 linear feet of 36" force main Federal Hwy. to serve as a bypass and redundancy.	Wastewater Collection System
WW6-08	451	\$ 13,263,500	54" FORCE MAIN REPLACEMENT ON SE 9TH AND 10TH AVE AND NEW PARALLEL	This project is for the replacement of one section of 54" FM and installing a backup 48" FM. The section being replaced consists of approximately 6000 linear feet of deteriorated 54-inch diameter sewer force main along SE 9th and 10th Avenues, between pump station A15 and GTL treatment facility. In addition, as a back-up, approximately 48" FM will be installed in parallel along US1, which will also serve as a bypass during the placement of the 54" FM.	Wastewater Collection System
WW6-09	451	\$ 7,440,000	EFFLUENT MAIN REHABILITATION	This project includes rehabilitation of the 54" inch PCCP pipeline leading from GTL to the injection wells, including inspection of existing pipe, and performance of all related work.	Wastewater Collection System
	454	\$ 4,000,000	Water and Wastewater Distribution and Collection System Mapping	This project will allow the Program Manager Consultant develop a mapping plan and submit to Florida Department of Environmental Protection (FDEP) within 9 months of the effective date of the Consent Order. In addition, all mapping services outlined in the mapping plan will have to be completed within 21 month of the effective date of the Consent Order	Systems Improvement
WW6-10	454	\$ 3,011,900	NE 13TH ST 24" FORCE MAIN REPLACEMENT	This project includes rehabilitation of approximately 3,300 feet of 24" CIP pipeline along NW 13th St., from SR 845 S to SR 811, including inspection, and all related work.	Wastewater Collection System
WW6-11	454	\$ 1,920,500	18" FORCE MAIN REPLACEMENT ACROSS THE NEW RIVER FROM NE 9TH ST TO N. BIRCH ROAD	This project includes rehabilitation of approximately 1,000 feet of 18" DIP pipeline across the river from NE 9th St. to N Birch Road, including inspection, and all related work.	Wastewater Collection System
	454	\$ 2,500,000	IAS OLAS BLVD 16" FORCE MAIN FROM LIDO ROAD TO INTRACOASTAL WATERWAY (IN-KIND PROJECT) AND UPGRADE PUMP STATION D-38	This project includes construction of a 16" force main from the Lido Road pumpstation to the Intracoastal waterway and upgrade pump station D-38	Wastewater Collection System
P11563	454	\$ 2,010,515	Victoria Park Sewer Basin A-19 Rehab	Rehabilitate main line sewers, manholes, and service laterals to reduce infiltration and inflow	Wastewater Collection System
P12055	454	\$ 1,135,000	Basin A-18 Sanitary Sewer Collection System	Rehabilitate main line sewers, manholes, and service laterals to reduce infiltration and inflow	Wastewater Collection System
P11566	454	\$ 1,215,964	Rio Vista Sewer Basin Rehab Pump Station D-43	Rehabilitate main line sewers, manholes, and service laterals to reduce infiltration and inflow	Wastewater Collection System
P12202	454	\$ 900,000	Pump Station D-10 and D-11 Flow Analysis and Redesign	This project includes the flow analysis of pump stations D-10 and D-11 to verify the available sewer capacity of each station. Additionally, this project includes the re-design necessary to address and correct any concerns that result from the flow analysis.	Wastewater Collection System
	451/454	\$ 5,799,320	Consent Order Phase II CEI and Project Oversight	This project will encompass the civil engineering inspection/construction services (CEI) and overall project oversight to be provided by the Consent Order Program Manager Consultant. These services will be required to complete and deliver all the Phase II force main projects and miscellaneous services in order to remain compliant with the Consent Agreement between the City and the Florida Department of Environmental Protection (FDEP).	Consent Order Program Management

Table 5-4. Bond Funded Improvements

DRAFT WATER AND WASTEWATER BOND PROJECTS

AS OF: January 24, 2018

	451/454	\$	100,000	Asset Management and CMOM Program Development Plan	This project will allow the Program Manager Consultant develop a plan for an Asset Management and Capacity Management, Operations and Maintenance (CMOM) Program to be submitted to Florida Department of Environmental Protection (FDEP) for approval within 11 months of the effective date of the Consent Order.	Systems Improvement
	451/454	\$	800,000	Sewer Capacity Analysis for Gravity and Force Mains	This project will allow the Program Manager Consultant to conduct a citywide capacity analysis of the force mains, gravity mains and pump stations within 20 months of the effective date of the Consent Order, and submit a report summarizing the findings to Florida Department of Environmental Protection (FDEP) within 22 months of the effective date of the Consent Order.	Systems Improvement
	451/454	\$	400,000	Consent Order Asset Management Program	This project will allow the Program Manager Consultant develop and implement an Asset Management Program, as mandated in the Consent Order Agreement between the City and Florida Department of Environmental Protection (FDEP).	Systems Improvement
	451/454	\$	400,000	Consent Order Capacity Management, Operations and Maintenance Program	This project will allow the Program Manager Consultant develop and implement an Capacity Management, Operation and Maintenance (CMOM) Program, as mandated in the Consent Order Agreement between the City and Florida Department of Environmental Protection (FDEP).	Systems Improvement
	451/454	\$	4,000,000	Force Main Condition Assessment	This project will allow the Program Manager Consultant develop a force main assessment plan and submit to Florida Department of Environmental Protection (FDEP) within 9 months of the effective date of the Consent Order. Pending approval by FDEP of the submitted plan, all the force mains outlined in the plan will have to be assessed within 18 months of the approval.	Wastewater Collection System
		\$	53,060,800	Central Region/Wastewater Fund (451)		
		\$	16,693,879	Water/Sewer Master Plan Fund (454)		
		\$	11,499,320	Joint 451 and 454 funded		
		\$	81,253,999	TOTAL		

Deferred Projects/Additional Funding Required

PROJECT REFERENCE #	FUND	TOTAL PROJECTED COST	PROJECT TITLE	PROJECT DESCRIPTION	Type Project
FY 20150186	454	\$ 5,276,700	BERMUDA RIVIERA SMALL WATERMAIN IMPROVEMENTS	This project is for small water main improvements in the Bermuda Riviera neighborhood. This project will replace existing water mains, which are undersized and deteriorated, with approximately 16,400 linear feet of 6" water mains.	Water Distribution System
P10814	454	\$ 1,632,562	CENTRAL NEW RIVER WATERMAIN RIVER CROSSINGS	The City's existing water transmission system includes a 16-inch pipe that crosses the New River at SE 1st Avenue and an existing 12-inch pipe that crosses the New River at SW 7 Avenue. Both of these river crossings are sub-aqueous pipelines. The 16-inch pipe has suffered repeated failures and these pipe crossings are important to the downtown water supply. Replacement pipelines are currently under design. The staff recommends running a transmission system hydraulic model to determine the impact of changes to the existing and proposed river crossings.	Water Distribution System
P12180	454	\$ 3,460,125	CROISSANT PARK SMALL WATERMAINS	This project is for small water main improvements in the Croissant Park Neighborhood. The project will replace existing undersized and deteriorated small water mains with approximately 16,500 linear feet of 6" and/or 8" water mains. These improvements will result in improved fire hydrant coverage.	Water Distribution System
P12184	454	\$ 525,500	DAVIE BLVD. 18" WATER MAIN ABANDONMENT I95 TO SW 9	A new 24" water main was installed to replace the old 18" cast iron water main under the Waterworks Program in 2005-2007, but the old main was never properly abandoned. This work will include identifying and relocating all the service lines currently tied to the 18" main and moving them to the 24" main. This work includes abandonment of approximately 7,788 linear feet of pipe to be abandoned from SW 18th Avenue to Andrews Avenue.	Water Distribution System

Table 5-4. Bond Funded Improvements

DRAFT WATER AND WASTEWATER BOND PROJECTS

AS OF: January 24, 2018

P11589	454	\$ 33,500,000	FIVEASH DISINFECTION/ RELIABILITY UPGRADES	This project is for the construction of two separately designed projects under one construction contract. Combining the projects is necessary because both projects need to be completed at the same time. Having one construction contract will avoid disputes between two contractors working at the same time, and competing for staging areas and storage space on the crowded water treatment plant site. Under this approach, both projects can be constructed in three years. The first project, Reliability Upgrades, installs various repairs and replacements throughout the plant. Major items include replacement of the control system for the entire plant, replacement of the obsolete emergency generators, modifications to the high service pumps, and increasing the weather resistance of the plant buildings. The second project, Disinfection System Replacement, replaces the existing gaseous chlorine system with a new facility.	Plant Improvements
P11080	454	\$ 557,559	PORT CONDO LARGE WATERMAIN IMPROVEMENTS	This project is for the replacement of a small 6" water main with approximately 1,300 linear feet of large 12" water main on SE 17th Street's north access road, bounded by Eisenhower Boulevard and the intracoastal waterway.	Water Distribution System
P10850	454	\$ 4,961,073	VICTORIA PARK A - NORTH SMALL WATERMAIN	This project is for a small water main replacement in the Victoria Park - North neighborhood. Replace approximately 23,740 linear feet (LF) of existing undersized and deteriorated small water mains with new 6" and 8" PVC (poly-vinyl chloride) water mains, and improve fire hydrant coverage on NE 16th Avenue and NE 19th Avenue. In 2014, 2,760 linear feet of water main were installed.	Water Distribution System
P11901	454	\$ 5,437,049	VICTORIA PARK 8-SOUTH SMALL WATERMAINS IMPROV	This project is for small water main replacements and improved fire hydrant coverage in the Victoria Park - South Neighborhood. Approximately 29,000 linear feet of existing undersized and deteriorated small water mains will be replaced with new 6" and 8" polyvinyl chloride (PVC) water mains.	Water Distribution System
		\$ 55,350,568	Water/Sewer Master Plan Fund (454)		
		\$ 55,350,568	TOTAL		

Recommended Priority Projects for Bond Funding

PROJECT REFERENCE #	FUND	TOTAL PROJECTED COST	PROJECT TITLE	PROJECT DESCRIPTION	Type Project
UW3-01	454	\$ 660,000	FIVEASH WTP ELECTRICAL STUDIES AND TESTING	Perform Short Circuit Device Coordination and Arc Flash Study; Perform Electrical Maintenance Testing.	Plant Improvements
UW3-02	454	\$ 6,800,000	FIVEASH ELECTRICAL SYSTEM REPLACEMENTS (2015-2020)	Replace medium voltage fused service disconnect switches; Replace medium voltage MCC 5201 and MCC 5202; Replace PNL 5602 (LPHS-3); Replace XFMR5501 and XFMR 5502; Replace MCC 5504 and MCC 5503; Replace MCC 5311; add second feed; incorporate/eliminate MCC 5313; Replace/Convert MCC 5614 to 480V and dedicated to HYD 2103; Replace/Convert MCC 5615 to 480V and dedicate to HYD 2104; Replace SWBD5616; Replace XFMR 5612; Replace PNL 5630; Replace General Circuit Breaker Panel boards, transformers, and branch circuits; Replace Surface Wash Pump 1 starter; Replace 2 HSP starters with VFDs; Convert 240V motors to 480V and re-feed; Replace MSTR3202 (Backwash Pump 2).	Plant Improvements
	454	\$ 10,000,000	FIVEASH UPGRADE/REDESIGN	Design of new Water Treatment Facility to replace Fiveash Water Treatment Facility	Plant Improvements
UW3-06	454	\$ 210,000	PEELE DIXIE ELECTRICAL STUDIES AND TESTING	Update Short Circuit Device Coordination and Arc Flash Study; Perform Electrical Maintenance Testing.	Plant Improvements
UW3-07	454	\$ 100,000	PEELE DIXIE SURGE PROTECTION UPGRADES	Replace/Retrofit existing panel boards with integral surge protective devices to external mounted units connected through a branch circuit breaker.	Plant Improvements
WASA-5	454	\$ 740,000	WELL REHABILITATION	Rehabilitation work on wells less than 30 years old prior to replacement. This includes maintaining pumps and motors, and replacement of mechanical and electrical components	Plant Improvements
WASB-2	454	\$ 800,000	FIVEASH WTP GST AND CLEARWELL UPGRADES	Modify the existing piping and system such that the water from the filters drops into a clearwell which the transfer pumps will deliver to the ground storage tanks. The water from the ground storage tanks will flow to a common clearwell for the high service pumps to deliver water.	Plant Improvements
WASB-4	454	\$ 4,000,000	FIVEASH WTP PCCP REPLACEMENT	Replace PCCP pipe feeding the high service pumps.	Plant Improvements
UW3-10	454	\$ 185,000	PROSPECT WELLFIELD ELECTRICAL STUDIES AND TESTING	Perform Short Circuit Device Coordination and Arc Flash Study; Perform Electrical Maintenance Testing; Generate Accurate As-Built One Line Drawings and plans of the entire wellfield.	Plant Improvements
UW3-11	454	\$ 60,000	PROSPECT WELLFIELD BONDING AND GROUNDING TESTING AND LIGHTING PROTECTION	Perform Bonding and Grounding survey and testing; Add lightning protection to generator buildings.	Plant Improvements

Table 5-4. Bond Funded Improvements

DRAFT WATER AND WASTEWATER BOND PROJECTS

AS OF: January 24, 2018

UW3-31	454	\$ 150,000	PEELE DIXIE WELLFIELD ELECTRICAL STUDIES AND TESTING	Perform Short Circuit Device Coordination and Arc Flash Study; Perform Electrical Maintenance Testing.	Plant Improvements
WASC-2	454	\$ 850,000	PEELE DIXIE WTP CHEMICAL STORAGE IMPROVEMENTS	The anti-scalant and corrosion inhibitor bulk chemical tanks do not allow for a full load delivery of chemicals. Investigate the addition of another tank and/or the replacement with multiple, smaller tanks. Also the day tanks for the sodium hydroxide and sulfuric acid do not hold enough chemical to last a whole day and additional storage is required.	Plant Improvements
WA12-2	454	\$ 2,600,000	EXCAVATE AND DISPOSE OF DRY LIME SLUDGE	This project includes the excavation and disposal of dry lime sludge from the west cell sludge pit or delivery to a cement kiln.	Plant Improvements
UW2-7	454	\$ 4,669,090	UTILITIES WIDE AREA NETWORK SCADA IMPROVEMENTS	Upgrade/Improve SCADA Systems and improve flowmeters.	Wastewater Collection System
WW-XX	451	\$23,400,000	REDUNDANT FORCE MAIN FROM B-REPUMP TO GTL	This project includes 38,850 linear feet 42"-54" force main from B-Repump to GTL. To provide redundancies (Central Region Large Users System)	Wastewater Collection System
WW3-07	454	\$ 609,000	SUBAQUOUS FORCE MAIN CROSSING REINSTATEMENT (FROM PUMP STATION A-14)	Reinstate the pipeline crossing directly after pump station A-14 to assist with high velocities in the force mains downstream of A-14. Pipe section is 2,100 LF from the corner of NE 22nd Ave and NE 19th across Bal Harbour and connects to the existing main at Middle River Dr.	Wastewater Collection System
WW3-15	454	\$ 988,000	FORCE MAIN (FROM PUMP STATION A-54 TO A-10) UPSIZE - REDUNDANCY	Install approximately 1900 LF of 30" force main parallel to the existing 30" force main running from pump station A-54 to pump station A-10 starting at SW4th Ave. Running east along SW19th St to S Andrews Ave.	Wastewater Collection System
WW3-16	454	\$ 100,000	FORCE MAIN (NEAR PUMP STATION D-34) UPSIZE	Upsize approximately 100 LF of force main running from the discharge side of pump station D-34 to SE 17th St from two smaller 4" and 8" mains to a single 12" main.	Wastewater Collection System
WW3-23	454	\$ 1,300,000	PUMP STATIONS C-1 AND C-2 REPLACEMENT	Replacement of C-1 and C-2 stations. Upgrade C-1 pumps with higher capacity models. Replace station piping, valves and appurtenances and wet well as necessary.	Wastewater Collection System
WW3-27	454	\$ 150,000	FORCE MAIN (B-1 DISCHARGE) IMPROVEMENTS	Tie in the 10" and 18" force main cross over on Bayview Dr (approximately 350 LF) to NE 37th Ct. in order to reduce velocity. A valve closure may be required to implement.	Wastewater Collection System
WW3-29	454	\$ 1,500,000	PUMP STATION A-16 UPGRADE	Replacement of A-16 pumps with higher capacity models. Rehabilitate/replace station piping, valves and appurtenances and wet well as necessary.	Wastewater Collection System
WW3-30	454	\$ 580,000	FORCE MAIN (FROM PUMP STATIONS D-35 TO D-36) UPSIZE	Upsize the existing 8" and 10" force mains to approximately 2,000 LF of new 12" force main, along Harbour Inlet Dr, from A1A to Barbara Dr, and along Barbara Dr, from Harbour Inlet Drive to the Stranahan River.	Wastewater Collection System
WW7-1	454	\$ 843,000	GRAVITY PIPE IMPROVEMENTS TO THE DOWNTOWN COLLECTION SYSTEM	<ul style="list-style-type: none"> Upsize 920 feet of the existing 12" gravity pipe to a 15" gravity pipe along E Las Olas Blvd from SE 1st Ave to SE 4th Ave. Upsize 750 feet of the existing 14" gravity pipe to 21" gravity pipe right by the pump station and along SE 2nd St. from SW 1st Ave to SE 1st Ave. Upsize 84 feet of the existing 14" gravity pipe to 24" gravity pipe right by the pump station A-7 along SW 2nd St. Upsize 560 feet of the existing 15" gravity pipe to 18" gravity pipe right along SE 1st Ave. from East Las Olas to SE 2nd St. (Need to ensure pipe segments are not lined in current I&I contract) 	Wastewater Collection System
	454	\$ 1,500,000	PUMP STATION A-7 UPGRADE	Evaluation and upgrading of A-7 pumps with higher capacity models. Rehabilitate/replacement of station piping, valves and appurtenances and wet well as necessary.	Wastewater Collection System
WA4-1	454	\$ 338,000	WATERMAIN IMPROVEMENTS AREA 1	<ul style="list-style-type: none"> Bring the 54-inch water main on 38th Street back into service. Add approximately 400 feet of 30-inch discharge from the Peel-Dixie high service pumps to the old west existing 30-inch discharge. Upsize approximately 100 feet of 36 and 30-inch from the 42-inch reducer to the intersection of NE 37th Street and NE 11th Avenue with 42-inch. 	Water Distribution System

Table 5-4. Bond Funded Improvements

DRAFT WATER AND WASTEWATER BOND PROJECTS

AS OF: January 24, 2018

WASF-2	454	\$ 25,000	MISCELLANEOUS WATER QUALITY IMPROVEMENTS	Investigate adding additional automatic flushers at the following locations to reduce water age: PLUG_F10015 – Snyder Park PLUG_F5472 – SW 15th Avenue/SW 33rd Street PLUG_F4373 – SW 32nd Place PLUG_F4366 – SW 32nd Street	Water Distribution System
		\$ 23,400,000	Central Region/Wastewater Fund (451)		
		\$ 39,757,090	Water/Sewer Master Plan Fund (454)		
		\$ 63,157,090	TOTAL		
TOTAL BOND FUNDING		\$ 76,460,800	Central Region/Wastewater Fund (451)		
		\$ 111,801,537	Water/Sewer Master Plan Fund (454)		
		\$ 11,499,320	Joint 451 and 454		
		\$ 199,761,657	TOTAL		

Table 5-5. Proposed Water and Wastewater Funded Capital Improvements (in millions)
FY 2018 – FY 2022

Source Document	Fund				Total
	454 Water	451 Regional Wastewater	454 Wastewater	451/454 Joint	
Community Investment Plan	\$137.6	\$74.6	\$15.0	\$0.0	\$227.2
Previously Unfunded CIP Projects*	\$55.3	\$0.0	\$0.0	\$0.0	\$55.3
Priority CUSMP Projects	\$0.4	\$23.4	\$39.4	\$0.0	\$63.2
Consent Order	\$0.0	\$53.1	\$16.7	\$11.5	\$81.3
Total	\$193.3	\$151.1	\$71.1	\$11.5	\$427.0

^a These projects were identified in Table 5-1 as unfunded, but are anticipated to be funded from the Series 2018 Bond Proceeds.

Notes:

1. Community Investment Plan is in 2017 dollars.
2. Capital expenditures do not include unspent balance as of September 30, 2016, of projects that are in various stages of completion that were funded in prior years.

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Financial Analysis

This section provides an overview of the financial results of the Water and Sewer System from FY 2013 through the FY 2016 actual results, FY 2017 estimated results, and projections through FY 2022. The financial analysis includes an evaluation of the historical and future operations of the Water and Sewer System. The financial information contained in this section was derived from the Department's records, Comprehensive Annual Financial Reports for the City, as well as the City's most current 5-year capital improvement program (FY 2018–FY 2022), FY 2018 operating budget, and estimated financial results for FY 2017. Discussions were held with individuals familiar with various aspects of the City's water and sewer operations, including City employees from public works and finance departments and certain outside consultants.

6.1 Financial Evaluation of the System

The Current Expenses and revenues associated with operation of the City's Water and Sewer System are accounted for in the Water and Sewer Enterprise Fund for operations (Fund 450), Central Regional Sewer System (Fund 451), and Utilities Capital Improvements (Fund 454). Various other funds associated with the funding program have also been established. The water and sewer enterprise funds do not include the cost of operating the Stormwater System that was created in FY 1993. The cost of operating and maintaining the Stormwater System is accounted for in a separate enterprise fund.

6.2 Customer/Usage Growth

The Water and Sewer Systems currently classify customers into two residential⁹ (single-family and multi-family) and six non-residential classes (commercial, government/exempt, master meter, sprinkler/irrigation meters, fire protection, and unimproved). The total population served as of December 31, 2016, is approximately 228,000 in the City's Water System service area, and approximately 180,000 in the Sewer System service area. Table 6-1 shows the historical number of active and inactive (meters that have been installed but are currently turned off) Water and Sewer System customer accounts as of December 31 for 2012 through 2016, and projected accounts as of December 31, 2017 through 2022. Table 6-2 shows the forecasted population and active customer accounts by billing classification for both the Water and the Sewer System service areas. Also shown are the projected total inactive accounts for water and sewer service. For the projected period of December 31, 2017, through December 31, 2022, the number of total water and sewer accounts is projected to increase at an average annual growth rate of 0.5 percent.

6.3 Ten Largest Water Customers

Table 6-3 lists the top ten users for the Water System. The table presents each customer's annual water usage in thousands of gallons for calendar year 2016. Four of the top ten users are wholesale (master meter) customers: City of Oakland Park, City of Wilton Manors, City of Fort Lauderdale, and Port Everglades (Broward County). The other large users are local governments, hospitals, and resort hotels. The percentage of the Water System's total annual water usage consumed by each of these customers is also shown. Combined, these ten largest customers account for approximately 24.9 percent of the Water System's total annual water consumption.

⁹In light of the rate structure changes identified in the 2009 Rate Study (Burton & Associates, 2009), single-family customers have been redefined to include all individually metered residential accounts (that is, single-family homes and condominiums) and exclude all residential accounts with more than one dwelling unit served by a single meter (such as duplexes, triplexes, etc.).

Table 6-1. Water and Sewer Services (as of December 31)

Accounts		Actual (1)					Projected (2)					
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Water	Active	59,407	59,762	60,351	60,605	60,254	60,555	60,858	61,162	61,468	61,775	62,084
	Inactive	3,167	2,938	3,018	3,030	3,013	3,028	3,043	3,058	3,073	3,089	3,104
	Total	62,574	62,700	63,368	63,635	63,267	63,583	63,901	64,220	64,542	64,864	65,189
	% Increase - Prior Yr											
	Active	0.8%	0.6%	1.0%	0.4%	-0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
	Inactive	-10.2%	-7.2%	2.7%	0.4%	-0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
	Total	0.2%	0.2%	1.1%	0.4%	-0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Wastewater	Active	46,299	46,790	47,333	47,464	47,901	48,141	48,381	48,623	48,866	49,111	49,357
	Inactive	4,249	4,167	4,260	4,272	4,311	4,333	4,354	4,376	4,398	4,420	4,442
	Total	50,548	50,957	51,593	51,736	52,212	52,473	52,736	52,999	53,264	53,531	53,799
	% Increase - Prior Yr											
	Active	1.3%	1.1%	1.2%	0.3%	0.9%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
	Inactive	-3.5%	-1.9%	2.2%	0.3%	0.9%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
	Total	0.8%	0.8%	1.2%	0.3%	0.9%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

Notes:

1. Source: City Records of active and inactive services.
2. The increases in customers are based upon the projected population growth in Broward County, revised in the 2012 Lower East Coast Water Supply Plan (LECWSP) as of September 15, 2014.

Table 6-2

Service Forecasts for Water and Sewer Systems (as of December 31)

Based Upon Broward County Population Forecast as of September 15, 2014

	2017	2018	2019	2020	2021	2022
Water System						
Total Water Service Area Population	220,183	221,284	222,391	223,503	224,620	225,743
Services						
Residential Customers	38,129	38,319	38,511	38,703	38,897	39,091
Commercial	5,861	5,890	5,920	5,950	5,979	6,009
Government (Exempt)	472	475	477	479	482	484
Master Meter	26	26	26	27	27	27
Sprinkler/Irrigation Meter	8,653	8,696	8,740	8,783	8,827	8,872
Multi-Family Customers	6,096	6,127	6,157	6,188	6,219	6,250
Unimproved	3	3	3	3	3	3
Fire Protection	1,315	1,321	1,328	1,334	1,341	1,348
Total Water Services						
Active	60,555	60,858	61,162	61,468	61,775	62,084
Inactive	3,028	3,043	3,058	3,073	3,089	3,104
Total	63,583	63,901	64,220	64,542	64,864	65,189
Percent Increase in Total Services	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Sewer System						
Total Sewer Service Area Population						
Sewered	182,221	183,132	184,048	184,968	185,893	186,822
Non Sewered	1,920	1,929	1,929	1,929	1,929	1,929
Total	184,141	185,061	185,977	186,897	187,822	188,751
Services						
Residential Customers	35,780	35,959	36,139	36,319	36,501	36,684
Commercial	5,852	5,881	5,911	5,940	5,970	6,000
Government (Exempt)	422	424	426	428	431	433
Master Meter	1	1	1	1	1	1
Multi-Family Customers	6,083	6,114	6,144	6,175	6,206	6,237
Unimproved	2	2	2	2	2	2
Total Sewer Services						
Active	48,141	48,381	48,623	48,866	49,111	49,356
Inactive	4,333	4,354	4,376	4,398	4,420	4,442
Total	52,473	52,736	52,999	53,264	53,531	53,798
Percent Increase in Total Services	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

Table 6-3

City of Fort Lauderdale Top Ten Water Users for Calendar Year 2016

Rank	User	2016 Consumption (1,000s of Gallons)	Percentage of Total
1	City Of Oakland Park	1,179,753	9.61%
2	City Of Wilton Manors	539,215	4.39%
3	City Of Fort Lauderdale	479,729	3.91%
4	Port Everglades (Broward County)	379,319	3.09%
5	Broward County Courthouse	186,538	1.52%
6	Marriott Beach Resort	75,508	0.62%
7	Broward General Hospital	65,041	0.53%
8	City Of Tamarac	55,670	0.45%
9	Imperial Point Hospital	51,557	0.42%
10	Pier 66 Hotel	39,004	0.32%
Total Large Users		3,051,334	24.87%
System Total		12,270,244	100.00%

6.4 Historical and Projected Costs and Revenues

Table 6-4 lists the Water and Sewer System's actual and projected revenues, Current Expenses, capital improvements, debt service, and other transfers for FY 2013 through FY 2022. The table shows the primary sources of funds to be operating revenues from charges for services. The primary uses of funds include Current Expenses and interest expense on long-term debt.

The revenue forecast for the projected period (FY 2018–FY 2022) was developed using audited financial data and fund balances for FY 2016, FY 2017 estimated financial results, the FY 2018 budget, and the FY 2018–FY 2022 multi-year capital improvement program. Revenue projections for FY 2018 were developed based on estimated revenue for FY 2017. Revenue projections for subsequent periods were adjusted annually to reflect the assumed customer growth identified herein, and assumed annual rate increases consistent with the City's approved indexing policy as adopted by ordinance.

On December 13, 2007, the SFWMD declared an extreme District-wide water shortage. SFWMD's regulatory jurisdiction generally extends across South Florida below the Orlando area. The Modified Phase III drought condition became effective January 15, 2008, and had a target volume reduction of approximately 45 percent. On April 18, 2008, the SFWMD revised the water use restrictions to modified Phase II restrictions with a target volume reduction of 30 percent. As a result of these and other water resource concerns, the SFWMD implemented permanent watering restrictions. The City's FY 2009 Rate Study addressed these issues (Burton & Associates, 2009).

Table 6-4
Statement of Revenues, Expenses, and Changes in Net Assets

Water and Sewer Enterprise Fund	Actual FY 2013 (1)	Actual FY 2014 (1)	Actual FY 2015 (1)	Actual FY 2016 (1)	Estimated FY 2017 (2)	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
Operating Revenues										
Charges for Services	\$ 114,259,554	\$ 114,872,129	\$ 129,077,087	\$ 130,849,943	\$ 132,114,181	\$ 142,280,442	\$ 148,424,732	\$ 154,849,499	\$ 161,568,470	\$ 168,594,783
Other	\$ 492,145	\$ 654,598	\$ 1,169,454	\$ 1,636,986	\$ 3,213,546	\$ 3,228,986	\$ 3,228,986	\$ 3,228,986	\$ 3,228,986	\$ 3,228,986
Total Operating Revenues	\$ 114,751,699	\$ 115,526,727	\$ 130,246,541	\$ 132,486,929	\$ 135,327,727	\$ 145,509,428	\$ 151,653,718	\$ 158,078,485	\$ 164,797,456	\$ 171,823,769
Operating Expenses										
Personal Services	\$ 22,822,446	\$ 25,163,550	\$ 28,965,611	\$ 32,657,237	\$ 31,582,240	\$ 32,429,428	\$ 32,519,899	\$ 33,277,942	\$ 34,055,459	\$ 34,822,180
Current Expenses (3)	\$ 52,109,176	\$ 53,201,561	\$ 57,362,458	\$ 60,862,913	\$ 60,001,382	\$ 59,939,135	\$ 57,641,405	\$ 58,567,023	\$ 59,516,437	\$ 60,490,070
Depreciation	\$ 29,477,975	\$ 22,012,069	\$ 23,541,992	\$ 23,342,201	\$ 26,677,046	\$ 33,928,706	\$ 34,672,840	\$ 35,666,009	\$ 36,696,701	\$ 37,699,654
Total Operating Expenses	\$ 104,409,597	\$ 100,377,180	\$ 109,870,061	\$ 116,862,351	\$ 118,260,668	\$ 126,297,269	\$ 124,834,144	\$ 127,510,974	\$ 130,268,597	\$ 133,011,903
Operating Income (Loss)	\$ 10,342,102	\$ 15,149,547	\$ 20,376,480	\$ 15,624,578	\$ 17,067,059	\$ 19,212,159	\$ 26,819,574	\$ 30,567,511	\$ 34,528,859	\$ 38,811,866
Non-Operating Revenue & Expenses										
Revenues										
Interest	\$ 540,579	\$ 1,179,079	\$ 1,610,105	\$ 1,909,869	\$ 480,462	\$ 661,902	\$ 390,392	\$ 477,234	\$ 594,269	\$ 788,362
Other	\$ -	\$ 700,000	\$ 40,000	\$ -	\$ 3,352,225	\$ 3,387,970	\$ 3,387,970	\$ 3,387,970	\$ 3,387,970	\$ 3,387,970
Total	\$ 540,579	\$ 1,879,079	\$ 1,650,105	\$ 1,909,869	\$ 3,832,687	\$ 4,049,872	\$ 3,778,362	\$ 3,865,204	\$ 3,982,239	\$ 4,176,332
Expenses										
Interest & Fiscal Charges	\$ 14,249,206	\$ 14,056,788	\$ 15,903,699	\$ 14,194,845	\$ 14,350,305	\$ 18,120,363	\$ 21,344,696	\$ 20,665,575	\$ 19,992,350	\$ 19,260,399
Less Interest Capitalized	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Loss on Disposal of Capital Assets	\$ 1,803,780	\$ -	\$ (90,241)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 16,052,986	\$ 14,056,788	\$ 15,813,458	\$ 14,194,845	\$ 14,350,305	\$ 18,120,363	\$ 21,344,696	\$ 20,665,575	\$ 19,992,350	\$ 19,260,399
Net Nonoperating Revenues	\$ (15,512,407)	\$ (12,177,709)	\$ (14,163,353)	\$ (12,284,976)	\$ (10,517,618)	\$ (14,070,492)	\$ (17,566,334)	\$ (16,800,370)	\$ (16,010,111)	\$ (15,084,068)
Income (Loss) Before Operating Transfers	\$ (5,170,305)	\$ 2,971,838	\$ 6,213,127	\$ 3,339,602	\$ 6,549,441	\$ 5,141,667	\$ 9,253,241	\$ 13,767,141	\$ 18,518,748	\$ 23,727,798
Capital Contributions, Net	\$ 2,821,566	\$ 1,625,600	\$ 3,026,696	\$ 2,093,560	\$ 978,762	\$ 1,071,059	\$ 1,141,324	\$ 1,146,734	\$ 1,152,752	\$ 1,158,206
Transfer In	\$ 5,795,770	\$ 164,359	\$ -	\$ -	\$ 243,940	\$ -	\$ -	\$ -	\$ -	\$ -
Transfer Out	\$ (3,859,717)	\$ (2,385,793)	\$ (3,384,345)	\$ (3,597,033)	\$ (2,340,470)	\$ (2,273,658)	\$ (2,341,959)	\$ (2,375,168)	\$ (2,485,672)	\$ (2,493,628)
Total Operating Transfers In (Out)	\$ 4,757,619	\$ (595,834)	\$ (357,649)	\$ (1,503,473)	\$ (1,117,768)	\$ (1,202,599)	\$ (1,200,635)	\$ (1,228,434)	\$ (1,332,920)	\$ (1,335,423)
Change in Net Assets	\$ (412,686)	\$ 2,376,004	\$ 5,855,478	\$ 1,836,129	\$ 5,431,673	\$ 3,939,068	\$ 8,052,606	\$ 12,538,707	\$ 17,185,828	\$ 22,392,375
Increase (Decrease) in Retained Earnings	\$ (412,686)	\$ 2,376,004	\$ 5,855,478	\$ 1,836,129	\$ 5,431,673	\$ 3,939,068	\$ 8,052,606	\$ 12,538,707	\$ 17,185,828	\$ 22,392,375
Net Assets - Beginning of Period	\$ 518,662,889	\$ 518,250,203	\$ 520,626,207	\$ 526,642,564	\$ 528,478,693	\$ 533,910,366	\$ 537,849,434	\$ 545,902,040	\$ 558,440,746	\$ 575,626,575
Change in Accounting Principle	\$ -	\$ -	\$ 160,879	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Assets - End of Period	\$ 518,250,203	\$ 520,626,207	\$ 526,642,564	\$ 528,478,693	\$ 533,910,366	\$ 537,849,434	\$ 545,902,040	\$ 558,440,746	\$ 575,626,575	\$ 598,018,950

Notes:

1. Reflects Comprehensive Annual Financial Reports.
2. FY 2017 is estimated based on 8 months of data
3. Includes annual return on investment requirements starting in FY 2012.

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The City proceeded with the FY 2009 Rate Study in early 2008 using FY 2007 water use and billing records as the test year. The scope of the 2009 Rate Study included the review of the adequacy of the rates generating operating revenues in the Water and Sewer fund and did not include any revenues from the Regional Fund in its review or forecast of revenues under the proposed rates.¹⁰ The 2009 Rate Study was undertaken to reflect the changing environment of the community's water resources and the increasing level of fixed and semi-variable costs incurred in providing utility services to the community. Rates were based on FY 2007 consumption patterns and future expected consumption patterns. The 2009 Rate Study included consumption provisions for year-round water use restrictions (SFWMD modified Phase II) and an additional system-wide reduction in water use of 3 percent for the effects of price elasticity.

The 2009 Rate Study recommended a plan of rate adjustments and rate structure modifications to provide for:

- Revenues generated that were adequate enough to cover operating costs, capital equipment, and improvement needs and debt service for the next 5 to 10 years.
- Increased stability of future revenue streams by increasing the fixed cost recovery and establishing service availability fees for vacationing/inactive accounts.
- Rates that, to the extent possible, apportioned the cost of providing service fairly among customers.
- Consideration for low-income customers.
- Continuation of the City's commitment toward water conservation through providing stronger price incentives for irrigation uses.

The 2009 Rate Study resulted in a new water and sewer rate structure that was adopted by the City effective in August 2009 (that was designed to provide a 20-percent increase in total revenue), and a 5.0 percent water and sewer rate increase in August 2010. Moreover, the 2009 Rate Study identified subsequent future annual changes in water and sewer rates (effective at the beginning of each fiscal year) of 5.0 percent from FY 2012 through FY 2015 to satisfy projected annual Current Expenses, capital funding requirements, debt service coverage targets, as well as operating and capital reserve targets. However, the future annual increases were not presented to the City Commission for approval at the time the 2009 Rate Study was completed, as it was expected that a subsequent rate study would be conducted in FY 2011 to determine an updated plan of annual rate increases requirements for the Water and Sewer System.

As such, the City completed a FY 2011 Rate Study (Burton & Associates, 2011) to develop an updated financial management plan including a plan of annual rate increase requirements necessary to meet its projected operating, capital, debt service (including coverage), and reserve requirements from FY 2012 through FY 2016. As a result of the 2011 Rate Study, the City Commission adopted an annual rate indexing policy of adjusting its water and sewer rates using the greater of the annual change (measured in May of each year) in the U. S. Consumer Price Index (CPI) Water & Sewerage Maintenance Series, or 5 percent. However, because of the increased expenses associated with the City's new return on investment policy and increasing R&R requirements, an additional 1.0 percent and 1.75 percent rate increases were recommended for FY 2012 and FY 2013, respectively, which was also adopted by the City Commission. As such, the forecast in this report includes a 5.0 percent water and sewer rate increase for FY 2017 and each fiscal year thereafter.

Moreover, the forecast includes the continuation of two charges applicable to the new sewer areas: a 10-percent surcharge for monthly sewer service and a one-time connection fee of \$1,000 per equivalent

¹⁰The Regional Fund revenues are a component of revenues included in the Rate Covenant calculation for the Revenue Bonds and are included in the forecast of revenues in this Engineer's Report.

residential connection (ERC) for customers connecting in the new sewer areas. It also includes the continuation of service availability charges (established as a result of the 2009 Rate Study) to all inactive customers charged at the base rate within each class. The service availability charge was designed to recover a portion of the costs the City incurs to maintain a readiness to serve condition for properties that have previously been an active account. The forecast also reflects the current level of water and sewer impact fees, which were last increased in August 2009 by a combined 66 percent. Miscellaneous charges include recovery of write-offs and liens, fuel sales, service charges for reconnects, other income and penalties, and water service installations that are classified as Charges for Service in the City's annual financial statements. Miscellaneous revenues include water service installation fees, certain inter-fund charges, and other items. Moreover, the forecast also includes revenues for the Regional Fund based on the proposed FY 2017 rate and budgeted volumes, adjusted annually by the projected future rate increases identified as part of the FY 2017 budget development process.

The forecast of Current Expenses was developed from the City's detailed water and wastewater Current Expenses incurred by line item for FY 2017 (unaudited), and the budget for FY 2018. These results were then adjusted for expected changes in costs because of inflation or changes in operations developed for each line-item expense category. The overall result was an average annual rate of increase in Current Expenses (excluding depreciation and impacts of the return on investment policy and other one-time expenses) of approximately 2.5 percent from FY 2018 through FY 2021.

6.5 Projected Debt Issues and Coverage

Table 6-5 shows the projected debt service and debt coverage calculations. The City employs two types of debt for capital financing: municipal revenue bonds and SRF loans. The municipal revenue bonds are the primary source of external funding, and comprise approximately 80 percent of the estimated total needs. The SRF loans are assumed to be subordinate to any current or future revenue bond issues. The forecast reflects the annual debt service for \$350.8 million in revenue bonds and \$72.48 million in SRF loans that remain outstanding to date, and also includes a new revenue bond "Series 2018" in the par amount of \$180M.

The projected coverage ratio on revenue bond issues is projected to remain above 2.0 from FY 2018 through FY 2022. Coverage on the subordinate SRF loans is projected to remain well above 2.0 from FY 2018 through FY 2022.

The City began the external funding of the *WaterWorks* 2011 Program with the City's issuance of \$90 million in aggregate principal amount of Water and Sewer Revenue Bonds, Series 2003 (the "Series 2003 Bonds"). In 2006 the City issued \$100 million in aggregate principal amount of Water and Sewer Revenue Bonds, Series 2006 (the "Series 2006 Bonds"). In 2008 the City issued \$155 million in aggregate principal amount of Water and Sewer Revenue Bonds, Series 2008 (the "Series 2008 Bonds"). In 2010 the City issued \$82.3 million in aggregate principal amount of Water and Sewer Revenue Bonds, Series 2010 (the "Series 2010 Bonds"). In 2012 the City refunded the Series 2003 Bonds with a \$64.5 million in aggregate principal amount of Water and Sewer Revenue Refunding Bonds, Series 2012 (the "Series 2012 Bonds"). In 2014 the City partially refunded the Series 2006 and Series 2008 Bonds with a \$121.5 million in aggregate principal amount of Water and Sewer Revenue Refunding Bonds, Series 2014 (the "Series 2014 Bonds"). In 2016 the City refunded the remaining Series 2006, Series 2008, and Series 2010 Bonds with a \$164.7 million in aggregate principal amount of Water and Sewer Revenue Refunding Bonds, Series 2016 (the "Series 2016 Bonds"). In 2018 it is expected that the City will issue \$179.6 million in aggregate principal amount of Water and Sewer Revenue Bonds, Series 2018 (the "Series 2018 Bonds"). As of September 30, 2017, the Series 2012 Bonds, Series 2014 Bonds, and Series 2016 Bonds were outstanding in the approximate principal amount of \$53.5 million, \$121.5 million, and \$148.2 million, respectively.

Table 6-5

Historical and Projected Revenue Bond and State Revolving Fund Loan Coverage
FYs 2012 through 2022

Revenue Bonds										State Revolving Fund Debt		
Fiscal Year		Current		Net Revenue		Debt Service		Net Revenue		SRF Coverage		
Ending		Expenses (2)		Available for		Coverage (5)		Available for		Available (6)		
				Revenue Bonds		Revenue Bonds		SRF Debt		(Subordinate)		
				Debt Service (3)		Revenue Bonds		Service				
A c t u a l	2012	\$106,017,000	\$57,299,000	\$48,718,000	\$25,883,000	1.88		\$21,349,000	\$5,438,000	3.93		
	2013	\$121,076,000	\$56,652,000	\$64,424,000	\$26,219,000	2.27		\$36,759,000	\$6,523,000	5.64		
	2014	\$117,552,000	\$58,085,000	\$59,467,000	\$26,180,000	2.57		\$30,200,000	\$6,565,000	4.60		
	2015	\$131,913,000	\$64,546,000	\$67,367,000	\$26,197,000	2.42		\$39,251,000	\$6,566,000	5.98		
	2016	\$131,745,740	\$68,291,282	\$63,454,458	\$22,314,265	2.84		\$42,705,350	\$5,544,277	7.70		
Estimated	2017	\$135,518,189	\$70,738,461	\$64,779,727	\$24,031,181	2.70		\$42,017,308	\$4,522,892	9.29		
P r o j e c t e d	2018	\$145,881,329	\$72,134,360	\$73,746,969	\$28,332,120	2.60		\$46,775,908	\$4,522,892	10.34		
	2019	\$151,761,110	\$69,824,651	\$81,936,459	\$32,142,681	2.55		\$51,218,102	\$4,522,892	11.32		
	2020	\$158,272,719	\$71,403,237	\$86,869,482	\$32,147,181	2.70		\$56,152,035	\$4,522,892	12.42		
	2021	\$165,108,726	\$73,022,400	\$92,086,325	\$32,139,481	2.87		\$61,382,596	\$4,522,892	13.57		
	2022	\$172,329,131	\$74,652,225	\$97,676,905	\$32,139,681	3.04		\$64,100,956	\$4,522,892	14.17		

Notes:

1. Current revenues excludes service extension charges, impact fees, and interest income on bond funds.
2. Current expenses excludes depreciation, interfund administrative charges, payments in lieu of taxes, and return on investment transfers.
3. Includes principal and interest on all Outstanding Bonds
4. SRF Pledged Revenues includes: extension charges, impact fees and interest earned on bond funds as revenue.
Operating expenses include interfund administrative charges.
5. Coverage: Net revenues must be at least 125% of debt service.
6. Coverage: Pledged Revenues must be at least 115% of debt service on SRF Loans. Calculated after senior lien debt.
7. Historical data was sourced from the FY 2016 Annual Bondholder Report

The City began borrowing additional funds through the SRF loan program in 2003. The SRF program has lending rates that are approximately 55 percent of the average for the municipal bond cost index. The below-market rate makes this financing source attractive though there are additional administrative costs associated with the SRF loan program. The SRF source of funding has been limited because of demand and other circumstances beyond the City's control. The City maximized its use of this funding source, which is projected to result in reduced costs of approximately \$30 million during the life of the loans when compared to revenue bonds. The City has outstanding SRF loan agreements totaling almost \$72.48 million. Debt service for the existing and any planned revenue bonds and SRF loans are detailed in Tables 6-6 and 6-7, respectively. Table 6-8 presents the combined annual debt service for the outstanding revenue bonds and SRF loans. Revenue bond debt service is based on projected debt service for the Series 2012 Bonds, Series 2014 Bonds, Series 2016 Bonds, and Series 2018 Bonds.

Table 6-6
Revenue Bonds - Projected Debt Service
Payments made semi-annually on March 1 and September 1.

	Series 2012	Series 2014	Series 2016	Series 2018	TOTAL
	\$ 64,585,000 (1)	\$ 121,520,000 (1)	\$ 164,700,000 (1)	\$ 178,370,000 (1)(2)	\$ 350,805,000
Fiscal Year	Actual	Actual	Actual		
2018	5,012,787.50	5,400,750.00	13,616,068.76	4,302,513.75	28,332,120.01
2019	5,018,287.50	7,351,375.00	11,663,568.76	8,109,450.00	32,142,681.26
2020	5,021,412.50	7,336,500.00	11,679,818.76	8,109,450.00	32,147,181.26
2021	5,024,837.50	9,682,625.00	9,322,568.76	8,109,450.00	32,139,481.26
2022	5,032,287.50	12,045,125.00	6,952,818.76	8,109,450.00	32,139,681.26
2023	5,035,112.50	12,042,625.00	6,955,943.76	8,109,450.00	32,143,131.26
2024	5,047,737.50	12,027,250.00	6,956,293.76	8,109,450.00	32,140,731.26
2025	5,055,862.50	12,018,125.00	6,954,093.76	8,109,450.00	32,137,531.26
2026	5,059,262.50	12,014,250.00	6,961,593.76	8,109,450.00	32,144,556.26
2027	5,065,537.50	8,843,875.00	10,118,293.76	8,109,450.00	32,137,156.26
2028	5,077,037.50	8,839,600.00	10,110,918.76	8,109,450.00	32,137,006.26
2029	5,087,331.25	12,279,700.00	6,657,518.76	8,109,450.00	32,134,000.01
2030	5,099,662.50	12,253,900.00	6,676,643.76	8,109,450.00	32,139,656.26
2031	5,101,712.50	12,233,100.00	6,696,568.76	8,109,450.00	32,140,831.26
2032	-	8,300,400.00	15,730,103.13	8,109,450.00	32,139,953.13
2033	-	8,301,300.00	15,730,025.00	8,109,450.00	32,140,775.00
2034	-	8,300,500.00	15,727,387.51	8,109,450.00	32,137,337.51
2035	-	8,302,600.00	15,727,812.51	8,109,450.00	32,139,862.51
2036	-	-	13,582,043.76	8,109,450.00	21,691,493.76
2037	-	-	4,466,350.00	16,242,350.00	20,708,700.00
2038	-	-	4,463,250.00	16,245,350.00	20,708,600.00
2039	-	-	-	20,709,850.00	20,709,850.00
2040	-	-	-	20,713,150.00	20,713,150.00
2041	-	-	-	20,709,550.00	20,709,550.00
2042	-	-	-	20,708,350.00	20,708,350.00
2043	-	-	-	20,708,450.00	20,708,450.00
2044	-	-	-	20,712,375.00	20,712,375.00
2045	-	-	-	20,712,750.00	20,712,750.00
2046	-	-	-	20,711,125.00	20,711,125.00
2047	-	-	-	20,710,500.00	20,710,500.00
2048	-	-	-	20,708,500.00	20,708,500.00
TOTALS	\$ 70,738,868.75	\$ 177,573,600.00	\$ 206,749,684.55	\$ 389,864,913.75	\$ 844,927,067.05

Notes:

1. Represents par amount of each respective bond.
2. Annual Debt Service amounts represent Financial Advisor's estimates, subject to finalization.

Table 6-9 shows the Water and Sewer System's annual cash needs and sources of funding from FY 2017 through FY 2022. The exhibit shows capital improvement expenditures totaling \$424.7 million in FY 2017–FY 2022. System revenues and current reserves provide the funding for the proposed expenditures in each year. The cash and investments balance at the beginning of FY 2017 is estimated to be approximately \$124.7 million, including restricted assets.

Table 6-7. State of Florida Revolving Fund Loan Program - Projected Debt Service*Payments made semi-annually on May 15 and November 15.*

Fiscal Year	Loan	WW 47440S	WW 474410	WW 474420	TOTALS
		17,384,059.85 (1) Actual	44,902,892.65 (1) Actual	10,200,000 (1) Actual	72,486,953
2018		1,045,896.00	2,852,822.00	624,174.00	4,522,892.00
2019		1,045,896.00	2,852,822.00	624,174.00	4,522,892.00
2020		1,045,896.00	2,852,822.00	624,174.00	4,522,892.00
2021		1,045,896.00	2,852,822.00	624,174.00	4,522,892.00
2022		1,045,896.00	2,852,822.00	624,174.00	4,522,892.00
2023		1,045,896.00	2,852,822.00	624,174.00	4,522,892.00
2024		1,045,896.00	2,852,822.00	624,174.00	4,522,892.00
2025		1,045,896.00	2,852,822.00	624,174.00	4,522,892.00
2026		1,045,897.00	2,852,822.00	624,174.00	4,522,893.00
2027		-	2,852,822.00	624,174.00	3,476,996.00
2028		-	1,426,412.00	624,175.00	2,050,587.00
2029		-	-	-	-
2030		-	-	-	-
TOTALS		\$ 9,413,065.00	\$ 29,954,632.00	\$ 6,865,915.00	\$ 46,233,612.00

Note:

1. Total authorized amount of Loan Agreements, including various amendments to original loan amounts. Modifications to Loan Agreements will be executed based on final construction cost.

Table 6-8
Total Projected Debt Service

Debt Source	Revenue Bonds	State Revolving Fund Loans	
Fiscal Year	Estimated (1)	Actual	TOTAL
2018	28,332,120.01	4,522,892.00	32,855,012.01
2019	32,142,681.26	4,522,892.00	36,665,573.26
2020	32,147,181.26	4,522,892.00	36,670,073.26
2021	32,139,481.26	4,522,892.00	36,662,373.26
2022	32,139,681.26	4,522,892.00	36,662,573.26
2023	32,143,131.26	4,522,892.00	36,666,023.26
2024	32,140,731.26	4,522,892.00	36,663,623.26
2025	32,137,531.26	4,522,892.00	36,660,423.26
2026	32,144,556.26	4,522,893.00	36,667,449.26
2027	32,137,156.26	3,476,996.00	35,614,152.26
2028	32,137,006.26	2,050,587.00	34,187,593.26
2029	32,134,000.01	-	32,134,000.01
2030	32,139,656.26	-	32,139,656.26
2031	32,140,831.26	-	32,140,831.26
2032	32,139,953.13	-	32,139,953.13
2033	32,140,775.00	-	32,140,775.00
2034	32,137,337.51	-	32,137,337.51
2035	32,139,862.51	-	32,139,862.51
2036	21,691,493.76	-	21,691,493.76
2037	20,708,700.00	-	20,708,700.00
2038	20,708,600.00	-	20,708,600.00
2039	20,709,850.00	-	20,709,850.00
2040	20,713,150.00	-	20,713,150.00
2041	20,709,550.00	-	20,709,550.00
2042	20,708,350.00	-	20,708,350.00
2043	20,708,450.00	-	20,708,450.00
2044	20,712,375.00	-	20,712,375.00
2045	20,712,750.00	-	20,712,750.00
2046	20,711,125.00	-	20,711,125.00
2047	20,710,500.00	-	20,710,500.00
2048	20,708,500.00	-	20,708,500.00
TOTALS	\$ 844,927,067.05	\$ 46,233,612.00	\$ 891,160,679.05

(1) All existing debt service reflects actual values, Series 2018 Bond Issuance reflects estimated amounts per the Financial Advisor.

Table 6-9
City of Fort Lauderdale, Florida
Projected Sources and Uses of Funds

Water and Sewer Funds	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Funding Sources						
Revenues	\$ 135,327,727	\$ 145,509,428	\$ 151,653,718	\$ 158,078,485	\$ 164,797,456	\$ 171,823,769
Investment Income incl. Construction funds	\$ 480,462	\$ 661,902	\$ 390,392	\$ 477,234	\$ 594,269	\$ 788,362
Other Sources, Net	\$ (1,117,768)	\$ (1,202,599)	\$ (1,200,635)	\$ (1,228,434)	\$ (1,332,920)	\$ (1,335,423)
Proceeds from Debt Available for Projects	\$ -	\$ 200,000,000	\$ -	\$ -	\$ -	\$ -
Total Funding	\$ 134,690,421	\$ 344,968,730	\$ 150,843,475	\$ 157,327,285	\$ 164,058,806	\$ 171,276,708
Prior Year Ending Balance (1)	\$ 124,703,067	\$ 43,107,649	\$ 42,955,277	\$ 42,166,290	\$ 38,668,702	\$ 38,947,201
Expenditures						
Operating Expenses (2)	\$ (91,583,622)	\$ (92,368,563)	\$ (90,161,304)	\$ (91,844,965)	\$ (93,571,896)	\$ (95,312,250)
Non-Operating Expenses (3)	\$ (14,350,305)	\$ (18,120,363)	\$ (21,344,696)	\$ (20,665,575)	\$ (19,992,350)	\$ (19,260,399)
Revenue Bond Principal Payments (4)	\$ (10,665,000)	\$ (11,190,000)	\$ (11,760,000)	\$ (12,360,000)	\$ (12,940,000)	\$ (13,600,000)
State Revolving Fund Loan Principal Payments	\$ (3,538,769)	\$ (3,618,715)	\$ (3,700,478)	\$ (3,784,100)	\$ (3,869,623)	\$ (3,929,249)
Capital Improvement Projects (5)(8)(9)	\$ (94,051,612)	\$ (217,549,804)	\$ (22,324,027)	\$ (29,795,065)	\$ (30,920,765)	\$ (30,088,576)
Total Expenditures	\$ (214,189,308)	\$ (342,847,445)	\$ (149,290,504)	\$ (158,449,705)	\$ (161,294,635)	\$ (162,190,474)
Transfers						
Transfers Out (6)	\$ (2,340,470)	\$ (2,273,658)	\$ (2,341,959)	\$ (2,375,168)	\$ (2,485,672)	\$ (2,493,628)
Transfers In (7)	\$ 243,940	\$ -	\$ -	\$ -	\$ -	\$ -
Net Transfers In (Out)	\$ (2,096,530)	\$ (2,273,658)	\$ (2,341,959)	\$ (2,375,168)	\$ (2,485,672)	\$ (2,493,628)
Total Funding Less Expenditures and Net Transfers Out	\$ (81,595,417)	\$ (152,372)	\$ (788,988)	\$ (3,497,588)	\$ 278,499	\$ 6,592,606
Ending Cash & Investments Balance	\$ 43,107,649	\$ 42,955,277	\$ 42,166,290	\$ 38,668,702	\$ 38,947,201	\$ 45,539,807

Notes:

1. Total Water and Sewer cash and equivalents and Investments were adjusted (reduced) to account for encumbrances and project carry-forwards not included in the CIP. Amount shown includes approximately \$3.0 million of restricted assets for debt service reserves.
2. Excludes depreciation.
3. Interest Expense on Revenue Bonds and SRF Loans.
4. Reflects the actual payments for the Series 2012, 2014, and 2016 Bonds. Additionally, the proposed Series 2018 estimated payments are reflected.
5. Excludes capitalized interest since all interest expense is included in the Non-Operating Expenses category. Costs shown are in future year dollars.
6. Represents the special obligation bond payments to the general fund
7. Would primarily include any debt service reserve funding out of future bond proceeds.
8. FY 2018 Bond Proceed expenditures are estimated, the exact timing of execution will likely differ but is expected to be completed within a 3 year funding window.
9. \$7Min capital has been deferred from the 2018 adopted CIP to FY20-FY22

6.6 Water and Sewer Rates

The City is responsible for establishing rates and charges for Water and Sewer System services. The Water and Sewer System rate charges are adopted through ordinance that requires approval by the City Commission. In August 2009, the City Commission approved a new water and sewer rate structure per the 2009 Rate Study that was designed to incorporate the impacts of reduced consumption from permanent SFWMD water restrictions, increase the stability of the annual revenue stream, and increase revenue 20 percent. Moreover, the Commission also approved several other recommendations from the 2009 Rate Study, including an increase in water and sewer monthly service rates of 5.0 percent effective in August 2010, an increase in its impact fees of a combined 66 percent, and the establishment of new monthly rates for service availability charged to all customers in inactive status that had their property previously classified as active.

In August 2009, the City also approved modifications to the drought rate ordinance to make it consistent with the newly adopted rate structure by eliminating surcharges for Phase I and II water restrictions. The drought rates are designed to maintain Water and Sewer System revenues as water usage declines during a state-declared drought. As the SFWMD implements mandatory reductions in water use, beginning with Phase III water restrictions, the new drought rates automatically increase the volume charges per thousand gallons of water consumed, to provide incentives for customers to conserve water during the drought period, and to help maintain System revenues.

The 2009 Rate Study also identified subsequent future annual changes in water and sewer rates (effective at the beginning of each fiscal year) of 5.0 percent from FY 2012 through FY 2014 to satisfy projected annual Current Expenses, capital funding requirements, debt service coverage targets, as well as operating and capital reserve targets. However, the future annual increases were not presented to the City Commission for approval at the time the 2009 Rate Study was completed because it was expected that a subsequent rate study would be conducted in FY 2011 to determine an updated plan of annual rate increases requirements for the Water & Sewer System.

In 2011, the City completed a FY 2011 Rate Study (Burton & Associates, 2011) to develop an updated financial management plan, including a plan of annual rate increase requirements necessary to meet its projected operating, capital, debt service (including coverage), and reserve requirements from FY 2012 through FY 2016. As a result of the 2011 Rate Study, the City Commission adopted an annual rate indexing policy of adjusting its water and sewer rates using the greater of the annual change (measured in May of each year) in the US CPI Water & Sewerage Maintenance Series, or 5 percent. However, because of the increased expenses associated with the City's new return on investment policy and increasing R&R requirements, an additional 1.0 percent and 1.75 percent rate increase was recommended for FY 2012 and FY 2013, respectively, which was also adopted by the City Commission. As such, the City adopted a total 6.75 percent water and sewer rate increase for FY 2012 (5.75 percent actual change in the Water & Sewerage Maintenance Series for May 2011, plus an additional 1.0 percent), and a 6.75 percent increase for FY 2013 (5 percent plus an additional 1.75 percent). Effective October 1, 2013, the City began a revised annual rate indexing policy of 5 percent per year. Table 6-10 presents a schedule of the rates that became effective October 1, 2017 (FY 2018).

Table 6-10

Monthly Water and Sewer Service Rates - Effective Oct. 1, 2017 (1), (2) & (3)

Fixed Charges (4) Meter Size (Inches)	Single-Family Res.		Multi-Family		Commercial		Master-Metered	Irrigation (5)	Fire Service
	Water	Sewer	Water	Sewer	Water	Sewer	Water	Water	Water
5/8"	\$7.20	\$10.56	\$7.20	\$10.56	\$7.20	\$10.56	\$23.44	\$7.20	N/A
3/4"	\$9.98	\$15.06	\$9.98	\$15.06	\$9.98	\$15.06	\$33.53	\$9.98	N/A
1"	\$15.58	\$24.06	\$15.58	\$24.06	\$15.58	\$24.06	\$53.70	\$15.58	N/A
1 1/2"	\$29.60	\$46.49	\$29.60	\$46.49	\$29.60	\$46.49	\$104.69	\$29.60	N/A
2"	\$46.40	\$73.46	\$46.40	\$73.46	\$46.40	\$73.46	\$165.73	\$46.40	\$46.40
3"	\$85.61	\$136.33	\$85.61	\$136.33	\$85.61	\$136.33	\$307.46	\$85.61	\$85.61
4"	\$141.65	\$226.19	\$141.65	\$226.19	\$141.65	\$226.19	\$510.83	\$141.65	\$141.65
6"	\$281.70	\$450.75	\$281.70	\$450.75	\$281.70	\$450.75	\$1,018.92	\$281.70	\$281.70
8"	\$449.76	\$720.27	\$449.76	\$720.27	\$449.76	\$720.27	\$1,627.86	\$449.76	\$449.76
10"	\$645.82	\$1,034.68	\$645.82	\$1,034.68	\$645.82	\$1,034.68	\$2,924.17	\$645.82	\$645.82
12"	\$1,206.03	\$1,933.03	\$1,206.03	\$1,933.03	\$1,206.03	\$1,933.03	\$4,701.71	\$1,206.03	\$1,206.03
16"	\$1,962.30	\$3,145.79	\$1,962.30	\$3,145.79	\$1,962.30	\$3,145.79	\$7,945.85	\$1,962.30	\$1,962.30
Consumption Charge (6) Block Ranges (1,000 Gallons per Mo.)	Single-Family Res.		Multi-Family		Commercial		Master-Metered	Irrigation (5)	Fire Service
	Water (per unit)	Sewer (per unit)	Water (per unit)	Sewer (per unit)	Water (per meter)	Sewer (per meter)	Water (per meter)	Water (per meter)	Water (per meter)
Block 1	0-3	0-3	0-1	0-1	> 0	> 0	> 0	0-12	N/A
Block 2	4-8	4-20	2-3	2-8				13-20	
Block 3	9-12	> 20	4-5	> 8				> 20	
Block 4	13-20		6-8						
Block 5	> 20		> 8						
Usage Rates (\$ / 1,000 gal.)									
Block 1	\$2.21	\$3.90	\$2.21	\$3.90	\$5.04	\$6.93	\$4.59	\$6.10	N/A
Block 2	\$4.88	\$8.63	\$4.88	\$8.63				\$8.23	
Block 3	\$6.10		\$6.10					\$11.94	
Block 4	\$8.23		\$8.23						
Block 5	\$11.94		\$11.94						

Notes:

- Does not include rates for miscellaneous charges, connection fees or utility expansion fees.
- A 10% surcharge is added to all sewer billings for service provided in the new sewer expansion areas.
- Regional Sewer Rate for FY 2018 is proposed to be \$ 1.92 per 1,000 gallons. Rate is set annually and adjusted at the end of each fiscal year to reflect actual costs and volumes.
- Water and Sewer Service Availability Fees are charged to all active and inactive customers.
- The use per block rate shown for Irrigation above is for a 5/8" meter. The use in each block for all other meter sizes is adjusted based upon meter size equivalency ratios.
- Commodity Charge is applied based upon number of gallons multiplied by the number of units in bracket.

It is important to note that as part of approving the rate indexing adjustments presented herein, the City Commission expressly committed to performing annual financial reviews by April 30th of each year to determine if as of September 30th of the year prior whether projected revenues based on adjusted rates will exceed the following criteria:

1. annual revenues exceed annual Current Expenses,
2. net revenue is at or above two times annual debt service expenses,
3. there is an operating reserve at least equal to 120 days of Current Expenses,
4. there is an unrestricted capital reserve of at least \$10 million, and
5. there is replacement and repair funding of at least \$10 million.

If there is projected revenue that exceeds the above criteria, the current customers shall receive a proportionate rebate of the excess funds on their water/wastewater bill in the same fiscal year. Conversely, the annual review may identify the need for an additional rate increase requirement to meet the financial requirements of the System.

The express commitment to the annual evaluation of the Water and Sewer System costs and revenues will allow the City to continue to adjust rates as needed to meet the costs of the System. This approach has proven beneficial for the City and its citizens by avoiding significant rate increases, and allowing citizens to better absorb more moderate cost increases into their budgets. Table 6-11 details the City's historical rate adjustments and future adjustments based on the current adopted rate indexing adjustment policy.

The City's contracts with the large users of the Regional Sewer System specify the basis to be used for the annual rate calculation for these users. These contracts specify that the rates will be based on the Regional Sewer System's budgeted costs. Budgeted costs include a component for capital based on an R&R analysis of the Regional Sewer System facilities that is updated annually. At the end of each Fiscal Year, the rates are recalculated, and each user is provided either a credit or additional charge to equate their total bill to their proportionate share of the total costs for the Regional Sewer System in that year. The contracts for bulk water service do not specify the basis for their rate calculations. As such, in between periodic cost of service or rate studies, the City adjusts the rates for these users by the same annual rate increases applied to the Water System's retail customers.

6.7 Comparison to Bills in Other Communities

Table 6-12 presents a comparison of the current monthly residential water and sewer bills for selected cities within Broward County, Florida. The City's total monthly Water and Sewer System bill for residential customers consuming 5,000 gallons of water per month is \$63.11 in FY 2018. This amount is among the lowest of the communities surveyed.

The total annual bill for residential Water and Sewer System service in the City, assuming 5,000 gallons of water usage per month would amount to \$757.32. This represents approximately 1.43 percent of the median household annual income in Broward County in the 2016 American Community Survey¹¹ of \$52,954.

¹¹ https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_5YR_S1901&prodType=table

Table 6-11. Historical and Indicated Future Rate Adjustments

Revenue Adjustments Summary						
City Fiscal Year Ending September 30	Inflationary Adjustments (1)	Capital Improvement/ Other Rate Adjustments	Rate Structure Change Adjustments			Total
2002	2.50%	2.50%	(2)			5.00%
2003	2.50%					2.50%
2004	5.00%					5.00%
2005	3.50%	2.50%	(2)			6.00%
2006	2.50%					2.50%
2007	3.00%	2.50%	(2)			5.50%
2008	3.00%					3.00%
2009	4.00%	1.00%	(3)	3.33%	(4)	8.33%
2010				16.67%	(4)	16.67%
2011	4.00%	1.00%	(3)			5.00%
2012	5.75%	1.00%	(6)			6.75%
2013	5.00%	1.75%	(6)			6.75%
2014	5.00%					5.00%
2015	5.00%					5.00%
2016	5.00%					5.00%
2017	5.00%					5.00%
2018	5.00%					5.00%
2019	5.00%					5.00%
2020	5.00%					5.00%
2021	5.00%					5.00%
2022	5.00%					5.00%

Notes:

1. Annual adjustments begun in early 1990s to cover inflationary impacts and increased operating cost.
2. General adjustments to help fund the Waterworks 2011 Program.
3. Adjustments for Peele-Dixie alternative water supply and water and sewer renewal and replacement projects.
4. Annualized impact of rate structure adjustments effective 8/1/2009 for year-round water restrictions and reallocation of greater portion of revenue recovery from fixed charges.
5. Approved by City Commission in August of 2009, with rates effective August 1, 2010.
6. Adjustments for additional cost requirements due to return on investment policy and increasing cash-funding for renewal and replacement
7. Approved annual rate adjustment policy equal to 5% per year approved effective October 1, 2013.

Shaded rows indicate projections

Table 6-12

City of Fort Lauderdale Water and Sewer System Monthly Residential Bill Comparison with Other Communities

Smallest Residential Service - 5,000 Gallons

	Water Total	Sewer Total	Total Bill
Davie	\$37.35	\$69.62	\$106.97
Wilton Manors	\$57.15	\$47.66	\$104.81
Dania Beach	\$35.00	\$58.82	\$93.82
Parkland	\$52.38	\$40.30	\$92.68
Oakland Park	\$45.81	\$43.53	\$89.34
Sunrise	\$38.61	\$47.19	\$85.80
Hillsboro Beach	\$41.00	\$43.92	\$84.92
Hollywood	\$26.92	\$54.28	\$81.20
North Lauderdale	\$32.30	\$47.25	\$79.55
Coconut Creek	\$41.90	\$32.24	\$74.14
Miramar	\$29.92	\$38.13	\$68.05
Cooper City	\$26.75	\$40.59	\$67.34
North Springs Improvement District	\$36.09	\$30.28	\$66.37
Tamarac	\$21.80	\$42.75	\$64.55
Broward County	\$23.62	\$40.20	\$63.81
Lighthouse Point	\$23.62	\$40.20	\$63.81
Fort Lauderdale	\$23.59	\$39.52	\$63.11
Coral Springs	\$21.29	\$40.53	\$61.82
Plantation	\$22.14	\$39.53	\$61.67
Hallandale Beach	\$24.36	\$34.76	\$59.12
Royal Utility	\$26.93	\$31.41	\$58.34
Margate	\$28.88	\$29.40	\$58.28
Lauderhill	\$20.37	\$35.69	\$56.06
Deerfield Beach	\$28.25	\$24.53	\$52.78
Pembroke Pines	\$24.13	\$27.93	\$52.06
Coral Springs Improvement District	\$25.01	\$25.01	\$50.02
Pompano Beach	\$24.08	\$25.76	\$49.84
Average	\$31.08	\$39.67	\$70.75

Notes:

Monthly water and sewer bills exclude drought rates or other surcharges and utility taxes.

Source: Stantec Consulting Services Inc prepared in September 2017. Fort Lauderdale FY 2018 rates shown, other municipalities may also adjust rates in FY 2018.

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APPENDIX C

Excerpts from Comprehensive Annual Financial Report

of the City of Fort Lauderdale, Florida

for the Fiscal Year Ended September 30, 2016

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INDEPENDENT AUDITOR'S REPORT

To the Honorable Mayor,
City Commission and City Manager
City of Fort Lauderdale, Florida
Fort Lauderdale, Florida

Report on the Financial Statements

We have audited the accompanying financial statements of the governmental activities, the business-type activities, the discretely presented component unit, each major fund, and the aggregate remaining fund information of the City of Fort Lauderdale, Florida (the "City"), as of and for the year ended September 30, 2016, and the related notes to the financial statements, which collectively comprise the City's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We did not audit the financial statements of the City of Fort Lauderdale Police and Fire Retirement System (the "System"), which represents 44 percent, 45 percent, and 25 percent, respectively, of the assets, net position, and revenues of the aggregate remaining fund information of the City. Those statements were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for the System, is based solely on the report of the other auditors. We conducted our audit 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 from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, based on our audit and the report of other auditors, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, the discretely presented component unit, each major fund, and the aggregate remaining fund information of the City, as of September 30, 2016, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

In February 2015, the Governmental Accounting Standards Board issued Statement No. 72, "Fair Value Measurement and Application". As disclosed in Note 19, Statement No. 72 is effective for the City's fiscal year ending September 30, 2016. The objective of this Statement is to address accounting and financial reporting issues related to fair value measurements and provides guidance for determining a fair value measurement for financial reporting purposes. This Statement also provides guidance for applying fair value to certain investments and disclosures related to all fair value measurements. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that management's discussion and analysis, the budgetary comparison schedule, schedules of changes in the net pension liability and related ratios, schedules of contributions, and the schedule of funding progress on pages 5 to 16, 85 to 87, 88 to 91 and 92, respectively, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the City's basic financial statements. The combining financial statements; the schedule of expenditures of federal awards and state financial assistance, as required by Title 2 U.S. Code of Federal Regulations (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, and Chapter 10.550, *Rules of the Auditor General*; the introductory and statistical sections and the other financial information are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The combining financial statements and the schedule of expenditures of federal awards and state financial assistance, as required by Title 2 U.S. Code of Federal Regulations (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, and Chapter 10.550, *Rules of the Auditor General*, are the responsibility of management and were derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the combining financial statements and the schedule of expenditures of federal awards and state financial assistance, as required by Title 2 U.S.

Code of Federal Regulations (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, and Chapter 10.550, *Rules of the Auditor General*, are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory and statistical sections and the other financial information have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

Report on Other Legal and Regulatory Requirements

In accordance with *Government Auditing Standards*, we have also issued our report April 13, 2017 on our consideration of the City's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering City's internal control over financial reporting and compliance.

A handwritten signature in black ink, appearing to read "Crowe Horwath LLP", is positioned above the printed name of the firm.

Crowe Horwath LLP

Fort Lauderdale, Florida
April 13, 2017



CITY OF FORT LAUDERDALE

CITY OF FORT LAUDERDALE, FLORIDA

MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited) September 30, 2016

The Management's Discussion and Analysis section is intended to provide readers of this report with a general overview of the financial activities of the City of Fort Lauderdale (City) during fiscal year (FY) 2016. We encourage readers to consider the information presented here in conjunction with the transmittal letter at the beginning of this report, as well as the financial statements and notes to financial statements, which follow.

Financial Highlights

- The City's total assets and deferred outflows of resources exceeded its liabilities and deferred inflows of resources at September 30, 2016 by \$864.6 million (net position). Of this amount, \$184.2 million was from governmental activities and \$680.5 million was from business-type activities.
- The City's revenues for governmental activities, excluding transfers, totaled \$373.3 million, a 1.0% or \$3.9 million decrease from FY2015. Charges for services decreased by \$10.8 million and property taxes increased by \$9.1 million. Expenses for governmental activities decreased by \$5.9 million or 1.8% to \$320.2 million. Public safety increased by \$9.7 million, while economic environment, and transportation expenses decreased by, \$10.4 million, and \$5.1 million, respectively.
- Revenues related to business-type activities decreased by \$1.8 million to \$187.5 million and expenses, excluding transfers, increased by \$8.8 million to \$187.8 million.
- The General Fund's fund balance increased by \$7.3 million to \$76.7 million primarily due to an increase of \$9.1 million in property tax revenues. The unassigned fund balance increased from \$66.2 million in FY2015 to \$72.6 million in FY2016. The increase is due primarily to an increase to tax revenues. More detailed information on the General Fund activities can be found on page 12.
- The City's long-term debt decreased by \$45.7 million net of retirements, unamortized premiums and discounts to \$744.7 million; this primarily resulted from the reduction of current debt through annual debt payments.

Overview of Financial Statements

The basic financial statements are comprised of government-wide statements that offer a broad overview of financial activity, and more specific fund statements that present more detailed information.

Government-wide Statements (pages 18 through 21) include the statement of net position and statement of activities. They provide a broad overview of the City as a whole similar to private sector financial statements. The *statement of net position* shows the total assets and deferred outflows and liabilities and deferred inflows for the City with the difference being net position. The *statement of activities* provides a breakdown of revenues and expenses by function. Functions generally supported by taxes and intergovernmental revenues such as police, fire-rescue, parks and recreation, and public works are considered governmental activities. Those functions that are primarily funded through user fees and charges are identified as business-type activities. In Fort Lauderdale, these activities include water and sewer, sanitation, the parking system, the Fort Lauderdale Executive Airport (FXE), and stormwater.

CITY OF FORT LAUDERDALE, FLORIDA

MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited) September 30, 2016

The government-wide statements include two component units. The financial information of the City's Community Redevelopment Agency (CRA) is blended within the primary government. The Sunrise Key Safe Neighborhood District (SK) is discretely presented on the *statement of activities* and *statement of net position*. Refer to the Summary of Significant Accounting Policies for additional information on individual component units. Fiduciary funds, which include pension and agency funds are not included as part of the primary government because those resources are not available for use on City activities. Details of the fiduciary funds are provided in the fund statements.

Fund Financial Statements are found on pages 22 through 33. The City uses fund accounting to track the sources and uses of resources for specific purposes. The City categorizes funds into three basic fund types: governmental funds, proprietary funds, and fiduciary funds.

Governmental Funds (beginning on page 22) are used to account for essentially the same functions reported as governmental activities in the government-wide statements. However, unlike the previous statements, governmental fund financial statements focus on near-term inflows and outflows of spendable resources, as well as on balances of spendable resources available at the end of the fiscal year. Such information may be useful in evaluating a government's near-term financing requirements.

Since the focus of governmental funds is narrower than that of the government-wide financial statements, it is useful to compare the information presented for governmental funds with similar information presented for governmental activities in the government-wide financial statements. This comparison highlights the long-term impact of the City's near term financial decisions. Both the *governmental fund balance sheet* and the *governmental fund statement of revenues, expenditures, and changes in fund balances* offer a reconciliation to assist with this comparison.

The City maintains 22 individual governmental funds. Of this number, only the General Fund is considered a major fund and thus is reflected separately in the fund financial statements. All the other governmental funds are combined for presentation purposes as nonmajor funds.

Proprietary Funds (beginning on page 26) are comprised of two different categories. Enterprise funds include business-type activities such as water and sewer, sanitation, the parking system, the executive airport, and stormwater. Internal service funds include vehicle rental, central services (information technology, telecommunications, and printing services), and insurance services. The latter functions provide support to internal City departments rather than services to the public. Enterprise funds are also reported as either major or nonmajor funds depending upon the significance of their financial activity.

Fiduciary Funds (beginning on page 32), which are not included in the government-wide statements, are presented in this section and include the City's Police and Fire Retirement System, the General Employees Retirement System and the Other Post-Employment Benefits Fund as well as the financial activity of the Arts and Science District Garage.

Notes to Financial Statements (beginning on page 35) are integral to a complete understanding of both the government-wide and fund financial statements. They provide additional explanation of the amounts shown in the various statements.

CITY OF FORT LAUDERDALE, FLORIDA

MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited) September 30, 2016

Other Information

This report also includes required supplementary information related to employee pension liability, other post-employment benefits, and the budgetary comparison schedules for major governmental funds. The combining statements and other financial information, in connection with nonmajor governmental and enterprise funds, internal service funds, fiduciary funds and nonmajor component units are presented following the required supplementary information.

Additional statistical information is presented to give report users a better historical perspective and assist in assessing current financial status and trends of the governmental unit. Economic data is presented to allow a broader understanding of the economic and social environment in which the City government operates.

Government-wide Financial Analysis

The table below summarizes the City's net position as of September 30, 2016 and 2015.

City of Fort Lauderdale Net Position (in thousands of \$)								
	Governmental Activities		Business-type Activities		Total		Increase/ (Decrease)	
	2016	2015	2016	2015	2016	2015	Amount	Percent
Assets and Deferred Outflows of Resources								
Current and Other Assets	\$ 364,598	\$ 334,077	\$ 226,845	\$ 245,787	\$ 591,443	\$ 579,864	\$ 11,579	2.00%
Capital Assets (Net)	308,198	286,104	869,536	878,762	1,177,734	1,164,866	12,868	1.10%
Deferred Outflows of Resources	59,363	78,603	35,199	37,719	94,562	116,322	(21,760)	-18.71%
Total Assets and Deferred Outflows of Resources	732,159	698,784	1,131,580	1,162,268	1,863,739	1,861,052	2,687	0.14%
Liabilities and Deferred Inflows of Resources								
Current and Other Liabilities	66,842	66,687	34,853	39,029	101,695	105,716	(4,021)	-3.80%
Long-Term Liabilities	470,017	490,624	415,437	441,358	885,454	931,982	(46,528)	-4.99%
Deferred Inflows of Resources	9,825	10,105	828	1,527	11,970	11,632	338	2.83%
Total Liabilities and Deferred Inflows of Resources	548,001	567,416	451,118	481,914	999,119	1,049,330	(50,211)	-4.78%
Net Position								
Net Investment in Capital Assets	272,572	244,834	485,584	464,460	758,156	709,294	48,862	6.89%
Restricted	151,264	136,961	34,939	46,302	186,203	183,263	2,940	1.60%
Unrestricted	(239,678)	(250,427)	159,939	169,592	(79,739)	(80,835)	1,096	-1.35%
Total Net Position	\$ 184,158	\$ 131,368	\$ 680,462	\$ 680,354	\$ 864,620	\$ 811,722	\$52,898	6.52%

The City's investment in capital assets (land, buildings, improvements, infrastructure and equipment) net of the related debt outstanding used to acquire those assets of \$758.2 million represents 87.7% of its net position. These capital assets are used to provide services to City of Fort Lauderdale neighbors and are not available for future spending. The resources needed to repay the debt incurred to acquire these assets will come from future revenues.

CITY OF FORT LAUDERDALE, FLORIDA

MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited) September 30, 2016

An additional portion of net position (21.5%) represents resources subject to external restrictions (\$186.2 million). The unrestricted balance increased by \$1.1 million compared to the end of FY2015 and the reasons for the overall increase are discussed in the sections for governmental activities and business-type activities.

At the end of the current fiscal year, the City is able to report positive balances in the investment in capital assets and restricted categories of net position, both for the government as a whole, as well as for the governmental activities. The business-type activities reports positive balances in all reported categories of net position. The same situation held true for the prior fiscal year.

Total net position increased by \$52.9 million. The following table summarizes changes in net position for governmental and business-type activities for the past two fiscal years.

City of Fort Lauderdale Changes in Net Position (in thousands of \$)

	Governmental Activities		Business-type Activities		Total		Increase/(Decrease)	
	2016	2015	2016	2015	2016	2015	Amount	Percent
Revenues								
Program Revenues								
Charges for Services	\$ 137,022	\$ 147,856	\$ 181,395	\$ 181,346	\$ 318,417	\$ 329,202	\$ (10,785)	-3.28%
Operating Grants and Contributions	26,028	27,818	-	-	26,028	27,818	(1,790)	-6.43%
Capital Grants and Contributions	1,288	3,577	3,296	5,628	4,584	9,205	(4,621)	-50.20%
General Revenues								
Property Taxes	117,360	108,205	-	-	117,360	108,205	9,155	8.46%
Other Taxes	65,470	67,178	-	-	65,470	67,178	(1,708)	-2.54%
Other	26,165	22,623	2,828	2,354	28,993	24,977	4,016	16.08%
Total Revenues	373,333	377,257	187,519	189,328	560,852	566,585	(5,733)	-1.02%
Expenses								
General Government	50,656	47,395	-	-	50,656	47,395	3,261	6.88%
Public Safety	190,328	180,657	-	-	190,328	180,657	9,671	5.35%
Physical Environment	6,622	7,619	161,043	153,944	167,665	161,563	6,102	3.78%
Transportation	10,368	15,479	26,724	25,014	37,092	40,493	(3,401)	-8.39%
Economic Environment	14,783	25,253	-	-	14,783	25,253	(10,470)	-41.46%
Culture/Recreation	34,617	35,649	-	-	34,617	35,649	(1,032)	-2.89%
Interest on Long-Term Debt	12,813	14,091	-	-	12,813	14,091	(1,278)	-9.07%
Total Expenses	320,187	326,143	187,767	178,958	507,954	505,101	2,853	0.57%
Change in Net Position before transfers	53,146	51,114	(248)	10,370	52,898	61,484	(8,586)	-13.97%
Transfers	(355)	(679)	355	679	-	-	-	0.00%
Change in Net Position	52,791	50,435	107	11,049	52,898	61,484	(8,586)	-13.97%
Beginning Net Position	131,367	80,933	680,355	669,305	811,722	750,238	61,484	8.20%
Ending Net Position	\$ 184,158	\$ 131,368	\$ 680,462	\$ 680,354	\$ 864,620	\$ 811,722	\$ 52,898	6.52%

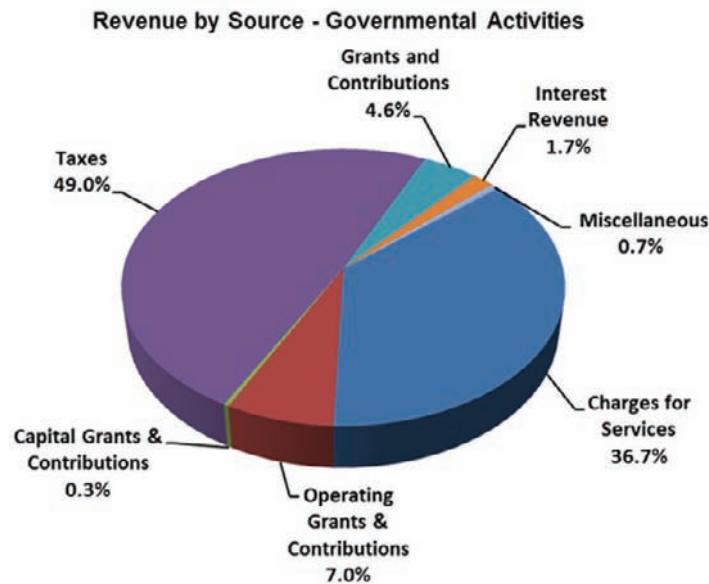
The governmental activities net position showed an increase of \$52.9 million. Total revenues from governmental activities increased by \$3.9 million compared to FY2015. Although the property tax levy millage rate remained constant for the ninth consecutive year, there was a \$9.1 million increase in property tax revenues resulting from an 8.5% increase in property values. In FY2016, charges for services decreased by \$10.8 million, primarily due to a release of \$8.9 million FEMA liability in FY2015. Other taxes, comprised of utility service, franchise fees and insurance premium, decreased by \$1.7 million. Also, operating grants and contributions decreased by \$4.1 million.

CITY OF FORT LAUDERDALE, FLORIDA

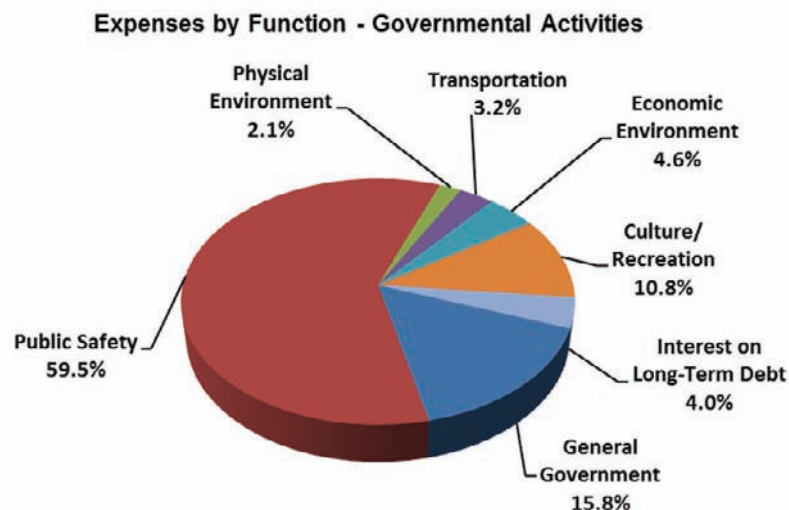
MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited) September 30, 2016

Expenses for governmental activities decreased by 1.8% or \$5.9 million, with public safety reported an increase of \$9.7 million, while economic environment and transportation reported a decrease of \$10.4 million and \$5.1 million, respectively.

As the following chart of revenues from governmental activities (by source) shows, property and other taxes provided 49.0% of the revenues used to fund governmental functions. Charges for services, such as parks and recreation programs and fire suppression special assessment comprised 36.7% of total revenues.



Expenses for governmental activities (by function) are provided in the following chart. Public safety, comprised of police, fire-rescue, and code enforcement services, had the highest allocation, accounting for 59.5% of all resources. General government and culture and recreation expenses accounted for 15.8% and 10.8%, respectively.



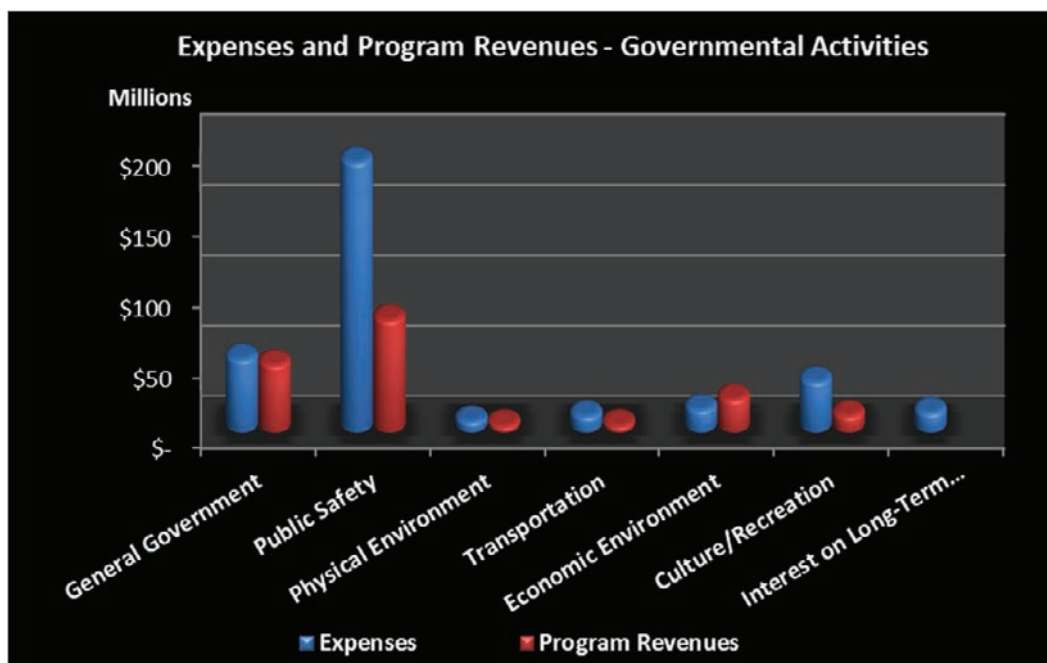
CITY OF FORT LAUDERDALE, FLORIDA

MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited) September 30, 2016

The following table and chart show the components of program and general revenues as percentage of total for governmental activities:

Expenses and Program Revenues – Governmental Activities

Functions/Programs	Expenses	% of Total	Program Revenues	% of Total	Net (Expense) Revenue
General Government	\$ 50,656,374	15.8%	\$ 46,325,562	28.2%	\$ (4,330,812)
Public Safety	190,327,749	59.4%	78,453,720	47.7%	(111,874,029)
Physical Environment	6,622,172	2.1%	3,412,498	2.1%	(3,209,674)
Transportation	10,368,546	3.2%	3,514,958	2.1%	(6,853,588)
Economic Environment	14,783,066	4.6%	22,099,685	13.5%	7,316,619
Culture/Recreation	34,616,954	10.8%	10,531,608	6.4%	(24,085,346)
Interest on Long-Term Debt	12,813,208	4.0%	-	0.0%	(12,813,208)
	<u>\$ 320,188,069</u>	<u>100%</u>	<u>\$ 164,338,031</u>	<u>100%</u>	<u>\$ (155,850,038)</u>

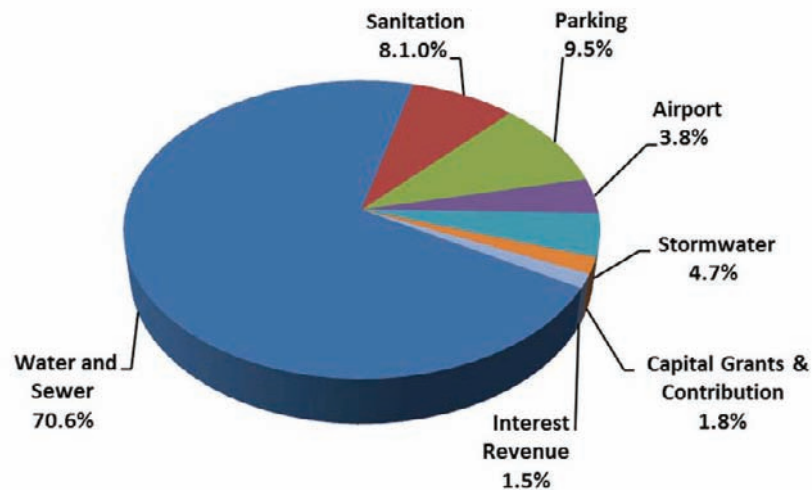


CITY OF FORT LAUDERDALE, FLORIDA

MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited) September 30, 2016

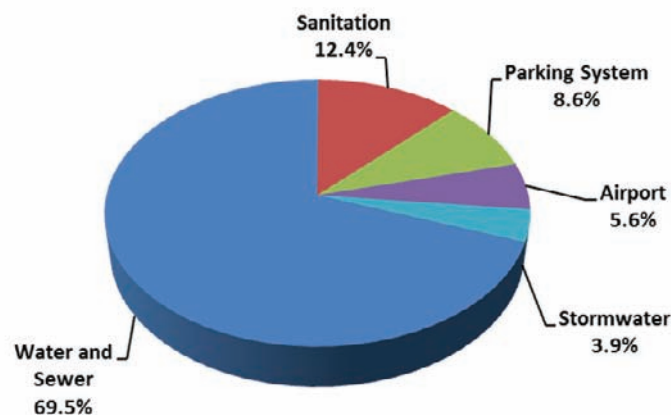
For the business-type activities, net position showed an increase of approximately \$107,000. Total revenues for these activities decreased by \$1.8 million or 1.0%. In FY2016, charges for services increased by approximately \$49,000, of which sanitation decreased by \$5.5 million, Airport decreased by approximately \$312,000, while parking, stormwater, and water and sewer increased by \$1.0 million, \$2.6 million and \$2.2 million, respectively.

Revenue by Function - Business-type Activities



The total expenses for business-type activities increased by \$8.8 million or 4.9%. Physical environment expenses increased by \$7.1 million or 4.6% and transportation expenses increased by \$1.7 million or 6.8%.

Expenses by Program Business-type Activities



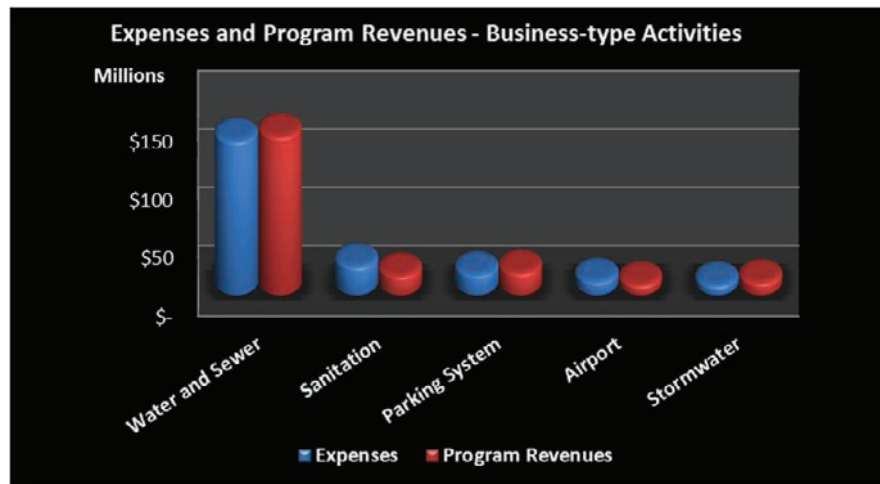
CITY OF FORT LAUDERDALE, FLORIDA

MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited) September 30, 2016

The following table and chart show the components of program revenues as a percentage of the total for business-type activities:

Expenses and Program Revenues – Business-type Activities

Functions/Programs	Expenses	% of Total	Program Revenues	% of Total	Net (Expense) Revenue
Water and Sewer	\$ 130,552,179	69.5%	\$ 134,580,489	72.8%	\$ 4,028,310
Sanitation	23,210,957	12.4%	15,236,518	8.3%	(7,974,439)
Parking System	16,218,135	8.6%	17,725,384	9.6%	1,507,249
Airport	10,506,172	5.6%	7,642,704	4.1%	(2,863,468)
Stormwater	7,280,190	3.9%	9,506,036	5.2%	2,225,846
	<u>\$ 187,767,633</u>	<u>100%</u>	<u>\$ 184,691,131</u>	<u>100%</u>	<u>\$ (3,076,502)</u>



Financial Analysis of the Government's Funds

The fund financial statements for *governmental funds* provide information on the near-term outflows, inflows, and balances of spendable resources. Such information is useful in assessing the City of Fort Lauderdale's financing requirements. In particular, the unassigned fund balance is a useful indicator of the City's net resources available for spending at the end of the fiscal year.

The General Fund balance at September 30, 2016 was \$76.7 million, an increase of 10.5% or \$7.3 million from the prior year balance of \$69.4 million. Approximately 94.6% of FY2016 fund balance (\$72.6 million) represents the unassigned fund balance, which is available for spending at the government's discretion.

General Fund revenues for FY2016 totaled \$314.2 million, a \$261,000 or 0.1% decrease from FY2015. Miscellaneous revenues decreased by \$8.1 million, which is mainly attributed to a one-time FEMA appeal that was released in FY2015. Tax revenues increased by \$7.9 million in FY2016, of which property taxes levied for operations increased \$9.7 million and other taxes decreased by \$1.7 million.

CITY OF FORT LAUDERDALE, FLORIDA

MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited) September 30, 2016

Total General Fund expenditures increased by \$2.6 million from \$256.0 million in FY2015 to \$258.6 million in FY2016. This is mainly attributed to an increase in personnel cost of \$4.9 million, which resulted from 42.5 additional budgeted positions. Services and materials costs decreased by \$2.9 million, while capital outlay increased by approximately \$600,000.

The governmental funds ended the year with \$280.8 million in fund balance, which is an 11.8% increase from FY2015. The combined fund balances of the nonmajor governmental funds increased by \$22.4 million or 12.3% to \$204.0 million. The Building Fund increased by \$4.6 million mostly due to a relative steady activity in licenses and permits. The General and Community Redevelopment Agency capital projects funds increased by \$5.1 million and \$8.8 million, respectively, due to transfers to fund improvement, redevelopment and maintenance projects. The Perpetual Care fund of the Cemetery System increased by \$2.1 million; mostly attributable to investment gains.

The City's *proprietary funds* are presented in more detail in the proprietary fund statements but represent the same activities reflected in the business-type activities. Proprietary funds include both the enterprise and internal service funds. Net position of the Water and Sewer Fund increased by \$1.8 million to \$522.6 million, while total enterprise net position decreasing by approximately \$626,000 to \$671.1 million in FY2016. Total enterprise operating income decreased, by \$10.8 million from \$17.8 million in FY2015, to \$7.1 million in FY2016, a 60.3% decrease. Water and Sewer fund operating income was \$15.6 million, a decrease of \$4.7 million compared to FY2015.

The Parking System funds and the Stormwater fund had net operating income of \$1.4 million and \$1.5 million, while the Airport and the Sanitation funds had net operating losses of \$3.4 million and \$8.1 million, respectively. The Sanitation fund operating loss of \$8.1 million is primarily due to the reallocation of private collectors fees to the General Fund, of which General Fund transferred \$4.1 million back to the fund. Furthermore, there were increases to personnel and service/materials costs of \$1.0 million and \$1.3 million, respectively.

At September 30, 2016, the Insurance fund had a net position balance of \$4.8 million, an increase of approximately \$800,000 from FY2015. The Insurance fund had net operating income of approximately \$625,000, a \$901,000 change compared to the net operating loss of approximately \$276,000 in FY2015. In FY2016, the Central Services fund's net position balance of \$9.1 million increased by 142.4% from \$3.7 million in FY2015. This increase is mainly attributed to \$4.6 million in transfers from other funds to the ERP project that will replace the core financial, payroll, and human resources systems.

General Fund Budgetary Highlights

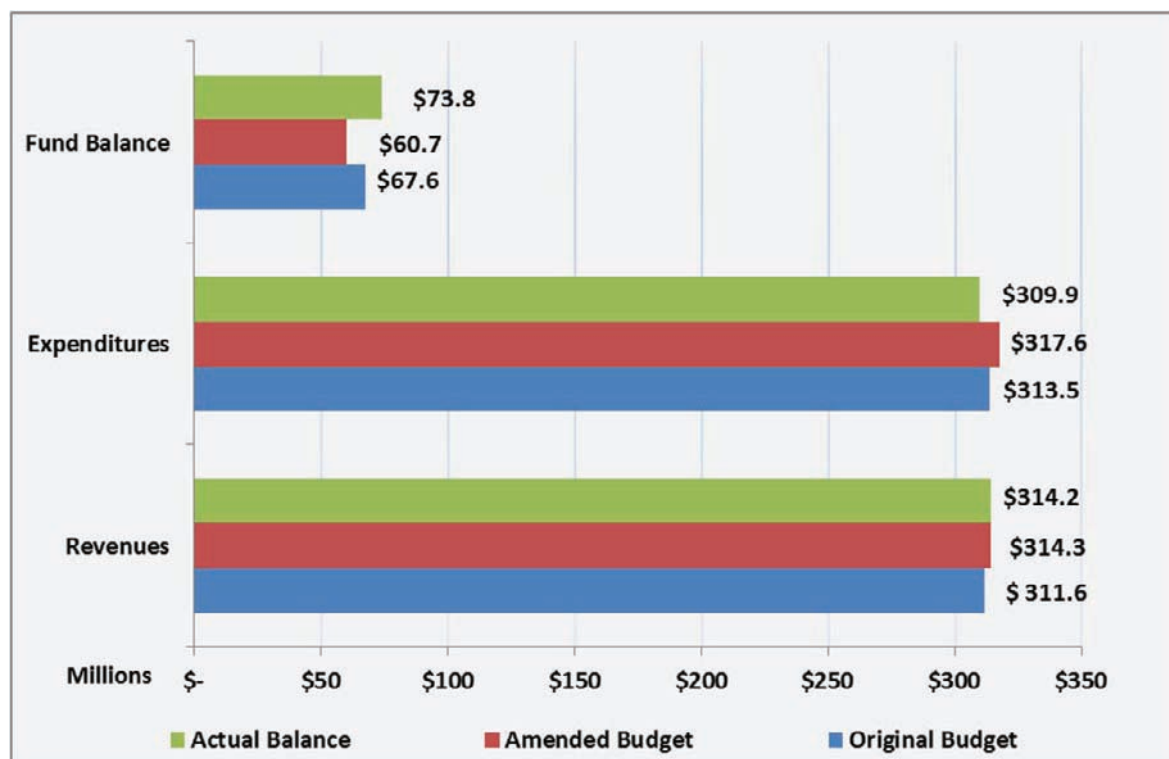
The City's Revenue Estimating Committee helps to ensure that the General Fund revenues are estimated each year using a comprehensive process involving multiple stakeholders, to yield the most reasonable and accurate revenue estimates. It includes an in depth review of past, current, and projected financial conditions. The forecast is an integral part of the annual budget process and allows for informed decision-making, with the goal of maintaining financial integrity while delivering essential quality community services to the City's neighbors. Actual General Fund revenues for FY2016 were lower than the final FY2016 budget by only \$88,000 or 0.03%. The majority of FY2016 positive variances or underestimations were accounted for in charges for services and miscellaneous revenues in the amount of \$1.8 million. An overestimation of taxes revenues (\$1.7 million) and fines and forfeitures revenues (\$271,000) resulted in a \$1.9 million negative variance.

CITY OF FORT LAUDERDALE, FLORIDA

MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited)
September 30, 2016

Total expenditures of \$261.6 million (including encumbrances of \$2.9 million) were \$7.1 million lower than the final FY2016 budget. This decrease is mainly attributed to services and materials costs that were \$3.9 million lower than budgeted. Salary and employee benefits savings amounted to \$2.9 million, resulting from vacancies in multiple departments. Unspent capital outlay budget was approximately \$430,000.

City of Fort Lauderdale
FY2016 General Fund Budgetary Comparison
(in millions of \$)



CITY OF FORT LAUDERDALE, FLORIDA

MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited) September 30, 2016

Capital Assets

The City's investment in capital assets, net of accumulated depreciation, for governmental and business-type activities is shown in the following table. Capital asset balances for governmental activities increased by \$22.1 million in FY2016.

Capital asset balances of the business-type activities decreased by \$9.2 million, which is mainly attributed to the increase in annual depreciation. Additional information about the City's capital assets can be found in Note 7 to these financial statements.

City of Fort Lauderdale Capital Assets (in thousands of \$)

	Governmental Activities		Business-type Activities		Total		Increase/ (Decrease)	
	2016	2015	2016	2015	2016	2015	Amount	Percent
Land	\$ 93,243	\$ 74,780	\$ 32,156	\$ 32,156	\$ 125,399	\$ 106,936	\$18,463	17.26%
Construction in Progress	23,927	21,409	24,632	13,833	48,559	35,242	13,317	37.79%
Buildings	157,481	157,169	273,307	272,288	430,788	429,457	1,331	0.31%
Improvements	113,180	105,520	900,985	898,356	1,014,165	1,003,876	10,289	1.02%
Machinery, Equipment and Vehicles	116,834	107,858	47,833	43,260	164,667	151,118	13,549	8.97%
Infrastructure	44,977	44,645	82	82	45,059	44,727	332	0.74%
	549,642	511,381	1,278,995	1,259,975	1,828,637	1,771,356	57,281	3.23%
Less: Accumulated Depreciation	(241,443)	(225,278)	(409,458)	(381,213)	(650,901)	(606,491)	(44,410)	7.32%
Capital Assets, net	\$ 308,199	\$ 286,103	\$ 869,537	\$ 878,762	\$ 1,177,736	\$ 1,164,865	\$12,871	1.10%

Debt Administration

At the end of the current fiscal year, the City of Fort Lauderdale had a total bonded debt outstanding of \$644.2 million. Of this amount, \$34.8 million is backed by the full faith and credit of the government and \$275.5 million is pension related debt for which the City has pledge non-ad valorem revenues. The remainder of the City's long term obligations comprises of bonds, notes and loans secured by the water and sewer net operating revenues, tax increment note issue by the Community Redevelopment Agency (CRA) and a capital lease in the central services fund.

The City's total debt decreased by \$45.7 million, or 5.8%, during the current fiscal year. In FY2016, the business-type activities issued \$158.9 million in water and sewer revenue refunding bonds to refund the City's Series 2006, Series 2008, and Series 2010 bonds, along with two state loans. Principal retirements for governmental activities and business-type activities totaled \$22.6 million and \$29.0 million, respectively. Additional information about the City's long-term debt can be found in Note 10 to these financial statements.

CITY OF FORT LAUDERDALE, FLORIDA

MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited) September 30, 2016

City of Fort Lauderdale Outstanding Debt * (in thousands of \$)

	Governmental Activities		Business-type Activities		Total		Increase/(Decrease)	
	2016	2015	2016	2015	2016	2015	Amount	Percent
General Obligation Bonds	\$ 34,780	\$ 38,230	\$ -	\$ -	\$ 34,780	\$ 38,230	\$ (3,450)	-9.02%
Special Obligation Bonds	275,505	290,975	-	-	275,505	290,975	(15,470)	-5.32%
Revenue Bonds	-	-	333,920	340,470	333,920	340,470	(6,550)	-1.92%
Notes Payables	7,257	7,603	-	-	7,257	7,603	(346)	-4.55%
Loans Payables	17,329	20,213	44,610	66,985	61,939	87,198	(25,259)	-28.97%
Capital Lease Obligation	1,869	2,309	-	-	1,869	2,309	(440)	-19.07%
	<u>\$ 336,740</u>	<u>\$ 359,330</u>	<u>\$ 378,530</u>	<u>\$ 407,455</u>	<u>\$ 715,270</u>	<u>\$ 766,785</u>	<u>\$(51,515)</u>	<u>-6.72%</u>

*Excludes unamortized bond premiums, discounts, and other liabilities such as estimated insurance claims, compensated absences, net pension liability, net OPEB obligations, and land-fill post closure costs.

Economic Factors and Next Year's Budget and Rates

The State of Florida, by its Constitution, does not have a state personal income tax and therefore operates primarily using sales, gasoline and corporate income taxes. Local governments (cities, counties and school boards) rely on property and a limited array of permitted other taxes (sales, gasoline, and utilities) and fees (franchise, business tax receipts) for their governmental activities. For the business-type and certain governmental activities (construction services and recreational programs), the user pays a related fee or charge associated with the service.

The adopted operating budget for expenditures for FY2017 is \$622.9 million which is 4.7% higher than the FY2016 adopted budget, which does not include transfers. The General Fund expenditure budget for FY2017 is \$277.3 million which is 4.8% higher than FY2016 adopted budget. The FY2017 General Fund Adopted Budget is structurally balanced, does not include the use of fund balance, and maximizes all resources necessary to build, enhance, and sustain the future of our great City. In FY2017, the operating millage rate of 4.1193 remains unchanged for the tenth consecutive year and equates to a 9.22% increase in revenues as a result of an increase in property values.

The adopted FY2017 General Fund budget addresses key priorities established by the City Commission to meet the challenges of current economic conditions including no increase in the millage rate, increased demands being placed on City staff and the high quality services desired by our neighbors, maintaining adequate reserve funds, and no reductions in vital City services demonstrating the City's highest priorities to ensure that we live, work, and play in the best city possible, while remaining within our fiscal boundaries. *"We Build Community."*

Requests for Information

This financial report is designed to provide a general overview of the City of Fort Lauderdale's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Chief Financial Officer, City of Fort Lauderdale, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301, or they may be contacted at finance@fortlauderdale.gov or (954) 828-5144.



Basic Financial Statements

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

STATEMENT OF NET POSITION
September 30, 2016

	Primary Government			Component
	Governmental Activities	Business-type Activities	Total	Unit Sunrise Key
ASSETS				
Cash and Cash Equivalents	\$ 233,183,142	\$ 148,570,443	\$ 381,753,585	\$ 138,146
Investments	106,793,628	-	106,793,628	-
Restricted Assets:				
Cash and Cash Equivalents	-	44,647,465	44,647,465	-
Accounts Receivable (Net)	11,029,569	16,119,293	27,148,862	-
Accrued Interest Receivable	75,645	-	75,645	-
Internal Balances	(9,323,873)	9,323,873	-	-
Due from Fiduciary Funds	4,584,783	-	4,584,783	-
Due from Other Governments	7,916,266	545,354	8,461,620	-
Inventories	2,871,527	1,025,118	3,896,645	-
Property Held for Resale	7,208,292	-	7,208,292	-
Prepaid Items	-	212,519	212,519	-
Investment in Joint Venture	-	651,179	651,179	-
Deposits	259,674	5,749,454	6,009,128	-
Capital Assets Not Being Depreciated				
Land	93,242,783	32,155,535	125,398,318	-
Construction in Progress	23,926,979	24,631,900	48,558,879	-
Capital Assets, Net of Accumulated Depreciation				
Buildings	89,475,051	159,476,628	248,951,679	-
Improvements	42,788,701	640,450,470	683,239,171	-
Infrastructure	34,374,202	79,139	34,453,341	-
Machinery, Equipment and Vehicles	24,390,659	12,742,730	37,133,389	-
Total Assets	672,797,028	1,096,381,100	1,769,178,128	138,146
DEFERRED OUTFLOWS OF RESOURCES				
Deferred Loss on Refunding Amount	69,184	23,080,061	23,149,245	-
Accumulated Decrease in Fair Value of Derivative Instruments	16,792	-	16,792	-
Deferred Outflows for Pension	59,276,739	12,119,315	71,396,054	-
Total Deferred Outflows of Resources	59,362,715	35,199,376	94,562,091	-

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

STATEMENT OF NET POSITION
September 30, 2016

	Primary Government			Component Unit
	Governmental Activities	Business-type Activities	Total	Sunrise Key
LIABILITIES				
Accounts Payable	\$ 9,354,496	\$ 8,116,453	\$ 17,470,949	\$ 6,400
Accrued Liabilities	2,782,543	598,606	3,381,149	-
Due to Other Governments	702,494	-	702,494	-
Derivative Instruments	16,792	-	16,792	-
Deposits	11,905,875	961,979	12,867,854	-
Unearned Revenues	3,238,385	341,417	3,579,802	-
Liabilities Payable from Restricted Assets:				
Accounts Payable	-	2,500	2,500	-
Accrued Interest Payable	3,209,111	1,283,365	4,492,476	-
Customer Deposits	-	8,422,834	8,422,834	-
Long-Term Liabilities:				
Due Within One Year	35,632,357	15,125,792	50,758,149	-
Due in More Than One Year	470,017,283	415,437,315	885,454,598	-
Total Liabilities	536,859,336	450,290,261	987,149,597	6,400
DEFERRED INFLOWS OF RESOURCES				
Deferred Inflows for Pension	11,142,069	828,279	11,970,348	-
Total Deferred Inflows of Resources	11,142,069	828,279	11,970,348	-
NET POSITION				
Net Investment in Capital Assets	272,571,968	485,584,168	758,156,136	-
Restricted for:				
Debt Service	12,302,937	1,725,132	14,028,069	-
Inventories	2,871,527	-	2,871,527	-
Community Redevelopment	71,835,282	-	71,835,282	-
Transportation	19,472	-	19,472	-
Public Safety	1,093,204	-	1,093,204	-
Building Code Enforcement	33,806,924	-	33,806,924	-
Capital Replacement and Improvements	-	33,213,634	33,213,634	-
Endowments				
Expendable	12,581,765	-	12,581,765	-
Nonexpendable	14,307,756	-	14,307,756	-
Other Purposes	2,445,722	-	2,445,722	-
Unrestricted	(239,678,219)	159,939,002	(79,739,217)	131,746
Total Net Position	\$ 184,158,338	\$ 680,461,936	\$ 864,620,274	\$ 131,746

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

STATEMENT OF ACTIVITIES
For the Year Ended September 30, 2016

Functions/Programs	Program Revenues			
	Expenses	Charges for Services	Operating Grants and Contributions	Capital Grants and Contributions
Primary Government				
Governmental Activities:				
General Government	\$ 50,656,373	\$ 43,803,099	\$ 2,441,645	\$ 80,818
Public Safety	190,327,750	77,673,557	158,619	621,544
Physical Environment	6,622,172	3,412,559	(61)	-
Transportation	10,368,546	468,353	2,489,342	557,263
Economic Environment	14,783,066	1,551,021	20,548,664	-
Culture/Recreation	34,616,954	10,112,876	389,980	28,752
Interest on Long-Term Debt	12,813,208	-	-	-
Total Governmental Activities	320,188,069	137,021,465	26,028,189	1,288,377
Business-type Activities:				
Water and Sewer	130,552,179	132,486,929	-	2,093,560
Sanitation	23,210,957	15,236,518	-	-
Parking	16,218,135	17,725,384	-	-
Airport	10,506,172	7,139,770	-	502,934
Stormwater	7,280,190	8,806,797	-	699,239
Total Business-type Activities	187,767,633	181,395,398	-	3,295,733
Total Primary Government	\$ 507,955,702	\$ 318,416,863	\$ 26,028,189	\$ 4,584,110
Component Unit				
Sunrise Key	\$ 74,903	\$ -	\$ -	\$ -
Total Component Unit	\$ 74,903	\$ -	\$ -	\$ -

General Revenues:

Taxes:

Property Taxes
Utility Service Taxes
Franchise Fees
Insurance Premium Taxes
Grants and Contributions
Interest Revenue

Miscellaneous

Transfers

Total General Revenues/Transfers

Change in Net Position

Net Position - Beginning

Net Position - Ending

The notes to the financial statements are an integral part of the financial statements.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

Net (Expense) Revenue and Changes in Net Position			
Primary Government			Component
Governmental	Business-type		Unit
Activities	Activities	Total	Sunrise Key
\$ (4,330,811)	\$ -	\$ (4,330,811)	\$ -
(111,874,030)	-	(111,874,030)	-
(3,209,674)	-	(3,209,674)	-
(6,853,588)	-	(6,853,588)	-
7,316,619	-	7,316,619	-
(24,085,346)	-	(24,085,346)	-
(12,813,208)	-	(12,813,208)	-
(155,850,038)	-	(155,850,038)	-
-	4,028,310	4,028,310	-
-	(7,974,439)	(7,974,439)	-
-	1,507,249	1,507,249	-
-	(2,863,468)	(2,863,468)	-
-	2,225,846	2,225,846	-
-	(3,076,502)	(3,076,502)	-
(155,850,038)	(3,076,502)	(158,926,540)	-
-	-	-	(74,903)
-	-	-	(74,903)
117,360,476	-	117,360,476	90,235
37,517,371	-	37,517,371	-
22,389,618	-	22,389,618	-
5,563,314	-	5,563,314	-
17,183,084	-	17,183,084	-
6,469,794	2,820,043	9,289,837	-
2,512,498	7,873	2,520,371	235
(355,107)	355,107	-	10
208,641,048	3,183,023	211,824,071	90,480
52,791,010	106,521	52,897,531	15,577
131,367,328	680,355,415	811,722,743	116,169
\$ 184,158,338	\$ 680,461,936	\$ 864,620,274	\$ 131,746

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

BALANCE SHEET GOVERNMENTAL FUNDS September 30, 2016

	General	Nonmajor Governmental Funds	Total Governmental Funds
ASSETS			
Cash and Cash Equivalents	\$ 79,915,617	\$ 91,013,285	\$ 170,928,902
Investments	-	106,793,628	106,793,628
Accounts Receivable (Net)	10,272,767	725,403	10,998,170
Accrued Interest Receivable	-	75,645	75,645
Due from Other Governments	3,264,963	4,651,303	7,916,266
Due from Other Funds	363,416	-	363,416
Due from Fiduciary Funds	4,584,783	-	4,584,783
Inventories	21,391	2,779,011	2,800,402
Property Held for Resale	-	7,208,292	7,208,292
Deposits	147,224	87,450	234,674
Total Assets	\$ 98,570,161	\$ 213,334,017	\$ 311,904,178
LIABILITIES			
Accounts Payable	\$ 2,708,720	\$ 4,659,283	\$ 7,368,003
Accrued Liabilities	2,464,002	158,937	2,622,939
Due to Other Governments	700,352	2,142	702,494
Due to Other Funds	-	363,416	363,416
Deposits	11,208,097	697,778	11,905,875
Unearned Revenues	2,317,726	920,659	3,238,385
Compensated Absences and Longevity	115,907	-	115,907
Total Liabilities	19,514,804	6,802,215	26,317,019
DEFERRED INFLOWS OF RESOURCES			
Unavailable Property Tax Revenues	2,076,130	99,626	2,175,756
Unavailable Assessment Revenues	257,039	245,935	502,974
Unavailable Grant Revenues	-	2,133,582	2,133,582
Total Deferred Inflows of Resources	2,333,169	2,479,143	4,812,312
FUND BALANCES			
Nonspendable	21,391	14,314,506	14,335,897
Restricted	-	165,210,117	165,210,117
Committed	1,186,699	1,519,050	2,705,749
Assigned	2,962,640	23,008,986	25,971,626
Unassigned	72,551,458	-	72,551,458
Total Fund Balances	76,722,188	204,052,659	280,774,847
Total Liabilities, Deferred Inflows of Resources, and Fund Balances	\$ 98,570,161	\$ 213,334,017	\$ 311,904,178

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

RECONCILIATION OF THE BALANCE SHEET OF GOVERNMENTAL FUNDS TO THE STATEMENT OF NET POSITION September 30, 2016

Total fund balances of governmental funds		\$ 280,774,847
Amounts reported for governmental activities in the statement of net position are different because:		
Capital assets used in governmental activities are not financial resources and, therefore, are not reported in the funds.		291,318,515
Other long-term assets are not available to pay for current period expenditures and, therefore are deferred in the funds.		4,812,312
The internal service fund is used by management to charge the costs of City insurance, communications, printing and central services and for the operation of a maintenance facility for City vehicles. The net position of the internal service funds are included in governmental activities in the statement of net position.		29,651,984
Deferred outflows of resources related to pension earnings are recognized in the governmental funds and are recorded in the statement of net position.		56,748,822
Deferred inflows of resources related to pension earnings are recognized in the governmental funds and are recorded in the statement of net position.		(10,969,301)
Deferred loss on refunding amounts are expended in the fund level financial but are deferred and amortized over the life of the bonds in the government-wide financial statements.		69,184
Long-term liabilities are not due and payable in the current period and accordingly are not reported as fund liabilities.		
Bonds Payable	\$ (310,285,000)	
Notes Payable	(24,585,800)	
Net Pension Liabilities	(88,382,886)	
Net OPEB Obligation	(9,706,900)	
Compensated Absences and Longevity	(31,136,493)	
Accrued Interest Payable	(3,209,111)	
Unamortized Bond Premiums and Discounts	(941,835)	(468,248,025)
Total net position of governmental activities		\$ 184,158,338

The notes to the financial statements are an integral part of the financial statements.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES GOVERNMENTAL FUNDS

For the Year Ended September 30, 2016

	General	Nonmajor Governmental Funds	Total Governmental Funds
REVENUES			
Taxes	\$ 178,424,505	\$ 4,823,936	\$ 183,248,441
Licenses and Permits	3,187,277	18,044,304	21,231,581
Intergovernmental Revenues	20,188,687	25,784,347	45,973,034
Charges for Services	23,318,716	508,151	23,826,867
Fines and Forfeitures	2,223,694	3,340,154	5,563,848
Miscellaneous Revenues:			
Assessments and Other Fees	33,721,236	4,338,365	38,059,601
Investment Income	1,996,110	3,808,590	5,804,700
Rents and Concessions	4,274,148	160,000	4,434,148
Contributions and Donations	-	80,818	80,818
Interfund Service Charges	42,754,473	-	42,754,473
Other Miscellaneous	4,116,993	1,604,186	5,721,179
Total Revenues	314,205,839	62,492,851	376,698,690
EXPENDITURES			
Current:			
General Government	50,149,030	1,283,922	51,432,952
Public Safety	165,156,787	15,537,820	180,694,607
Physical Environment	5,287,466	1,004,475	6,291,941
Transportation	6,805,306	3,111,070	9,916,376
Economic Environment	985,679	14,129,463	15,115,142
Culture/Recreation	29,231,080	221,615	29,452,695
Debt Service:			
Principal Retirement	-	22,150,300	22,150,300
Interest and Fiscal Charges	-	12,963,806	12,963,806
Capital Outlay	1,043,566	14,498,011	15,541,577
Total Expenditures	258,658,914	84,900,482	343,559,396
Excess (Deficiency) of Revenues Over (Under) Expenditures	55,546,925	(22,407,631)	33,139,294
OTHER FINANCING SOURCES (USES)			
Transfers In	-	60,376,587	60,376,587
Transfers (Out)	(48,253,692)	(15,566,815)	(63,820,507)
Total Other Financing Sources (Uses)	(48,253,692)	44,809,772	(3,443,920)
Net Change in Fund Balances	7,293,233	22,402,141	29,695,374
Fund Balances - Beginning	69,428,955	181,650,518	251,079,473
Fund Balances - Ending	\$ 76,722,188	\$ 204,052,659	\$ 280,774,847

The notes to the financial statements are an integral part of the financial statements.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

RECONCILIATION OF THE STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES OF GOVERNMENTAL FUNDS TO THE STATEMENT OF ACTIVITIES For The Year Ended September 30, 2016

Net change in fund balances of governmental funds **\$ 29,695,374**

Amounts reported for governmental activities in the statement of activities are different because:

Governmental funds report capital purchases as expenditures. However, in the statement of activities, the cost of those assets are depreciated over their estimated useful lives and reported as depreciation expense. This is the amount by which capital purchases exceed depreciation in the current year.

Capital Outlay	\$ 31,664,132	
Depreciation Expense	<u>(11,667,988)</u>	19,996,144

Some revenues reported in the statement of activities are not considered current financial resources and, therefore, are not reported as revenues in governmental funds. **(3,337,864)**

The change in the deferred refunding amounts has no effect on the current financial resource and, therefore, is not reported in the governmental funds. **(11,120)**

The issuance of long-term debt (e.g., bonds, capital leases) provides current financial resources to governmental funds, while the repayment of the principal of long-term debt consumes the current financial resources of governmental funds. Neither transaction, however, has any effect on net position. Also, governmental funds report the effect of issuance costs, premiums, discounts and similar items when debt is first issued, whereas these amounts (except for issuance costs) are capitalized and amortized in the statement of activities. This amount is the net effect of these differences in the treatment of long-term debt and related items.

Principal Repayments:		
Bonds Payable	\$ 18,920,000	
Notes Payable	<u>3,230,300</u>	22,150,300

Some expenses reported in the statement of activities do not require the use of current financial resources and, therefore, are not reported as expenditures in governmental funds.

Accrued Interest Payable	\$ 79,324	
Amortized of Bond Discounts and Premiums	137,572	
Change in pension expense	(15,122,586)	
Other Post-Employment Benefits	(1,624,317)	
Compensated Absences and Longevity Pay	<u>(5,029,830)</u>	(21,559,837)

The internal service fund is used by management to charge the costs of City insurance, communications, printing and central services and for the operation of a maintenance facility for City vehicles. The net revenue (expense) of certain activities of the internal service funds is reported with governmental activities. **5,858,013**

Change in net position of governmental activities **\$ 52,791,010**

The notes to the financial statements are an integral part of the financial statements.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

STATEMENT OF NET POSITION PROPRIETARY FUNDS September 30, 2016

	Business-type Activities - Enterprise Funds			Governmental
	Water and Sewer	Nonmajor Enterprise Funds	Total Enterprise Funds	Activities - Internal Service Funds
ASSETS				
Current Assets:				
Cash and Cash Equivalents	\$ 85,311,375	\$ 63,259,068	\$ 148,570,443	\$ 62,254,240
Restricted Cash and Cash Equivalents	7,824,186	1,884,513	9,708,699	-
Accounts Receivable (Net)	12,492,841	3,626,452	16,119,293	31,399
Due from Other Governments	-	545,354	545,354	-
Inventories	1,025,118	-	1,025,118	71,125
Prepays Items	-	212,519	212,519	-
Deposits	5,749,454	-	5,749,454	25,000
Total Current Assets	112,402,974	69,527,906	181,930,880	62,381,764
Noncurrent Assets:				
Restricted Assets:				
Cash and Cash Equivalents	33,198,729	1,740,037	34,938,766	-
Total Restricted Assets	33,198,729	1,740,037	34,938,766	-
Investment in Joint Venture	-	651,179	651,179	-
	-	651,179	651,179	-
Capital Assets:				
Land	7,739,200	24,416,335	32,155,535	-
Construction in Progress	19,836,129	4,795,771	24,631,900	333,042
Buildings	234,847,313	38,459,281	273,306,594	962,879
Improvements	821,092,021	79,892,897	900,984,918	4,188,403
Infrastructure	-	82,437	82,437	-
Machinery, Equipment and Vehicles	32,207,784	15,625,431	47,833,215	64,404,206
Less: Accumulated Depreciation	(332,176,083)	(77,282,114)	(409,458,197)	(53,008,670)
Total Capital Assets (Net)	783,546,364	85,990,038	869,536,402	16,879,860
Total Noncurrent Assets	816,745,093	88,381,254	905,126,347	16,879,860
Total Assets	929,148,067	157,909,160	1,087,057,227	79,261,624
DEFERRED OUTFLOWS OF RESOURCES				
Deferred Loss on Refunding Amount	23,080,061	-	23,080,061	-
Accumulated Decrease in Fair Value of				
Derivative Instruments	-	-	-	16,792
Deferred Outflows on Pension	8,145,507	3,973,808	12,119,315	2,527,917
Total Deferred Outflows of Resources	31,225,568	3,973,808	35,199,376	2,544,709
Total Assets and Deferred Outflows of Resources	960,373,635	161,882,968	1,122,256,603	81,806,333

Continued

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

**STATEMENT OF NET POSITION
PROPRIETARY FUNDS
September 30, 2016**

	Business-type Activities - Enterprise Funds			Governmental
	Water and Sewer	Nonmajor Enterprise Funds	Total Enterprise Funds	Activities - Internal Service Funds
LIABILITIES				
Current Liabilities:				
Accounts Payable	\$ 5,919,541	\$ 2,196,912	\$ 8,116,453	\$ 1,986,493
Accrued Liabilities	368,154	230,452	598,606	159,604
Derivative Instruments	-	-	-	16,792
Unearned Revenues	-	341,417	341,417	-
Bonds and Notes Payable	14,203,769	-	14,203,769	-
Capital Leases Payable	-	-	-	440,188
Compensated Absences and Longevity	598,614	279,963	878,577	195,392
Estimated Claims Payable	-	-	-	7,898,340
Landfill Post-Closure Costs	-	43,446	43,446	-
Current Liabilities Payable from Restricted Assets:				
Accounts Payable	2,500	-	2,500	-
Accrued Interest Payable	1,283,365	-	1,283,365	-
Deposits	6,538,321	1,884,513	8,422,834	-
Total Current Liabilities	28,914,264	4,976,703	33,890,967	10,696,809
Noncurrent Liabilities:				
Deposits	961,979	-	961,979	-
Bonds and Notes Payable (Net)	392,828,527	-	392,828,527	-
Capital Leases Payable	-	-	-	1,428,314
Net Pension Liabilities	10,653,270	5,197,225	15,850,495	3,306,187
Net OPEB Obligation	540,910	497,098	1,038,008	217,292
Compensated Absences and Longevity	3,306,098	1,585,853	4,891,951	1,349,249
Estimated Claims Payable	-	-	-	25,659,857
Landfill Post-Closure Costs	-	828,334	828,334	-
Total Noncurrent Liabilities	408,290,784	8,108,510	416,399,294	31,960,899
DEFERRED INFLOWS OF RESOURCES				
Deferred Inflows on Pension	556,694	271,585	828,279	172,768
Total Deferred Inflows of Resources	556,694	271,585	828,279	172,768
Total Liabilities and Deferred Inflows of Resources	437,761,742	13,356,798	451,118,540	42,830,476
NET POSITION				
Net Investment in Capital Assets	399,594,130	85,990,038	485,584,168	15,011,358
Restricted for:				
Debt Service	1,725,132	-	1,725,132	-
Renewal and Replacement	10,031,368	1,374	10,032,742	-
Capital Improvements	21,442,229	1,738,663	23,180,892	-
Unrestricted	89,819,034	60,796,095	150,615,129	23,964,499
Total Net Position	\$ 522,611,893	\$ 148,526,170	671,138,063	\$ 38,975,857
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds.			9,323,873	
Net Position of Business-type Activities			<u>\$ 680,461,936</u>	

The notes to the financial statements are an integral part of the financial statements.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN FUND NET POSITION PROPRIETARY FUNDS For The Year Ended September 30, 2016

	Business-type Activities - Enterprise Funds			Governmental
	Water and Sewer	Nonmajor Enterprise Funds	Total Enterprise Funds	Activities - Internal Service Funds
Operating Revenues:				
Charges for Services	\$ 130,849,943	\$ 40,792,147	\$ 171,642,090	\$ 76,028,047
Equity in Earnings of Joint Venture	-	174,627	174,627	-
Parking Citations	-	3,671,762	3,671,762	-
Land Leases	-	3,423,366	3,423,366	-
Miscellaneous Revenues	1,636,986	846,567	2,483,553	1,067,877
Total Operating Revenues	132,486,929	48,908,469	181,395,398	77,095,924
Operating Expenses:				
Personal Services	32,657,237	18,056,590	50,713,827	11,160,361
Current Expenses	60,862,913	34,402,302	95,265,215	56,974,049
Depreciation	23,342,201	4,999,609	28,341,810	6,188,729
Total Operating Expenses	116,862,351	57,458,501	174,320,852	74,323,139
Operating Income (Loss)	15,624,578	(8,550,032)	7,074,546	2,772,785
Nonoperating Revenues (Expenses):				
Interest Income	1,909,869	910,174	2,820,043	687,505
Interest Expense and Fiscal Charges	(14,194,845)	-	(14,194,845)	(55,178)
Sale of Capital Assets	-	7,873	7,873	-
Gain (Loss) on Disposal	-	15,329	15,329	96,823
Total Nonoperating Revenues (Expenses)	(12,284,976)	933,376	(11,351,600)	729,150
Income (Loss) Before Contributions and Transfers	3,339,602	(7,616,656)	(4,277,054)	3,501,935
Capital Contributions	2,093,560	1,202,173	3,295,733	-
Transfers In	-	5,590,896	5,590,896	4,562,500
Transfers (Out)	(3,597,033)	(1,638,756)	(5,235,789)	(1,473,687)
Change in Net Position	1,836,129	(2,462,343)	(626,214)	6,590,748
Net Position - Beginning	520,775,764	150,988,513		32,385,109
Net Position - Ending	\$ 522,611,893	\$ 148,526,170		\$ 38,975,857
Adjustment to reflect the consolidation of internal service fund activities related to enterprise funds.			732,735	
Change in Net Position of Business-type Activities			<u>\$ 106,521</u>	

The notes to the financial statements are an integral part of the financial statements.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

STATEMENT OF CASH FLOWS PROPRIETARY FUNDS

For The Year Ended September 30, 2016

	Business-type Activities - Enterprise Funds			Governmental Activities - Internal Service Funds
	Water and Sewer	Nonmajor Enterprise Funds	Total Enterprise Funds	
Cash Flows from Operating Activities				
Receipts from Customers and Users	\$ 133,707,991	\$ 48,869,574	\$ 182,577,565	\$ 77,092,224
Payments to Suppliers	(26,870,813)	(22,824,144)	(49,694,957)	(54,939,292)
Payments to Employees	(29,851,826)	(16,814,721)	(46,666,547)	(10,168,118)
Payments to Other Funds	(35,363,097)	(11,595,960)	(46,959,057)	(3,340,567)
Net Cash Provided (Used) by Operating Activities	41,622,255	(2,365,251)	39,257,004	8,644,247
Cash Flows from Noncapital Financing Activities				
Transfers from Other Funds	-	5,590,896	5,590,896	4,562,500
Transfers (to) Other Funds	(3,597,033)	(1,638,756)	(5,235,789)	(1,473,687)
Net Cash Provided (Used) by Noncapital Financing Activities	(3,597,033)	3,952,140	355,107	3,088,813
Cash Flows from Capital and Related Financing Activities				
Acquisition/Construction of Capital Assets	(18,153,601)	(6,637,743)	(24,791,344)	(8,287,168)
Principal Paid on Capital Debt	(13,268,365)	-	(13,268,365)	(440,188)
Interest Paid on Capital Debt	(24,753,575)	-	(24,753,575)	(55,178)
Proceeds from Sales of Capital Assets	-	15,329	15,329	96,823
Retirement of Debt	14,213,406	-	14,213,406	-
Contributions	2,093,560	1,202,173	3,295,733	-
Investment in Joint Venture	-	222,220	222,220	-
Bond Issuance Costs Paid	(7,406,943)	-	(7,406,943)	-
Net Cash (Used) by Capital and Related Financing Activities	(47,275,518)	(5,198,021)	(52,473,539)	(8,685,711)
Cash Flows from Investing Activities				
Interest Income on Investments	1,909,869	910,174	2,820,043	687,506
Net Cash Provided by Investment Activities	1,909,869	910,174	2,820,043	687,506
Net Increase (Decrease) in Cash and Cash Equivalents	(7,340,427)	(2,700,958)	(10,041,385)	3,734,855
Cash and Cash Equivalents at Beginning of Year	133,674,717	69,584,576	203,259,293	58,519,385
Cash and Cash Equivalents at End of Year	\$ 126,334,290	\$ 66,883,618	\$ 193,217,908	\$ 62,254,240

Continued

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

STATEMENT OF CASH FLOWS - Continued PROPRIETARY FUNDS For The Year Ended September 30, 2016

	Business-type Activities - Enterprise Funds			Governmental
	Water and Sewer	Nonmajor Enterprise Funds	Total Enterprise Funds	Activities - Internal Service Funds
Reconciliation of Operating Income (Loss) to Net Cash Provided (Used) by Operating Activities				
Operating Income (Loss)	\$ 15,624,578	\$ (8,550,032)	\$ 7,074,546	\$ 2,772,785
Depreciation	23,342,201	4,999,609	28,341,810	6,188,729
Equity in Earnings on Unconsolidated Joint Venture	-	(174,627)	(174,627)	-
Change in Assets and Liabilities:				
(Increase) in Accounts Receivable	1,305,030	(110,276)	1,194,754	(3,700)
Increase in Due from Other Governments	-	(379,995)	(379,995)	-
(Increase) Decrease in Inventories	75,485	-	75,485	(38,945)
(Increase) Decrease in Deposits	(83,968)	558,515	474,547	-
Increase in Deferred Outflows	3,534,409	1,724,272	5,258,681	1,096,885
Increase (Decrease) in Accounts Payable	(1,449,035)	(34,766)	(1,483,801)	(1,256,222)
(Increase) in Prepaid Items	2,553	1,101	3,654	5,295
Increase in Accrued Liabilities	(722,410)	(339,650)	(1,062,060)	(253,998)
Increase in Unearned Revenues	-	67,488	67,488	-
(Decrease) in Pension Liability	(4,106,721)	(2,003,476)	(6,110,197)	(1,274,500)
(Decrease) in Net OPEB Obligation	709,429	500,130	1,209,559	212,124
Increase in Compensated Absences and Longevity	722,463	117,184	839,647	383,658
Increase in Estimated Claims Payable	-	-	-	(15,938)
(Decrease) in Landfill Post-Closure Costs	-	(42,436)	(42,436)	-
Increase in Deferred Inflows	2,668,241	1,301,708	3,969,949	828,074
Total Adjustments	25,997,677	6,184,781	32,182,458	5,871,462
Net Cash Provided by Operating Activities	\$ 41,622,255	\$ (2,365,251)	\$ 39,257,004	\$ 8,644,247
Schedule of non-cash Capital and Related Financing Activities:				
Defeasance of Revenue Bonds, Series 2006	\$ 53,045,000	\$ -	\$ 53,045,000	\$ -
Defeasance of Revenue Bonds, Series 2008	31,010,000	-	31,010,000	-
Defeasance of Revenue Bonds, Series 2010	72,375,000	-	72,375,000	-
Defeasance of SRF Loans	18,188,248	-	18,188,248	-
	\$ 174,618,248	\$ -	\$ 174,618,248	\$ -

The notes to the financial statements are an integral part of the financial statements.



CITY OF FORT LAUDERDALE

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

STATEMENT OF FIDUCIARY NET POSITION FIDUCIARY FUNDS September 30, 2016

	Pension and OPEB Trust	Agency Arts and Science District Garage
ASSETS		
Cash and Cash Equivalents	\$ 3,257	\$ 46,098
Investments		
U.S. Treasury Securities	66,086,149	-
U.S. Government Agency Obligations	49,170,747	-
Corporate Bonds and Other Fixed Income	157,270,939	-
Money Market Funds	29,186,847	-
Index Funds	155,983,301	-
Mutual Funds & Other	111,165,975	-
Fund of Funds	37,490,893	-
Common Stock	333,897,279	-
Commingled Funds	295,376,529	-
Real Estate	165,758,675	-
Private Equity	2,342,032	-
Venture Capital & Partnerships	8,694,330	-
Total Investments	1,412,423,696	-
Receivables:		
Accounts	9,189,829	-
Accrued Interest and Dividends	2,802,297	-
Contributions	166,387	-
Deposits	2,401	-
Capital Assets (Net of Accumulated Depreciation)	3,308	-
Total Assets	1,424,591,175	\$ 46,098
LIABILITIES		
Unsettled Trades	4,603,301	\$ -
Accounts Payable	1,031,363	41,707
Accrued Liabilities	8,221	4,391
Due to Primary Government	4,584,783	-
Deposits	12,402	-
Total Liabilities	10,240,070	\$ 46,098
Net Position - Restricted for Pensions and Assets Held in Trust for OPEB Benefits	\$ 1,414,351,105	

The notes to the financial statements are an integral part of the financial statements.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION FIDUCIARY FUNDS For the Year Ended September 30, 2016

	Pension and OPEB Trust
ADDITIONS	
Contributions:	
City	\$ 29,260,946
Employee	8,959,192
State	5,860,782
Total Contributions	44,080,920
Investment Income:	
Net Appreciation in Fair Value of Investments	96,747,949
Interest and Dividends	21,955,670
Real Estate Income	6,957,283
Other	20,818
Total Investment Income (Loss)	125,681,720
Less: Investment Expenses	5,239,621
Net Investment Income (Loss)	120,442,099
Total Additions	164,523,019
DEDUCTIONS	
Benefits:	
Retirement	78,904,385
Disability	1,437,867
Death	6,407,957
Total Benefits	86,750,209
Refunds	268,130
Administrative Expense	1,202,829
Total Deductions	88,221,168
Change in Net Position	76,301,851
Net Position - Beginning of Year	1,338,049,254
Net Position - End of Year	\$ 1,414,351,105

The notes to the financial statements are an integral part of the financial statements.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

INDEX

<u>Note</u>	<u>Page</u>
1. Summary of Significant Accounting Policies.....	35
2. Restricted Assets.....	43
3. Deposits and Investments.....	43
4. Property Taxes.....	53
5. Receivables.....	54
6. Inter-Fund Receivables, Payables and Transfers.....	55
7. Capital Assets.....	56
8. Investment in Joint Venture.....	57
9. Risk Management.....	58
10. Long-Term Debt.....	59
11. Capital Lease.....	63
12. Landfill Post-Closure Costs.....	64
13. Fund Balances.....	65
14. Employee Retirement Systems.....	67
15. Other Post-Employment Benefits.....	76
16. Deferred Compensation Plan.....	78
17. Operating Leases	78
18. Commitments and Contingent Liabilities.....	79
19. New Accounting Pronouncements.....	80
20. Subsequent Events.....	82

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The financial statements of the City of Fort Lauderdale, Florida (City) have been prepared in accordance with generally accepted accounting principles (GAAP) in the United States applicable to governmental units. The following is a summary of the more significant accounting policies of the City:

(A) The Financial Reporting Entity

The City was incorporated in the State of Florida in 1911 and covers an area of approximately 36 square miles. The City is governed by an elected five-member commission composed of a Mayor and four District Commissioners and provides services to its approximately 177,000 residents in many areas, including public safety, public places, infrastructure, business development and neighborhood enhancement. As required by GAAP, these financial statements present the City of Fort Lauderdale (the primary government) and its component units. The component units discussed in note 1(B) below are included in the City's reporting entity because of the significance of their operational and financial relationships with the City.

(B) Individual Component Unit Disclosure

The criteria for including component units consist of the identification of legally separate organizations for which the elected officials of the City are financially accountable. This criteria also includes identification of organizations for which the nature and significance of their relationship with the primary government are such that exclusion would cause the reporting entity's financial statements to be misleading or incomplete. Blended component units, although legally separate entities, are in substance, part of the government's operations and so data from these units are combined with data of the primary government. Discretely presented component units are reported in a separate column in the government-wide financial statements to emphasize that they are legally separate from the government.

A five-member board appointed by the City Commission (currently composed of the City Commission, itself) governs the Fort Lauderdale Community Redevelopment Agency (CRA). Although it is legally separate from the City, the CRA is reported as part of the primary government because its sole purpose is to finance and redevelop the City's designated redevelopment areas. The operations of the CRA are reported within the special revenue fund type and the capital expenditures are accounted for in a capital projects fund type using the blended method. Separate financial information can be obtained from the CRA.

A seven-member board appointed by the City Commission governs the Sunrise Key Safe Neighborhood Improvement District (SK). While legally separate from the City, it is reported as part of the reporting entity under the discretely presented method because the City's elected officials are financially accountable for SK. The City Commission has the power to approve, disapprove or modify the budget and millage rates or assessments submitted by the board. Separate financial information can be obtained from SK.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

(C) Related Organizations

The City's officials are also responsible for appointing the members of the boards of other organizations, but the City's accountability for these organizations does not significantly extend beyond making the appointments. The City Commission appoints the governing board of the City of Fort Lauderdale Downtown Development Authority (DDA), one member of the governing board of the Lauderdale Isles Water Control District (LIWCD), and the Mayor appoints the governing board of the Housing Authority of the City of Fort Lauderdale (HACFL). The City is not financially accountable for the DDA, LIWCD, or HACFL.

(D) Joint Ventures

The City is a participant with the Performing Arts Center Authority (PACA) and the DDA in a joint venture to own and operate the 950 space Arts and Science District Parking Garage. The City has an ongoing financial interest in this joint venture, which is discussed in Note 8.

(E) Government-wide and Fund Financial Statements

The government-wide financial statements, including the statement of net position and the statement of activities, report information on all of the non-fiduciary activities of the City. As part of the consolidation process, inter-fund activities are eliminated to avoid distorted financial results. Governmental activities, which are primarily supported by taxes and intergovernmental revenues, are reported separately from business-type activities, which rely extensively on fees and charges for support. Likewise, the City's primary government is reported separately from its legally separate component units for which the City is financially accountable.

The statement of activities demonstrates the degree to which the direct expenses of a given function or segment is offset by program revenues. Direct expenses are those that are clearly identifiable with a specific function or segment. Program revenues include charges to customers or applicants who purchase, use or directly benefit from goods, services or privileges provided by a given function or segment and grants and contributions that are restricted to meeting the operational or capital requirements of a particular function or segment. Other than for depreciation, indirect expenses are not allocated to specific functions. Taxes and other items not properly included among program revenues are reported instead as general revenues.

Separate financial statements are provided for governmental funds, proprietary funds and fiduciary funds even though the latter are excluded from the government-wide financial statements. Major individual governmental funds and enterprise funds are reported as separate columns in the fund financial statements.

(F) Measurement Focus, Basis of Accounting and Financial Statement Presentation

The government-wide financial statements are reported using the economic resources measurement focus and the accrual basis of accounting, as are the proprietary fund and fiduciary, except agency, fund financial statements. Agency funds have no measurement focus but follow the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Grants and similar items are recognized as revenues as soon as all eligibility requirements imposed by the provider have been met.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

Governmental fund financial statements are reported using the current financial resources measurement focus and the modified accrual basis of accounting. Under the modified accrual basis of accounting, revenues are recognized when they become susceptible to accrual; that is measurable and available to finance the City's operations. Available means collectible within the current period or soon enough thereafter to be used to pay liabilities of the current period. For this purpose, the City considers revenues to be available if they are collected within 60 days of the end of the current fiscal year. Expenditures are recognized in the accounting period in which the related fund liabilities are incurred, if measurable, except for interest on long-term debt and the long-term portion of accumulated compensated absences and longevity pay, which are recognized when due.

Property taxes are recorded as revenues in the fiscal year levied, provided they are collected in the current period or within 60 days thereafter. Those remaining uncollected are recorded as deferred revenues in the governmental fund financial statements. The utility and franchise taxes from major sources are recorded as revenues when earned. Licenses and permits, fines and forfeitures, charges for services, and other revenues (except investment earnings) are recorded as revenues when received in cash because they are generally not measurable until actually received. Investment income is recorded as revenue when earned. Special assessments are recorded as revenues only to the extent that individual installments are considered available.

In applying the susceptible to accrual concept to intergovernmental revenues, the legal and contractual requirements of the numerous individual programs are used as guidance. There are, however, essentially two types of these revenues. In one, monies must be expended for the specific purpose or project before any amounts will be paid to the City; therefore, revenues are recognized based upon the expenditures incurred. In the other, monies are virtually unrestricted as to purpose of expenditure and are usually revocable only for failure to comply with prescribed compliance requirements. These resources are reflected as revenues at the time of receipt or earlier if susceptible to accrual.

The City reports the following major governmental fund:

The General Fund is the City's primary operating fund. It accounts for all financial resources of the general government except those required to be accounted for in a separate fund.

The City reports the following major proprietary fund:

The Water and Sewer Fund accounts for the provision of water and sewer services to the residents of the City and surrounding areas.

Additionally, the City reports the following fund types:

Internal service funds account for the financing of goods and services provided to departments within the City in the following three areas: 1) costs of insuring the City in the areas of general liability, auto liability, workers' compensation, police professional liability, employee relations and medical benefits; 2) information technology systems, communications, and print center operations; and 3) operation of a maintenance facility for City vehicles.

Pension and OPEB trust funds account for the activities of the OPEB Trust, General Employees' Retirement System and the Police and Firefighters' Retirement System, which accumulate resources for pension and benefit payments to qualifying City employees.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

The Arts and Science District Garage Agency Fund accounts for the assets and liabilities held by the City for the Arts and Science District parking garage.

As a general rule, the effect of inter-fund activity has been eliminated from the government-wide financial statements. Exceptions to this general rule are payments-in-lieu of taxes and other charges between the City's enterprise funds and the General Fund as well as cost reimbursement transactions between the enterprise funds and various other functions of City government. Elimination of these charges would distort the direct costs and program revenues reported for those sectors.

The proprietary funds distinguish operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal operating revenues of the water and sewer, nonmajor enterprise funds, and all the internal service funds are charges to customers for sales and services. The Insurance Fund bills the other funds to cover insurance premiums and claims. Operating expenses for the enterprise and internal service funds include the cost of sales and services, administrative expenses and depreciation on capital assets. All revenues and expenses not meeting these definitions are reported as nonoperating revenues and expenses.

The preparation of the basic financial statements in conformity with GAAP requires management to make use of estimates that affect reported amounts in the basic financial statements. Actual results could differ from those estimates.

(G) Derivatives and Hedging Activities

Derivatives have a fair value, require little or no initial net investment, and may be net settled. The City follows GASB Statement No. 53 (GASB 53), "Accounting and Financial Reporting for Derivative Instruments". Under GASB 53, derivatives are either categorized as hedging derivative instruments or investment derivatives. Hedging derivative instruments are associated with specific hedging transactions wherein the intent is to significantly reduce risks. Changes in fair value of hedges are reported as either deferred inflows of resources or deferred outflows of resources in the statement of net position. For accounting purposes, in order to qualify as a hedge, the relationship between the derivative and the underlying item must result in a hedge that is "effective" in mitigating risk. If the hedge transaction is considered "ineffective" the valuation of the instrument is considered investment income or loss in the flows of resources statements. GASB 53 outlines five methods for evaluating hedge effectiveness if the hedged item is an existing or expected commodity transaction:

- Consistent Critical Terms
- Synthetic Instrument
- Dollar Offset
- Regression Analysis
- Other Quantitative Methods

For purposes of performing hedge effectiveness testing, the City can use any or all of the evaluation methods and is not limited to using the same method from period to period. Therefore, if the result of any one prescribed evaluation method indicates the hedge is ineffective, the City may apply another method to verify effectiveness. In addition, the calculations for effectiveness may be based on either a life to date period or be limited to the immediately preceding annual accounting period.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

The City has adopted GASB 53 to account for petroleum future contracts to hedge variability in future cash flows resulting from volatility in gas and diesel fuel prices. Fair value is determined based on quoted prices in active markets for the derivative instrument. Because the fuel hedge is an effective hedge as defined by GASB 53, the unrealized gain (loss) on the fuel hedge is reported as deferred inflow/outflow of resources on the statement of net position. The hedging instruments affected are monthly future contracts with a notional amount of 42,000 gallons each with an index of Reformulated Gasoline Blendstock for Oxygen Blending (RBOB Gas) and New York Harbor Ultra Low Sulfur Diesel (NYHRBRULSD) as listed on the NYMEX. As of September 30, 2016, the City had twenty-two (22) future contracts. The contracts were purchased at various times throughout the year. On average, it costs the City \$32 to acquire a fuel hedge contract. The aggregate fuel hedge contracts cover a rolling 18-month period. The fuel hedge contracts are recorded as a liability at fair value with the accumulated change in fair value reported as a deferred outflow. The deferred outflow and the instrument itself, as of September 30, 2016 are valued at \$16,792.

Basis risk. The City is exposed to basis risk on its fuel hedge contracts because the future fuel purchases are based on a pricing point different from the pricing point at which the future contracts are expected to settle (New York Harbor Ultra Low Sulfur Diesel and Gasoline).

There is no termination or interest rate risk.

(H) Assets, Liabilities, Deferred Outflows/Inflows of Resources and Net Position/Fund Balance

(1) Cash and Cash Equivalents

The City considers cash on hand, cash with fiscal agents, demand deposits, certificates of deposit and bank repurchase agreements as cash and cash equivalents. Each fund's equity in the City's investment pool has been treated as a cash equivalent since cash may be deposited or withdrawn from the pool at any time without prior notice or penalty.

(2) Investments

Investments are stated at fair value. Income from investments held by the individual funds is recorded in the respective fund as it is earned. All other investments owned by the City are accounted for in the City's investment pool. Income earned from this pool is allocated to the respective funds based upon average monthly equity balances.

(3) Receivables and Payables

Activity between funds that are representative of lending or borrowing arrangements outstanding at the end of the fiscal year of a short-term nature and any other outstanding balances between funds are reported as due to and due from other funds. The long-term portion of any borrowings between funds is reported as advances to and from other funds. Long-term advances of the governmental funds are recorded by the advancing fund as a receivable and nonspendable fund balance. Any residual outstanding balances between the governmental activities and business-type activities at year-end are reported in the government-wide financial statements as internal balances.

All accounts and notes receivable are reported net of any allowances for uncollectibles.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

(4) Inventories

Inventories in the governmental funds are composed of land held for redevelopment or resale and are stated at cost. Inventories of materials and supplies in the enterprise funds are based on year-end physical counts priced at weighted average cost. Inventories are recognized as expenditures or expenses when consumed.

(5) Prepaid Items

Prepaid items represent payments made to vendors for services that will benefit the period beyond September 30, 2016. These services are recorded as expenditures/expenses when consumed.

(6) Restricted Assets

Certain proceeds of long-term bonds issued by the capital project, enterprise and internal service funds, as well as resources set aside for their repayment, are classified as restricted assets on the statement of net position and their use is limited by applicable bond covenants.

(7) Capital Assets

Capital assets, including land, buildings, improvements other than buildings, infrastructure (that is, roads, bridges, street lighting and other similar items) and equipment, are reported in the applicable governmental and business-type activities columns in the government-wide financial statements. The City defines capital assets as assets with an initial cost of \$5,000 or more and an estimated useful life of more than one year. Such assets are stated at cost or estimated historical cost. Contributions or donations of capital assets received from federal, state or local sources are recorded as contributions when received and are stated at acquisition value. Additions, improvements and expenditures that significantly extend the useful life of an asset are capitalized. Interest is capitalized in the enterprise funds on projects during the construction period based upon average accumulated project expenses.

Depreciation of capital assets is provided on the straight-line basis over the following estimated useful lives:

Buildings	40-50 years
Improvements	20-50 years
Infrastructure	15-50 years
Machinery, Equipment and Vehicles	3-15 years

The City follows the requirements of GASB Statement No. 42, "Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries" regarding potential impairment of capital assets.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

(8) Capitalization of Interest

Interest is capitalized by the City in proprietary fund types when it is determined to be material. The City capitalizes interest in accordance with GASB Statement No. 62. (GASB 62), "Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements". This Guidance requires that the interest cost capitalized during construction be reduced by interest income earned on investments of the bond proceeds from the date of the borrowing until the assets constructed from the bond proceeds are ready for their intended use. Total interest incurred during fiscal year 2016 was \$14,598,594: there was no capitalized interest in FY2016.

(9) Compensated Absences and Longevity

City employees are granted sick, vacation, and longevity pay in varying amounts based on length of service, date of hire, and employee group. Compensatory time is granted to employees in lieu of overtime pay at the employees' request. Sick leave payments to terminated employees are based on length of service and usage on a last in, first out basis. Unused vacation pay and compensatory time are paid upon an employee's termination. Longevity pay is paid to eligible employees annually based on length of service. Accumulated compensated absences and longevity are recorded as expenses in the government-wide and proprietary fund financial statements when earned. Expenditures for accumulated compensated absences and longevity have been recorded in the governmental funds only for amounts payable to employees who have terminated as of the end of the fiscal year.

(10) Estimated Claims Payable

The City is self-insured for general liability, automobile liability, police professional liability, workers' compensation, employee relations and certain death benefits and medical plans. The operating funds are charged premiums by the Insurance internal service fund. The accrued liability for estimated claims represents an estimate of the eventual loss on claims arising prior to year-end, including claims incurred and not yet reported.

(11) Landfill Post-Closure Costs

Landfill post-closure care costs represent an estimate of the City's remaining costs to monitor the City's former landfill site. These costs are accounted for in the Sanitation Fund, a nonmajor enterprise fund.

(12) Other Long-term Obligations

Long-term debt and other long-term obligations are reported as liabilities in the applicable governmental and business-type activities and proprietary fund financial statements. Bond premiums and discounts are recorded as direct additions to or deductions from the related debt and amortized over the life of the bonds using the effective interest method. Bonds payable are reported net of the applicable premiums and discounts.

In the governmental fund financial statements, bond premiums and discounts are recognized during the current period. The face amount of debt issued and any premiums received are reported as other financing sources while discounts are reported as other financing uses.

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

(13) Deferred Outflows/Inflows of Resources

In addition to assets, the statement of net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense/expenditure) until then. The City reports deferred loss on refunding, accumulated decrease in fair value of derivative instruments, change in pension assumptions and difference between projected and actual earnings on pension investments. The deferred loss on refunding results from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt. The accumulated decrease in fair value of hedging derivative instruments is reported in the government-wide and internal service funds statement of net position. Changes in pension plan assumptions are deferred and amortized over the average of the expected remaining service lives of employees that are provided with benefits through the pension plan. Difference between projected and actual earnings on pension investments are deferred and amortized over five years.

In addition to liabilities, the statement of net position will sometimes report a separate section for deferred inflows of resources. This represents an acquisition of net position that applies to a future period(s) and will not be recognized as an inflow of resources (revenue) until that period. The City has two items that qualify for reporting in this category: (1) Unavailable revenue is reported only in the governmental funds balance sheet. The governmental funds report unavailable revenues from property taxes, assessments, and grant revenues. These amounts are deferred and recognized as an inflow of resources in the period that the amounts become available. (2) Certain amounts related to pensions must be deferred. Differences between expected and actual experience and change in pension assumptions are deferred and amortized over the average of the expected remaining service lives of all employees that are provided with benefits through the pension plan.

(14) Fund Balance and Net Position

In the governmental funds, fund balances are reported as nonspendable if they are not in spendable form or are legally or contractually required to be maintained intact. In addition, fund balances are reported as restricted, committed or assigned to specific purposes based upon the extent to which the City is bound to honor constraints placed on those funds. Unassigned fund balance is the residual fund balance classification of the General Fund.

Encumbrance accounting, under which purchase orders and other commitments for the expenditure of funds are recorded in order to reserve that portion of the applicable appropriation, is utilized in the governmental funds. Encumbered amounts for specific purposes are reported within the applicable restricted, committed or assigned fund balance classifications.

Net position of the government-wide and proprietary funds is categorized as net investment in capital assets; restricted or unrestricted. Net investment in capital assets consists of capital assets reduced by the outstanding debt issued to acquire, construct or improve those assets, less any unspent debt proceeds. Restricted net position has regulatory or third party limitations on its use.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

(15) Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the General Employees' Retirement System (GERS) and the Police and Firefighters' Retirement System (PFRS) and additions to/deductions from GERS and PFRS fiduciary net position have been determined on the same basis as they are reported by GERS and PFRS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

2. RESTRICTED ASSETS

Restricted assets at September 30, 2016 are as follows:

	Water and Sewer	Nonmajor Enterprise Funds			Total
		Sanitation	Parking System	Airport	
Bond Construction Funds	\$ 1,285,865	\$ -	\$ -	\$ -	\$ 1,285,865
Capital Improvements	21,442,229	-	-	-	21,442,229
Debt Service Reserves	1,725,132	-	-	-	1,725,132
Renewal and Replacement	10,031,368	-	1,374	-	10,032,742
Federal Aviation Authority Projects	-	-	-	1,738,663	1,738,663
Customer Deposits	6,538,321	1,012,460	32,358	839,695	7,583,139
	<u>\$ 41,022,915</u>	<u>\$ 1,012,460</u>	<u>\$ 33,732</u>	<u>\$ 2,578,358</u>	<u>\$ 44,647,465</u>

Restricted assets for the enterprise funds are classified on the proprietary fund statement of net position as follows:

	Water and Sewer	Nonmajor Enterprise Funds			Total
		Sanitation	Parking System	Airport	
Cash and Cash Equivalents	\$ 41,022,915	\$ 1,012,460	\$ 33,732	\$ 2,578,358	\$ 44,647,465
	<u>\$ 41,022,915</u>	<u>\$ 1,012,460</u>	<u>\$ 33,732</u>	<u>\$ 2,578,358</u>	<u>\$ 44,647,465</u>

3. DEPOSITS AND INVESTMENTS

The City maintains a pooled cash and investment fund for the City's operating and capital funds. In addition, cash and investments are separately held for the City's special revenue, debt service, capital projects, permanent, and enterprise funds.

In accordance with Section 218.415, Florida Statutes, the City's Investment Policy applies to all cash and investments held or controlled by the City and shall be identified as "general operating funds" of the City with the exception of the City's pension and cemetery funds. The policy was adopted on September 4, 2001 and subsequently amended on October 1, 2013.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

Permitted investments, asset allocation limits, issuer limits, credit rating requirements and maturity limits are detailed in the policy in order to protect the City's cash and investments. The current policy allows for the purchase of the following investments: U.S. government securities, U.S. government agency securities, federal instrumentalities, interest-bearing time deposits or saving accounts, repurchase agreements, commercial paper, corporate notes, bankers' acceptances, state or local government taxable or tax-exempt debt, City of Fort Lauderdale debt obligations, registered investment companies (money market mutual funds), and intergovernmental investment pools. As of September 30, 2016, the total cash and investments for the City of Fort Lauderdale's primary government, was \$533,194,678.

DEPOSITS WITH FINANCIAL INSTITUTIONS

Custodial Credit Risk – Deposits

Custodial credit risk for deposits is the risk in the event of the failure of a depository financial institution, a government may not be able to recover deposits. Monies placed on deposit with financial institutions in the form of demand deposits, time deposits or certificate of deposits are defined as public deposits. The City's investment policy requires that the City's public deposits be held in a State Qualified Public Depository as defined in Section 280.02, Florida Statutes. At September 30, 2016, \$55,773,758 was exposed to custodial credit risk because it was uninsured and collateralized with securities held by the pledging financial institutions' trust department, but not in the City's name.

INVESTMENTS

The City's investment holdings are organized into seven portfolios. Three portfolios are governed by the City's Investment Policy (the City's Portfolios): Surplus Funds Pooled Investments, Community Redevelopment Agency Portfolio, and General Obligation Capital Project Portfolio. The remaining four portfolios, the Cemetery Perpetual Care Fund, the OPEB Trust Fund, the Police and Firefighters' Retirement System Fund, and the General Employees' Retirement System Fund are controlled by their respective policies. Compositions of the portfolios as of September 30, 2016 are:

Portfolio No. 1 Surplus Funds Pooled Investments, \$373,926,091

The pooled investments portfolio consists of investments in U.S. Government Securities, U.S. Government Agency Securities, Federal Instrumentalities, corporate obligations, including government guaranteed, asset and mortgage backed securities. There was no interest receivable on this portfolio at September 30, 2016.

The remaining proceeds of several long-term debt issues are a part of this portfolio. All of these funds are in the Florida Municipal Investment Trust, which complies with each individual debt issue's investment requirements. There was no interest receivable on these long-term debt issues at September 30, 2016.

2008 Special Obligation Bonds	\$	2,711,814
2011A Special Obligation Bonds		3,174,440
	\$	<u>5,886,254</u>

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

Portfolio No. 2 Community Redevelopment Agency Portfolio, \$64,217,456

The pooled investments portfolio consists of investments in U.S. Government Securities, U.S. Government Agency Securities, Federal Instrumentalities, corporate obligations, including government guaranteed, asset and mortgage backed securities, and Florida Municipal Investment Trust. There was no interest receivable on this portfolio at September 30, 2016.

Portfolio No. 3 General Obligation Capital Projects Portfolio, \$12,509,596

The General Obligation Bonds, Series 2011A proceeds may be invested by the City in such investments as are permitted by applicable law. These proceeds are at Regions Bank invested in a Fidelity Institutional Government Money Market Fund. No interest receivable on this portfolio existed at September 30, 2016.

Portfolio No. 4 Cemetery Perpetual Care Fund, \$27,030,640

Investments permitted by this fund's investment policy include U. S. government securities, U.S. government guaranteed obligations, federal instrumentalities, commercial paper, bankers acceptances, corporate bonds or notes, state or local government taxable or tax-exempt debt, intergovernmental investment pools, common and preferred stocks from domestic and foreign corporations, repurchase agreements composed of permitted instruments, real estate and real estate securities, and high yield bond mutual funds, and other mutual funds and commingled Common Trust Funds investing in permitted instruments, including money market funds.

As of September 30, 2016 this portfolio consisted of investments in money market funds, corporate obligations, common stock and preferred stock. Interest receivable on this portfolio at September 30, 2016 was \$75,645.

Portfolio No. 5 OPEB Trust Fund, \$12,806,790

This portfolio is invested in a Federated U.S. Treasury Cash Reserves Money Market Fund. There was no interest receivable on this portfolio at September 30, 2016.

Portfolio No. 6 Police and Firefighters' Retirement System Fund, \$809,661,807

Investments permitted by this fund's investment policy include equity securities and fixed income securities including cash, U.S. government agency securities, federal instrumentalities, corporate obligations, Government National Mortgage Association loans, U.S. government agency collateralized mortgage-backed securities, debentures, preferred stocks, commercial paper, certificates of deposits and other such instruments deemed prudent by the investment manager. Also permitted are other commingled vehicles invested in permitted investments.

As of September 30, 2016 investments of this portfolio include U.S. government securities, U.S. government agency securities, federal instrumentalities, mutual funds, corporate obligations, municipal bonds, real estate, venture capital and partnerships and common stock. Interest receivable on this portfolio at September 30, 2016 was \$2,354,260.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

Portfolio No. 7 General Employees' Retirement System Fund, \$589,955,099

Investments permitted by this fund's investment policy include U.S. government securities, U.S. government agency securities, federal instrumentalities, common stock from domestic and foreign corporations, repurchase agreements, commercial paper, corporate obligations, banker's acceptances, state or local government taxable or tax exempt debt, real estate and real estate securities, money market funds invested in permitted securities and intergovernmental investment pools.

As of September 30, 2016 this portfolio consists of investments in U.S. government securities, U.S. government agency securities, federal instrumentalities, money market funds, corporate obligations, common stock and real estate. Interest receivable on this portfolio at September 30, 2016 was \$448,037.

Fair Value Measurement

In February 2015, GASB issued Statement No. 72, addressing the accounting and financial reporting issues related to fair value measurements. GASB No. 72 defines fair value as the price that would be received to sell an asset. The City categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are based on other significant observable inputs such as indices for fixed income bonds and quoted prices similar assets in markets that are not active; Level 3 inputs are significant unobservable inputs.

Investment Portfolios (Excluding Fiduciary Funds)

Since investing is not a core part of the City's mission, the City determines that the disclosures related to its investment portfolios only need to be disaggregated by major type. Therefore, the City chooses a narrative format for the fair value disclosure of its investment portfolios.

The City's investment portfolios have the recurring following fair value measurements as of September 30, 2016:

- U.S. Treasury Securities, Mutual Funds and Cash Equivalents of \$130.7 million are valued using quoted market prices (Level 1 inputs)
- Corporate Bonds, Municipal Bonds, and External Investment Pools of \$346.1 million are valued using a matrix pricing model (Level 2 inputs).

Derivatives

The City has established a fuel hedging program for its diesel fuel and gasoline consumption in order to create more certain fuel cost for the future that decreases fuel budget risk. This program uses exchange-traded diesel fuel and gasoline futures contracts. GASB 72 prescribes several methods by which governments may arrive at a fair value for assets that they hold. To value the City's holdings of diesel and gasoline futures contracts, the market approach is used since the market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets, liabilities, or a group of assets and liabilities. Since the City holds exchange-traded instruments, the valuation prices for the City's futures contracts are established on a daily basis by the New York Mercantile Exchange. The markets for these futures contracts are liquid and pricing is transparent. The published daily settlement prices from the New York Mercantile Exchange are used for the valuation of the City's futures contracts. As of September 30, 2016, this level 1 investment had a negative fair value of \$16,792.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

Fiduciary Funds

Portfolio No. 5 OPEB Trust Fund

The following is a summary of the fair value measurements as of September 30, 2016:

	9/30/2016	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level				
Mutual Funds				
U.S. Treasury	\$ 12,806,790	\$ 12,806,790	\$ -	\$ -
Total OPEB investments by fair value level	\$ 12,806,790	\$ 12,806,790	\$ -	\$ -

Portfolio No. 6 Police and Firefighters' Retirement System Fund

The following is a summary of the fair value measurements as of September 30, 2016:

	9/30/2016	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level				
Police and Fire Pensions				
Debt securities				
U.S. Treasury securities	\$ 59,279,747	\$ -	\$ 59,279,747	\$ -
U.S. Agencies	5,692,406	-	5,692,406	-
Corporate Bonds	140,079,793	-	140,079,793	-
Total debt securities	205,051,946	-	205,051,946	-
Index Funds and Other	155,983,301	155,983,301		-
Equity securities				
Common Stock	114,346,928	114,346,928	-	-
ADR's	2,161,241	2,161,241	-	-
Total equity securities	116,508,169	116,508,169	-	-
Total Police and Fire Pension investments by fair value level	477,543,416	\$ 272,491,470	\$ 205,051,946	\$ -
Investments measured at the net asset value (NAV)				
Equity index funds	158,793,079			
Real estate funds	110,760,032			
Commingled Funds	37,490,893			
Venture Capital & Partnerships	8,694,330			
Total P&F investments measured at NAV	315,738,334			
Money market funds (exempt)	16,380,057			
Total investments measured at fair value	\$ 809,661,807			

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

The following is a description of the fair value techniques for the Plan's investments. Level 1 and 2 prices are obtained from various pricing sources by the Plan's custodian bank: Short-term investments, which consist of money market funds, are reported at amortized cost.

Equity securities traded on national or international exchanges are valued at the last reported sales price or current exchange rates (Level 1). This includes common stock and American depository receipts, and mutual fund equities.

Debt securities are valued using pricing inputs that reflect the assumptions market participants would use to price an asset or liability and are developed based on market data obtained from sources independent of the reporting entity (Level 2). This includes U.S. Treasury bonds and notes, inflation-indexed bonds, U.S. federal agencies, mortgage backed and collateralized securities, municipal bonds, mutual bond funds and corporate obligations, including asset backed, foreign bonds and notes.

The following table summarizes investments for which fair value is measured using the net asset value per share practical expedient, including their related unfunded commitments and redemption restrictions.

Investments Measured at the NAV

	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Commingled equity fund ⁽¹⁾	\$ 158,793,079	\$ -	Twice monthly	3
Real estate funds ⁽²⁾	110,760,032	13,541,100	Quarterly	10 - 90
Hedge fund of funds ⁽³⁾	37,490,893	17,565,130	Quarterly	90
Private equity fund ⁽⁴⁾	8,694,330	4,670,354	N/A	N/A
Total Investments Measured at NAV	<u>\$ 315,738,334</u>			

1. Commingled equity funds - consists of two equity index collective trusts considered commingled in nature which are designed to match the return of their respective benchmark index. Each are valued at the net asset value held at the end of the period based upon the fair value of the underlying investments. These funds are typically open for withdrawal twice monthly with limited notice.
2. Real estate funds - consists of three open end real estate partnerships. Two of the funds primarily invest in stable institutional quality office, retail, industrial, hotel and multifamily residential properties that are substantially leased and have minimal deferred maintenance. The other fund is a commingled insurance company separate account designed for use as a funding vehicle for tax-qualified pension plans and certain nonprofit organizations. Its investments are comprised primarily of real estate investments either directly owned or through partnership interest, and mortgages and other loans on income producing real estate. The real estate fund partnerships provide for quarterly liquidity with notice periods ranging from 10 to 90 days. The most recently added real estate investment fund has an unfunded capital commitment of approximately \$13,541,000 as of September 30, 2016.
3. Hedge fund of funds - the plan invests in two hedge fund of funds partnership vehicles. The objectives of these funds are to seek above-average rates of return and long-term capital growth through an investment in a master fund of funds with a diversified portfolio of private investment entities and separately managed accounts. One of the funds provide for quarterly liquidity with a 90 day notice period. The other funds is a finite life vehicle with no redemption provisions and a undrawn capital commitments of approximately \$17,565,000 as of September 30, 2016.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

4. Private equity fund - the plan invests in three private equity partnership vehicles. The private equity funds are not eligible for redemption. Distributions are received as underlying investments within the funds are liquidated, which on average will occur over a period of 5 to 10 years. The funds have an aggregate unfunded commitment of approximately \$4,670,000 as of September 30, 2016.

Portfolio No. 7

General Employees' Retirement System Fund

The following is a summary of the fair value measurements as of September 30, 2016:

	Fair Value Measurements Using			
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	9/30/2016			
Investments by fair value level				
Debt securities				
U.S. Treasury securities	\$ 6,806,402	\$ 6,806,402	\$ -	\$ -
U.S. Government obligations	43,478,341	-	43,478,341	-
Corporate Bonds	17,191,146	-	17,191,146	-
Total debt Securities	67,475,889	6,806,402	60,669,487	-
Equity securities				
Mutual funds	111,165,975	-	111,165,975	-
Common and preferred stock	217,389,110	217,389,110	-	-
Total equity securities	328,555,085	217,389,110	111,165,975	-
Private Equity				
Secondaries funds	2,342,032	-	-	2,342,032
Total private equity	2,342,032	-	-	2,342,032
Real Estate				
Buildings - direct	2,335,000	-	-	2,335,000
Total real estate	2,335,000	-	-	2,335,000
Total GERS investments by fair value level	400,708,006	\$ 224,195,512	\$ 171,835,462	\$ 4,677,032
Investments measured at the net asset value (NAV)				
Commingled trusts	136,583,450			
Real estate funds	52,663,643			
Total GERS investments measured at NAV	189,247,093			
Total investments measured at fair value	\$ 589,955,099			

U.S. Treasury Notes and Equity securities classified in level 1 of the fair value hierarchy are valued using quoted market prices in active markets for those securities. Local government municipal, corporate bonds, and mutual funds classified in level 2 of the fair value hierarchy are valued using pricing model. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Private equity funds classified in level 3 of the fair value hierarchy are valued using a market comparable company's technique.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) is presented on the following table.

Investments Measured at the NAV

	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Commingled equity fund ⁽¹⁾	\$ 136,583,450	\$ -	Daily	2 days
Real estate funds ⁽²⁾	52,663,643	8,441,295	Quarterly	92 days
Total Investments Measured at NAV	\$ 189,247,093			

1. Commingled trust - this type includes investments in multiple trusts funds that invest in common stocks and their equivalents. The fair values of the investments in this type have been determined using the NAV per share of the investments.
2. Real estate funds - this type includes four real estate funds that invest primarily in U.S. real estate and two timberland funds. The fair values of the investments in this type have been determined using third party appraisals. Distributions from the real estate will be received when income is generated. Distributions from the timberland funds will be received as income is generated and as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over the next 7 to 10 years.

Interest Rate Risk

Interest rate risk is the possibility that interest rates will rise and reduce the fair value of an investment. The City manages its portfolios' exposures to declines in fair value due to rising interest rates by limiting individual investments to maturities of ten (10) years or less from the date of purchase. Also, the overall "weighted average maturity" shall be less than three (3) years. The other portfolios use either the "duration" method or the "weighted average maturity" as measurements of interest rate risk. The following table illustrates the interest rate risk for debt investments:

Portfolio No. 1 Surplus Funds Pooled Investments		Percent of Portfolio	Weighted Average Maturity
	Amount		
Corporate Bonds	\$ 110,673,390	33.96%	2.98
Federal Instrumentalities			
Federal Farm Credit Bank	55,765,451	17.11	0.8
Federal Home Loan Bank	28,999,874	8.90	1.47
Federal Home Loan Mortgage Corporation	39,829,373	12.22	2.74
Federal National Mortgage Association	12,237,362	3.75	1.31
Mortgage/Asset Backed Securities	1,156,663	0.35	1.62
State/Local Government Municipal Bonds	7,423,768	2.28	0.86
U.S. Government Securities	69,838,578	21.43	2.44
Portfolio No. 2 Community Redevelopment Agency Portfolio		Percent of Portfolio	Weighted Average Maturity
	Amount		
Corporate Bonds	\$ 22,271,506	36.29%	2.22
Federal Instrumentalities			
Federal Home Loan Bank	4,584,041	7.47	0.98
Federal Home Loan Mortgage Corporation	1,699,163	2.77	1.48
Federal National Mortgage Association	12,015,361	19.58	2.66
State/Local Government Municipal Bonds	3,234,920	5.27	1.81
U.S. Government Securities	20,412,465	33.26	1.91

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS September 30, 2016

Portfolio No. 4 Cemetery Perpetual Care Fund	Amount	Percent of Portfolio	Weighted Average Maturity
Fixed Income Securities			
Corporate Obligations	\$ 5,198,377	19.23%	7.06

Portfolio No. 6 Police and Firefighters' Retirement System Fund	Amount	Percent of Portfolio	Weighted Average Maturity
Fixed Income Securities			
US Treasury Securities	\$ 59,279,747	7.32%	
Federal Instrumentalities			
Federal National Mortgage Association	5,354,378	0.66	
Federal Home Loan Mortgage Corp	338,029	0.04	
Corporate Obligations	128,065,073	15.82	
Other Fixed Income	12,014,720	1.48	
Debt Investment (aggregate)			5.54

Portfolio No. 7 General Employees' Retirement System Fund	Amount	Percent of Portfolio	Weighted Average Maturity
Fixed Income Securities			
US Treasury Securities	\$ 6,806,402	1.15%	
Federal Instrumentalities			
Federal National Mortgage Association	9,846,989	1.67	
Federal Home Loan Mortgage Corp	9,766,302	1.66	
Federal Home Loan Bank	9,913,108	1.68	
Federal Farm Credit	13,951,940	2.36	
Corporate Obligations	17,191,147	2.91	
Debt Investment (aggregate)			3.82

Credit Risk

GASB Statement No. 40 (GASB 40), "Deposit and Investment Risk Disclosures", requires that governments provide information about the credit risk associated with their investments by disclosing the credit quality ratings of investments in debt securities as described by nationally recognized statistical rating organizations. Unless there is information to the contrary, obligations of the U.S. government or obligations explicitly guaranteed by the U.S. government are not considered to have credit risk and do not require disclosure of credit quality.

Portfolio No. 1 Surplus Funds Pooled Investments

The City's investment policy provides for the following investments, which are limited to credit quality ratings from nationally recognized rating agencies as follows:

Corporate Obligations

Corporate obligations issued by corporations organized and operating within the United States or by depository institutions licensed by the United States that have a long-term debt rating, at the time of purchase, at a minimum "Aa" by Moody's Investor Service and a minimum "AA" by Standard & Poor's. As of September 30, 2016, \$110,673,390 of the City's investments were corporate obligations. These issues met or exceeded the minimum rating requirements at the time of purchase.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

Federal Instrumentalities

Although the City's investment policy states no rating requirement for federal instrumentalities, all investments of this type were rated AA+ by Standard & Poor's or Aaa by Moody's Investor Service. This portfolio held \$137,988,722 in this type of investment as of September 30, 2016.

External Investment Pool

The City participates in the FMLvT 1-3 Year High Quality Bond Fund. The 1-3 Year Bond fund has a rating of AAAf/S1 by Fitch. This portfolio held \$46,093,461 in this type of investment.

Portfolio No. 2 Community Redevelopment Agency Portfolio

The Community Redevelopment Agency Portfolio utilizes the City's investment policy which limits investments to credit quality ratings from nationally recognized rating agencies as follows:

Corporate Obligations

Corporate obligations issued by corporations organized and operating within the United States or by depository institutions licensed by the United States that have a long-term debt rating, at the time of purchase, at a minimum "Aa" by Moody's Investor Service and a minimum "AA" by Standard & Poor's. As of September 30, 2016, \$22,271,506 of the City's investments was in corporate obligations. These issues met or exceeded the minimum rating requirements at the time of purchase.

Federal Instrumentalities

Although the City's investment policy states no rating requirement for federal instrumentalities, all investments of this type were rated AA+ by Standard & Poor's or Aaa by Moody's Investor Service. This portfolio held \$18,298,565 in this type of investment.

Portfolio No. 3 General Obligation Capital Projects Portfolio

This portfolio has \$12,509,596 invested in Fidelity Institutional Government Money Market Fund, which meets the required rating threshold.

Portfolio No. 4 Cemetery Perpetual Care Fund

This portfolio's investment policy requires investments in corporate bonds or notes to be rated A or better by a nationally recognized rating service. All of these investments met the policies requirement at September 30, 2016.

Portfolio No. 5 OPEB Trust Fund

This portfolio is comprised of \$12,806,790 invested in Federated U.S. Treasury Cash Reserves Money Market Fund, which meets the required rating threshold.

Portfolio No. 6 Police and Firefighters' Retirement System Fund

As permitted by GASB 40, interest rate risk and credit risk are managed in this portfolio in the aggregate by asset class. The portfolio includes two investment grade core bond funds, Agincourt and Boyd Watterson.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

Portfolio No. 7 General Employees' Retirement System Fund

This portfolio's investment policy requires investments in corporate bonds or notes to be rated A or better by a nationally recognized rating service. All of these investments met this requirement at September 30, 2016.

Custodial Credit Risk – Investments

The City's investment policy requires that all securities, with the exception of certificates of deposit, be held with a third party custodian. Security transactions between a broker/dealer and the custodian involving the purchase or sale of securities by transfer of money or securities are made on a "delivery vs. payment" basis to ensure that the custodian will have the security or money, as appropriate, in hand at the conclusion of the transaction. As of September 30, 2016, the City's investment portfolio was held with a third party custodian.

Concentration of Credit Risk

GASB 40, requires disclosure of investments in any one issuer that represent five percent or more of total investments, excluding investments issued or explicitly guaranteed by the U.S. government, investments in mutual funds, external investment pools, and other pooled investments. Per this disclosure requirement, none of City's investments were with any one single issuer that represents 5% or more of all of the City's portfolios.

In addition, the City's investment policy establishes limits on portfolio composition, both by investment type and by issuer. The City's investments did not exceed these limits during the year ended September 30, 2016.

Foreign Currency Risk

GASB 40 requires governments to disclose deposits or investments exposed to foreign currency risk. None of the portfolios have exposure to foreign currency risk. All investments are in US dollars.

4. PROPERTY TAXES

The City's property tax is levied, becomes a lien on real and personal property located in the City and is recorded as a receivable on November 1 of each year based upon the assessed value listed as of the prior January 1. The Broward County Property Appraiser establishes assessed values. The assessed value at January 1, 2015, upon which the fiscal year 2016 levy was based, was approximately \$28.5 billion.

The City is permitted by state law to levy taxes up to 10 mills of assessed valuation for General Fund operations exclusive of voted debt levies. Taxes levied for the General Fund for the fiscal year 2016 were 4.1193 mills for operations and 0.1759 for debt service.

All taxes are due from property holders on March 31, become delinquent on April 1 and become subject to the issuance of tax sale certificates on June 1. Current tax collections for the year ended September 30, 2016 were approximately 99.4% of the total tax levy.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

5. RECEIVABLES

Accounts receivable at September 30, 2016 are summarized as follows:

	Primary Government		
	Governmental	Business-type	Total
Accounts Receivable:			
Trade Accounts Receivable	\$ 41,442,172	\$ 18,335,271	\$ 59,777,443
Property Taxes	2,465,068	-	2,465,068
Unbilled Receivables	223,111	5,130,541	5,353,652
Assessments Receivable	326,169	101,362	427,531
	44,456,520	23,567,174	68,023,694
Less: Allowances for Uncollectibles	(33,426,951)	(7,447,881)	(40,874,832)
Accounts receivable, net	\$ 11,029,569	\$ 16,119,293	\$ 27,148,862

	Governmental Funds			
	General Fund	Nonmajor Governmental Funds	Internal Service	Total
Accounts Receivable:				
Trade Accounts Receivable	\$ 8,556,511	\$ 32,827,694	\$ 57,967	\$ 41,442,172
Property Taxes	2,343,777	121,291	-	2,465,068
Unbilled Receivables	223,111	-	-	223,111
Assessments Receivable	-	326,169	-	326,169
	11,123,399	33,275,154	57,967	44,456,520
Less: Allowances for uncollectibles	(850,632)	(32,549,751)	(26,568)	(33,426,951)
Accounts receivable, net	\$ 10,272,767	\$ 725,403	\$ 31,399	\$ 11,029,569

The City's enterprise funds provide water, sewer, sanitation and stormwater services to residents in the City. Customers routinely receive services in advance during the ordinary course of business; however, customers' deposits are available to be applied against amounts owed. Accounts receivable in the enterprise funds at September 30, 2016 are summarized as follows:

	Enterprise Funds		
	Water and Sewer	Nonmajor Enterprise Funds	Total
Accounts Receivable:			
Trade Accounts Receivable	\$ 13,310,475	\$ 5,024,796	\$ 18,335,271
Unbilled Receivables	4,580,692	549,849	5,130,541
Assessments Receivable	95,017	6,345	101,362
	17,986,184	5,580,990	23,567,174
Less: Allowances for uncollectibles	(5,493,343)	(1,954,538)	(7,447,881)
Accounts receivable, net	\$ 12,492,841	\$ 3,626,452	\$ 16,119,293

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

6. INTER-FUND RECEIVABLES, PAYABLES AND TRANSFERS

Individual inter-fund receivable and payable balances at September 30, 2016 follow:

	Due From Other Funds	Due To Other Funds
<u>Governmental Funds</u>		
General Fund	\$ 4,948,199	\$ -
Nonmajor Governmental Funds		
Intergovernmental Revenue Fund	-	361,842
Perpetual Care	-	1,574
	4,948,199	363,416
<u>Fiduciary Funds</u>		
General Employees' Pension Fund	-	2,662,751
Police and Firefighters' Pension Fund	-	1,922,032
	-	4,584,783
	\$ 4,948,199	\$ 4,948,199

The payables to the General Fund from the pension trust funds totaling \$4,584,783 were for operating expenses of the funds paid by the City. The Intergovernmental Revenue Fund payables to the General Fund totaling \$361,842 represent short-term borrowings that will be repaid using grant receipts. The Perpetual Care Fund payable of \$1,574 to the General Fund represents construction costs for the City's cemeteries that will be repaid by Cemetery Trust at the completion of the projects.

The composition of inter-fund transfers for the year ended September 30, 2016 was as follows:

Transfers Out	Transfers In					Total
	Nonmajor Governmental Funds				Enterprise Funds	
	Special Revenue	Debt Service	Capital Projects	Internal Service Funds	Nonmajor Enterprise Funds	
Governmental Funds						
General Fund	\$ 6,355,821	\$ 24,424,658	\$ 9,645,254	\$ 2,336,685	\$ 5,491,274	\$ 48,253,692
	6,355,821	24,424,658	9,645,254	2,336,685	5,491,274	48,253,692
Nonmajor Governmental Funds						
Special Revenue Funds	19,600	1,149,349	13,580,879	237,621	99,622	15,087,071
Capital Projects Funds	417,244	-	-	62,500	-	479,744
Internal Service Funds	-	1,211,325	-	262,362	-	1,473,687
	436,844	2,360,674	13,580,879	562,483	99,622	17,040,502
Enterprise Funds						
Water and Sewer Fund	-	2,444,260	-	1,152,773	-	3,597,033
Nonmajor Enterprise Funds	-	1,128,197	-	510,559	-	1,638,756
	-	3,572,457	-	1,663,332	-	5,235,789
	\$ 6,792,665	\$ 30,357,789	\$ 23,226,133	\$ 4,562,500	\$ 5,590,896	\$ 70,529,983

The City transfers funds from the General Fund into: the special revenue fund represents the tax increment revenues derived from appreciation of the tax bases in the redevelopment areas of the CRA; the debt service funds to meet debt service requirements; the capital projects funds to fund non-debt financed governmental projects; the internal service funds to purchase capital assets that are not covered through normal user fees; nonmajor enterprise funds included \$4,148,539 in Private Collectors Fees to the Sanitation fund and \$1,342,735 to the Airport fund to pay for the second installment towards the purchase of 64 acres of land based on an agreement with the Federal Aviation Authority to remove restrictive covenants.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

Other transfers to the capital projects funds provide funding for specific projects within the Community Investment program. The \$13,580,879 transfer to the capital projects funds from the special revenue funds represents the capital projects portion of the CRA's Special Revenue Fund that was reclassified into a capital projects fund.

7. CAPITAL ASSETS

Capital Asset activity for governmental and business-type activities for the year ended September 30, 2016 was as follows:

	Beginning Balance	Additions	Deletions	Ending Balance
Governmental activities:				
Capital assets not being depreciated				
Land	\$ 74,780,327	\$ 18,462,456	\$ -	\$ 93,242,783
Construction in progress *	21,409,270	29,433,023	26,915,314	23,926,979
Total capital assets not being depreciated	96,189,597	47,895,479	26,915,314	117,169,762
Capital assets being depreciated				
Buildings	157,168,729	312,232	-	157,480,961
Improvements	105,520,073	7,659,533	-	113,179,606
Infrastructure	44,644,789	332,499	-	44,977,288
Machinery, Equipment and Vehicles	107,858,132	10,666,871	1,690,831	116,834,172
Total capital assets being depreciated	415,191,723	18,971,135	1,690,831	432,472,027
Less accumulated depreciation for:				
Buildings	64,475,777	3,530,133	-	68,005,910
Improvements	66,368,112	4,022,793	-	70,390,905
Infrastructure	8,884,860	1,718,226	-	10,603,086
Machinery, Equipment and Vehicles	85,548,779	8,585,565	1,690,831	92,443,513
Total accumulated depreciation	225,277,528	17,856,717	1,690,831	241,443,414
Total capital assets being depreciated, net	189,914,195	1,114,418	-	191,028,613
Governmental activities capital assets, net	\$ 286,103,792	\$ 49,009,897	\$ 26,915,314	\$ 308,198,375

* Construction in progress deletions includes \$18.5 million in non-depreciable assets.

	Beginning Balance	Additions	Deletions	Ending Balance
Business-type activities:				
Capital assets not being depreciated				
Land	\$ 32,155,535	\$ -	\$ -	\$ 32,155,535
Construction in progress	13,832,525	14,683,696	3,884,321	24,631,900
Total capital assets not being depreciated	45,988,060	14,683,696	3,884,321	56,787,435
Capital assets being depreciated				
Buildings	272,288,452	1,018,142	-	273,306,594
Improvements	898,356,412	2,628,506	-	900,984,918
Infrastructure	82,437	-	-	82,437
Machinery, Equipment and Vehicles	43,260,012	4,669,723	96,520	47,833,215
Total capital assets being depreciated	1,213,987,313	8,316,371	96,520	1,222,207,164
Less accumulated depreciation for:				
Buildings	108,244,108	5,585,858	-	113,829,966
Improvements	240,346,484	20,187,964	-	260,534,448
Infrastructure	1,649	1,649	-	3,298
Machinery, Equipment and Vehicles	32,620,665	2,566,340	96,520	35,090,485
Total accumulated depreciation	381,212,906	28,341,811	96,520	409,458,197
Total capital assets being depreciated, net	832,774,407	(20,025,440)	-	812,748,967
Business-type activities capital assets, net	\$ 878,762,467	\$ (5,341,744)	\$ 3,884,321	\$ 869,536,402

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS September 30, 2016

Depreciation expense was charged to the various functions of the City as follows:

Governmental Activities

General Government	\$ 1,257,947
Public Safety	3,698,968
Physical Environment	223,002
Transportation	981,451
Economic Environment	190,263
Culture and Recreation	5,316,357
Capital Assets held in the City's internal service funds are charged to general government	<u>6,188,729</u>
	<u>\$ 17,856,717</u>

Business-type activities

Water and Sewer	\$ 23,342,201
Sanitation	442,141
Parking System	1,086,555
Airport	2,609,866
Stormwater	<u>861,047</u>
	<u>\$ 28,341,810</u>

This report includes all general infrastructure acquired or constructed since October 1, 1979 in accordance with GASB Statement No. 34, "Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments."

The capital asset values include in-house built software and city acquired easements in accordance with GASB Statement No. 51, "Accounting and Financial Reporting for Intangible Assets".

8. INVESTMENT IN JOINT VENTURE

The City has agreements with the Performing Arts Center Authority (PACA) and the Downtown Development Authority (DDA) for the operation of a 950 space-parking garage in the Arts and Science District of the City. The City, as operating agent, has full and exclusive responsibility for operation and maintenance of the garage, which is being accounted for as a joint venture in the Parking System Fund using the equity method of accounting.

The City collects all revenues and pays all operating expenses for the garage and determines the allocation to each of the participants monthly. The increase in net position for the year of \$1,238,481 was derived exclusively from operations. The equity interests of the City, the PACA and the DDA totaled \$651,179, \$798,325, and \$422,242, respectively at September 30, 2016. Separate financial statements for the joint venture are available from the City's Finance Department.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

9. RISK MANAGEMENT

The City is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; injuries to employees and natural disasters. The Insurance Fund is used to account for and finance both uninsured and insured risks of loss. Coverage is provided for workers' compensation, employment practices, public officials' liability, general liability, automobile liability, police professional liability, and certain medical benefits. The City has obtained insurance coverage for workers' compensation claims in excess of \$1.0 million for employees with statutory limits per occurrence. Property insurance has been purchased for City structures with a standard peril deductible of \$50,000 per loss, a named windstorm deductible of \$5,000,000 per loss on both the utility and non-utility property programs, and a flood deductible of either \$50,000 or \$5,000 per location, depending on the location. Commercial, specific, stop-loss insurance is also purchased for medical benefits claims in excess of \$275,000 per claim. The City also has insurance coverage for employment practices liability with a \$150,000 per claim deductible, public officials' liability coverage with a \$100,000 deductible and a \$4.0 million combined coverage limit for both policies. The City also obtained cyber liability insurance with a \$2.0 million coverage limit. Settlements have not exceeded the retention for each of the past twelve fiscal years.

All operating funds of the City participate in the program and make payments to the fund based on estimates of the amounts needed to pay prior and current claims and to provide fund equity for catastrophic losses. The estimated insurance claims payable at September 30, 2016 of \$33,558,197 (discounted at 3.8%) is based on the requirements of GASB Statement No. 10, "Accounting and Financial Reporting for Risk Financing and Related Insurance Issues" as amended by GASB Statement No. 30, "Risk Financing Omnibus", which requires that claims liabilities be based upon the estimated ultimate costs of settling the claims. The liability also includes incurred but not reported claims developed through actuarial analyses of loss history and non-incremental claims adjustment expenses. Changes in the balance of estimated insurance claims payable for the fiscal years ended September 30, 2015 and 2016 follow:

	Medical Benefits	Other	Total
Balance September 30, 2014	\$ 1,307,728	\$ 30,812,866	\$ 32,120,594
New Claims and Changes in Estimates	19,269,678	8,907,420	28,177,098
Claim Payments	(19,475,641)	(7,247,916)	(26,723,557)
Balance September 30, 2015	1,101,765	32,472,370	33,574,135
New Claims and Changes in Estimates	21,796,910	7,960,287	29,757,197
Claim Payments	(21,799,238)	(7,973,897)	(29,773,135)
Balance September 30, 2016	\$ 1,099,437	\$ 32,458,760	\$ 33,558,197

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

10. LONG-TERM DEBT

Bonds outstanding at September 30, 2016 mature in varying amounts during succeeding fiscal years through 2041. Interest rates on fixed rate debt follow: 2.0% to 5.0% on general obligation bonds, 2.43% to 2.98% on special obligation loans, 2.1% to 5.1% on special obligation bonds, 2.0% to 5.0% on water and sewer revenue bonds, and 2.2% on state revolving fund loans.

The bond resolutions of the various revenue bond issues require that sufficient funds be available to meet the largest debt service requirement in any ensuing fiscal year. At September 30, 2016, funds available met the debt service requirements for revenue bonds.

The annual requirements to pay Governmental Activities principal and interest on the bonds, notes and loans outstanding at September 30, 2016 (in thousands) follow:

Year Ending September 30	Governmental Activities							
	General Obligation Bonds		Tax Increment Revenue Notes		Special Obligation Loans		Special Obligation Bonds	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
2017	\$ 3,480	\$ 1,272	\$ 628	\$ 220	\$ 2,958	\$ 454	\$ 15,770	\$ 10,590
2018	1,025	1,191	648	200	3,036	377	16,130	10,227
2019	1,055	1,158	669	179	2,992	298	16,680	9,803
2020	1,090	1,121	690	157	2,669	225	17,565	9,311
2021	1,135	1,076	712	135	1,431	156	19,455	8,732
2022-2026	6,355	4,685	3,910	318	3,655	318	93,870	33,135
2027-2031	7,555	3,491	-	-	588	9	82,150	13,616
2032-2036	8,005	1,988	-	-	-	-	13,885	357
2037-2041	5,080	662	-	-	-	-	-	-
Total	\$ 34,780	\$ 16,644	\$ 7,257	\$ 1,209	\$ 17,329	\$ 1,837	\$ 275,505	\$ 95,771

General obligation bonds are secured by the full faith and credit of the City. The special obligation loans are secured by a pledge of non-ad valorem tax revenues and a covenant to budget and appropriate. The special obligation bonds are secured by a pledge of non-ad valorem tax revenues and a covenant to budget and appropriate.

Periodically, the City will issue conduit debt to fulfill a public need or purpose. These obligations are not reported as liabilities in the City's financial statements and the City is not obligated in any manner for repayment of the debt. As of September 30, 2016, the City had no conduit debt outstanding.

On October 29, 2010, the City issued a \$14,015,000 Special Obligation Refunding Loan, Series 2010A and a \$10,095,000 Special Obligation Refunding Loan, Series 2010B. The Series 2010A was the refunding of Special Obligation Refunding Bond, Series 2008A. This refinancing reduced the interest rate from 5.14% to 2.43%. The September 1, 2020 maturity date remained unchanged. The Series 2010B provides for semi-annual payments at a rate of 2.66%, maturing on June 1, 2022. As of September 30, 2016, the City's liability for the bonds totaled \$10,586,800.

The Series 2010B proceeds were used to reissue the City's Special Obligation Note, Series 2008B which had a principal balance of \$10,051,200. The issued debt in the amount of \$10,095,000 was for both the outstanding principal plus the cost of issuance. As of September 30, 2016, the City's liability for the 2010B loan totaled \$5,421,400.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

The City has pledged legally available non-ad valorem revenues to repay the Special Obligation Refunding Bonds, Series 2010A and 2010B. The non-ad valorem revenue used for the bonds consists of utility taxes, franchise taxes, licenses and permits, fines and forfeitures, intergovernmental, charges for services, and other. For the current year, principal and interest of \$2,419,887, was paid. Non-ad valorem revenues were \$195,688,323.

On September 9, 2011, the City issued Special Obligation Note, Series A for \$7,218,000 and Special Obligation Note, Series B for \$2,546,000. The proceeds for Series A are being used to finance certain governmental capital improvements. Series B proceeds are financing the 800MHZ microwave equipment. The Series A note provides for semi-annual interest payments at a rate of 2.98% and annual principal payments until maturity in 2027. The Series B note provides for semi-annual interest payments at a rate of 2.45% and annual principal payments until maturity in 2019. As of September 30, 2016, the City's liability for the loans totaled \$6,742,000.

The City has pledged legally available non-ad valorem revenues to repay the Special Obligation Note, Series A and B. The non-ad valorem revenue used for the bonds consists of utility taxes, franchise taxes, licenses and permits, fines and forfeitures, intergovernmental, charges for services, and other. For the current year, principal and interest of \$992,607, was paid. Non-ad valorem revenues were \$195,688,323.

On September 28, 2011, the City issued General Obligation Bonds, Series 2011A for \$20,000,000 and General Obligation Refunding Bonds, Series 2011B for \$13,980,000. The proceeds of Series A were used to finance upgrades to existing fire-rescue facilities and construction of new facilities. Series B proceeds were used to refund the City's General Obligation Refunding Bonds, Series 2002. The Series A bonds provide for semi-annual interest payments at an average rate of 3.45% and annual principal payments until maturity in 2041. The Series B bonds provide for semi-annual interest payments at an average rate of 2.58% and semi-annual principal payments until maturity in 2017. As of September 30, 2016, the City's liability for the bonds totaled \$20,150,000.

On October 3, 2012, the City issued Taxable Special Obligation Bonds, Series 2012 for \$337,755,000. The proceeds of Series 2012 were used to discharge a portion of the Unfunded Actuarial Accrued Liabilities (UAAL) of the pension plans, including, without limitation, a partial repayment to the City of its contribution to the Police and Firefighters' Pension Plan in fiscal year 2012 to prefund a portion of its UAAL for Fiscal Year 2013. The Series 2012 bonds provide for semi-annual interest payments at an average rate of 4.13% and annual principal payments until maturity in 2032. As of September 30, 2016, the City's liability for the bonds totaled \$275,505,000.

The City has designated revenues to repay the Taxable Special Obligation Bonds, Series 2012. The designated revenue used for the bonds consists of communications services tax, public services tax, guaranteed entitlement revenues, and business tax revenues. For the current year, principal and interest of \$26,358,764, was paid. Designated revenues were \$44,123,791.

On April 9, 2015, the City issued CRA Tax Increment Revenue Note, Series 2015 for \$7,603,000. The proceeds were used to pay for costs related to the design and construction of the North Loop of the Wave modern streetcar project, which is located in the Northwest-Progresso-Flagler Heights area of the CRA. The Series 2015 note provides for semi-annual interest payments at a rate of 3.17% and annual principal payments until maturity in 2025. As of September 30, 2016, the City's liability for the note totaled \$7,257,000.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS September 30, 2016

On August 11, 2015, the City issued General Obligation Refunding Bonds, Series 2015 for \$15,220,000. The proceeds were used to refund the City's General Obligation Bonds, Series 2005. The gross saving of the refunding was \$2,277,823, with a net present value savings of \$1,687,077. This refinancing reduced the average interest rate from 4.26% to 3.44%. The July 1, 2035 maturity date remained unchanged. The Series 2015 bonds provide for semi-annual interest payments at an average rate of 3.44% and annual principal payments until maturity in 2035. As of September 30, 2016, the City's liability for the bonds totaled \$14,630,000.

The annual requirements to pay business-type activities principal and interest on the bonds, notes and loans outstanding at September 30, 2016 (in thousands) follow:

Year Ending September 30	Business-Type Activities			
	Water and Sewer Revenue Bonds		State Revolving Fund Loans	
	Principal	Interest	Principal	Interest
2017	\$ 10,665	\$ 13,366	\$ 3,539	\$ 984
2018	11,190	12,840	3,619	904
2019	11,760	12,273	3,700	822
2020	12,360	11,678	3,784	739
2021	12,940	11,090	3,870	653
2022-2026	74,970	45,188	20,700	1,914
2027-2031	92,090	28,051	5,398	130
2032-2036	99,340	10,362	-	-
2037-2041	8,605	325	-	-
Total	\$ 333,920	\$ 145,173	\$ 44,610	\$ 6,146

All of the outstanding bonds of the Water and Sewer Fund are secured by the water and sewer net operating revenues.

In order to take advantage of low interest rates, the City is participating in the State of Florida revolving loan program to finance sewer system capital improvements and had five (5) loans, of loan agreements three, four and five were still outstanding as of September 30, 2016. The loan program operates on a reimbursement basis. When proceeds are issued, the loan accrues interest based upon the rate approved by the State at the date of closing. The liability due to the State is the original loan amount plus accrued interest until the date repayments commence, which is approximately three years from date of issue.

On May 5, 2005, the City entered into its third loan agreement for \$7,256,416, which carries an interest rate of 2.19% and provides for semi-annual principal and interest payments beginning in November 2006. The loan principal was increased to \$19,116,208 on August 23, 2005. The loan principal was decreased to \$17,384,060 on April 30, 2010. As of September 30, 2016, the City's liability for this loan totaled \$9,350,119.

On March 3, 2006, the City entered into its fourth loan agreement for \$20,393,500, which carries an interest rate of 2.1% and provides for semi-annual principal and interest payments beginning in May 2008. The loan principal was increased to \$40,619,300 on October 6, 2006. The additional principal amount of \$20,225,800 carried an interest rate of 2.24%. On February 15, 2008, the loan principal was decreased to \$35,606,400, with no effect on the interest rate. The loan principal was increased to \$45,334,292 in March 2009. The addition carries an interest rate of 2.65%. The loan principal was decreased to \$44,902,893 on September 20, 2011. As of September 30, 2016, the City's liability for this loan totaled \$28,723,939.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

On February 11, 2008, the City entered into its fifth loan agreement for \$10,032,200, which carries an interest rate of 2.24% and provides for semi-annual principal and interest payments beginning in November 2008. The loan principal was decreased to \$10,000,000 on September 20, 2011. As of September 30, 2016, the City's liability for this loan totaled \$6,536,025.

On May 16, 2012, the City sold \$64,585,000 Water and Sewer Revenue Refunding Bonds, Series 2012. The Series 2012 was the refunding of the Series 2003. The gross saving of the refunding was \$9,747,132, with a net present value savings of \$7,347,279. The issue provides for semi-annual principal and interest payments with interest rates ranging from 2% to 5% and a final maturity on September 1, 2031. This refinancing reduced the average interest rate from 4.52% to 4.12%. As of September 30, 2016, the City's liability for these bonds totaled \$56,125,000.

On November 18, 2014, the City sold \$121,520,000 Water and Sewer Revenue Refunding Bonds, Series 2014. The Series 2014 was the partial refunding of the Series 2006 and Series 2008 with an aggregate principal amount of \$31,865,000 and \$98,660,000, respectively. The gross saving of the refunding was \$19,168,610, with a net present value savings of \$11,520,607. The issue provides for semi-annual principal and interest payments with interest rates ranging from 4% to 5% and a final maturity on September 1, 2035. This refinancing reduced the average interest rate from 4.97% to 4.31%. As of September 30, 2016, the City's liability for these bonds totaled \$121,520,000.

On April 19, 2016, the City sold \$158,930,000 of Water and Sewer Revenue and Revenue Refunding Bonds, Series 2016. The Series 2016 was the full refunding of the Series 2006, Series 2008, Series 2010 and to prepay all amounts outstanding for two (2) loans obtained by the City from the State of Florida (the "Refunded SRF Loan") with aggregate principal amount of \$53,045,000, \$31,010,000, \$72,375,000 and \$18,156,248, respectively. The gross savings on the refunding was \$41,392,215, with a net present value savings of \$18,957,141. The issue provides for semi-annual principal and interest payments with interest rates ranging from 2.0% to 5.0% and a final maturity on September 1, 2038. This refinancing reduced the average coupon rate from 4.44% to 3.29%. As of September 30, 2016, the City's liability for these bonds totaled \$156,275,000.

Following is a summary of the changes in the City's long-term liabilities for the fiscal year ended September 30, 2016:

	Beginning Balance	Additions	Reductions	Ending Balance	Due Within One Year
Governmental Activities:					
General Obligation Bonds	\$ 38,230,000	\$ -	\$ (3,450,000)	\$ 34,780,000	\$ 3,480,000
Tax Increment Revenue Notes	7,603,000	-	(346,000)	7,257,000	628,000
Special Obligation Bonds	290,975,000	-	(15,470,000)	275,505,000	15,770,000
Special Obligation Loans	20,213,100	-	(2,884,300)	17,328,800	2,958,100
Unamortized Bond Premiums and Discounts	1,079,407	-	(137,572)	941,835	-
Lease Purchase Agreements	2,308,690	-	(440,188)	1,868,502	440,188
Estimated Claims Payable	33,574,135	29,757,197	(29,773,135)	33,558,197	7,898,340
Net Pension Liabilities	95,640,082	6,030,965	(9,981,974)	91,689,073	-
Net OPEB Liabilities	8,087,751	5,102,859	(3,266,418)	9,924,192	-
Compensated Absences and Longevity	27,362,988	21,720,919	(16,286,866)	32,797,041	4,457,729
Total Governmental Activities	\$ 525,074,153	\$ 62,611,940	\$ (82,036,453)	\$ 505,649,640	\$ 35,632,357

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

	Beginning Balance	Additions	Reductions	Ending Balance	Due Within One Year
Business-type Activities:					
Revenue Bonds	\$ 340,470,000	\$ 158,930,000	\$ (165,480,000)	\$ 333,920,000	\$ 10,665,000
State Revolving Fund Loans	66,984,695	-	(22,374,612)	44,610,083	3,538,769
Unamortized Bond Premiums and Discounts	22,520,739	10,474,300	(4,492,826)	28,502,213	-
Landfill Post-Closure Costs	914,216	-	(42,436)	871,780	43,446
Net Pension Liabilities	21,960,692	-	(6,110,197)	15,850,495	-
Net OPEB Liabilities	1,171	1,351,419	(314,582)	1,038,008	-
Compensated Absences and Longevity	4,930,880	4,130,355	(3,290,707)	5,770,528	878,577
Total Business-type Activities	\$ 457,782,393	\$ 174,886,074	\$ (202,105,360)	\$ 430,563,107	\$ 15,125,792

Internal service funds predominantly serve the governmental funds. Accordingly, their long-term liabilities totaling \$40.5 million are included as part of the above totals for governmental activities. Also, for the governmental activities, compensated absences and net OPEB obligations are generally liquidated by the General Fund.

The City advance refunds and/or defeases long-term debt primarily to reduce debt service requirements. As of September 30, 2016, the City has the following outstanding bonds, which were funded by the placement of assets in an irrevocable trust to be used for satisfying debt service requirements therefore the debt is not reported in the financial statements.

Description of Obligation	Year Defeased	Original Issue	Amount Defeased
Water and Sewer Revenue Bonds, Series 2008	2015	\$ 155,000,000	\$ 98,660,000
Water and Sewer Revenue Bonds, Series 2008	2016	155,000,000	29,070,000
Water and Sewer Revenue Bonds, Series 2010	2016	82,300,000	71,390,000
			<u>\$ 199,120,000</u>

11. CAPITAL LEASE

In June 2015 the City entered into a five-year lease agreement with Motorola Solutions for public safety radio equipment for \$2,308,690. The lease carries an interest rate of 2.39% with annual payments of principal and interest. The lease qualifies as capital leases for accounting purposes and, therefore has been recorded at the present value of the future lease payments as of the inception date in the Central Services Fund. The capital assets and depreciation thereon acquired under the lease is also accounted for in the Central Services Fund. As of September 30, 2016, there was no accumulated amortization for the capital lease obligation.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

The future (minimum) lease obligations and the net present value of capital lease payments as of September 30, 2016 are as follows:

GOVERNMENTAL ACTIVITIES	
Year Ending September 30	Total
2017	\$ 495,366
2018	495,366
2019	495,366
2020	495,365
Later Years	-
Total Lease Payments	1,981,463
Less: Amount of Interest	(112,961)
Present Value of Lease Payments	<u>\$ 1,868,502</u>

12. LANDFILL POST-CLOSURE COSTS

The Wingate landfill and incinerator was an active disposal site from 1954 to 1978. In 1990, the site was designated by the United States Environmental Protection Agency (USEPA) as a superfund site requiring the City to take remedial action. Based on the results of a 1994 Remedial Investigation and Feasibility Study, the USEPA agreed to various remedies including a single layer cap in 1996 in a final Record of Decision at an estimated remediation cost of \$20,500,000, which was recognized as a liability in the Sanitation Fund. In 1998, the City entered into an agreement with the Potentially Responsible Parties (PRPs), known as the Wingate Superfund Group, to oversee compliance with a 1998 Consent Decree between the City, the USEPA and the PRP's. As a result of the agreement, the City reduced its estimated remediation liability to \$10,000,000.

The consent decree provided for payment of expenses associated with the remediation, promoted cost effective response actions, allocated management and financial responsibilities and resolved claims for cost recovery between the parties. The consent decree was validated on December 28, 1999, allowing site remediation to commence. The agreement with the Wingate Superfund Group created a trust fund for collection and disbursement of funds for the remediation and limited the City's share of remediation costs to \$8,325,000, excluding ancillary costs. The Second Five-Year Review Report was issued by the USEPA in July 2011. Monitoring data suggest that cleanup levels are being achieved and O&M procedures are currently maintaining the effectiveness of the remedy. The remedy currently protects human health and the environment in the short term because the landfill cap construction is complete and the required institutional controls (groundwater and land use restrictions) are in place. Based upon a favorable USEPA report reducing the amount of required monitoring the liability was reduced by \$2,368,781. As of September 30, 2016, the liability is \$871,780 to provide for estimated post closure care costs.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

13. FUND BALANCES

In accordance with the requirements of GASB Statement No. 54, "Fund Balance Reporting and Governmental Fund Type Definitions", the City classifies governmental fund balances as follows:

- (A) Nonspendable – includes fund balance amounts that cannot be spent because they are either not in spendable form or legal or contractually required to be maintained intact.
- (B) Restricted – includes fund balance amounts that are constrained to be spent only for specific purposes which are externally imposed by creditors, grantors, contributors or laws or regulations of other governments; or imposed by law through constitutional provisions or enabling legislation.
- (C) Committed – includes unrestricted fund balance amounts that can only be used for specific purposes pursuant to internal constraints imposed by the City's Code of Ordinances which can only be established, modified or rescinded through the passage of ordinances by the City Commission, the City's highest level of decision making authority.
- (D) Assigned – includes unrestricted fund balance amounts that are constrained by the City's intent to be used for specific purposes, but are neither restricted nor committed. Either the City Commission or the City Manager has the authority to assign amounts to a specific purpose. On September 17, 2013, City Commission by Resolution 13-179 authorized the City Manager to assign resources and ending fund balance.
- (E) Unassigned – includes the residual fund balance of the General Fund not included in the above nonspendable, restricted, committed or assigned categories. It may also include negative fund balances of other governmental funds resulting from expenditures for specific purposes, which exceeded restricted, committed or assigned amounts available for those purposes.

It is the City's policy to use restricted fund balances before unrestricted funds when both are available for a specific purpose unless contractual requirements, such as for a specific grant that requires dollar for dollar spending, prohibit doing so. In addition, the order of use for unrestricted fund balances available for a specific purpose is committed, assigned, and then unassigned amounts.

The Commission adopted a Fund Balance Policy by Resolution No.13-179 which is a financial standard to maintain the unrestricted fund balance for the General Fund at a level that is equivalent to two (2) months of operating expenditures and required transfers. Should the projected or actual unrestricted fund balance fall below this minimum, a plan will be submitted for consideration to achieve the minimum level within a three-year period. This plan will include a combination of cost reductions, revenue enhancements, and/or service reductions and should be submitted within 30 days of recognition of the fund shortfall.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

Use of fund balance below the recommended threshold is permitted only in case of an emergency, or in the case of an unanticipated economic downturn, which causes a material loss of revenues. Non-recurring revenues shall not be used to balance the annual budget for recurring expenditures.

The details of individual governmental fund balances by category at September 30, 2016 follow:

	Nonmajor Governmental					Total
	General	Special Revenue	Debt Service	Capital Projects	Permanent	
Nonspendable						
Inventories	\$ 21,391	\$ -	\$ -	\$ 6,750	\$ -	\$ 28,141
Endowments	-	-	-	-	14,307,756	14,307,756
Restricted For						
Debt Service	-	-	15,529,915	-	-	15,529,915
Inventories	-	2,772,261	-	-	-	2,772,261
Community Redevelopment	-	7,824,810	-	64,360,945	-	72,185,755
Building Code Enforcement	-	33,806,924	-	-	-	33,806,924
Law Enforcement	-	1,093,204	-	-	-	1,093,204
Capital Projects	-	-	-	26,583,426	-	26,583,426
Transportation	-	-	-	19,472	-	19,472
Endowments	-	-	-	-	12,581,765	12,581,765
Other Purposes	-	637,395	-	-	-	637,395
Committed To						
Grants and Special Programs	1,186,699	-	-	-	-	1,186,699
Beach Improvements	-	1,519,050	-	-	-	1,519,050
Assigned To						
Law Enforcement	-	1,464,017	-	-	-	1,464,017
Beach Improvements	-	66,064	-	-	-	66,064
Capital Projects	-	-	-	21,146,535	-	21,146,535
Transportation	-	-	-	332,370	-	332,370
Subsequent Year's Expenditures	2,962,640	-	-	-	-	2,962,640
Unassigned	72,551,458	-	-	-	-	72,551,458
Total Fund Balances	<u>\$76,722,188</u>	<u>\$49,183,725</u>	<u>\$15,529,915</u>	<u>\$112,449,498</u>	<u>\$26,889,521</u>	<u>\$280,774,847</u>

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

14. EMPLOYEE RETIREMENT SYSTEMS

The City's pension plans are presented in accordance with GASB Statement No. 67, "Financial Reporting for Pension Plans" and GASB Statement No. 68, Accounting and Financial Reporting for Pensions. These statements replace GASB Statement No. 27, "Accounting for Pensions by State and Local Governmental Employers", and GASB Statement No. 50, "Pension Disclosures". GASB 68, enhances accountability and transparency through revised and new note disclosures and required supplementary information (RSI).

A) Defined Benefit Plans - Plan Descriptions and Funding Policies

1. General Employees' Retirement System

The General Employees' Retirement System is a single-employer defined benefit plan administered by an eight-member board of trustees, which covers City employees, except police and firefighters. Through collective bargaining with the general, supervisory and professional City employees, a new single-employer defined contribution pension plan was established for Teamster Union employees hired on or after October 1, 2007, Supervisory Union employees hired on or after November 7, 2007, and all other Non-Union employees hired on or after February 20, 2008. The General Employees Retirement System was then closed to new entrants. Under Ordinance No. C-11-34, adopted on December 6, 2011, a Bonus Incentive Program was offered to members eligible for either early or normal retirement as of December 1, 2011. Eligible members were granted 30 additional months of service for both benefit and eligibility purposes if, during the election period from December 7, 2011 through February 1, 2012, they elect to retire between December 14, 2011 and March 16, 2012. There were 134 members who elected to retire under the Bonus Incentive Program. The impact of the Bonus Incentive Program reflects the replacement of 20% of the members who retired under the program with promotions of the highest-paid remaining active members. The salaries of expected promoted members were increased by 5%. The City's payroll for employees covered by the plan after the plan change applicable to the September 30, 2013 actuarial valuation was approximately \$57,217,000. The total City payroll at that time was approximately \$158,475,000. As of the valuation date, employee membership data related to the pension plan was as follows:

Retirees and beneficiaries currently receiving benefits	1,359
Inactive, Non retired members	110
Active members	830
Total	<u>2,299</u>

Under the vesting provisions of the plan, employees are entitled to 100% of normal retirement benefits after 5 years of service. Members who terminate prior to vesting are entitled to a refund of employee contributions plus interest at 3% per year. Employees are eligible to retire after 30 years of service, regardless of age, or at age 55 with 5 years of service. Members who continue in employment past normal retirement may either accrue larger pensions or freeze their accrued benefit and enter the Deferred Retirement Option Plan (DROP). Each participant in the DROP has an account credited with benefits not received plus interest. Participation in the DROP must end no later than 36 months after normal retirement. Certain employees hired on or after October 1, 1983 electing reduced benefits are entitled to 100% of normal retirement benefits after 10 years of service beginning at age 65. These benefit provisions and all other requirements are established by City ordinance.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

Employees contribute from 4% to 6% of their earnings to the plan. The City is required to contribute the remaining amounts necessary to fund the plan, based on an amount determined by the plan's actuaries as of September 30 each year. For the current year, the City's contribution rate as a percentage of annual covered payroll was 27.0% or \$14,393,012.

Net Pension Liability

The City's net pension liability was measured as of September 30, 2016. The total pension liability used to calculate the net pension liability was determined as of that date. The components of the net pension liability of the City at September 30, 2016 were as follows:

Total Pension Liability	\$	629,028,556
Plan Fiduciary Net Position		(587,283,771)
City's Net Pension Liability	\$	<u>41,744,785</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		93.36%

Actuarial Assumptions: The total pension liability in the September 30, 2015 actuarial valuation updated to September 30, 2016 was determined using the following actuarial assumptions, applied to all periods in the measurements:

Inflation	3.00%
Salary Increases	4.00% to 9.50% depending on age, including inflation
Investment Rate of Return	7.50%

Mortality RP-2000 Combined Healthy Participant Mortality Table for males and females with mortality improvements projected to all future years after 2000 using Scale AA.

The actuarial assumptions used in the September 30, 2015 valuation were based on the results of an actuarial experience study dated November 1, 2012 for the period from October 1, 2001 to September 30, 2011.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expenses and inflation) are developed for each major asset class.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the targets asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of September 30, 2016 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return
Domestic Equity	40.0%	6.5%
International Equity	15.0%	3.3%
Emerging Equity	12.0%	7.1%
Private Equity	5.0%	11.8%
Real Estate & Timber	10.0%	7.1%
Fixed Income	15.0%	2.7%
Cash Equivalents	3.0%	-0.8%
Total	100.0%	

Discount Rate: A single discount rate of 7.50% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on Pension Plan investments of 7.50%. The projection of cash flows used to determine this single discount rate assumed that Plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the total actuarially determined contribution rates and the member rate. Based on these assumptions, the Pension Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current Plan members. Therefore, the long-term expected rate of return on Pension Plan investments (7.50%) was applied to all periods of projected benefit payments to determine the total pension liability. The discount rate assumption changed from 7.55% to 7.50%.

Changes in the Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balances at September 30, 2015	\$ 609,531,091	\$ 551,694,135	\$ 57,836,956
Changes for the year:			
Service Cost	9,940,115	-	9,940,115
Interest on Total Pension Liability	45,329,190	-	45,329,190
Differences between expected and actual experience on Total Pension Liability	(657,609)	-	(657,609)
Contributions - Employer	-	14,393,012	(14,393,012)
Contributions - Employee	-	3,152,504	(3,152,504)
Assumption Changes	3,054,924	-	3,054,924
Net Investment Income	-	56,764,958	(56,764,958)
Benefit Payments	(38,169,155)	(38,169,155)	-
Administrative Expense	-	(551,683)	551,683
Net Changes	19,497,465	35,589,636	(16,092,171)
Balances at September 30, 2016	\$ 629,028,556	\$ 587,283,771	\$ 41,744,785

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

Sensitivity of the net pension liability to changes in the discount rate: The following presents the net pension liability of the City, calculated using the discount rate of 7.50%, as well as what the City's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate:

Current Single Discount			
	1% Decrease 6.50%	Rate Assumption 7.50%	1% Increase 8.50%
City's Net Pension Liability	\$ 108,497,285	\$ 41,744,785	\$ (14,913,116)

Pension expense and deferred outflows/inflows of resources related to pensions: For the year ended September 30, 2016, the City recognized a pension expense of \$22,605,891. At September 30, 2016, the City reported deferred outflows and deferred inflows of resources related to pension from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference Between Expected and Actual Experience	\$ -	\$ 2,181,402
Changes in Assumptions	3,530,376	-
Net Difference Between Projected and Actual Earnings on Pension Investments	28,387,758	
Total	<u>\$ 31,918,134</u>	<u>\$ 2,181,402</u>

Amounts reported as of deferred outflows of resources related to pension will be recognized in pension expense as follows:

Year ending September 30,	Net Deferred Outflows of Resources
2017	\$ 11,356,636
2018	10,966,588
2019	10,487,123
2020	(3,073,615)
2021	-
Thereafter	-
Total	<u>\$ 29,736,732</u>

Historical trend information is presented in required supplementary information schedules following these notes to show the changes in the net pension liability and the contributions to the plan. (See page 88).

The Plan issues a publicly available financial report that includes financial statements and required supplementary information. That report may be obtained online at www.citypension.com or by writing the Board of Trustees:

Board of Trustees of the City of Fort Lauderdale General Employees' Retirement System
316 NE Fourth Street, Suite 2
Fort Lauderdale, FL 33301

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

2. Police and Firefighters' Retirement System

The Police and Firefighters' Retirement System is a single-employer defined benefit plan administered by an eight-member board of trustees, which covers all police and firefighters.

Plan membership as of October 1, 2015:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	1,030
Inactive Plan Members Entitled to but Not Yet Receiving Benefits	15
Active Plan Members	776
Total	<u>1,821</u>

Under the vesting provisions of the plan, employees are entitled to 100% of normal retirement benefits after 10 years of service. Members who terminate prior to vesting are entitled to a refund of employee contributions plus interest at 3% per year. Employees are eligible to retire after 20 years of service, regardless of age, or at age 55 with 10 years of service. Members who continue in employment after completion of 20 years of service may either accrue larger pensions or freeze their accrued benefit and enter the Deferred Retirement Option Plan (DROP). Each participant in the DROP has an account credited with benefits not received plus interest. Participation in the DROP must end no later than 60, 72, 84 or 96 months after normal retirement depending on years of service. These benefit provisions and all other requirements are established by City ordinance.

Employees hired on or before April 18, 2010 contribute 8% of their earnings to the plan. Employees hired after April 18, 2010 contribute 8.5% of their earnings to the plan. In addition, contributions in the amount of \$5,860,782 were received from the State of Florida from fire and casualty insurance premium taxes. These on-behalf payments were also recognized as tax revenues and public safety expenditures in the General Fund. The City is required to contribute the remaining amounts necessary to fund the plan, based on an amount determined by the plan's actuaries as of October 1 each year. For the current year, the City and State of Florida contribution rates as percentages of annual covered payroll were 17.96% (\$13,867,934) and 7.59% (\$5,860,782), respectively.

For measurement date 9/30/2016, as a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumption used by the Florida Retirement System for special risk employees. The inflation assumption rate was lowered from 3.00% to 2.30%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

Net Pension Liability

The City's net pension liability was measured as of September 30, 2016. The total pension liability used to calculate the net pension liability was determined as of that date. The components of the net pension liability of the City at September 30, 2016 were as follows:

Total Pension Liability	\$ 880,055,327
Plan Fiduciary Net Position	(814,260,544)
City's Net Pension Liability	<u>\$ 65,794,783</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	92.52%

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS September 30, 2016

Actuarial Assumptions: The total pension liability was determined by an actuarial valuation as of October 1, 2015 updated to September 30, 2016 using the following actuarial assumptions applied to all measurement periods:

Inflation	2.30%
Salary Increases	0.50% - 3.00% Expected increase in annual salary in addition to 2.30% inflationary component.
Discount Rate	7.50%
Investment Rate of Return	7.50%

Mortality rates were based on the RP-2000 Table projected by Scale AA to 2012. Disability mortality rates RP-2000 Disabled Table projected by Scale AA to 2012. The significant assumptions are based upon the most recent actuarial experience study dated July 10, 2015.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the long term expected rate by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of September 30, 2016 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return
Domestic Equity	30.00%	7.10%
International Equity	15.00%	7.40%
Domestic Bonds	30.00%	2.10%
Real Estate	12.50%	4.50%
Other	12.50%	4.20%
Total	100.00%	

Discount Rate: The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current rate and that sponsor contribution will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

Changes in the Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balances at September 30, 2015	\$ 834,313,286	\$ 774,549,469	\$ 59,763,817
Changes for the year:			
Service Cost	19,199,538	-	19,199,538
Interest on Total Pension Liability	62,181,617	-	62,181,617
Share Plan Allocation	1,732,185	-	1,732,185
Assumption Changes	16,504,779	-	16,504,779
Differences between expected and actual experience on Total Pension Liability	(5,100,657)	-	(5,100,657)
Contributions - Employer	-	13,867,934	(13,867,934)
Contributions - State	-	5,860,782	(5,860,782)
Contributions - Employee	-	5,732,925	(5,732,925)
Contributions - Buy Back	73,763	73,763	-
Net Investment Income	-	63,676,001	(63,676,001)
Benefit Payments	(48,849,184)	(48,849,184)	-
Administrative Expense	-	(651,146)	651,146
Net Changes	45,742,041	39,711,075	6,030,966
Balances at September 30, 2016	\$ 880,055,327	\$ 814,260,544	\$ 65,794,783

Sensitivity of the net pension liability to changes in the discount rate: The following presents the net pension liability of the City, calculated using the discount rate of 7.50%, as well as what the City's net pension liability would be if it were calculated using a discount rate that is 1% point lower (6.50%) or 1% point higher (8.50%) than the current rate:

	1% Decrease 6.50%	Current Single Discount Rate Assumption 7.50%	1% Increase 8.50%
City's Net Pension Liability	\$ 162,101,714	\$ 65,794,783	\$ (14,048,370)

Pension expense and deferred outflows/inflows of resources related to pensions: For the year ended September 30, 2016, the City recognized a pension expense of \$30,407,315. At September 30, 2016 the City reported deferred outflows of resources and deferred inflows of resources related to pension from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference Between Expected and Actual Experience	\$ -	\$ 8,471,958
Changes in Assumptions	13,203,824	1,316,988
Net Difference Between Projected and Actual Earnings on Pension Investments	26,274,096	-
Total	\$ 39,477,920	\$ 9,788,946

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

Amounts reported as of deferred outflows of resources related to pension will be recognized in pension expense as follows:

Year ending September 30,	Net Deferred Outflows of Resources
2017	\$ 9,568,280
2018	9,568,282
2019	9,568,282
2010	984,130
2021	-
Thereafter	-
Total	<u>\$ 29,688,974</u>

Historical trend information is presented in required supplementary information schedules following these notes to show the changes in the net pension liability and the contributions to the plan. (See page 90).

Changes of benefit terms

For measurement date 9/30/15, amounts reported as changes of benefit terms were resulted from:

1) For Firefighters hired on or after October 1, 2014:

- The Average Monthly Earnings period will be increased from 2 to 5 years.
- The benefit accrual rate will be decreased from 3.38% to 3.0% for each year of Credited Service.
- The maximum accrual rate will be decreased from 81.0% to 75.0% of Average Monthly Earnings.
- For each month a Firefighter delays entry into DROP following completion of 25 years of Credited Service, the 96 month maximum DROP participation period shall be correspondingly reduced by one month.
- The Normal Form of Benefit will be changed from 60% joint and contingent survivor to 10-Year Certain and Life.

2) Eliminating the interest component on refunds of Member Contributions for all Firefighters who separate employment with the City on or after October 1, 2014.

3) Amending the definition of Salary to provide that pensionable earnings for Firefighters will be increased from 144 hours to 159 hours for each 21-day period.

4) Implementing a special formula to determine the amount of Chapter 175 premium tax revenues that the City will be able to utilize to offset its funding requirements, effective for the plan year beginning on October 1, 2014.

The Plan issues a publicly available financial report that includes financial statements and required supplementary information. That report may be obtained online at www.ftlaudpfpension.com or by writing the Board of Trustees:

Board of Trustees of the City of Fort Lauderdale Police and Firefighters' Retirement System
888 S. Andrews Avenue, Suite 202
Fort Lauderdale, Florida 33316

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

B) Defined Contribution Plans

1. General Employees Defined Contribution Plan

The General Employees Defined Contribution Plan is a single-employer defined contribution plan administered by ICMA Retirement Corporation (ICMA-RC), which covers all City employees hired on or after October 1, 2007, except police and fire. The City's current year payroll for employees covered by the plan was approximately \$29,875,932. The total City payroll for the year was approximately \$183,425,408.

The City contribution requirement of 9% on earnings of participants was paid on a biweekly basis and amounted to \$2,691,268 for the current year. Employee contributions are neither required nor permitted under the plan. Employees become fully vested in the plan upon entry. These benefit provisions and all other requirements are established by City ordinance.

2. General Employees Special Class Plan

The General Employees Special Class Plan is a single-employer defined contribution plan administered by ICMA-RC. It is available to City employees (except police and firefighters) as an alternative to participation in the General Employees' Retirement System. The City's current year payroll for employees covered by the plan was approximately \$49,096. The total City payroll for the year was approximately \$183,425,408.

The City contribution requirement of 29.59% on earnings of participants was paid on a biweekly basis and amounted to \$14,528 for the current year. Employee contributions are neither required nor permitted under the plan. Employees become fully vested in the plan upon entry. These benefit provisions and all other requirements are established by City ordinance. This plan is no longer available to new entrants.

17. Non-classified Employees Retirement Plan

The Non-classified Employees Retirement Plan is a single-employer defined contribution plan administered by ICMA-RC, which covers certain non-classified City employees who have elected not to participate in the City's General Employees' Retirement System. The City's current year payroll for employees covered by the plan was approximately \$2,305,705. The total City payroll for the year was approximately \$183,425,408.

The City contribution requirement of 19.39% on earnings of participants was paid on a biweekly basis and amounted to \$446,483 for the current year. Employee contributions are neither required nor permitted under the plan. Employees become fully vested in the plan upon entry. These benefit provisions and all other requirements are established by City ordinance. Effective October 1, 2012 the plan was closed to new entrants.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

15. OTHER POST-EMPLOYMENT BENEFITS

The City's Other Post-Employment Benefits (OPEB) is presented in accordance with GASB Statement 45, "Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions". The provisions of this pronouncement were implemented prospectively with the actuarially determined liability of \$43,578,232 at the October 1, 2007 date of transition being amortized over 30 years. Accordingly, for financial statement purposes, this liability is not reported at the transition date.

Benefit Description and Funding Policy

The City provides a single employer defined benefit post-employment health insurance benefit to its general employees, sworn police officers and certified firefighters. Employees are paid from \$100 to \$400 per month upon normal retirement for the purchase of health insurance. Non-Union Management and Confidential employees hired on or after October 1, 2012 shall not be eligible for any contribution from the City. Employees hired under the Fraternal Order of Police and the Federation of Public Employees on or after April 1, 2014, are no longer eligible for this contribution. Furthermore, Teamsters employees hired on or after December 17, 2014, and employees hired under the International Association of Firefighters hired on or after June 16, 2015, are not eligible.

The benefit continues until age 65 and is funded on a pay-as-you-go basis. In addition, pursuant to Section 112.0801, Florida Statutes, general employees and certified firefighters who retire from the City may continue their participation in a City sponsored health and/or dental insurance plan at the same premiums applicable to active employee. Since retiree claims are expected to result in higher costs to the plans, on average, than those for active employees on an actuarial basis, there is an implicit subsidy included in the premiums for the retirees.

Benefit provisions and City contribution requirements are established and may be amended by the City Commission through collective bargaining. As of September 30, 2016, there were 799 retired employees receiving a monthly benefit with an additional 2,046 employees eligible for participation in the future. Payments totaled \$3,902,000 for the year, of which retiree implicit subsidies amounted to \$257,854 of that total.

The Other Post-Employment Benefits (OPEB) Trust is administered by the City of Fort Lauderdale Commission as the Board of Trustees with a Trust Administrator responsible for the day-to-day administration. The Trust was established on September 16, 2014 and covers former City employees who are eligible for certain post-employment benefits. As of September 30, 2016, \$12,806,790 was invested in the OPEB Trust fund.

Annual OPEB Cost, Funding Status and Funding Progress

Annual OPEB Cost (AOC) is a measure of the periodic cost of an employer's participation in a defined benefit OPEB plan. Details of the City's AOC and Net OPEB Obligation (NOO) for the year ended September 30, 2016 follow:

Annual Required Contribution	\$ 6,572,000
Interest on NOO	554,000
Amortization of NOO	(499,000)
Annual OPEB Cost (AOC)	6,627,000
Actual Contributions Made to Plan	(3,581,000)
Increase in NOO	3,046,000
NOO Beginning of Year	7,916,200
NOO End of Year	<u>\$ 10,962,200</u>

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

The City's annual OPEB cost, the percentage of annual OPEB cost contributed and the net OPEB obligation for the last three fiscal years follow:

Fiscal Year Ended In	AOC	Contribution	Percent Contributed	NOO
2016	\$ 6,627,000	\$ 3,581,000	54.0%	\$ 10,962,200
2015	4,962,000	5,892,821	118.8%	7,916,200
2014	5,276,000	11,158,466	211.5%	8,847,021

As of October 1, 2015, the date of the most recent valuation, the plan was 20.8% funded, the actuarial accrued liability for benefits was \$56,706,000 and the actuarial value of assets was \$11,806,000, resulting in an unfunded actuarial accrued liability of \$44,900,000. The payroll for active participating employees for that period was approximately \$147,574,000 and the unfunded actuarial accrued liability as a percentage of payroll was 30.0%.

Actuarial Methods and Assumptions

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Amounts determined regarding the funding status of benefits and the annual required contributions of the City are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. Projections of benefits for financial reporting purposes are based on the substantive plan and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefits between the City and participants. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

Following are the actuarial methods and significant actuarial assumptions used to determine the annual required contributions for the current year and the information disclosed above about the plan's funded status. The City's current year contribution is based upon a valuation done for the plan as of September 30, 2016.

Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level Percentage - Closed
Remaining Amortization Period	22 Years
Investment Rate of Return/ Discount Rate	7.00%
Projected Salary Increases	3.00%
Medical Trend Rate	7.00%
Rate of Inflation	3.00%

Three year historical trend information is presented in a required supplementary information schedule following these notes (see page 92). Separately issued financial statements for the benefits are not available.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

16. DEFERRED COMPENSATION PLAN

The City offers a deferred compensation plan to its employees in addition to the pension plans. Participation is optional. The City has adopted the provisions of IRS Code Section 457(g) and GASB Statement No. 32, "Accounting and Financial Reporting for IRS Code Section 457 Deferred Compensation Plans". Under these provisions, all assets and income of the plan are held in trust for the exclusive benefit of participants. Accordingly, the assets and liabilities of the plan are not reported within the City's financial statements.

17. OPERATING LEASES

On September 1, 1962, the City entered into a lease agreement as lessor with Bahia Mar Yachting Center, Inc. (Bahia Mar) for the purpose of constructing and operating a restaurant, lounge, yacht club, motel/hotel, convention hall, marine facilities and other similar businesses. The cost of the property at the inception of the lease was \$552,000. On June 30, 1994, this lease was assumed by RAHN Bahia Mar, LTD. and, as amended, will terminate on August 31, 2062, at which time, all additions to the property originally leased to Bahia Mar will revert to the City. The lease agreement provides for a minimum guaranteed annual rental of \$300,000 per year. In addition, the City receives contingent rentals (\$1,518,946 in 2016) based upon escalating percentages of gross receipts for the duration of the agreement. Minimum future rentals on this lease as of September 30, 2016 follow:

Fiscal Year Ending in:	Bahia Mar	
	Lease	
2017	\$	300,000
2018		300,000
2019		300,000
2020		300,000
2021		300,000
Later Years		12,300,000
	\$	<u>13,800,000</u>

The City has various aviation leases and non-aviation land leases, which are accounted for as operating leases in the Airport Fund. The cost and carrying amount of the property at the inception of the leases were \$2,677,713. Minimum future rentals on these leases as of September 30, 2016 follow:

Fiscal Year Ending in:	Aviation Leases		Land Leases		Total
2017	\$	2,863,021	\$	3,207,656	\$ 6,070,677
2018		2,798,850		3,207,656	6,006,506
2019		2,747,924		3,207,656	5,955,580
2020		2,684,828		3,207,656	5,892,484
2021		2,679,155		3,207,656	5,886,811
Later Years		36,594,530		58,214,142	94,808,672
	\$	50,368,308	\$	74,252,422	\$ 124,620,730

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

18. COMMITMENTS AND CONTINGENT LIABILITIES

The City has outstanding encumbrances in the governmental funds, as well as, other significant commitments in the various enterprise funds. The following is a summary of these commitments at September 30, 2016:

Governmental Funds	
General Fund	\$ 2,962,642
Nonmajor Governmental Funds	
Special Revenue Funds	
Law Enforcement Confiscated Property Fund	677,564
Community Redevelopment Agency Fund	80,526
Beach Business Improvement District	20,906
Building Fund	3,254,658
Nuisance Abatement Fund	203
	<u>4,033,857</u>
Capital Projects Funds	
General Capital Projects Fund	4,402,934
Gas Tax	103,361
General Obligation Construction 2005 and 2011A Fund	693,841
Special Obligation Construction 2008B Fund	1,228,175
Special Obligation Construction 2011A	144,785
Community Redevelopment Agency Projects Fund	4,067,478
Park Impact Fee Projects Fund	920,054
	<u>11,560,628</u>
Enterprise Funds	
Water and Sewer	7,234,341
Nonmajor Enterprise Funds	
Sanitation Fund	1,036,269
Parking System Fund	780,571
Airport Fund	631,694
Stormwater Fund	5,606,337
	<u>8,054,871</u>
Total Commitments and Contingent Liabilities	<u>\$ 33,846,339</u>

In FY2015, the City recognized a liability of \$187,101 in the General Fund for a lawsuit filed by Albion Staffing Solutions (Albion). Albion alleges the City owes for temporary staffing services. The investigation by the City Auditor found that the department was paying this vendor above the contracted rate for the temporary services. Some of the temporary staffing positions used by the department were not in accordance with the terms of the contract. A settlement has been tentatively reached and a formal agreements is expected to be signed in April 2017.

Various substantial lawsuits have been filed against the City including personal injury claims, liability claims related to police activities and general liability claims. The estimated liabilities related to the various claims have been accrued in the City's insurance internal service funds. In the opinion of City management, the expected liability for these claims would not materially exceed the amounts recorded in the financial statements.

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

19. NEW ACCOUNTING PRONOUNCEMENTS

Implemented

In February 2015, the GASB issued Statement No. 72, "Fair Value Measurement and Application". This Statement addresses accounting and financial reporting issues related to fair value measurements. This Statement provides guidance for determining a fair value measurement for financial reporting purposes. Also provides guidance for applying fair value to certain investments and disclosures related to all fair value measurements. The provisions of this Statement are effective for the City's fiscal year ending September 30, 2016. The impact of this Statement can be found on Note 4.

In June 2015, the GASB issued Statement No. 73, "Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68". This Statement establishes requirements for defined benefit pensions that are not within the scope of Statement No. 68, Accounting and Financial Reporting for Pensions, as well as for the assets accumulated for purposes of providing those pensions. In addition, it establishes requirements for defined contribution pensions that are not within the scope of Statement 68. It also amends certain provisions of Statement No. 67, Financial Reporting for Pension Plans, and Statement 68 for pension plans and pensions that are within their respective scopes. The requirements of this Statements are effective for the City's financial year ending September 30, 2016. There was no impact to the City.

In June 2015, the GASB issued Statement No. 76, "The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments". The objective of this Statement is to identify—in the context of the current governmental financial reporting environment—the hierarchy of generally accepted accounting principles (GAAP). The "GAAP hierarchy" consists of the sources of accounting principles used to prepare financial statements of state and local governmental entities in conformity with GAAP and the framework for selecting those principles. This Statement reduces the GAAP hierarchy to two categories of authoritative GAAP and addresses the use of authoritative and nonauthoritative literature in the event that the accounting treatment for a transaction or other event is not specified within a source of authoritative GAAP. This Statement supersedes Statement No. 55, The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments. The requirements of this Statement are effective for the City's financial year ending September 30, 2016, and should be applied retroactively. Earlier application is permitted. There was no impact to the City.

In December 2015, the GASB issued Statement No. 78, "Pensions Provided through Certain Multiple-Employer Defined Benefit Pension Plans". The objective of this Statement amends the scope and applicability of Statement 68 to exclude pensions provided to employees of state or local governmental employers through a cost-sharing multiple-employer defined benefit pension plan that (1) is not a state or local governmental pension plan, (2) is used to provide defined benefit pensions both to employees of state or local governmental employers and to employees of employers that are not state or local governmental employers, and (3) has no predominant state or local governmental employer (either individually or collectively with other state or local governmental employers that provide pensions through the pension plan). This Statement establishes requirements for recognition and measurement of pension expense, expenditures, and liabilities; note disclosures; and required supplementary information for pensions that have the characteristics described above. The provisions of this Statement are effective for financial statements for the City's financial year ending September 30, 2017. There was no impact to the City.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

In December 2015, the GASB issued Statement No. 79, "Certain External Investment Pools and Pool Participants". The objective of this Statement is to address for certain external investment pools and their participants the accounting and financial reporting implications that result from changes in the regulatory provisions referenced by previous accounting and financial reporting standards. Those provisions were based on the Investment Company Act of 1940, Rule 2A7. Rule 2A7 contains the Securities and Exchange Commission's regulations that apply to money market funds and were significantly amended in 2014. The provisions of this Statement are effective for financial statements for the City's financial year ending September 30, 2016, except for certain provisions on portfolio quality, custodial credit risk, and shadow pricing which are effective for financial statements for the City's financial year ending September 30, 2016. There was no impact to the City.

In March 2016, the GASB issued Statement No. 82, "Pension Issues - An Amendment of GASB Statements No. 67, No. 68, and No. 73". The objective of this Statement is to address certain issues that have been raised with respect to this Statements. Specifically, the issue regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard Practice for financial reporting purposes, and (3) the classification of payments made by the employers to satisfy employee (plan member) contribution requirements. The provisions of this statement are effective for the City's financial year ending September 30, 2017. PFRS early implemented however, GERS will be implementing in FY2017.

Not Yet Implemented

In June 2015, the GASB issued Statement No. 74, "Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans". This Statement establishes new accounting and financial reporting requirements for governments whose employees are provided with OPEB, as well as for certain nonemployer governments that have a legal obligation to provide financial support for OPEB provided to the employees of other entities. This Statement replaces Statements No. 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, as amended, and No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans. It also includes requirements for defined contribution OPEB plans that replace the requirements for those OPEB plans in Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans, as amended, Statement 43, and Statement No. 50, Pension Disclosures. The requirements of this Statement are effective for the City's financial year ending September 30, 2017.

In June 2013, the GASB issued Statement No. 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions". The primary objective of this Statement is to improve accounting and financial reporting by state and local governments for postemployment benefits other than pensions (other postemployment benefits or OPEB). It also improves information provided by state and local governmental employers about financial support for OPEB that is provided by other entities. This Statement results from a comprehensive review of the effectiveness of existing standards of accounting and financial reporting for all postemployment benefits (pensions and OPEB) with regard to providing decision-useful information, supporting assessments of accountability and interperiod equity, and creating additional transparency. This Statement replaces the requirements of Statements No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions, as amended, and No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans, for OPEB. Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, establishes new accounting and financial reporting requirements for OPEB plans. The requirements of this Statement are effective for the City's financial year ending September 30, 2018.

CITY OF FORT LAUDERDALE, FLORIDA

BASIC FINANCIAL STATEMENTS

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2016

In August 2015, the GASB issued Statement No. 77, "Tax Abatement Disclosures". Financial statements prepared by state and local governments in conformity with generally accepted accounting principles provide citizens and taxpayers, legislative and oversight bodies, municipal bond analysts, and others with information they need to evaluate the financial health of governments, make decisions, and assess accountability. This information is intended, among other things, to assist these users of financial statements in assessing (1) whether a government's current-year revenues were sufficient to pay for current-year services (known as interperiod equity), (2) whether a government complied with finance-related legal and contractual obligations, (3) where a government's financial resources come from and how it uses them, and (4) a government's financial position and economic condition and how they have changed over time. The requirements of this Statement are effective for the City's financial year ending September 30, 2017.

In January 2016, the GASB issued Statement No. 80, "Blending Requirements for Certain Component Units, an amendment of GASB Statement No. 14". The objective of this Statement is to improve financial reporting by clarifying the financial statement presentation requirements for certain component units. This Statement amends the blending requirements established in paragraph 53 of Statement No. 14, The Financial Reporting Entity, as amended. The additional criterion requires blending of a component unit incorporated as a not-for-profit corporation in which the primary government is the sole corporate member. The additional criterion does not apply to component units included in the financial reporting entity pursuant to the provisions of Statement No. 39, Determining Whether Certain Organizations Are Component Units. The provisions of this statement are effective for the City's financial year ending September 30, 2017.

In November 2016, the GASB issued Statement No. 83, "Certain Asset Retirement Obligation". This Statement addresses accounting and financial reporting for certain asset retirement obligations (AROs). An ARO is a legally enforceable liability associated with the retirement of a tangible capital asset. This Statement establishes criteria for determining the timing and pattern of recognition of a liability and a corresponding deferred outflow of resources for AROs. It requires the measurement of an ARO to be based on the best estimate of the current value of outlays expected to be incurred, and requires the current value of a government's AROs to be adjusted for the effects of general inflation or deflation at least annually. The provisions of this Statement are effective for financial statements for the City's financial year ending September 30, 2019.

In January 2017, the GASB issued Statement No. 84, "Fiduciary Activities". The objective of this GASB is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The focus of the criteria is on (1) whether a government is controlling the assets of the fiduciary activity and (2) the beneficiaries with whom a fiduciary relationship exists. The provisions of this Statement are effective for financial statements for the City's financial year ending September 30, 2019.

Management has not determined what impact these GASB statements might have on its financial statements.

20. SUBSEQUENT EVENTS

On January 5, 2017, the City entered into a tax-exempt lease purchase agreement in the amount of \$2,055,750 with Banc of America Public Capital Corp. to finance the City's energy savings performance project. The proceeds of the financing were placed into an escrow deposit account with the escrow agent. The lease agreement carries an interest rate of 1.978% and has a 12 year term with annual debt service payments and expires on January 5, 2029.



Required Supplementary
Information



CITY OF FORT LAUDERDALE

CITY OF FORT LAUDERDALE, FLORIDA

REQUIRED SUPPLEMENTARY INFORMATION

**SCHEDULE OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES -
BUDGET AND ACTUAL - GENERAL FUND
For the Year Ended September 30, 2016**

	Budgeted Amounts		Actual	Variance
	Original	Final	Amounts	Positive (Negative)
REVENUES				
Taxes:				
Ad Valorem	\$ 112,824,562	\$ 112,824,562	\$ 112,954,202	\$ 129,640
Utility Service	37,062,850	37,837,850	37,517,371	(320,479)
Franchise Fees	23,100,000	23,100,000	22,389,618	(710,382)
Insurance Premium	6,167,319	6,374,769	5,563,314	(811,455)
Total Taxes	179,154,731	180,137,181	178,424,505	(1,712,676)
Licenses and Permits:				
Business Tax Receipts	2,888,300	2,898,400	2,968,455	70,055
Other Licenses and Permits	190,000	190,000	218,822	28,822
Total Licenses and Permits	3,078,300	3,088,400	3,187,277	98,877
Intergovernmental Revenues:				
State				
State Revenue Sharing	5,191,316	5,191,316	5,254,873	63,557
Half Cent Sales Tax	11,469,508	11,469,508	11,295,855	(173,653)
State Other	628,000	628,000	632,356	4,356
Local				
County Shared Gas Tax	2,641,637	2,679,969	2,824,957	144,988
County Business Tax Receipts	175,000	175,000	180,646	5,646
Total Intergovernmental Revenues	20,105,461	20,143,793	20,188,687	44,894
Charges for Services:				
General Government Charges	1,915,130	1,915,130	2,189,066	273,936
Public Safety Charges				
Police Service Fees	97,500	97,500	139,733	42,233
Alarm Fees	1,321,500	1,521,500	1,529,294	7,794
Fire Fees	2,071,800	2,071,800	2,338,095	266,295
EMS Transport Fees	9,386,274	9,386,274	9,493,060	106,786
Culture/Recreation Charges				
Auditorium	1,003,000	1,003,000	931,458	(71,542)
Stadium	70,000	89,000	72,130	(16,870)
Swimming Pools	439,000	439,000	646,338	207,338
Tennis Courts	654,000	654,000	654,047	47
Parks	486,900	510,900	418,784	(92,116)
Docks	3,256,622	3,256,622	3,705,911	449,289
Program Fees	1,130,700	1,130,700	906,585	(224,115)
Special Events	50,000	50,000	67,971	17,971
Miscellaneous	342,900	342,900	226,244	(116,656)
Total Charges for Services	22,225,326	22,468,326	23,318,716	850,390
Fines and Forfeitures:				
Court Fines and Forfeitures	1,486,113	1,486,113	1,261,134	(224,979)
Code Enforcement Fines	953,600	953,600	928,846	(24,754)
Other Fines and Forfeitures	55,000	55,000	33,714	(21,286)
Total Fines and Forfeitures	2,494,713	2,494,713	2,223,694	(271,019)
Miscellaneous Revenue:				
Assessments and Other Fees	33,593,382	33,768,382	33,721,236	(47,146)
Investment Income	1,205,269	1,722,819	1,996,110	273,291
Rents and Concession	4,246,936	4,246,936	4,274,148	27,212
Interfund Service Charges	42,370,165	42,976,219	42,754,473	(221,746)
Other Miscellaneous	3,131,947	3,246,947	4,116,993	870,046
Total Miscellaneous Revenue	84,547,699	85,961,303	86,862,960	901,657
Total Revenues	311,606,230	314,293,716	314,205,839	(87,877)

Continued

CITY OF FORT LAUDERDALE, FLORIDA

REQUIRED SUPPLEMENTARY INFORMATION

**SCHEDULE OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES -
BUDGET AND ACTUAL - GENERAL FUND
For the Year Ended September 30, 2016**

	Budgeted Amounts		Actual	Variance
	Original	Final	Amounts	Positive (Negative)
EXPENDITURES				
General Government:				
City Attorney	\$ 4,698,039	\$ 4,871,465	\$ 3,997,140	\$ 874,325
City Auditor	1,115,341	1,084,183	1,049,843	34,340
City Clerk	989,925	979,925	868,657	111,268
City Commission	1,188,171	1,188,171	1,169,458	18,713
City Manager	6,137,186	6,127,833	5,670,187	457,646
Finance	5,255,648	5,255,648	5,191,126	64,522
Human Resources	3,874,859	3,874,859	3,308,611	566,248
Parks and Recreation	5,202,808	5,202,808	5,162,552	40,256
Public Works	1,144,445	1,147,193	1,106,793	40,400
Sustainable Development	5,694,586	5,672,034	5,181,337	490,697
Other General Government	19,836,480	19,835,430	18,744,178	1,091,252
Total General Government	55,137,488	55,239,549	51,449,882	3,789,667
Public Safety:				
Code Enforcement	3,053,372	3,206,925	3,081,611	125,314
Fire-Rescue	68,108,171	68,897,984	68,137,020	760,964
Police	95,101,220	96,712,667	95,576,379	1,136,288
Other Public Safety	89,695	52,808	38,652	14,156
Total Public Safety	166,352,458	168,870,384	166,833,662	2,036,722
Physical Environment:				
Parks and Recreation	129,261	129,261	110,357	18,904
Public Works	5,896,410	6,152,410	5,373,146	779,264
Total Physical Environment	6,025,671	6,281,671	5,483,503	798,168
Transportation:				
Parks and Recreation	4,232,016	4,232,016	4,079,428	152,588
Transportation and Mobility	3,263,869	3,326,588	3,025,959	300,629
Total Transportation	7,495,885	7,558,604	7,105,387	453,217
Economic Environment:				
Sustainable Development	1,470,173	1,311,485	1,141,158	170,327
Housing Grant Operations	18,099	18,099	70,271	(52,172)
Total Economic Environment	1,488,272	1,329,584	1,211,429	118,155
Culture/Recreation:				
Parks and Recreation	29,283,901	29,481,574	29,537,693	(56,119)
Total Culture/Recreation	29,283,901	29,481,574	29,537,693	(56,119)
Total Expenditures	265,783,675	268,761,366	261,621,556	7,139,810
Excess of Revenues Over Expenditures	45,822,555	45,532,350	52,584,283	7,051,933

Continued

CITY OF FORT LAUDERDALE, FLORIDA

REQUIRED SUPPLEMENTARY INFORMATION

**SCHEDULE OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES -
BUDGET AND ACTUAL - GENERAL FUND
For the Year Ended September 30, 2016**

	Budgeted Amounts		Actual	Variance
	Original	Final	Amounts	Positive (Negative)
OTHER FINANCING SOURCES (USES)				
Transfers Out:				
Community Redevelopment Agency Projects	\$ (5,386,884)	\$ (5,399,483)	\$ (5,411,481)	\$ (11,998)
Miscellaneous Grants Fund	(1,250,000)	(1,436,987)	(944,340)	492,647
Special Obligation Bonds Fund	(21,404,663)	(21,404,663)	(21,404,663)	-
Special Obligation Loans Fund	(3,019,995)	(3,019,995)	(3,019,995)	-
General Capital Projects Fund	(8,785,340)	(8,882,817)	(8,745,254)	137,563
Gas Tax Fund	(50,000)	(50,000)	(50,000)	-
General Obligation Construction Fund	-	(850,000)	(850,000)	-
Sanitation Fund	(4,148,539)	(4,148,539)	(4,148,539)	-
Airport Fund	(1,319,459)	(1,342,735)	(1,342,735)	-
Central Services Fund	(2,336,696)	(2,336,685)	(2,336,685)	-
Total Transfers Out	(47,701,576)	(48,871,904)	(48,253,692)	618,212
Total Other Financing Sources (Uses)	(47,701,576)	(48,871,904)	(48,253,692)	618,212
Net Change in Fund Balances	(1,879,021)	(3,339,554)	4,330,591	7,670,145
Fund Balance - Beginning of Year	67,638,461	61,540,451	67,549,945	6,009,494
Encumbrances at September 30, 2015	1,879,010	1,879,010	1,879,010	-
Fund Balance - End of Year	\$ 67,638,450	\$ 60,079,907	\$ 73,759,546	\$ 13,679,639

Statement of revenues, expenditures and changes in fund balance – page 24	\$ 76,722,188
Basis of accounting adjustments encumbrances as of September 30, 2016	(2,962,642)
Statement of revenues, expenditures and changes in fund balance – budget and actual	<u>\$ 73,759,546</u>

CITY OF FORT LAUDERDALE, FLORIDA

REQUIRED SUPPLEMENTARY INFORMATION

**SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS -
GENERAL EMPLOYEES' RETIREMENT SYSTEM
LAST TEN FISCAL YEARS***

	2016	2015	2014
Total Pension Liability			
Service Cost	\$ 9,940,115	\$ 9,917,828	\$ 10,774,138
Interest	45,329,190	44,655,792	43,346,733
Differences between Actual and Expected Experience	(657,609)	(6,253,927)	-
Assumption Changes	3,054,924	5,940,974	-
Benefit Payments, Including Refunds of Employee Contributions	(38,169,155)	(37,095,194)	(36,240,606)
Net Change in Total Pension Liability	19,497,465	17,165,473	17,880,265
Total Pension Liability - Beginning	609,531,091	592,365,618	574,485,353
Total Pension Liability - Ending (a)	\$ 629,028,556	\$ 609,531,091	\$ 592,365,618
Plan Fiduciary Net Position			
Contributions - Employer	\$ 14,393,012	\$ 15,501,180	\$ 15,061,353
Contributions - Employee	3,152,504	3,200,689	3,264,583
Net Investment Income	56,764,958	(22,561,456)	59,588,725
Benefit Payments, Including Refunds of Member Contributions	(38,169,155)	(37,095,194)	(36,240,606)
Administrative Expense	(551,683)	(398,274)	(469,862)
Net Change in Plan Fiduciary Net Position	35,589,636	(41,353,055)	41,204,193
Plan Fiduciary Net Position - Beginning	551,694,135	593,047,190	551,842,997
Plan Fiduciary Net Position - Ending (b)	\$ 587,283,771	\$ 551,694,135	\$ 593,047,190
City's Net Pension Liability - Ending (a) - (b)	\$ 41,744,785	\$ 57,836,956	\$ (681,572)
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	93.36%	90.51%	100.12%
Covered-employee Payroll	\$ 53,951,321	\$ 57,804,651	\$ 59,303,500
City's Net Position Liability as a Percentage of Covered-employee Payroll	77.37%	100.06%	1.15%

*This is a 10-year schedule. However, the information in this schedule is not required to be presented retroactively. Years will be added to this schedule in future fiscal years until 10 years of information is available. The discount rate assumption assumption changed from 7.55% to 7.50%.

CITY OF FORT LAUDERDALE, FLORIDA

REQUIRED SUPPLEMENTARY INFORMATION

**SCHEDULE OF CONTRIBUTIONS
GENERAL EMPLOYEES' RETIREMENT SYSTEM
LAST TEN FISCAL YEARS***

	2016	2015	2014
Actuarially Determined Contribution	\$ 14,393,012	\$ 15,501,180	\$ 15,061,353
Actual Contribution	14,393,012	15,501,180	15,061,353
Contribution Deficiency (Excess)	\$ -	\$ -	\$ -
Covered-employee Payroll	\$ 53,951,321	\$ 57,804,651	\$ 59,303,500
Contributions as a Percentage of Covered-employee Payroll	26.68%	26.82%	25.40%

Notes to Schedule:

Valuation Date: 9/30/2014

Actuarially determined contribution rates are calculated as of September 30, which is two year(s) prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Dollar, Closed
Remaining Amortization Period	28 years
Asset Valuation Method	5-year smoothed market
Inflation	3.00%
Salary Increases	4.00% to 9.50% depending on age, including inflation
Investment Rate of Return	7.55%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	RP-2000 Combined Healthy Participant Mortality Table for males and females with mortality improvements projected to all future years after 2000 using Scale AA.
Other Information	See Summary of Valuation Results from the September 30, 2014 Actuarial Valuation Report. Effective in the September 30, 2015 Actuarial Valuation Report, the investment return assumption was lowered from 7.55% to 7.50%.

Termination, Disability and Salary Rate Tables

	% Terminating	% Becoming	Average
Age	During the	Disabled	Salary
	Year	During the	Increase
		Year	
20	18.6%	0.14%	7.8%
30	11.0%	0.18%	6.3%
40	9.2%	0.30%	5.4%

*Note: This is a 10-year schedule. However, the information in this schedule is not required to be presented retroactively. Years will be added to this schedule in future fiscal years until 10 years of information is available.

**SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS
POLICE AND FIREFIGHTERS' RETIREMENT SYSTEM
LAST TEN FISCAL YEARS***

	2016	2015	2014	2013
Total Pension Liability				
Service Cost	\$ 19,199,538	\$ 18,531,300	\$ 18,025,712	\$ 16,768,104
Interest	62,181,617	60,367,031	57,797,227	55,119,489
Change in Excess State Money	-	-	(1,223,158)	-
Share Plan Allocation	1,732,185	1,826,197	2,561,814	-
Changes of Benefit Terms	-	1,097,988	-	-
Differences between Expected and Actual Experience	(5,100,657)	(7,319,054)	-	-
Assumption Changes	16,504,779	(2,194,981)	-	-
Contributions - Buy Back	73,763	43,865	-	-
Contributions - Transfer from General Plan	-	26,692	-	-
Benefit Payments, Including Refunds of Employee Contributions	(48,849,184)	(46,660,430)	(44,137,555)	(31,351,671)
Net Change in Total Pension Liability	45,742,041	25,718,608	33,024,040	40,535,922
Total Pension Liability - Beginning	834,313,286	808,594,678	775,570,638	735,034,716
Total Pension Liability - Ending (a)	\$ 880,055,327	\$ 834,313,286	\$ 808,594,678	\$ 775,570,638
Plan Fiduciary Net Position				
Contributions - Employer	\$ 13,867,934	\$ 15,599,916	\$ 14,498,457	\$ 11,219,401
Contributions - State	5,860,782	5,799,229	5,875,363	6,053,952
Contributions - Employee	5,732,925	5,584,263	5,581,044	4,113,451
Contributions - Buy Back	73,763	43,865	-	-
Contributions - Transfer from General Plan	-	26,692	-	-
Net Investment Income	63,676,001	5,969,880	59,358,824	69,488,348
Benefit Payments, Including Refunds of Member Contributions	(48,849,184)	(46,660,430)	(44,137,555)	(31,351,671)
Administrative Expense	(651,146)	(692,348)	(647,397)	(507,376)
Other	-	-	4,000,034	-
Net Change in Plan Fiduciary Net Position	39,711,075	(14,328,933)	44,528,770	59,016,105
Plan Fiduciary Net Position - Beginning	774,549,469	788,878,402	744,349,632	685,333,527
Plan Fiduciary Net Position - Ending (b)	\$ 814,260,544	\$ 774,549,469	\$ 788,878,402	\$ 744,349,632
City's Net Pension Liability - Ending (a) - (b)	\$ 65,794,783	\$ 59,763,817	\$ 19,716,276	\$ 31,221,006
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	92.52%	92.84%	97.56%	95.97%
Covered Payroll	\$ 69,470,181	\$ 68,064,001	\$ 67,279,327	\$ 65,886,733
City's Net Position Liability as a Percentage of Covered Payroll	94.71%	87.81%	29.31%	47.39%

*Note: This is a 10-year schedule. However, the information in this schedule is not required to be presented retroactively. Years will be added to this schedule in future fiscal years until 10 years of information is available. The covered payroll figures shown are in compliance with GASB 82.

Changes of assumptions: For measurement date 9/30/2016, as a result of Charter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System for special risk employees. The inflation assumption rate was lowered from 3.0% to 2.3%, matching the long-term inflation assumption utilized by the Plan's investment consultant. For measurement date 9/30/2015, amounts reported as assumption changes were resulted from an actuarial experience study dated July 10, 2015 the Board approved numerous changes to the actuarial assumptions and methods in conjunction with the 10/01/2015 Valuation. The following assumptions/methods have been changed, and the specifics of the approved assumptions are displayed in the actuarial assumptions and methods section of the 10/01/2015 Valuation. 1) Asset Valuation Method (with a "Fresh Start"), 2) Retirement Rates, 3) Withdrawal Rates, and 4) Disability Rates (Police only).

For measurement date 9/30/2015, amounts reported as changes of benefit terms were resulted from:

- 1) For Firefighters hired on or after October 1, 2014:
 - a) The Average Monthly Earnings period will be increased from 2 to 5 years.
 - b) The benefit accrual rate will be decreased from 3.38% to 3.0% for each year of Credited Service.
 - c) The maximum accrual rate will be decreased from 81.0% to 75.0% of Average Monthly Earnings.
 - d) For each month a Firefighter delays entry into DROP following completion of 25 years of Credited Service, the 96 month maximum DROP participation period shall be correspondingly reduced by one month.
 - e) The Normal Form of Benefit will be changed from 60% joint and contingent survivor to 10-Year Certain and Life.
- 2) Eliminating the interest component on refunds of Member Contributions for all Firefighters who separate employment with the City on or after October 1, 2014.
- 3) Amending the definition of Salary to provide that pensionable earnings for Firefighters will be increased from 144 hours to 159 hours for each 21-day period.
- 4) Implementing a special formula to determine the amount of Chapter 175 premium tax revenues that the City will be able to utilize to offset its funding requirements, effective for the plan year beginning on October 1, 2014.

CITY OF FORT LAUDERDALE, FLORIDA

REQUIRED SUPPLEMENTARY INFORMATION

**SCHEDULE OF CONTRIBUTIONS
POLICE AND FIREFIGHTERS' RETIREMENT SYSTEM
LAST TEN FISCAL YEARS***

	2016	2015	2014	2013
Actuarially Determined Contribution	\$ 17,665,942	\$ 18,913,469	\$ 19,012,474	\$ 14,208,593
Actual Contribution	17,996,531	18,913,469	19,012,474	14,208,593
Contribution Deficiency (Excess)	\$ (330,589)	\$ -	\$ -	\$ -
Covered Payroll	\$ 69,470,181	\$ 68,064,001	\$ 67,279,327	\$ 65,886,733
Contributions as a Percentage of Covered Payroll	25.91%	27.79%	28.26%	21.57%

Valuation Date: 10/1/2014 (AIS 9/10/2015)

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Funding method: Entry Age Normal Actuarial Cost Method
Amortization method: Level Percentage of Pay, Closed
Remaining amortization period: 20 Years
Mortality: RP - 2000 Table projected by Scale AA to 2012.
Disability rates: RP - 2000 Disable Table projected by Scale AA to 2012.
Interest rate: 7.50% per year compounded annually, net of investment related expenses.
Retirement Rates:

Service	Probability of Retirement (Police)	Probability of Retirement (Fire)
20-22	45%	40%
23-24	50%	30%
25-30	15%	15%
30+	100%	100%

No Members are expected to take early retirement.

Salary Increases:

Service	Annual % Increase
1-6	3.00%
7-10	2.50%
11-25	1.00%
26+	0.50%

Expected increase in annual salary in addition to 2.75% inflammatory component.

Cost of Living: None

Payroll Increases: 2.0% per year.

Marital Status: All employed members and all retired members are assumed to be married. Females are assumed to be 3 years younger than males.

Actuarial Value of Assets: The Actuarial Value of Assets is calculated by recognizing 20% of the difference between the Market Value of Assets and the expected Actuarial Value of Assets.

*Note: This is a 10-year schedule. However, the information in this schedule is not required to be presented retroactively. Years will be added to this schedule in future fiscal years until 10 years of information is available. The covered payroll figures are in compliance with GASB 82.

Actual contributions include certain Chapter 175/185 nonemployer contributing entity amounts.

CITY OF FORT LAUDERDALE, FLORIDA

REQUIRED SUPPLEMENTARY INFORMATION

**OTHER POST-EMPLOYMENT BENEFITS
LAST THREE FISCAL YEARS
(IN MILLIONS)**

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL) Projected Unit Cost	Unfunded AAL (UAAL)	Funded Ratio	Annual Covered Payroll	UAAL as a % of Covered Payroll
10/1/2015	\$ 11.8	\$ 56.7	\$ 44.9	20.8%	\$ 147.6	30.4%
10/1/2014	8.6	49.9	38.1	23.6%	142.8	26.7%
10/1/2013	-	56.6	48.0	15.2%	141.6	33.9%

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ended In	AOC	Contribution	Percent Contributed	NOO
2016	\$ 6.6	\$ 3.9	58.9%	\$ 10.6
2015	4.9	5.9	118.8%	7.9
2014	5.3	11.2	211.5%	8.8

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION:

Budgetary Data

The City Commission follows these procedures in establishing the budgetary data reflected in the financial statements:

- (1) Prior to August 1, the City Manager submits to the City Commission a proposed operating budget for the fiscal year commencing on October 1. The operating budget includes proposed expenditures and the means of financing them.
- (2) Public hearings are conducted.
- (3) Prior to October 1, the budget is legally enacted.
- (4) The level of control (level at which expenditures may not exceed budget) is the department. The City Manager is authorized to transfer budgeted amounts within departments of any fund. The City Commission must approve any revisions that alter the total expenditures of any department.
- (5) Annual budgets are adopted for all governmental and proprietary funds except for the capital project funds. The original and final budgets, as presented, include re-appropriated encumbrances of the prior year. The budgets have been adopted on a basis consistent with GAAP with the following exceptions: Budgetary expenditures include GAAP expenditures adjusted for encumbrances at September 30, 2016 and principal on the long-term debt of proprietary funds. Unencumbered balances of appropriations lapse at year-end.

The reported budgetary data represents the final approved budget after amendments adopted by the City Commission with one exception. Budgets for grants and shared revenues from other governmental units which do not lapse at year-end are only reported to the extent of revenues recognized and expenditures incurred for the current year. Individual amendments were not material in relation to the original adopted budget.

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APPENDIX D

The Resolution

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RESOLUTION NO. 03-29

CITY OF FORT LAUDERDALE

RESOLUTION NO. 03-29

Adopted on February 18, 2003

Authorizing and Securing
Water and Sewer Revenue Bonds

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF FORT LAUDERDALE, FLORIDA AUTHORIZING THE ISSUANCE OF WATER AND SEWER REVENUE BONDS, SERIES 2003, OF THE CITY OF FORT LAUDERDALE, FLORIDA, IN SUCH AMOUNTS AS THE CITY SHALL HEREAFTER DETERMINE BY SERIES RESOLUTION, FOR THE PURPOSE OF PAYING A PORTION OF THE COST (AS DEFINED HEREIN) OF IMPROVEMENTS TO THE CITY'S WATER AND SEWER SYSTEM; PROVIDING FOR THE ISSUANCE OF ADDITIONAL WATER AND SEWER REVENUE BONDS TO PAY ALL OR PART OF THE COST OF ADDITIONAL IMPROVEMENTS TO THE CITY'S WATER AND SEWER SYSTEM AND FOR REFUNDING OUTSTANDING WATER AND SEWER REVENUE BONDS; PROVIDING FOR THE INCURRENCE OF OTHER TYPES OF UTILITY DEBT FOR THE PURPOSES OF THE WATER AND SEWER SYSTEM PAYABLE FROM THE NET REVENUES OF THE WATER AND SEWER SYSTEM; PROVIDING FOR THE PAYMENT OF SUCH BONDS, OTHER UTILITY DEBT AND THE INTEREST THEREON FROM NET REVENUES OF THE CITY'S WATER AND SEWER SYSTEM; SETTING FORTH THE RIGHTS AND REMEDIES OF THE HOLDERS OF SUCH BONDS AND OTHER UTILITY DEBT; PROVIDING A SEVERABILITY CLAUSE AND A CONFLICTS CLAUSE; PROVIDING FOR THE REPEAL OF RESOLUTION NO. 93-46; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Fort Lauderdale, Florida (the "City") is a municipal corporation duly organized and operating under the Constitution and laws of the State of Florida (the "State"), including particularly Chapter 166, Florida Statutes, as amended, and the Charter of the City (collectively, the "Act"); and

WHEREAS, the City has the power and authority to acquire, own, maintain and operate on a revenue-producing basis water and sewage plants and systems and to issue revenue bonds payable from and secured by a pledge of the net revenues to be derived from the operation thereof; and

WHEREAS, the City currently owns and operates a water and sewer facility for public, domestic and commercial purposes in the City (the "Water and Sewer System"); and

WHEREAS, under the authority granted by the Act, the City is authorized to issue water and sewer revenue bonds to pay the cost of Improvements (hereinafter defined) to the Water and Sewer System and to pledge for the payment of such revenue bonds the net revenues derived from the operation of the Water and Sewer System (the "Net Revenues") and to the extent and in the manner hereinafter provided, the Impact Fees and Special Assessments (each as hereinafter defined); and

WHEREAS, the City has determined that it is in the best interests of the City to issue bonds to provide funds, together with other available funds, to pay the costs of certain Improvements to the Water and Sewer System consisting of the Project (hereinafter defined) that are necessary and desirable for the furtherance of the health, safety and welfare of the users of the Water and Sewer System; and

WHEREAS, the City has determined to issue its Water and Sewer Revenue Bonds, Series 2003 (the "Series 2003 Bonds") payable solely from and secured by a lien on and pledge of the Net Revenues of the Water and Sewer System, and to the extent and in the manner hereinafter provided, the Impact Fees and Special Assessments, in such amounts as the City shall hereafter determine by Series Resolution (hereinafter defined), for the purpose of paying a portion of the Cost (hereinafter defined) of the Project; and

WHEREAS, the City has determined to provide in this Resolution the authorization to issue hereafter other Water and Sewer Revenue Bonds and other forms of indebtedness of the City payable from the Net Revenues of the Water and Sewer System and, to the extent and in the manner hereinafter provided, the Impact Fees and Special Assessments, under this Resolution for the purpose of paying all or any part of the cost of any other improvements, renewals and replacements of the Water and Sewer System or any part thereof and such extensions and additions thereto as may be necessary or desirable, in the judgment of the City, to keep the same in proper condition for the safe, efficient and economic operation thereof or to refund or refinance all or a portion of the Bonds or any series thereof or other indebtedness of the City incurred with respect to the Water and Sewer System then outstanding, and to prescribe the terms and conditions under which such Bonds and other indebtedness may be authorized and issued;

NOW THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF FORT LAUDERDALE, FLORIDA:

TABLE OF CONTENTS

	Page
ARTICLE I	
DEFINITIONS	
Section 101. Meaning of Words and Terms	1
Section 102. Rules of Construction	18
Section 103. Resolution Constitutes Contract	19
ARTICLE II	
FORM, EXECUTION, DELIVERY AND REGISTRATION OF BONDS	
Section 201. Issuance of Bonds	20
Section 202. Details of Bonds	20
Section 203. Execution and Form of Bonds	23
Section 204. Authentication of Bonds	23
Section 205. Exchange of Bonds	23
Section 206. Negotiability, Registration and Transfer of Bonds	24
Section 207. Ownership of Bonds	24
Section 208. Authorization of Series 2003 Bonds	24
Section 209. Additional Bonds	27
Section 210. Refunding Bonds	30
Section 211. State Revolving Fund Indebtedness	33
Section 212. Other Indebtedness	33
Section 213. Temporary Bonds	35
Section 214. Mutilated, Stolen, Destroyed or Lost Bonds	35
Section 215. Provisions with Respect to Book-Entry System	36
Section 216. Capital Appreciation Bonds; Capital Appreciation and Income Bonds	36
ARTICLE III	
REDEMPTION OF BONDS	
Section 301. Redemption Generally	37
Section 302. Selection of Bonds for Redemption or Purchase	37
Section 303. Redemption Notice	37
Section 304. Partial Redemption of Bonds	38
Section 305. Effect of Calling for Redemption	38
Section 306. Cancellation of Bonds	39
Section 307. Bonds Called for Redemption Deemed Not Outstanding	39

ARTICLE IV	
CONSTRUCTION ACCOUNT	
Section 401.	Construction Account40
Section 402.	Payments from Construction Account.....40
Section 403.	Cost of Project and Improvements.....41
Section 404.	Title to Properties Acquired.....42
Section 405.	Disposition of Construction Account Balance.....42

ARTICLE V	
REVENUES AND FUNDS	
Section 501.	Water and Sewer Rates43
Section 502.	Rate Covenant.....43
Section 503.	Annual Budget44
Section 504.	Enterprise Fund; Revenue Account45
Section 505.	Sinking Fund Account and Other Accounts45
Section 506.	Payment of Current Expenses.....48
Section 507.	Application of Moneys in Bond Service Subaccount.....48
Section 508.	Application of Moneys in Redemption Subaccount48
Section 509.	Application of Moneys in Reserve Account.....50
Section 510.	Application of Moneys in Rate Stabilization Account51
Section 511.	Application of Moneys in Subordinated Indebtedness Account.....52
Section 512.	Application of Moneys in Renewal, Replacement and Improvement Account.....52
Section 513.	Application of Moneys in General Reserve Account53
Section 514.	Application of Moneys in Sinking Fund Account54
Section 515.	Impact Fee Account.....54
Section 516.	Special Assessment Account54
Section 517.	Money Held in Trust.....55
Section 518.	Cancellation of Bonds.....55

ARTICLE VI	
DEPOSITARIES OF MONEYS, SECURITY FOR DEPOSITS AND INVESTMENT OF FUNDS	
Section 601.	Security for Deposits.....56
Section 602.	Investment of Moneys.....56
Section 603.	Valuation of Investment Obligations.....58
Section 604.	Accounting for Funds and Accounts.....58
Section 605.	Tax Covenants59

ARTICLE X	
SUPPLEMENTAL RESOLUTIONS	
Section 1001.	Supplemental Resolution without Bondholders Consent.....74
Section 1002.	Supplemental Resolution with Bondholders' Consent75
Section 1003.	Amendment with Consent of Credit Facility Provider in Lieu of Bondholders....76
Section 1004.	Supplemental Resolutions Part of Resolution.....77

ARTICLE XI	
DEFEASANCE	
Section 1101.	Cessation of Interests of Bondholders78

ARTICLE XII	
MISCELLANEOUS PROVISIONS	
Section 1201.	Effect of Covenants.....81
Section 1202.	Manner of Giving Notice.....81
Section 1203.	Successorship of Bond Registrar81
Section 1204.	Successorship of City Officers.....82
Section 1205.	Substitute Publication82
Section 1206.	Inconsistent Resolutions82
Section 1207.	Further Acts82
Section 1208.	Headings Not Part of Resolution82
Section 1209.	Beneficiaries under Resolution82
Section 1210.	Effect of Partial Invalidity83
Section 1211.	Repeal of Resolution No. 93-46.....83
Section 1212.	Resolution Effective.....83

ARTICLE VII	
PARTICULAR COVENANTS	
Section 701.	Payment of Principal, Interest and Premium; Pledge of Net Revenues.....60
Section 702.	Construction of Project and Improvements; Operation of Water and Sewer System60
Section 703.	Employment of Consulting Engineers61
Section 704.	Employment of Accountant61
Section 705.	Insurance61
Section 706.	Use of Revenues63
Section 707.	Records, Accounts and Audits63
Section 708.	Franchises63
Section 709.	Supervisory Personnel63
Section 710.	Separate System.....64
Section 711.	No Free Service.....64
Section 712.	Failure to Pay for Services.....64
Section 713.	Enforcement of Collections64
Section 714.	Sale or Other Disposition of the Water and Sewer System65

ARTICLE VIII	
REMEDIES	
Section 801.	Extension of Interest Payment67
Section 802.	Events of Default67
Section 803.	Acceleration of Maturities68
Section 804.	Enforcement of Remedies69
Section 805.	Pro Rata Application of Funds.....70
Section 806.	Effect of Discontinuance of Proceedings.....72
Section 807.	Restrictions on Individual Bondholder Actions.....72
Section 808.	No Remedy Exclusive.....72
Section 809.	Delay Not a Waiver72
Section 810.	Right to Enforce Payment of Bonds72

ARTICLE IX	
EXECUTION OF INSTRUMENTS BY BONDHOLDERS AND PROOF OF OWNERSHIP OF BONDS	
Section 901.	Execution of Instruments by Bondholders and Proof of Ownership of Bonds.....73

ARTICLE I	
DEFINITIONS	

Section 101. Meaning of Words and Terms. In addition to words and terms elsewhere defined in this Resolution, the following words and terms as used in this Resolution shall have the following meaning, unless some other meaning is plainly intended:

“Accountant” shall mean the independent certified public accountant or firm of independent certified public accountants which shall have a favorable reputation for skill and experience in accounting matters at the time and during the period employed by the City under the provisions of Section 704 of this Resolution to perform and carry out the duties imposed on the Accountant by this Resolution.

“Accreted Value” shall mean, as of any date of computation with respect to any Capital Appreciation Bond, an amount equal to the principal amount of such Bond (the principal amount on the date of original issuance), plus the interest accrued on such Bond from the date of original issuance to the Interest Payment Date next preceding the date of computation or the date of computation if an Interest Payment Date, compounded periodically at the times provided for in the Series Resolution authorizing the issuance of such Bonds, and if such date of computation is not an Interest Payment Date, a portion of the difference between the Accreted Value as of the immediately preceding Interest Payment Date (or the date of original issuance if such date of computation is prior to the first Interest Payment Date) and the Accreted Value as of the immediately succeeding Interest Payment Date, calculated based on the assumption that Accreted Value accrues during any semi-annual period in equal daily amounts on the basis of a year of twelve 30-day months.

“Additional Bonds” shall mean the Bonds issued at any time under the provisions of Section 209 of this Resolution.

“Alternative Parity Debt” means indebtedness of the City (including the assumption of the debts of others) or borrowed money (including refunding or refinancing of then existing indebtedness and leases capitalized in accordance with generally accepted accounting principles) incurred in accordance with Section 212(f) of this Resolution.

“Amortization Requirements” shall mean the amounts required to be deposited in the Redemption Subaccount for any Series of Bonds for the purpose of redeeming prior to their maturity and paying at their maturity the Term Bonds of any Series, issued pursuant to this Resolution, the specific amounts and times of such deposits to be determined by the City Commission in a Series Resolution relating to such Series of Bonds.

“Annual Budget” shall mean the Annual Budget adopted pursuant to Section 503 of this Resolution.

“Appreciated Value” shall mean, (i) as of any date of computation with respect to any Capital Appreciation and Income Bond up to the Interest Commencement Date set forth in the Series Resolution for such Bond, an amount equal to the principal amount of such Bond (the principal amount on the date of original issuance) plus the interest accrued on such Bond from the date of original issuance of such Bond to the Interest Payment Date next preceding the date of computation or the date of computation if an Interest Payment Date, such increased value to accrue at the stated rate per annum of such Bond compounded on the Interest Payment Dates of such year, plus, if such date of computation shall not be an Interest Payment Date, a portion of the difference between the Appreciated Value as of the immediately preceding Interest Payment Date (or the date of original issuance if the date of computation is prior to the first Interest Payment Date succeeding the date of original issuance) and the Appreciated Value as of the immediately succeeding Interest Payment Date calculated based upon an assumption that Appreciated Value accrues during any semi-annual period in equal daily amounts on the basis of a year of twelve 30-day months and (ii) as of any date of computation on and after the Interest Commencement Date, the Appreciated Value on the Interest Commencement Date.

“Arbitrage Rebate Account” shall mean an account or accounts established by the City for the deposit of moneys necessary for payments required to be made to the United States of America in connection with any Series of Bonds or Utility Debt secured by a lien on Net Revenues subject to arbitrage rebate requirements under the Code. The moneys in such account or accounts shall be applied only for the purposes for which such account or accounts are established and shall not be subject to a lien or charge in favor of Holders of any Bonds or holders of any Utility Debt and shall not be pledged as security for the payment of any Bonds or Utility Debt.

“Bond Counsel” shall mean a law firm selected by the City of favorable reputation for skill in matters relating to the exclusion from gross income for federal income tax purposes of interest on municipal bonds.

“Bond Registrar” shall mean either the City or a bank or trust company, either within or without the State of Florida, designated as such by the City Commission in the Series Resolution relating to a Series of Bonds, which shall perform such functions as Bond Registrar and paying agent as are required by Article II of this Resolution.

“Bond Service Subaccount” shall mean the Bond Service Subaccount, a special subaccount within the Sinking Fund Account created and designated by Section 505 of this Resolution.

“Bondholders” or “Holders” shall mean the registered owners of the Bonds.

“Bonds” shall mean, collectively, the Bonds issued under the provisions of Article II of this Resolution.

2

“Code” shall mean the Internal Revenue Code of 1986, as amended from time to time, and the regulations promulgated thereunder and under the Internal Revenue Code of 1954, as amended.

“Completion Date” shall mean the date of completion of the acquisition or construction of the Project or of any Improvements, as the case may be, as such date shall be certified pursuant to the requirements of Section 405 of this Resolution.

“Construction Account” shall mean the Water and Sewer System Construction Account, a special account created and designated by Section 401 of this Resolution.

“Consulting Engineers” shall mean one or more licensed professional engineers or firms of professional engineers at the time employed by the City under the provisions of Section 703 of this Resolution to perform and carry out the duties imposed on the Consulting Engineers by this Resolution.

“Convertible Bonds” shall mean Bonds issued under this Resolution which are convertible, at the option of the City, into a form of Bonds which are permitted by this Resolution other than the form of such Bonds at the time they were issued.

“Cost” as applied to the Project or any Improvements, shall embrace the costs of acquisition and construction and all obligations and expenses and all items of cost which are set forth in Section 403 of this Resolution.

“County” shall mean Broward County, Florida, a political subdivision of the State of Florida.

“Credit Facility” shall mean an irrevocable letter of credit, policy of municipal bond insurance, guaranty, purchase agreement, credit agreement, surety bond or similar facility in which the entity providing such facility irrevocably agrees to provide funds to make payment of the principal of and interest on Bonds or Utility Debt provided that such entity is at the time of providing such facility of sufficient credit quality to entitle debt backed by its Credit Facility to be rated in one of the two highest long-term rating categories (without regard to any gradations within such categories) by each of the Rating Agencies.

“Current Expenses” shall mean the City’s reasonable and necessary current expenses of maintenance, repair and operation of the Water and Sewer System and shall include, without limiting the generality of the foregoing, all ordinary and usual expenses of maintenance and repair, which may include expenses not annually recurring, all City administrative expenses, expenses relating to the operation of all or a part of the Water and Sewer System by another on behalf of the City and any reasonable payments to pension or retirement funds properly chargeable to the Water and Sewer System, insurance premiums, engineering expenses relating

4

“Capital Appreciation Bond” shall mean any Bond or Bonds of a Series issued under this Resolution as to which interest is compounded periodically on each of the applicable periodic dates designated for compounding in the Series Resolution for such Bonds and payable in an amount equal to the then current Accreted Value to the date of maturity or redemption prior to maturity as designated in such Series Resolution and which may be either Serial Bonds or Term Bonds.

“Capital Appreciation and Income Bonds” shall mean any Bond or Bonds of a Series issued under this Resolution as to which accruing interest is not payable prior to the Interest Commencement Date specified in the Series Resolution for such Bonds and the Appreciated Value for such Bonds is compounded periodically on certain dates designated in such Series Resolution prior to the Interest Commencement Date for such Capital Appreciation and Income Bonds and which may be either Series Bonds or Term Bonds.

“Capital Expenditures” shall mean all expenditures made for extensions, additions, improvements, renewals and replacements (other than ordinary maintenance and repairs) acquired, constructed or installed for the purpose of preserving, extending, increasing or improving the service rendered by the Water and Sewer System or for reducing the cost of operation, and shall include the cost of purchasing and installing such equipment and appurtenances as may be necessary to meet the demands upon the Water and Sewer System; Capital Expenditures shall also include the acquisition of such lands and rights-of-way and such engineering, legal and administrative expenses as may be required in connection with the foregoing.

“City” shall mean the City of Fort Lauderdale, Florida.

“City Attorney” shall mean the City Attorney of the City, his or her designated assistant or an attorney or firm of attorneys succeeding to his or her principal functions.

“City Clerk” shall mean the City Clerk of the City or his or her designee or the officer succeeding to his or her principal functions.

“City Commission” shall mean the City Commission of the City or any successor commission, council, board or body in which the general legislative power of the City shall be vested.

“City Engineer” shall mean the City Engineer of the City or his or her designee or the person succeeding to his or her principal functions.

“City Manager” shall mean the City Manager of the City or his or her designee or the officer succeeding to his or her principal functions.

3

to maintenance, repair and operation, fees and expenses of the Bond Registrar, legal and accounting expenses, any fees, fines, or penalties lawfully imposed on the Water and Sewer System, any taxes which may be lawfully imposed on the Water and Sewer System or its income or operations and reserves for such taxes, annual premiums for bond insurance, interest rate insurance or insurance assuring availability of the amounts required to be on deposit in the Reserve Account, annual fees for Credit Facilities or Liquidity Facilities, and any other expenses required to be paid by the City under the provisions of this Resolution or by law, including any amounts required from time to time to fund the Arbitrage Rebate Account, but shall not include any reserves for extraordinary maintenance or repair, or any allowance for depreciation, or any expenses associated with grant-funded expenditures, or any deposits or transfers to the credit of the Sinking Fund Account, the Reserve Account, the Rate Stabilization Account, the Subordinated Indebtedness Account, the Renewal, Replacement and Improvement Account, the General Reserve Account, the Impact Fee Account or the Special Assessment Account. In addition, for purposes of the calculations required by Sections 209 (c) and 502 hereof, “Current Expenses” shall not include any payments in lieu of taxes or any indirect administrative charges paid to the credit of the City’s General Fund.

“Current Interest Bonds” shall mean Bonds the interest on which is payable to the Bondholder on the Interest Payment Dates with respect thereto and not only at the maturity thereof.

“Daily Newspaper” shall mean a newspaper published in the English language on at least three (3) business days in each calendar week.

“Defaulted Interest” shall have the meaning attributed to such term in Section 202 of this Resolution.

“Depositary” shall mean any bank or trust company duly authorized by law to engage in the banking business and designated by the Finance Director as a depositary of moneys under the provisions of this Resolution.

“Enterprise Fund” shall mean the Water and Sewer Enterprise Fund, a special fund created and designated by Section 504 of this Resolution.

“Finance Director” shall mean the Director of Finance of the City or his or her designee or the officer succeeding to his or her principal functions.

“Financial Statements” shall mean the audited financial statements of the City relating to the Water and Sewer System, prepared in accordance with generally accepted accounting principles applicable to water and sewer systems owned by cities, which in the case of the Water and Sewer System may be those provisions of the City’s General Purpose Financial Statements relating to the Water and Sewer System.

5

"Fiscal Year" shall mean the period commencing on the first day of October and ending on the last day of September of the following year, as the same may be amended from time to time to conform to the fiscal year of the City.

"Fitch" shall mean Fitch Inc. a corporation organized and existing under the laws of the State of New York, its successors and their assigns, and, if such corporation shall for any reason no longer perform the functions of a securities rating agency, "Fitch" shall be deemed to refer to any other nationally recognized securities rating agency designated by the City.

"General Reserve Account" shall mean the Water and Sewer General Reserve Account, a special account within the Enterprise Fund created and designated by Section 505 of this Resolution.

"Government Obligations" shall mean any of the obligations described in clauses (i), (ii) and (x) of the definition of "Investment Obligations" is this Article I.

"Impact Fee Account" shall mean the Impact Fee Account, a special account within the Enterprise Fund created and designated pursuant to Section 515 of this Resolution, the moneys in which shall be pledged and applied as set forth in Section 515 of this Resolution.

"Impact Fees" shall mean all nonrefundable (except at the option of the City) capital recovery charges, pollution control fees, capacity charges and other similar fees and charges separately imposed by the City as a nonuser capacity charge for the proportionate share of the cost of expanding, oversizing, separating or constructing Improvements to the Water and Sewer System and any investment earnings from the investment of funds on deposit in the Impact Fee Account, but excluding those charges imposed by the City on persons connecting to the Water and Sewer System for the cost of physically connecting thereto, including but not limited to the costs of excavation, plumbing, installation of meters and landscaping.

"Improvements" shall mean such improvements, renewals and replacements of the Water and Sewer System or any part thereof and such extensions and additions thereto as may be necessary or desirable, in the judgment of the City, to keep the same in proper condition for the safe, efficient and economic operation thereof and to integrate into the Water and Sewer System any unit or part thereof, and shall include such land, structures and facilities as may be authorized to be acquired or constructed by the City under the provisions of State law and such improvements, renewals and replacements of such land, structures and facilities and the Water and Sewer System and such extensions and additions thereto as may be necessary or desirable for continuous and efficient service to the public.

"Interest Commencement Date" shall mean, with respect to any Capital Appreciation and Income Bonds, the date specified in the Series Resolution for such Bonds or the resolution awarding the same (which date must be prior to the maturity date of such Bonds) after which

interest accruing on such Bonds shall be payable semi-annually with the first such payment date being the applicable Interest Payment Date immediately succeeding such Interest Commencement Date.

"Interest Payment Date" shall mean the dates for the payment of interest on a Series of Bonds as shall be established by the Series Resolution for such Series of Bonds.

"Interest Rate Swap" shall mean an agreement in writing by and between the City and another entity (the "Counterparty") pursuant to which (i) the City agrees to pay to the Counterparty an amount, either at one time or periodically, which may, but is not required to, be determined by reference to the amount of interest payable on the debt of the Counterparty specified in such agreement in the period specified in such agreement and (ii) the Counterparty agrees to pay to the City an amount, either at one time or periodically, which may, but is not required to, be determined by reference to the amount of interest payable on all or a portion of a Series of Bonds or Utility Debt specified in such agreement in the period specified in such agreement. The written agreement specified in the preceding sentence shall provide (a) for either one-time payment by both parties or for periodic payments by both parties, but not one time payment by one party and periodic payments by the other party, (b) for immediate termination of such agreement for non-payment by the Counterparty and (c) for any payments of the City to be made only from the General Reserve Account.

"Interim Bonds or Notes" shall mean bonds or notes issued by the City with a final maturity not longer than 60 months (or longer period if then so permitted by the provisions of State law relating to the issuance of bond anticipation notes by municipalities) in anticipation of the refinancing thereof from all or a portion of the proceeds of a Series of Bonds issued under this Resolution or from all or a portion of the proceeds of State Revolving Fund Indebtedness.

"Investment Obligations" shall mean any of the following, to the extent that the same is legal for the investment of public funds under State law:

(i) direct obligations of the United States of America and securities fully and unconditionally guaranteed as to the timely payment of principal and interest by the United States of America, provided that the full faith and credit of the United States of America must be pledged to any such direct obligation or guarantee ("Direct Obligations") and evidences of ownership of proportionate interests in future interest or principal payments on Direct Obligations held by a bank or trust company as custodian, under which the owner of the investment is the real party in interest and has the right to proceed directly and individually against the obligor on the underlying Direct Obligations, and which underlying Direct Obligations are not available to satisfy any claim of the custodian or any person claiming through the custodian or to whom the custodian may be obligated;

6

7

(ii) direct obligations and fully guaranteed certificates of beneficial interest of the Export Import Bank of the United States; senior debt obligations of the Federal Home Loan Banks; participation certificates and senior debt obligations of the Federal Home Loan Mortgage Corporation ("FHLMCs"); debentures of the Federal Housing Administration; mortgage-backed securities (except stripped mortgage securities which are valued greater than par on the portion of unpaid principal) and senior debt obligations of the Federal National Mortgage Association ("FNMA's"); participation certificates of the General Services Administration; guaranteed mortgage-backed securities and guaranteed participation certificates of the Government National Mortgage Association ("GNMA's"); guaranteed participation certificates and guaranteed pool certificates of the Small Business Administration; debt obligations and letter of credit-backed issues of the Student Loan Marketing Association; local authority bonds of the U.S. Department of Housing & Urban Development; guaranteed Title XI financings of the U.S. Maritime Administration; obligations of the Rural Economic Community Development Administration; obligations of the Federal Financing Bank; and Resolution Funding Corporation ("REFCORP") securities;

(iii) direct obligations of any state of the United States of America or any subdivision or agency thereof whose unsecured, uninsured and unguaranteed general obligation debt is rated, at the time of purchase, "A" or better by each of the Rating Agencies, or any obligation fully and unconditionally guaranteed by any state, subdivision or agency whose unsecured, uninsured and unguaranteed debt is rated, at the time of purchase, Aaa/AAA by each of the Rating Agencies or whose unsecured, uninsured and unguaranteed general obligation debt is rated, at the time of purchase, "A" or better by each of the Rating Agencies;

(iv) commercial paper (having original maturities of not more than 270 days) rated, at the time of purchase, "P-1" by Moody's and "A-1+" or better by Standard & Poor's;

(v) federal funds, unsecured certificates of deposit, time deposits or bankers acceptances (in each case having maturities of not more than 360 days) of any domestic bank including a branch office of a foreign bank which branch office is located in the United States, provided legal opinions are received to the effect that full and timely payment of such deposit or similar obligation is enforceable against the designated office or any branch of such bank, which, at the time of purchase, has a short-term "Bank Deposit" rating of "P-1" by Moody's and a "Short-Term CD" rating of "A-1" or better by Standard & Poor's;

(vi) deposits of any bank or savings and loan association which has combined capital, surplus and undivided profits of not less than \$3 million, provided such deposits

are continuously and fully insured by the Bank Insurance Fund or the Savings Association Insurance Fund of the Federal Deposit Insurance Corporation;

(vii) investments in money market funds rated in the highest rating category by each of the Rating Agencies;

(viii) units of participation in the Local Government Surplus Funds Trust Fund administered by the Florida State Board of Administration pursuant to Part IV, Chapter 218, Florida Statutes;

(ix) repurchase agreements collateralized by Direct Obligations, GNMA's, FNMA's or FHLMC's with any registered broker/dealer subject to the Securities Investors' Protection Corporation jurisdiction or any commercial bank insured by the FDIC, if such broker/dealer or bank has an unsecured, unsecured and unguaranteed obligation rated "P-1" or "A3" or better by Moody's, and "A-1" or "A-" or better by Standard & Poor's, provided:

(a) a master repurchase agreement or specific written repurchase agreement governs the transaction; and

(b) the securities are held free and clear of any lien by the City or an independent third party acting solely as agent ("Agent") for the City, and such third party is (1) a Federal Reserve Bank or (2) a bank which is a member of the Federal Deposit Insurance Corporation and which has combined capital, surplus and undivided profits of not less than \$25 million, and the City shall have received written confirmation from such third party that it holds such securities, free and clear of any lien, as agent for the City; and

(c) a perfected first security interest under the Uniform Commercial Code, or book entry procedures prescribed at 31 C.F.R. 306.1 et seq. or 31 C.F.R. 350.0 et seq. in such securities is created for the benefit of the City; and

(d) the repurchase agreement has a term of 180 days or less, and the City or the Agent will value the collateral securities no less frequently than weekly and will liquidate the collateral securities if any deficiency in the required collateral percentage is not restored within two business days of such valuation; and

(e) the fair market value of the securities in relation to the amount of the repurchase obligation, including principal and interest, is equal to at least 104% for Direct Obligations and GNMA's and at least equal to 105% for FNMA's and FHLMC's;

8

9

(x) Pre-refunded Municipal Obligations defined as follows: any bonds or other obligations of any state of the United States of America or of any agency, instrumentality or local governmental unit of any such state which are not callable at the option of the obligor prior to maturity or as to which irrevocable instructions have been given by the obligor to call on the date specified in the notice:

(a) which are rated, based on an irrevocable escrow account or fund (the "escrow"), in the highest rating category of Moody's or Standard & Poor's or any successors thereto; or

(b) (1) which are fully secured as to principal and interest and redemption premium, if any, by an escrow consisting only of cash or obligations described in paragraph (i) above, which escrow may be applied only to the payment of such principal of and interest and redemption premium, if any, on such bonds or other obligations on the maturity date or dates thereof or the specified redemption date or dates pursuant to such irrevocable instructions, as appropriate, and (2) which escrow is sufficient, as verified by a nationally recognized independent certified public accountant, to pay principal of and interest and redemption premium, if any, on the bonds on the maturity date or dates specified in the irrevocable instructions referred to above, as appropriate; and

(xi) guaranteed investment agreements collateralized by Direct Obligations, senior debt and/or mortgaged backed obligations of GNMA, FNMA or FHLMC, the fair market value of the securities in relation to the total principal deposited under the investment agreement is at least equal to 104% for Direct Obligations and GNMA's and at least equal to 105% for FNMA and FHLMC's and such collateral is held by a third party segregated and marked to market at least weekly, provided:

(a) for investment agreements having a term of six (6) months or less, with any registered broker/dealer subject to the Securities Investor Protection Corporation jurisdiction, rated at least "A3" by Moody's and "A-" by Standard & Poor's and such agreement is in repurchase format; or with a domestic bank insured by FDIC rated at least "A3" by Moody's and "A-" by Standard & Poor's; and

(b) for investment agreements having a term greater than six (6) months and less than seven (7) years, with any registered broker/dealer subject to the Securities Investor Protection Corporation jurisdiction, rated at least "A3" by Moody's and "A-" by Standard & Poor's and such agreement is in repurchase format; or with a domestic bank insured by FDIC rated at least "A2" by Moody's and "A" by Standard & Poor's; and

10

(b) Bonds deemed to have been paid in accordance with Section 307 or Section 1101 of this Resolution.

"Principal" or "principal" shall mean, (i) with respect to Current Interest Bonds, the stated principal amount thereof, (ii) with respect to Capital Appreciation Bonds, the Accreted Value thereof, as of any particular date of determination, and (iii) with respect to Capital Appreciation and Income Bonds, the Appreciated Value thereof, as of any particular date of determination.

"Principal and Interest Requirements" shall mean the respective amounts which are required in each Fiscal Year to provide:

(i) for paying the interest on all Bonds then Outstanding which is payable on each Interest Payment Date in such Fiscal Year, and

(ii) for paying the principal of all Serial Bonds then Outstanding which is payable upon the maturity of Serial Bonds in such Fiscal Year, and

(iii) the Amortization Requirements for the Term Bonds of such Series for such Fiscal Year.

In determining the amount of the Principal and Interest Requirements for any Fiscal Year, the following rules shall apply:

(a) with respect to Variable Rate Bonds, the interest rate shall be assumed to be the average rate of interest for all Variable Rate Bonds for the prior Fiscal Year or portion thereof or if there were no Variable Rate Bonds Outstanding during such prior Fiscal Year, then the initial rate of interest on such Variable Rate Bonds; "average rate" shall mean the rate determined by dividing the total annualized amount of interest paid on Variable Rate Bonds in any Fiscal Year or portion thereof by the average principal amount of Variable Rate Bonds Outstanding during such Fiscal Year or portion thereof;

(b) with respect to interim Bonds or Notes, interest only and not the principal shall be included in Principal and Interest Requirements if the Series of Bonds, all or a portion of the proceeds of which are expected to be used to refinance such Interim Bonds or Notes, have been duly authorized by the City; provided, however, none of the interest or principal on Interim Bonds or Notes shall be included in Principal and Interest Requirements if the City Commission shall determine in the resolution authorizing the issuance of such Interim Bonds or Notes that such Interim Bonds or Notes shall be Subordinated Indebtedness hereunder;

12

(c) for investment agreements having a term greater than seven (7) years, with any registered broker/dealer subject to the Securities Investor Protection Corporation jurisdiction, rated at least "Aa1" by Moody's and "AA+" by Standard & Poor's; or with a domestic bank insured by FDIC rated at least "Aa2" by Moody's and "AA" by Standard & Poor's.

"Liquidity Facility" shall mean a letter of credit, policy of municipal bond insurance, guaranty, purchase agreement, line of credit or similar facility in which the entity providing such facility agrees to provide funds to pay the purchase price of Optional Tender Bonds upon their tender by the Holders of Optional Tender Bonds provided that such entity is at the time of providing such facility of sufficient credit quality to entitle debt backed by its Liquidity Facility to be rated in the highest short-term rating category (without regard to any gradations within such categories) in which providers of similar facilities are then rated by each of the Rating Agencies.

"Maximum Principal and Interest Requirements" shall mean the maximum amount of Principal and Interest Requirements for any Fiscal Year.

"Mayor" shall mean the Mayor of the City, or in his or her absence, the Vice Mayor of the City, or the officer succeeding to his or her principal functions.

"Moody's Investors Service" or "Moody's" shall mean Moody's Investors Service, Inc., a corporation organized and existing under the laws of the State of Delaware, its successors and their assigns, and, if for any reason such corporation shall no longer perform the functions of a securities rating agency, "Moody's Investors Services" shall be deemed to refer to any other nationally recognized securities rating agency designated by the City.

"Net Revenues" for any particular period shall mean the amount of the excess of the Revenues for such period over the Current Expenses for such period.

"Optional Tender Bonds" shall mean the portion of a Series of Bonds issued under this Resolution, a feature of which is an option on the part of the Holders of such Bonds to tender such Bonds to the City, a trustee or other fiduciary for such Holders for payment prior to stated maturity.

"Outstanding" shall mean, when used with respect to the Bonds, all Bonds theretofore delivered except:

(a) Bonds paid, redeemed or delivered to or acquired by the City and cancelled; and

11

(c) with respect to Optional Tender Bonds, Principal and Interest Requirements shall not include the principal amount of such Optional Tender Bonds payable upon exercise by the holders thereof of the option to tender such Bonds for purchase to the extent and for so long as a Liquidity Facility or a Credit Facility shall be in full force and effect with respect to such Optional Tender Bonds but shall include the regularly scheduled principal payments on such Optional Tender Bonds, either upon payment at maturity or redemption in satisfaction of the Amortization Requirements for such Optional Tender Bonds; provided, however, that during any period of time after the issuer of the Liquidity Facility or the Credit Facility has advanced funds thereunder and before such amount is repaid, Principal and Interest Requirements shall include the principal amount so advanced and interest thereon, in accordance with the principal repayment schedule and interest rate or rates specified in the Liquidity Facility or the Credit Facility;

(d) with respect to Capital Appreciation Bonds, the principal and interest portions of the Accreted Value becoming due at maturity or by virtue of an Amortization Requirement shall be included in the calculations of accrued and unpaid interest and principal requirements;

(e) with respect to Capital Appreciation and Income Bonds, the principal and interest portions of the Appreciated Value becoming due at maturity or by virtue of an Amortization Requirement shall be included in the calculations of accrued and unpaid interest and principal requirements;

(f) if interest on a Series of Bonds is payable from the proceeds of such Bonds or from other amounts set aside irrevocably for such purpose at the time such Bonds are issued, interest on such Series of Bonds shall be included in Principal and Interest Requirements only in proportion to the amount of interest payable in the then current Fiscal Year from amounts other than amounts so funded to pay such interest;

(g) Principal and Interest Requirements shall not include the principal of, redemption premium, if any, and interest on Subordinated Indebtedness; and

(h) Principal and Interest Requirements shall not include the principal of, redemption premium, if any, and interest on bonds of the City issued for the purpose of financing the acquisition or construction of Separate Systems.

"Project" shall mean the Improvements described in Exhibit A hereto, as the same may be modified or supplemented from time to time by the City.

"Rate Consultant" shall mean a consultant or consulting firm or corporation at the time employed by the City under the provisions of Section 502 of this Resolution (which may be the

13

Consulting Engineers) to perform and carry out the duties imposed on the Rate Consultant by said Section 502.

“Rate Stabilization Account” shall mean the Water and Sewer Revenue Bonds Rate Stabilization Account, a special account within the Enterprise Fund created and designated by Section 505 of this Resolution.

“Rating Agencies” shall mean each of Moody’s Investors Service, Standard & Poor’s and Fitch, to the extent that Moody’s Investors Service, Standard & Poor’s and Fitch then have ratings issued and outstanding in respect of any Bonds.

“Redemption Subaccount” shall mean the Redemption Subaccount, a special subaccount within the Sinking Fund Account created and designated by Section 505 of this Resolution.

“Refunding Bonds” shall mean the Bonds issued at any time under the provisions of Section 210 of this Resolution.

“Regular Record Date” shall mean the 15th day (whether or not a business day) of the month preceding any Interest Payment Date; provided, however, that a different Regular Record Date may be provided for a Series of Bonds pursuant to the Series Resolution with respect to such Series.

“Renewal, Replacement and Improvement Account” shall mean the Water and Sewer Renewal, Replacement and Improvement Account, a special account within the Enterprise Fund created and designated by Section 505 of this Resolution.

“Renewal, Replacement and Improvement Account Requirement” shall mean an amount equal to (i) \$3,000,000; or (ii) such greater amount as may be annually recommended by the Consulting Engineer.

“Reserve Account” shall mean the Water and Sewer Revenue Bonds Reserve Account, a special account within the Enterprise Fund created and designated by Section 505 of this Resolution, including any subaccounts created therein and any separate Reserve Accounts created as permitted by Section 505 of this Resolution.

“Reserve Account Deposit Requirement” means the amount, if any, determined in each Series Resolution, required to be deposited monthly to the credit of the Reserve Account on account of such Series; provided, however,

- (i) the Reserve Account Deposit Requirement for any Series shall not be less than one-twelfth (1/12) of the Reserve Account Requirement for such Series in each month until the amount on deposit in the Reserve Account shall be equal to the Reserve Account Requirement for such Series; and

14

“Revenues” shall mean all moneys received by the City in connection with or as a result of its ownership or operation (either by the City or on its behalf) of the Water and Sewer System, including the income derived by the City from the sale of water produced, treated or distributed by, or the collection, transmission, treatment or disposal of sewage by the Water and Sewer System, any proceeds of use and occupancy insurance on the Water and Sewer System or any part thereof and income from investments made under this Resolution; provided, however, Revenues shall not include grants, contributions or donations, investment income from investments of moneys on deposit in the Construction Account and the Impact Fee Account, proceeds of insurance (except use and occupancy insurance) and condemnation awards, moneys held in any Arbitrage Rebate Accounts created in connection with the issuance of any Series of Bonds, proceeds of sales of property constituting a part of the Water and Sewer System, Special Assessments, the proceeds of Bonds or other Utility Debt and Impact Fees.

“Separate System” shall mean water facilities, sewer facilities or water and sewer facilities, which are not, on the date of adoption of this Resolution, a part of the Water and Sewer System and which the City Commission shall determine by resolution to make a Separate System; provided, however, the City Commission shall not adopt a resolution designating facilities as a Separate System unless the requirements therefor as set forth in Section 710 of this Resolution are met at the time of such designation.

“Serial Bonds” shall mean the Bonds of a Series which shall be stated to mature in annual installments.

“Series” shall mean the Bonds delivered at any one time under the provisions of Sections 208, 209 and 210 of this Resolution.

“Series 2003 Bonds” shall mean the City of Fort Lauderdale, Florida Water and Sewer Revenue Bonds, Series 2003, to be issued under the provisions of Section 208 of this Resolution in an aggregate principal amount of not exceeding \$90,000,000, with the principal amount of such Series 2003 Bonds to be determined as provided in a Series Resolution relating to such Series 2003 Bonds.

“Series Resolution” means the resolution of the City Commission that is required by Article II of this Resolution to be adopted prior to the issuance of any Series of Bonds under this Resolution. Except to the extent already provided herein with respect to the Series 2003 Bonds, each Series Resolution shall (a) determine or provide for the determination of the details of the Bonds of such Series, including, among other things, the maximum principal amount of such Series, the date thereof, the method of payment of interest thereon, the maximum maturity thereof, the redemption provisions relating thereto, including the Amortization Requirements for the Term Bonds, if any, the Bond Registrar therefor, and whether the Bonds of such Series shall be issuable in book entry or certificated form, (b) define any Improvements to be financed with the proceeds of such Series, (c) provide for the application of the proceeds of the Bonds to which

16

- (ii) in the event any deficiency is created in the Reserve Account for any Series by a withdrawal or otherwise, the Reserve Account Deposit Requirement for such Series shall be increased, beginning in the month following the month in which such deficiency was created, by an amount at least equal to one-twelfth (1/12) of the amount of such deficiency or, in the case of a deficiency created by a withdrawal under a Reserve Account Insurance Policy or a Reserve Account Letter of Credit, the deficiency may be cured either by an increase in the Reserve Account Deposit Requirement as stated above or by the entity providing such facility restoring the withdrawn amount to the amount available under such facility.

“Reserve Account Insurance Policy” shall mean an insurance policy, surety bond or other acceptable evidence of insurance, if any, maintained by the City in lieu of or in partial substitution for cash or securities on deposit in the Reserve Account, provided that the entity providing such facility is, at the time of so providing, of sufficient credit quality to entitle debt backed by its facility to be rated in one of the two highest rating categories (without regard to any gradations within such categories) by each of the Rating Agencies.

“Reserve Account Letter of Credit” shall mean an irrevocable, transferable letter of credit, if any, maintained by the City in lieu of or in partial substitution for cash or securities on deposit in the Reserve Account, provided that the entity providing such facility is, at the time of so providing, of sufficient credit quality to entitle debt backed by its facility to be rated in one of the two highest rating categories (without regard to any gradations within such categories) by each of the Rating Agencies.

“Reserve Account Requirement” shall mean an amount equal to the lesser of (i) the Maximum Principal and Interest Requirements for all Outstanding Bonds, (ii) 125% of the average annual Principal and Interest Requirements for all Outstanding Bonds and (iii) 10% of the original proceeds (within the meaning of the Code) of all Series of Bonds Outstanding; provided that, if the Series Resolution corresponding to a Series of Bonds provides for the establishment of a separate subaccount in the Reserve Account to secure only such Series of Bonds (with such Series of Bonds having no claim on the other moneys deposited to the credit of the Reserve Account), the Reserve Account Requirement for such Series of Bonds shall be calculated as set forth in the corresponding Series Resolution. The City shall be permitted to provide all or a portion of the Reserve Account Requirement by the execution and delivery of a Reserve Account Insurance Policy or a Reserve Account Letter of Credit or other similar arrangement which, after its issuance and delivery, will permit the Bond Registrar to receive the full amount covered by such arrangement without further conditions, financial or otherwise.

“Revenue Account” shall mean the Water and Sewer Revenue Account, a special account within the Enterprise Fund created and designated by Section 504 of this Resolution.

15

such Series Resolution relates, (d) if permitted pursuant to Section 505 of this Resolution, create a separate Sinking Fund for such Series and determine the method of funding of the Sinking Fund for such Series, (e) establish the Reserve Account Requirement for such Series, and (f) set forth additional covenants and provisions with respect to any Series required in connection with the obtaining of a Credit Facility, a Reserve Account Insurance Policy or a Reserve Account Letter of Credit, including any special provisions designed to comply with repayment requirements under reimbursement or repayment agreements with the entities providing such credit enhancement facilities, and such other matters as the City Commission shall determine.

“Short-Term Indebtedness” means all indebtedness incurred or assumed by the City (excluding bond anticipation notes issued as Interim Bonds or Notes), with respect to the Water and Sewer System for any of the following:

- (i) Payments of principal and interest with respect to money borrowed for an original term, or renewable at the option of the City for a period from the date originally incurred, of one year or less;
- (ii) Payments under leases having an original term, or renewable at the option of the lessee for a period from the date originally incurred, of one year or less; and
- (iii) Payments under installment purchase contracts having an original term of one year or less.

“Sinking Fund Account” shall mean the Water and Sewer Revenue Bonds Sinking Fund Account, a special account within the Enterprise Fund created and designated by Section 505 of this Resolution.

“Special Assessment Account” shall mean the Special Assessment Account, a special account within the Enterprise Fund created and designated pursuant to Section 516 of this Resolution, the moneys in which shall be pledged and applied as set forth in Section 516 of this Resolution.

“Special Assessments” shall mean special or non-ad valorem assessments authorized to be levied and collected by the City under applicable law against parcels of real property to be benefitted by specific Improvements to the Water and Sewer System.

“Special Record Date” shall mean a date fixed by the Bond Registrar for the payment of Defaulted Interest pursuant to Section 202 of this Resolution.

“Standard & Poor’s” shall mean Standard & Poor’s Ratings Services, a Division of McGraw-Hill Corporation Investors Services, a corporation organized and existing under the laws of the State of New York, its successors and their assigns, and, if such corporation shall for

17

any reason no longer perform the functions of a securities rating agency, "Standard & Poor's" shall be deemed to refer to any other nationally recognized securities rating agency designated by the City.

"State Revolving Fund" shall mean the state revolving loan fund established by the State of Florida under the Federal Clean Water Act.

"State Revolving Fund Indebtedness" shall mean a loan of moneys from the State Revolving Fund to the City for the purpose of paying all or any part of the Cost of constructing or acquiring Improvements permitted to be financed with State Revolving Fund moneys under the Federal Clean Water Act.

"Subordinated Indebtedness" shall mean bonds, notes or other forms of indebtedness, the payment of the principal of or interest or redemption premium on which are payable solely from moneys which may from time to time be on deposit in the Subordinated Indebtedness Account under this Resolution and which is designated as Subordinated Indebtedness by the City Commission in the resolution authorizing the issuance of such Subordinated Indebtedness.

"Subordinated Indebtedness Account" shall mean the Water and Sewer Subordinated Indebtedness Account, a special account within the Enterprise Fund created and designated by Section 505 of this Resolution.

"Term Bonds" shall mean the Bonds of a Series so designated in the Series Resolution for such Bonds.

"Utility Debt" shall mean Alternative Parity Debt, Short Term Indebtedness, Subordinated Indebtedness, Interim Bonds or Notes, any State Revolving Fund Indebtedness and any other indebtedness issued or incurred by the City payable from Net Revenues other than Bonds issued under Article II of this Resolution.

"Variable Rate Bonds" shall mean any Bonds issued under this Resolution the interest rate on which is not established at the time of issuance at a single numerical fixed rate.

"Water and Sewer System" shall mean the combined water and sewer system for the supply, treatment, and distribution of water and for the collection, transmission, treatment and disposal of sewage, owned and/or operated by the City or on its behalf, together with the Project, any Improvements and any Separate Systems consolidated with the Water and Sewer System pursuant to Section 710 of this Resolution.

Section 102. Rules of Construction. Words of the masculine gender shall be deemed and construed to include correlative words of the feminine and neuter genders. Unless the context shall otherwise indicate, the words "Bond", "owner", "Holder" and "persons shall

include the plural as well as the singular number, the word "person" shall mean any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof, and the word "Holder" or "Bondholders" when used herein with respect to Bonds issued hereunder shall mean the Holder or registered owner, as the case may be, of Bonds at the time issued and outstanding hereunder. The word "may" shall mean "may, but shall not be required to" and the word "including" shall mean "including, without limitation".

Section 103. Resolution Constitutes Contract. In consideration of the acceptance of the Bonds authorized to be issued hereunder by those who shall hold the same from time to time, this Resolution shall be deemed to be and shall constitute a contract between the City and the Bondholders. The covenants and agreements herein set forth to be performed by the City shall be for the equal benefit, protection and security of the Bondholders, and all Bonds shall be of equal rank and without preference, priority or distinction over any other thereof, except as expressly provided herein.

[END OF ARTICLE I]

18

19

ARTICLE II

FORM, EXECUTION, DELIVERY AND REGISTRATION OF BONDS

Section 201. Issuance of Bonds. For the purpose of providing funds for paying all or part of the cost of acquiring and constructing the Project, Bonds of the City may be issued under and secured by this Resolution subject to the conditions hereinafter provided in Section 208 of this Article. Bonds of the City may also be issued under and secured by this Resolution, subject to the conditions hereinafter provided in Sections 209 and 210 of this Article, for the purpose of paying the cost of Improvements and refunding all or any portion of the Bonds of one or more Series issued by the City under the provisions of this Resolution. The principal of and the interest on all such Bonds shall be payable solely from the special account hereinafter created and designated "Water and Sewer Revenue Bonds Sinking Fund Account" or other separate Sinking Fund Accounts created under the provisions of Section 505 of this Resolution, such Bonds shall be secured by a lien on and pledge of the Net Revenues, and all of the covenants, agreements and provisions of this Resolution shall be for the benefit and security of all and singular the present and future Holders of the Bonds so issued or to be issued, without preference, priority or distinction as to lien or otherwise, except as otherwise hereinafter provided, of any one Bond over any other Bond by reason of priority in the issue, sale or negotiation thereof, or otherwise.

Section 202. Details of Bonds. Unless two or more Series of Bonds are to be issued at one time, each Series of Bonds issued hereunder shall be created by a different Series Resolution. The Bonds of each Series issued under the provisions of this Article shall be designated "City of Fort Lauderdale, Florida Water and Sewer Revenue Bonds, Series ____", or such appropriate variation thereof as contained herein or in any Series Resolution in each case inserting an identifying Series year, and if more than one Series are expected to be issued in a single calendar year, inserting an identifying Series letter in addition to the year. Except as otherwise provided in the Series Resolution relating to a Series of Bonds, the Bonds of any Series are issuable in fully registered form without coupons in denominations (either with respect to original principal amount or principal amount payable at maturity) of \$5,000 or any whole multiple thereof. Bonds shall be numbered consecutively from R-1 upwards except as provided by the Series Resolution for a particular Series of Bonds. Bonds of each Series shall be dated, and shall bear interest until their payment at a rate or rates, including rates which may vary, not exceeding the maximum rate then permitted by law, such interest being payable and such Bonds being subject to redemption prior to their respective maturities, all as provided in the Series Resolution for such Series.

Unless otherwise provided in the Series Resolution pursuant to which each Series of Bonds is issued, each Bond shall bear interest from the Interest Payment Date next preceding the date on which it is authenticated unless it is (a) authenticated upon any Interest Payment Date in which event it shall bear interest from such Interest Payment Date or (b) authenticated before the

first Interest Payment Date, in which event it shall bear interest from its date; provided, however, that if at the time of authentication of any Bond interest is in default, such Bond shall bear interest from the date to which interest has been paid; except for (i) Capital Appreciation Bonds which shall bear interest as described under the defined term Accreted Value, payable only upon redemption, acceleration or maturity thereof and (ii) Capital Appreciation and Income Bonds which shall bear interest as described under the defined term Appreciated Value, payable on the amount due at maturity but only from and after the Interest Commencement Date.

Both the principal of and the interest on the Bonds shall be payable in any coin or currency of the United States of America (or other coin or currency provided for in the Series Resolution applicable to any Series) that is legal tender for the payment of public and private debts on the respective dates of payment thereof.

The principal of the Bonds shall be payable upon the presentation and surrender of such Bonds as the same shall become due at the designated office of the Bond Registrar.

Unless otherwise provided in the Series Resolution pursuant to which each Series of Bonds is issued, any interest on any Bond which is payable, and is punctually paid, or for which payment is duly provided, on any Interest Payment Date shall be paid to the person in whose name the Bond is registered in the registration books provided for in Section 206 of this Resolution (hereinafter, as used in this Section, the "Holder") at the close of business on the Regular Record Date. The Bond Registrar shall pay interest which is payable on the Bonds by check or draft mailed to the persons entitled thereto on the Interest Payment Date; provided, however, that, if so provided by Series Resolution, each Holder of Bonds aggregating not less than \$1,000,000 shall be entitled to the payment of such interest by wire transfer to a bank or other financial institution within the continental United States.

Unless otherwise provided in the Series Resolution pursuant to which each Series of Bonds is issued, any interest on any Bond which is payable, but is not punctually paid, or for which payment is not duly provided, on any Interest Payment Date (herein called "Defaulted Interest") shall forthwith cease to be payable to the Holder on the relevant Regular Record Date solely by virtue of such Holder having been such Holder; and such Defaulted Interest may be paid by the City, at its election in each case, as provided in Subsection A or B below:

A. The City may elect to make payment of any Defaulted Interest on the Bonds of any Series to the persons in whose names such Bonds are registered at the close of business on a Special Record Date for the payment of such Defaulted Interest, which shall be fixed in the following manner. The City shall notify the Bond Registrar in writing of the amount of Defaulted Interest proposed to be paid on each Bond and the date of the proposed payment (which date shall be such as will enable the Bond Registrar to comply with the next sentence hereof), and at the same time the City shall deposit or cause to be deposited with the Bond Registrar an amount of money equal to the aggregate

20

21

amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Bond Registrar for such deposit prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the persons entitled to such Defaulted Interest as provided in this Subsection. Thereupon the Bond Registrar shall fix a Special Record Date for the payment of such Defaulted Interest which shall be not more than 15 nor less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Bond Registrar of the notice of the proposed payment. The Bond Registrar shall promptly notify the City of such Special Record Date and, in the name and at the expense of the City, shall cause notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor to be mailed, first-class postage prepaid, to each Holder at such Holder's address as it appears in the registration books provided for in Section 206 of this Resolution not less than 10 days prior to such Special Record Date. The Bond Registrar may, in its discretion, in the name and at the expense of the City, cause a similar notice to be published at least once in a Daily Newspaper of general circulation published in the County, and in a Daily Newspaper of general circulation or in a financial journal published in the Borough of Manhattan, City and State of New York, but such publication shall not be a condition precedent to the establishment of such Special Record Date. Notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor having been mailed as aforesaid, such Defaulted Interest shall be paid to the persons in whose names the Bonds of such Series are registered on such Special Record Date and shall no longer be payable pursuant to the following Subsection B. The Bond Registrar shall pay such Defaulted Interest which is payable on the Bonds pursuant to this clause A by check or draft mailed to the persons entitled thereto on the date fixed for the payment of such Defaulted Interest pursuant to this clause A; provided, however, the City Commission, pursuant to the Series Resolution for a Series, may provide for payment of such Defaulted Interest by the Bond Registrar by wire transfer.

B. The City may make payment of any Defaulted Interest on the Bonds of any Series in any other lawful manner not inconsistent with the requirements of any securities exchange on which such Bonds may be listed and upon such notice as may be required by such exchange, if, after notice given by the City to the Bond Registrar of the proposed payment pursuant to this Subsection, such payment shall be deemed practicable by the Bond Registrar.

Subject to the foregoing provisions of this section, each Bond delivered under this Resolution upon transfer of or in exchange for or in lieu of any other Bond shall carry all the rights to interest accrued and unpaid, and to accrue, which were carried by such other Bond and each such Bond shall bear interest from such date, that neither gain nor loss in interest shall result from such transfer, exchange or substitution.

22

denomination or denominations authorized by this Resolution or the Series Resolution relating to such Bonds and bearing interest at the same rate.

The City shall make provision for the exchange of Bonds at the principal corporate trust office of the Bond Registrar.

Section 206. Negotiability, Registration and Transfer of Bonds. The Bond Registrar shall keep books for the registration of and for the registration of transfer of Bonds as provided in this Resolution. The transfer of any Bond may be registered only upon the books kept by the Bond Registrar for the registration of and registration of transfer of Bonds upon surrender thereof to the Bond Registrar together with an assignment duly executed by the registered owner or such registered owner's attorney or legal representative in such form as shall be satisfactory to the Bond Registrar. Upon any such registration of transfer the City shall execute and the Bond Registrar shall authenticate and deliver in exchange for such Bond a new Bond or Bonds registered in the name of the transferee, of any denomination or denominations authorized by the Series Resolution relating to such Bonds.

In all cases in which Bonds shall be exchanged, the City shall execute and the Bond Registrar shall authenticate and deliver at the earliest practicable time Bonds in accordance with the provisions of this Resolution. All Bonds surrendered in any such exchange or registration of transfer shall forthwith be cancelled by the Bond Registrar. The City or the Bond Registrar may make a charge for every such exchange or registration of transfer of Bonds sufficient to reimburse it for any tax or other governmental charge required to be paid with respect to such exchange or registration of transfer, but no other charge shall be made to any owner of Bonds for the privilege of exchanging or registering the transfer of Bonds under the provisions of this Resolution. Neither the City nor the Bond Registrar shall be required to make any such exchange or registration of transfer of Bonds during the fifteen (15) days immediately preceding the date of first publication or mailing of notice of such redemption, or after such Bond or any portion thereof has been selected for redemption.

Section 207. Ownership of Bonds. As to any Bond, the person in whose name the same shall be registered shall be deemed and regarded as the absolute owner thereof for all purposes, and the interest on any such Bond shall be paid only to or upon the order of the registered owner thereof or such registered owner's, legal representative. All such payments shall be valid and effectual to satisfy and discharge the liability upon such Bond including the premium, if any, and interest thereon to the extent of the sum or sums so paid.

Section 208. Authorization of Series 2003 Bonds. There shall be initially issued at one time, under and secured by this Resolution, the Series 2003 Bonds as one Series of Bonds of the City, all as more specifically provided in this Section 208. The aggregate principal amount of the Series 2003 Bonds that may be issued hereunder shall not exceed \$90,000,000. The Series

Section 203. Execution and Form of Bonds. The Bonds shall be signed by or bear the facsimile signature of the Mayor and the City Manager and shall be signed by or bear the facsimile signature of the City Clerk and the official seal of the City or a facsimile thereof shall be impressed or imprinted on the Bonds; provided, however, that if required by State law at the time of such execution, the Bonds shall be manually executed by the Mayor and the City Manager. In case any officer whose signature or a facsimile of whose signature shall appear on any Bonds shall cease to be such officer before the delivery of such Bonds, such signature or such facsimile shall nevertheless be valid and sufficient for all purposes the same as if he or she had remained in office until such delivery and also any Bond may bear the facsimile signature of, or may be signed by, such persons as at the actual time of the execution of such Bond shall be the proper officers to execute such Bond although at the date of such Bond such persons may not have been such officers. The Bonds issued under the provisions of this Article, the certificate of authentication, the statement of validation, if any, the opinion certification and the form of assignment shall be, respectively, in the forms attached hereto as Exhibit B with such appropriate variations, omissions and insertions as may be required or permitted by this Resolution or the Series Resolution pursuant to which such Bonds are issued. All Bonds shall be endorsed thereon with such legends or text as may be necessary or appropriate to conform to the applicable rules and regulations of any governmental authority or any securities exchange on which such Bonds may be listed or to any requirements of law with respect thereto.

The forms of Bonds may be changed as specified in any Series Resolution to reflect appropriate provisions for different types of Bonds authorized under this Resolution, including, without limitation, provisions for Capital Appreciation Bonds, Capital Appreciation and Income Bonds, Interim Bonds, Variable Rate Bonds, Optional Tender Bonds and Convertible Bonds.

Section 204. Authentication of Bonds. Only such of the Bonds as shall have endorsed thereon a certificate of authentication substantially in the form set forth in Exhibit B attached hereto, duly executed by the Bond Registrar, shall be entitled to any benefit or security under this Resolution. No Bond shall be valid or obligatory for any purpose unless and until such certificate of authentication shall have been duly executed by the Bond Registrar, and such certificate of the Bond Registrar upon any such Bond shall be conclusive evidence that such Bond has been duly authenticated and delivered under this Resolution and the Series Resolution relating to such Bond. The certificate of authentication on any Bond shall be deemed to have been duly executed if signed by an authorized officer of the Bond Registrar, but it shall not be necessary that the same officer sign the certificate of authentication on all of the Bonds that may be issued hereunder at any one time.

Section 205. Exchange of Bonds. Bonds, upon surrender thereof at the principal corporate trust office of the Bond Registrar, together with an assignment duly executed by the registered owner or such registered owner's attorney or legal representative in such form as shall be satisfactory to the Bond Registrar, may, at the option of the owner thereof, be exchanged for an equal aggregate principal amount of Bonds of the same Series and maturity, of any

23

2003 Bonds shall be designated as "City of Fort Lauderdale, Florida Water and Sewer Revenue Bonds, Series 2003".

The Series 2003 Bonds shall be issued for the purpose of providing funds, together with any other available funds, (a) for paying the Costs of the Project, (b) for making a deposit to the credit of a special subaccount or subaccounts in the Construction Account, in an amount to be determined pursuant to a Series Resolution adopted prior to the issuance of the Series 2003 Bonds, for the purpose of paying interest on the Series 2003 Bonds for the period of time specified in such Series Resolution, (c) for making a deposit to the Reserve Account or subaccount created therein, in an amount equal to the Reserve Account Requirement for the Series 2003 Bonds as provided pursuant to a Series Resolution adopted prior to the issuance of the Series 2003 Bonds and (d) for paying the costs of issuing the Series 2003 Bonds. The Series Resolution specified above may provide that the deposits to the Reserve Account shall not be made or that other arrangements shall be made for satisfying such obligations.

The Series 2003 Bonds shall be issued in such aggregate principal amount, shall be dated, shall be stated to mature (subject to the right of prior redemption as hereinafter set forth) on such date or dates, in such year or years, shall bear interest at such rate or rates, fixed or variable, payable on such dates, shall have such Credit Facility, shall have such Bond Registrar, the Term Bonds of such Series shall have such Amortization Requirements and may be made redeemable at such times and prices (subject to the provisions of Article III of this Resolution), may be in the form of Current Interest Bonds or Capital Appreciation Bonds or Capital Appreciation and Income Bonds or any combination thereof, all as may be provided by the Series Resolution.

The Series 2003 Bonds shall be executed substantially in the form and manner hereinabove set forth and shall be deposited with the Bond Registrar for authentication and delivery, but prior to or simultaneously with the delivery of the Series 2003 Bonds by the Bond Registrar there shall be filed with the City the following:

(a) a copy, certified by the City Clerk, of this Resolution;

(b) a copy, certified by the City Clerk, of the Series Resolution awarding or providing for the award of the Series 2003 Bonds, specifying the interest rates of the Series 2003 Bonds or providing for the determination of such interest rates and directing the delivery of such Series 2003 Bonds to or upon the order of the purchasers therein named upon payment of the purchase price thereof;

(c) an opinion of the City Attorney that the issuance of said Series 2003 Bonds has been duly authorized and that all conditions precedent to the delivery of such Series 2003 Bonds have been fulfilled; and

24

25

(d) an opinion of Bond Counsel to the effect that the interest on the Series 2003 Bonds is excluded from gross income for federal income tax purposes.

When the documents mentioned in clauses (a) to (d), inclusive, of this Section shall have been filed with the City and when the Series 2003 Bonds shall have been executed by the City and authenticated by the Bond Registrar as required by this Resolution, the Bond Registrar shall deliver said Series 2003 Bonds at one time to or upon the order of the purchasers named in the Series Resolution mentioned in clause (b) of this Section, but only upon payment to the Finance Director of the purchase price of said Series 2003 Bonds. The Finance Director shall be entitled to rely upon such Series Resolution as to all matters stated therein.

The proceeds (including accrued interest and any premium) of said Series 2003 Bonds shall be applied by the Finance Director as follows:

(1) the amount received as accrued interest on the Series 2003 Bonds and any premium shall be deposited to the credit of the Bond Service Subaccount;

(2) an amount estimated by the Finance Director to be sufficient for the purpose of paying expenses of the issuance of the Series 2003 Bonds shall be credited to a separate special expense subaccount created within the Construction Account pursuant to Section 401 hereof and applied to the payment of the expenses of issuing the Series 2003 Bonds, including, but not limited to, financial advisory, accounting and legal fees, rating agency fees, printing costs and Bond Registrar's fees and expenses, bond insurance premiums, and any other miscellaneous expenses relating to the issuance of the Series 2003 Bonds;

(3) either the amount which will equal the Reserve Account Requirement on the Series 2003 Bonds shall be deposited to the credit of the Reserve Account or any subaccount created therein for the Series 2003 Bonds, or an amount equal to any required premium or fee as shall be necessary to acquire a Reserve Account Insurance Policy or Reserve Account Letter of Credit or other similar arrangement to insure that an amount equal to the Reserve Account Requirement will be unconditionally available to the City for the purposes of the Reserve Account will be paid to the entity providing such Reserve Account Insurance Policy or Reserve Account Letter of Credit or other similar arrangement; and

(4) the balance (including capitalized interest) shall be deposited to the credit of a special subaccount in the Construction Account established by Section 401 hereof and designated the Series 2003 Water and Sewer Project Construction Subaccount, for application to the payment of the Costs of the Project.

26

twelve consecutive months selected by the City out of the twenty-four months preceding the delivery of such certificate, by the Maximum Principal and Interest Requirements, including the Principal and Interest Requirements with respect to the Additional Bonds then to be delivered, for any future Fiscal Year is not less than one hundred twenty-five per centum (125%) (the period during which Net Revenues are determined for purposes of this clause (c) being referred to hereinafter as the "Measurement Period"); provided, however, that if either Impact Fees or Special Assessments are legally available for application with respect to such Additional Bonds under clause "FIRST" of Section 515 in the case of Impact Fees or clause "FIRST" of Section 516 in the case of Special Assessments, then, in addition to the foregoing, the certificate shall also demonstrate that the percentage derived by dividing the Net Revenues (taking into consideration the Impact Fees and/or the Special Assessments, as applicable) for the Measurement Period, by the Maximum Principal and Interest Requirements, including the Principal and Interest Requirements with respect to the Additional Bonds then to be delivered, for any future Fiscal Year shall not be less than one hundred thirty per centum (130%);

(d) an opinion of the City Attorney that the issuance of such Additional Bonds has been duly authorized and that all conditions precedent to the delivery of such Additional Bonds have been fulfilled; and

(e) a certificate of the Finance Director to the effect that no event of default, as defined in Section 802 of this Resolution, and no event which with the passage of time, the giving of notice or both would become an event of default has occurred within the twelve (12) consecutive calendar months prior to the date of such certificate and is continuing, or, if any such event or event of default has occurred and is continuing, that the issuance of such Series of Additional Bonds will cure the same.

In determining whether to execute and deliver the certificate mentioned in clause (c) of this Section 209, the following adjustments to Net Revenues may be made:

(1) If the City, prior to the issuance of the proposed Additional Bonds, shall have increased the rates, fees, rentals or other charges for the services of the Water and Sewer System, the Net Revenues for the Measurement Period shall be adjusted to show the Net Revenues which would have been derived from the Water and Sewer System in such Measurement Period as if such increased rates, fees, rentals or other charges for the services of the Water and Sewer System had been in effect during all of such Measurement Period.

(2) If the City shall have acquired or has contracted to acquire any privately or publicly owned existing water system or sewer system, then the Net Revenues derived from the Water and Sewer System during the Measurement Period shall be increased by addition to the Net Revenues for the Measurement Period of the net revenues which

28

Section 209. Additional Bonds. In addition to the Series 2003 Bonds authorized under the provisions of Sections 208 of this Article, Additional Bonds of the City may be issued under and secured by this Resolution, on a parity as to the pledge of the Net Revenues of the Water and Sewer System with the Bonds theretofore issued under Sections 208, 209 and 210 of this Resolution and secured by this Resolution and then Outstanding, subject to the conditions hereinafter provided in this Section, from time to time for the purpose of paying all or any part of the Cost of constructing or acquiring any Improvements.

Before any Additional Bonds shall be issued under the provisions of this Section the City Commission shall adopt a Series Resolution authorizing the issuance of such Additional Bonds, fixing or providing for the fixing of the amount and the details thereof (including the Reserve Account Requirement therefor), and describing in brief and general terms the Improvements to be constructed or acquired. The Additional Bonds of each Series issued under the provisions of this Section shall be dated, shall be stated to mature (subject to the right of prior redemption as hereinafter set forth) on such date or dates, in such year or years not more than forty (40) years after the date of the Additional Bonds, shall bear interest at such rate or rates, fixed or variable, shall have such Optional Tender features and Credit Facilities, shall have such Bond Registrar, and any Term Bonds of such Series shall have such Amortization Requirements, and may be made redeemable at such times and prices (subject to the provisions of Article III of this Resolution), all as may be provided by the Series Resolution for such Additional Bonds. Except as to any differences in the maturities thereof or the rate or rates of interest or the provisions for redemption, such Additional Bonds shall be on a parity as to the pledge of Net Revenues of the Water and Sewer System with and shall be entitled to the same benefits and security under this Resolution as all other Bonds issued under Sections 208, 209 and 210 of this Resolution. Such Additional Bonds shall be executed in the form and manner hereinabove set forth, with such changes as may be necessary or appropriate to conform to the Series Resolution therefor, and shall be deposited with the Bond Registrar for authentication and delivery, but before such Additional Bonds shall be delivered by the Bond Registrar, there shall be filed with the City the following:

(a) a copy, certified by the City Clerk, of the Series Resolution for such Series of Additional Bonds;

(b) a copy, certified by the City Clerk, of the resolution, if other than the Series Resolution for such Series of Additional Bonds, adopted by the City Commission awarding such Additional Bonds, specifying or providing for the interest rate or rates for such Additional Bonds, or the initial interest rate if such Additional Bonds bear interest at a variable rate and directing the delivery of such Additional Bonds to or upon the order of the purchasers therein named upon payment of the purchase price thereof;

(c) a certificate of the Finance Director, an Accountant or the Rate Consultant demonstrating that the percentage derived by dividing the Net Revenues for any period of

27

would have been derived from said existing water system or sewer system as if such existing water system or sewer system had been a part of the Water and Sewer System during the Measurement Period. For the purposes of this paragraph, the net revenues derived from said existing water system or sewer system during the Measurement Period shall be adjusted by deducting the cost of operation and maintenance of said existing water system or sewer system from the gross revenues of said existing water system or sewer system in the same manner provided in this Resolution for the determination of Net Revenues.

(3) If the City, in connection with the issuance of Additional Bonds, shall enter into a contract (with a duration not less than the final maturity of such Additional Bonds) with any public or private entity whereby the City agrees to furnish services in connection with any water system or sewer system then the Net Revenues of the Water and Sewer System during the Measurement Period shall be increased by the least amount which said public or private entity shall guarantee to pay in any one year for the furnishing of said services by the City, after deducting therefrom the proportion of operating expenses and repair, renewal and replacement cost attributable in such year to such services. Such payments shall be deemed to be Net Revenues of the Water and Sewer System and pledged for the Bonds in the same manner as other Net Revenues of the Water and Sewer System.

(4) If the City covenants to levy Special Assessments or Impact Fees against improved property to be benefited by the improvements (which levy will be done in accordance with State law), the cost of which shall be paid from the proceeds of the proposed Additional Bonds and if such Special Assessments or Impact Fees are legally available for application with respect to such Additional Bonds as permitted under clause "FIRST" of Section 515 in the case of Impact Fees or clause "FIRST" of Section 516 in the case of Special Assessments, then, as the case may be, the Net Revenues during the Measurement Period shall be increased by an amount equal to one hundred per centum (100%) of the amount which the Consulting Engineer estimates will be received in each year from the levy of said Impact Fees or said Special Assessments (without taking into account the possibility of prepayment of Special Assessments), within three years of the date of the sale of such Additional Bonds, said amount to be the total received from the installment payments on the Special Assessments or Impact Fees, as the case may be, plus, in the case of Special Assessments, any interest paid on the unpaid portion of the Special Assessments. The estimate of the Consulting Engineer shall be based upon the preliminary assessment roll filed with the City prior to the construction of such Improvements.

When the documents mentioned above in this Section shall have been filed with the City and when the Additional Bonds described in the resolutions mentioned in clauses (a) and (b) of this Section shall have been executed by the City and authenticated by the Bond Registrar as

29

required by this Resolution, the Bond Registrar shall deliver such Additional Bonds at one time to or upon the order of the purchasers named in the Series Resolution mentioned in said clause (b), but only upon payment to the Finance Director of the purchase price of such Additional Bonds. The Finance Director shall be entitled to rely upon such resolutions as to all matters stated therein.

The proceeds (excluding accrued interest and any premium) of such Additional Bonds shall be paid to the City for deposit with one or more Depositories to the credit of a special account in the Construction Fund appropriately designated and for application to the payment of the Cost (as defined in Section 403 of this Resolution) of such Improvements, including the amount, if any, determined by the City Commission to be deposited to the credit of the Reserve Account or such subaccount therein, for such Bonds. All of the provisions of Article IV of this Resolution which relate to the Project and the Construction Fund shall apply to such Improvements and such special account to the extent that such provisions may be applicable; provided, however, that there may be included in the cost of such improvements interest accruing on such Additional Bonds prior to and during construction of such Improvements if and to the extent provided in the Series Resolution with respect thereto. The amount received as accrued interest upon the original issuance and delivery of such Bonds and any premium on such Bonds shall be deposited to the credit of the Bond Service Subaccount for application to the first interest due on such Bonds.

Section 210. Refunding Bonds. Refunding Bonds may be issued under and secured by this Resolution, subject to the conditions hereinafter provided in this Section, from time to time for the purpose of providing funds for refunding all or any portion of the Outstanding Bonds of any one or more Series by payment at maturity or redemption at a selected redemption date or dates or combination of such payment at maturity and redemption, including the payment of any redemption premium thereon and any interest which will accrue on such Bonds to such maturity dates or selected redemption date or dates or combination of maturity and redemption dates and any expenses incurred or to be incurred in connection with such refunding.

Before any Series of Refunding Bonds shall be issued under the provisions of this Section the City Commission shall adopt a Series Resolution authorizing the issuance of such Refunding Bonds, fixing or providing for the fixing of the amount and details thereof, describing the Bonds to be refunded and setting forth the determination of the City Commission that such refunding is in the best interests of the City and the users of the Water and Sewer System and stating the reasons for such determination. Such Refunding Bonds shall be dated, shall be stated to mature (subject to the right of prior redemption as hereinafter set forth) on such date or dates, in such year or years not more than forty (40) years after the date of the Refunding Bonds, shall bear interest at such rate or rates, fixed or variable, shall have such Optional Tender features, shall have such Bond Registrar, and any Term Bonds of such Series shall have such Amortization Requirements and may be made redeemable at such times and prices (subject to the provisions of Article III of this Resolution), all as may be provided by the Series Resolution for such

30

When the documents mentioned above in this Section shall have been filed with the City Clerk and when the Refunding Bonds described in the resolutions mentioned in clauses (a) and (b) of this Section shall have been executed by the City and authenticated by the Bond Registrar as required by this Resolution, the Bond Registrar shall deliver such Refunding Bonds at one time to or upon the order of the purchasers named in the resolution mentioned in said clause (b), but only upon payment to the Finance Director of the purchase price of such Refunding Bonds. The Finance Director shall be entitled to rely upon such resolutions as to all matters stated therein.

Simultaneously with the delivery of such Refunding Bonds, the Finance Director shall withdraw, if so provided in the Series Resolution or the resolution mentioned in clause (b) of this Section 210, from the appropriate subaccounts of the Sinking Fund Account an amount equal to the amount on deposit therein on account of the principal of, redemption premium, if any, and the interest on the Bonds to be refunded and from the Reserve Account or any subaccount therein an amount equal to the amount on deposit therein on account of the Bonds to be refunded, and apply the amount so withdrawn in accordance with the Series Resolution or the resolution mentioned in clause (b) of this Section 210. The total amount so withdrawn, if so provided in the Series Resolution or the resolution mentioned in clause (b) of this Section 210, the proceeds of such Refunding Bonds (including accrued interest and any premium) and any other moneys provided for such purpose, shall be applied by the Finance Director as follows:

- (1) the accrued interest received as part of the proceeds of such Refunding Bonds shall be deposited to the credit of a special subaccount in the Bond Service Subaccount for application to the first interest due on such Refunding Bonds;
- (2) an amount which, together with any income which shall be derived from the investment of such amount pursuant to this clause (2) and any other available funds, shall be sufficient to pay the principal of and redemption premium, if any, and the interest on the Bonds to be refunded hereunder, either at maturity or a selected redemption date or dates or combination of such payment and redemption, shall be deposited by the Finance Director to the credit of a special account, appropriately designated, to be held in trust by an escrow agent, for the sole and exclusive purpose of paying such principal, redemption premium, if any, and interest on the Bonds to be refunded; and moneys held for the credit of such fund shall, as nearly as may be practicable and reasonable, be invested by such escrow agent at the direction of the Finance Director in Government Obligations which shall mature, or which shall be subject to redemption by the holder thereof at the option of such holder, not later than the respective dates when the moneys held for the credit of such fund will be required for the purposes intended;
- (3) such amount shall be applied to, or set aside for, the payment of the expenses incident to such refunding as shall be specified in the Series Resolution relating to such Refunding Bonds; and

32

Refunding Bonds. Except as to any differences in the maturities thereof or the rate or rates of interest or the provisions for redemption, such Refunding Bonds shall be on a parity as to the pledge of Net Revenues of the Water and Sewer System with and shall be entitled to the same benefits and security under this Resolution as all other Bonds issued under Sections 208, 209 and 210 of this Resolution. Such Refunding Bonds shall be executed substantially in the form and manner hereinabove set forth, with such changes as may be necessary or appropriate to conform to the provisions of the Series Resolution therefor, and shall be deposited with the Bond Registrar for authentication and delivery, but prior to or simultaneously with the delivery of such Refunding Bonds by the Bond Registrar, there shall be filed with the City the following:

- (a) a copy, certified by the City Clerk; of the Series Resolution with respect to such Refunding Bonds;
- (b) a copy, certified by the City Clerk, of the resolution, if other than the Series Resolution for such Series of Refunding Bonds, adopted by the City Commission, awarding such Refunding Bonds, specifying or providing for the interest rate or rates for such Refunding Bonds, or the initial rate if such Refunding Bonds bear interest at a variable rate, determining the disposition of the moneys on deposit in the Sinking Fund Account and any other funds and accounts on account of the Bonds to be refunded, and directing the delivery of such Refunding Bonds to or upon the order of the purchasers therein named upon payment of the purchase price thereof;
- (c) an opinion of Bond Counsel to the effect that upon the issuance of such Refunding Bonds and the application of the proceeds thereof, the Bonds to be refunded will no longer be deemed to be Outstanding under this Resolution and that the issuance of the Refunding Bonds will not adversely affect the exclusion of interest on any Bonds then Outstanding from gross income for federal income tax purposes;
- (d) an opinion of the City Attorney that the issuance of such Refunding Bonds has been duly authorized and that all conditions precedent to the delivery of such Refunding Bonds have been fulfilled;
- (e) such documents as shall be required by the Finance Director to show that provision has been duly made in accordance with the provisions of this Resolution for the payment or redemption or combination of such payment and redemption of all of the Bonds to be refunded; and
- (f) either (i) a certificate of the Finance Director that the issuance of the Refunding Bonds will result in a decrease in total Principal and Interest Requirements for all Bonds Outstanding (including the Refunding Bonds, but excluding the Bonds to be refunded), or (ii) the certificates required by clauses (c) and (e) of Section 209 of this Resolution.

31

- (4) any balance of such proceeds shall be deposited to the credit of the Revenue Account.

Section 211. State Revolving Fund Indebtedness. In addition to the Bonds authorized pursuant to the provisions of Section 208, 209 and 210 and to the extent permitted by the law of the United States and of the State of Florida from time to time in effect, the City may incur other forms of indebtedness related to the Water and Sewer System in connection with the State Revolving Fund as follows:

- (a) The City may incur State Revolving Fund Indebtedness without limit as to amount so long as such debt constitutes Additional Bonds under Section 209 of this Resolution or Utility Debt under Section 212 of this Resolution.
- (b) The City may issue Additional Bonds under and subject to the conditions contained in Section 209 for the purpose of refinancing any State Revolving Fund Indebtedness.

Section 212. Other Indebtedness. In addition to the Bonds authorized pursuant to the provisions of Section 208, 209 and 210 and State Revolving Fund Indebtedness authorized pursuant to the provisions of Section 211, and to the extent permitted by the law of the State of Florida from time to time in effect, the City may incur other forms of indebtedness related to the Water and Sewer System, as follows:

- (a) The City may incur Short-Term Indebtedness, payable on a parity as to the pledge of Net Revenues of the Water and Sewer System with the Bonds, if immediately after incurrence of such Short-Term Indebtedness the outstanding principal amount of all Short-Term Indebtedness does not exceed ten per centum (10%) of the Net Revenues of the Water and Sewer System as shown on the Annual Budget for the current Fiscal Year.
- (b) The City may incur Subordinated Indebtedness without limit as to amount.
- (c) The City may issue Convertible Bonds, secured on a parity as to the pledge of Net Revenues of the Water and Sewer System with Bonds issued hereunder, provided that such Convertible Bonds are issued under Section 209 or 210 of this Resolution and such Convertible Bonds comply with the tests of such Sections based upon the form of such Convertible Bonds at the time of their issuance.
- (d) The City may issue Optional Tender Bonds, secured on a parity as to the pledge of Net Revenues of the Water and Sewer System with Bonds issued hereunder, provided that such Optional Tender Bonds comply with the test for the issuance of Bonds contained in Section 209 or 210 of this Resolution, and so long as (i) such Bonds are the subject of a remarketing agreement between the City or the trustee for such holders and

33

an investment banking firm with experience in marketing securities on a national basis and (ii) there is in effect with respect to such Optional Tender Bonds a Credit Facility, then the provisions with respect to Optional Tender Bonds contained in the definition of Principal and Interest Requirements shall apply to such Optional Tender Bonds. In demonstrating compliance with the test for the issuance of Additional Bonds contained in Section 209 hereof, the principal requirements for Optional Tender Bonds shall include the regularly scheduled principal payments, either upon payment at maturity or redemption in satisfaction of the Amortization Requirements for such Bonds and shall not include the payment of the purchase price of such Bonds upon their tender for purchase.

(e) The City may issue Variable Rate Bonds upon compliance with the tests for the issuance of Bonds contained in Sections 209 or 210 of this Resolution using for the purpose of demonstrating compliance with such tests the interest rate assumption with respect to Variable Rate Bonds contained in the definition of Principal and Interest Requirements.

(f) The City may issue or incur Alternative Parity Debt secured on a parity as to the pledge of the Net Revenues of the Water and Sewer System with the Bonds issued hereunder if, but only if, the following conditions are complied with:

(1) The City must satisfy the requirements set forth in Section 209, 210 or 211(b) of this Resolution pertaining to the issuance of additional parity Bonds as though such requirements were expressly applicable to Alternative Parity Debt.

(2) The instrument evidencing such Alternative Parity Debt shall include a cross default provision with this Resolution to the effect that, prior to exercising any remedies upon a default by the City under such instrument, the holders of such Alternative Parity Debt or their representative shall cooperate with the Holders of Bonds Outstanding under this Resolution or their representative so that the interest of such holders and the Holders of Bonds issued under this Resolution shall be equally and ratably protected.

(3) The City shall duly authorize the issuance or incurrence of such Alternative Parity Debt.

Upon satisfaction of the foregoing conditions the Finance Director shall certify in writing that the proposed indebtedness satisfies the conditions set forth in this Resolution to be deemed Alternative Parity Debt, and, upon such certification, such indebtedness shall be so deemed. Upon the issuance of Alternative Parity Debt, notwithstanding the provisions of Section 505 hereof, Net Revenues may be applied (on a parity basis with the

application of such revenues under Section 505 hereof) as required under the ordinance or resolution authorizing the issuance of such Alternative Parity Debt.

The City shall take such actions (including amending or supplementing this Resolution and any other collateral agreement or document) and execute, deliver, file and record such instruments of security as may be necessary or appropriate to grant or to otherwise secure for the holders of the Alternative Parity Debt a lien on the Net Revenues of the Water and Sewer System on a parity with that of all other holders of Alternative Parity Debt and Holder of Bonds.

(g) The City may enter into Credit Facilities to the extent that the Series of Bonds or portion thereof which is supported by such Credit Facilities is incurred in compliance with the provisions of this Article II.

(h) Nothing in this Resolution shall prohibit the City from entering into Interest Rate Swaps.

Section 213. Temporary Bonds. Until the definitive Bonds of any Series are ready for delivery, there may be executed by the City and authenticated by the Bond Registrar, and the City may deliver, in lieu of definitive Bonds and subject to the same limitations and conditions except as to identifying numbers, temporary printed, engraved, lithographed or typewritten Bonds in the denomination of Five Thousand Dollars (\$5,000) or any whole multiple thereof, substantially of the tenor hereinabove set forth, in fully registered form without coupons, and with appropriate omissions, insertions and variations as may be required. The City shall cause the definitive Bonds to be prepared and to be executed, endorsed and delivered to the Bond Registrar, and the Bond Registrar upon presentation of any temporary Bond shall cancel the same and authenticate and deliver, in exchange therefor, at the place designated by the Holder, without expense to the Holder, a definitive Bond or Bonds of the same Series and in the same aggregate principal amount, maturing on the same date and bearing interest at the same rate as the temporary Bond surrendered. Until so exchanged, the temporary Bonds shall in all respects, including the privilege of registration and registration of transfer if so provided, be entitled to the same benefit of this Resolution as the definitive Bonds to be issued and authenticated hereunder, and interest on such temporary Bonds and notation of such payment shall be endorsed thereon.

Section 214. Mutilated, Stolen, Destroyed or Lost Bonds. In case any Bonds secured hereby shall become mutilated or be destroyed, lost or stolen, the City may cause to be executed, and the Bond Registrar may deliver, a new Bond of like date, number and tenor in exchange and substitution for and upon the cancellation of such mutilated Bond or in lieu of and in substitution for such Bond destroyed, stolen or lost, upon the Holders paying the reasonable expenses and charges of the City and the Bond Registrar in connection therewith and, in the case of a Bond destroyed, stolen or lost, the Holders filing with the Bond Registrar evidence satisfactory to the

Bond Registrar that such Bond was destroyed, stolen or lost, and of his ownership thereof, and furnishing the City and the Bond Registrar with indemnity satisfactory to each of them.

Section 215. Provisions with Respect to Book-Entry System. The provisions of this Article contained in Sections 202 to 207, inclusive, may be changed or varied with respect to any Series of Bonds issued under this Article in any Series Resolution applicable to such Series of Bonds for the purposes of (1) complying with the requirements of any automated depository and clearinghouse for securities transactions and (2) effectuating any book-entry only registration and payment system.

Appropriate officers and officials of the City are hereby authorized to enter into agreements with The Depository Trust Company of New York and other depository trust companies, including but not limited to agreements necessary for wire transfers of interest and principal payments with respect to any Series of Bonds, utilization of electronic book entry data received from The Depository Trust Company of New York and other depository trust companies in place of actual delivery of Bonds and provision of notices with respect to Bonds registered by The Depository Trust Company of New York and other depository trust companies (or any of their designees identified to the City) by overnight delivery, courier service, telegram, telecopy or other similar means of communication.

Section 216. Capital Appreciation Bonds; Capital Appreciation and Income Bonds. For purposes of determining the principal amount of a Capital Appreciation Bond or a Capital Appreciation and Income Bond for redemption, acceleration or computation of the amount of Bonds held by the Holder thereof in giving to the City any notice, covenant, request or demand pursuant to this Resolution for any purpose whatsoever, the principal amount of a Capital Appreciation Bond shall be deemed to be its Accreted Value and the principal amount of a Capital Appreciation and Income Bond shall be deemed to be its Appreciated Value.

[END OF ARTICLE III]

ARTICLE III REDEMPTION OF BONDS

Section 301. Redemption Generally. The Bonds of each Series issued under the provisions of this Resolution shall be subject to redemption, either in whole or in part and at such times and prices, as may be provided by the Series Resolution relating to such Series.

Section 302. Selection of Bonds for Redemption or Purchase. The City shall, in accordance with the terms and provisions of the Bonds and of this Resolution and the Series Resolution relating to any Bonds to be redeemed, select the Bonds or portions thereof to be purchased or redeemed. The City shall promptly notify in writing the Bond Registrar of the numbers of the Bonds so selected for redemption and in making such selection, each Bond of each Series of Bonds shall be treated as representing that number of Bonds of the lowest authorized denomination of that Series as is obtained by dividing the principal amount of such Bond by such denomination.

Section 303. Redemption Notice. At least thirty (30), but not more than sixty (60), days before the redemption date, a notice of any such redemption, either in whole or in part, signed by the Finance Director, (a) shall be filed with the Bond Registrar and (b) shall be mailed, first class mail, postage prepaid, to all registered owners of Bonds to be redeemed at their addresses as they appear on the registration books hereinabove provided for, but failure so to mail any such notice shall not affect the validity of the proceedings for such redemption. Each such notice shall specify the redemption date, the redemption price and the place or places where amounts due upon such redemption will be payable and, if less than all of the Bonds of a Series are to be redeemed, the numbers or other distinguishing marks of such Bonds to be redeemed in part only, such notice shall also specify the respective portions thereof to be redeemed. Such notice shall further state that on such date there shall become due and payable upon each of the Bonds to be redeemed the redemption price or the specified portions thereof in the case of Bonds to be redeemed in part only, together with interest accrued to the redemption date, and that from and after such date interest thereon shall cease to accrue and be payable on such Bonds or portions thereof so redeemed.

In addition to the foregoing notice, further notice of the matters set forth above in this Section 303 shall be given by the City as set out in this paragraph, but no defect in said further notice nor any failure to give all or any portion of such further notice shall in any manner defeat the effectiveness of a call for redemption if notice thereof is given as above prescribed. Each further notice of redemption shall be sent at least 30 days before the redemption date by registered or certified mail or overnight delivery service to one or more registered securities depositories then in existence which holds a substantial amount of such Bonds subject to redemption; and to at least one national information services that disseminate notices of redemption or obligations such as the Bonds.

Upon the payment of the redemption price of Bonds being redeemed, each check or other transfer of funds issued for such purpose shall bear a description of the issue and maturity of the Bonds being redeemed with the proceeds of such check or other transfer.

In the case of an optional redemption, any notice of redemption may state that (1) it is conditioned upon the deposit of moneys, in an amount equal to the amount necessary to effect the redemption, with the Bond Registrar or an escrow agent no later than the redemption date or (2) the City retains the right to rescind such notice on or prior to the scheduled redemption date (in either case, a "Conditional Redemption"), and such notice and optional redemption shall be of no effect if such moneys are not so deposited or if the notice is rescinded as described in this subsection. Any such notice of Conditional Redemption shall be captioned "Conditional Notice of Redemption." Any Conditional Redemption may be rescinded at any time prior to the redemption date if the Finance Director delivers a written direction to the Bond Registrar directing the Bond Registrar to rescind the redemption notice. The Bond Registrar shall give prompt notice of such rescission to the affected Bondholders. Any Bonds subject to Conditional Redemption where redemption has been rescinded shall remain Outstanding, and neither the rescission nor the failure by the City to make such funds available shall constitute an Event of Default. The Bond Registrar shall give immediate notice to the securities information repositories and the affected Bondholders that the redemption did not occur and that the Bonds called for redemption and not so paid remain Outstanding.

The provisions concerning the manner of giving notice of redemption may be changed or varied or supplemented in any Series Resolution applicable to any Series of Bonds issued under this Resolution for the purpose of complying with any governmental or industry standards from time to time in effect.

Section 304. Partial Redemption of Bonds. In the event that only part of the principal sum of any Bond shall be called for redemption or prepaid, payment of the amount to be redeemed or prepaid shall be made only upon surrender of such Bond to the Bond Registrar. Upon surrender of such Bond, the Bond Registrar shall execute and deliver to the registered owner thereof at the designated office of the Bond Registrar, new duly executed Bonds, of authorized principal sums equal in aggregate principal amount to, and of the same maturity and interest rate as, the unredeemed portion of the Bond surrendered.

Section 305. Effect of Calling for Redemption. On the date so designated for redemption, notice having been mailed and filed in the manner and under the conditions hereinabove provided, the Bonds so called for redemption shall become and be due and payable at the redemption price provided for redemption of such Bonds on such date, and, moneys for payment of the redemption price being held in separate accounts by the Bond Registrar or by a separate financial institution designated as escrow agent in trust for the Holders of the Bonds to be redeemed, all as provided in this Resolution, interest on the Bonds so called for redemption shall cease to accrue, such Bonds shall cease to be entitled to any lien, benefit or security under

this Resolution, and the Holders or registered owners of such Bonds shall have no rights in respect thereof except to receive payment of the redemption price thereof and accrued interest thereon.

Section 306. Cancellation of Bonds. All Bonds paid, redeemed or purchased, either at or before maturity, shall be delivered to the Bond Registrar when such payment, redemption or purchase is made and such Bonds shall, except as provided by Section 304 hereof, thereupon be cancelled. The Bond Registrar shall certify to the City the details of all Bonds so cancelled. All Bonds cancelled under any of the provisions of this Resolution either shall be delivered to the City or destroyed by the Bond Registrar, as the City directs. Upon destruction of any Bonds, the Bond Registrar shall execute a certificate in duplicate, describing the Bonds so destroyed, and one executed certificate shall be filed with the City and the other executed certificate shall be retained by the Bond Registrar.

Section 307. Bonds Called for Redemption Deemed Not Outstanding. If (a) (1) Bonds shall have been duly called for redemption under the provisions of this Article or (2) irrevocable instructions have been given by the City to the Bond Registrar or to a bank, trust company or other appropriate fiduciary institution acting as escrow agent (the "escrow agent") to (i) call Bonds for redemption under the provisions of this Article, (ii) pay Bonds at their maturity or maturities or (iii) both call Bonds for redemption under the provisions of this Article and pay Bonds at their maturity or maturities in any combination (the Bonds described in clauses (a)(1) and (a)(2) are herein collectively called the "Bonds to be Paid"), and (b) cash or Sufficient Government Obligations (hereinafter defined) are held in separate accounts by the Bond Registrar or escrow agent solely for the holders of the Bonds to be Paid, then the Bonds to be Paid shall not be deemed to be Outstanding under the provisions of this Resolution and shall cease to be entitled to any benefit or security under this Resolution other than to receive payment of principal, redemption premium, if any, and interest from such moneys.

For purposes of this Section 307, "Sufficient Government Obligations" shall mean Government Obligations which are in such principal amounts, bear interest at such rate or rates and mature (without the option of prior redemption) on such date or dates so that the proceeds to be received upon payment of such Government Obligations at their maturity and the interest to be received thereon will provide sufficient amounts in cash on the dates required to pay the principal of and redemption premium, if any, and the interest on the Bonds to be Paid to the dates of their maturity or redemption.

[END OF ARTICLE III]

38

39

ARTICLE IV CONSTRUCTION ACCOUNT

Section 401. Construction Account. A special account to be maintained by a Depository is hereby created and designated "Water and Sewer Construction Account" (herein sometimes called the "Construction Account"). A special subaccount within the Construction Account is hereby created and designated "Series 2003 Water and Sewer Project Construction Subaccount" in which shall be deposited the amounts specified in the Series Resolution with respect to the Series 2003 Bonds issued pursuant to Section 208 of this Resolution, and a second special subaccount within the Construction Account is hereby created and designated "Series 2003 Cost of Issuance Subaccount" in which shall be deposited the amounts as provided in Section 208(2) hereof to pay expenses relating to the issuance of the Series 2003 Bonds.

The moneys in the Construction Account shall be held in trust and applied to the payment of a portion of the Costs of the Project and if Additional Bonds are issued under Section 209 of this Resolution to the Costs of constructing or acquiring Improvements and, pending such application, shall be subject to a lien and charge in favor of the Holders of the Series of Bonds issued under this Resolution the proceeds of which were deposited to the credit of the Construction Account and for the further security of such Holders until paid out as herein provided.

For each Series of Additional Bonds issued pursuant to Section 209 of this Resolution for the purpose of payment of the Cost of Improvements, the City shall create one or more separate special subaccounts within the Construction Account, entitled "Series . . . Water and Sewer Project Construction Subaccount" to which shall be deposited the amounts provided from such Series of Additional Bonds for construction of Improvements and a second special subaccount within the Construction Account, entitled "Series . . . Cost of Issuance Subaccount" to which shall be deposited amounts to pay the expenses relating to the issuance of such Series of Additional Bonds.

Section 402. Payments from Construction Account. Payment of the Cost of the Project and any Improvements shall be made from the special subaccounts within the Construction Account as herein provided. All such payments shall be subject to the provisions and restrictions set forth in this Article and the City covenants that it will not cause or permit to be paid from the Construction Account any sums except in accordance with such provisions and restrictions. Moneys in the Construction Account shall be disbursed by check, voucher, order, draft, certificate or warrant signed by any one or more officers or employees of the City having such duties under City rules and regulations or designated by resolution of the City Commission from time to time, for such purpose or if the City shall so elect, by wire transfer. Amounts deposited in the Construction Account or a subaccount thereof for the payment of capitalized interest on a Series of Bonds shall be withdrawn therefrom and deposited in the corresponding

Bond Service Subaccount no later than the second Business Day immediately preceding the Interest Payment Date on which such capitalized interest is to be paid.

Section 403. Cost of Project and Improvements. For the purposes of this Article, the Cost of the Project and any Improvements to be constructed or acquired shall include, without intending thereby to limit or to restrict or to extend any proper definition of such Cost under the provisions of this Resolution, the following:

(a) obligations incurred for labor and materials and to contractors, builders and materialmen in connection with the construction of enlargements, improvements and extensions, for machinery and equipment, for demolition and removal of debris and other materials and for the restoration of property damaged or destroyed in connection with such construction;

(b) interest accruing upon any Bonds or upon any other Utility Debt of the City incurred to finance the Project or Improvements prior to the commencement of and during construction or for any additional period as may be authorized by law if so provided, and subject to any limitation, in the Series Resolution providing for the issuance of such Bonds;

(c) the cost of acquiring any privately owned waterworks or sewage system now serving any portion of the City and territory adjacent thereto, or any part of such system, either within or without or partly within or partly without the corporate limits of the City;

(d) the cost of acquiring by purchase, if such purchase shall be deemed expedient, and the amount of any award or final judgment in any proceeding to acquire by condemnation, such land, property rights, right-of-way, franchises, easements, and other interests in lands as may be deemed necessary or convenient in connection with such construction or with the operation of the Water and Sewer System, and the amount of any damages incident thereto;

(e) expenses of administration properly chargeable to such construction or acquisition, legal, architectural and engineering expenses and fees, costs of audits and of preparing and issuing the Bonds, fees and expenses of consultants, financing charges, taxes or other governmental charges lawfully assessed during construction, premiums on insurance in connection with construction, deposits to the Reserve Account, premiums for bond insurance, interest rate insurance or insurance assuring availability of the amounts required to be on deposit in the Reserve Account, initial set up fees and annual fees for letters of credit, lines of credit, standby bond purchase agreements or other similar credit enhancement or liquidity enhancement devices and tender agent fees and fees payable for remarketing Bonds during the period of construction of the Project or

40

41

any Improvements for which Bonds supported by such devices were issued and all other items of expense not elsewhere in this Section specified, incident to the financing, construction or acquisition of the Project and any Improvements and the placing of the same in operation; and

(f) any obligation or expense heretofore or hereafter incurred by the City for any of the foregoing purposes, including the cost of materials, supplies or equipment furnished by the City in connection with the construction of the Project and any Improvements and paid for by the City out of funds other than moneys in the Construction Account.

Section 404. Title to Properties Acquired. The City further covenants that the Project and any Improvements will be constructed on or under land which is owned or can be acquired by the City in fee simple or over or under which the City shall acquire or can acquire either by long term lease or by easements for the purposes of the Water and Sewer System, free from all liens, encumbrances and defects of title which would effectively prohibit the City from utilizing such lands or properties for the purposes intended or which have been adequately guarded against by a bond or other form of indemnity, or lands, including public streets and highways, the right to use and occupy which for such purposes shall be vested in the City by law or by valid rights of way, easements, franchises, licenses or agreements.

Section 405. Disposition of Construction Account Balance. When the construction of the Project or any Improvements for which a Series of Additional Bonds were issued shall have been completed (which fact shall be evidenced to the Finance Director by a certificate stating the date of such completion, approved by the City Engineer), the balance in the special account or subaccounts of the Construction Account not reserved by the City for the payment of any remaining part of the Cost of the Project or such Improvements or expenses related to the issuance of such Bonds shall be transferred by the Finance Director, in the discretion of the City, to the credit of the Renewal, Replacement and Improvement Account or to the credit of the Sinking Fund Account for the payment of principal of the Bonds of such Series or retained in the Construction Account and used to pay the Cost of a different Improvement or Improvements which have been approved by the City Commission or applied to redeem Bonds in a manner permitted under this Resolution and the applicable Series Resolution. Before undertaking any such transfer, the Finance Director shall procure an opinion of Bond Counsel to the effect that the proposed transfer will not adversely affect the exclusion of interest on any Bonds from gross income for federal income tax purposes.

[END OF ARTICLE IV]

42

unpaid portion of the Special Assessments. The estimate of the Consulting Engineer shall be based upon the preliminary assessment roll filed with the City prior to the construction of such Improvements.

If in any Fiscal Year the Net Revenues shall be less than the amount required under the preceding paragraphs of this Section, within 30 days after the December 31 immediately succeeding such Fiscal Year, the City shall employ a Rate Consultant to review and analyze the financial status of the Water and Sewer System, to inspect the Water and Sewer System and to submit, within 60 days thereafter, a written report to the City recommending revisions of the rates, fees and charges of the Water and Sewer System and the methods of operation of the Water and Sewer System that will result in producing the amount so required in the following Fiscal Year. Promptly upon its receipt of such recommendations, the City shall transmit copies thereof to the City Manager and the Finance Director and shall revise its rates, fees and charges, or alter its methods of operation and take such other action as shall conform with such recommendations.

If the City shall fail to comply with the recommendations of the Rate Consultant, the registered owners of not less than ten per centum (10%) in principal amount of all Bonds then outstanding may institute and prosecute an action or proceeding in any court or before any board or commission having jurisdiction to compel the City to comply with the recommendations and the requirements of the preceding paragraph of this Section. So long as the issuer of a Credit Facility shall not be in default in its payment obligations under such Credit Facility, such issuer shall be deemed to be the holder of all Bonds so insured for purposes of this paragraph.

If the City shall comply with all recommendations of the Rate Consultant in respect to its rates, fees, charges and methods of operation, the failure of Net Revenues to meet the requirements in the first paragraph of this Section shall not constitute an Event of Default so long as the Revenues, together with available moneys in the Funds and Accounts created in Article V of this Resolution, are sufficient to pay in cash the Current Expenses and to pay the Principal and Interest Requirements on all Outstanding Bonds and other Utility Debt for such Fiscal Year.

Section 503. Annual Budget. The City covenants that not later than forty-five (45) days before the end of each Fiscal Year it will prepare a preliminary budget covering Revenues, Current Expenses, Capital Expenditures and all deposits to Funds and Accounts required by Section 505 of this Resolution for the ensuing Fiscal Year. Copies of each such preliminary budget shall be filed with the Finance Director.

The City further covenants that on or before the first day of each Fiscal Year it will finally adopt the budget covering the above items for such Fiscal Year (herein sometimes called the "Annual Budget"). Copies of the Annual Budget shall be filed with the Finance Director and mailed by the City to all Bondholders who shall have filed their names and addresses with the Finance Director for such purpose.

44

ARTICLE V REVENUES AND FUNDS

Section 501. Water and Sewer Rates. The City covenants that the schedules of rates for water and sewer service by the Water and Sewer System will not be less than the rates required to enable the City to comply with the requirements of Section 502 hereof. So long as the City is in compliance with the requirements of Section 502 hereof, the City from time to time may revise the rates for water and sewer service by the Water and Sewer System.

Section 502. Rate Covenant. The City further covenants that it will fix, charge and collect reasonable rates and charges for the use of the services and facilities furnished by the Water and Sewer System and that from time to time, and as often as it shall appear necessary, it will adjust such rates and charges by increasing or decreasing the same or any selected categories of rates and charges so that the Net Revenues received in each Fiscal Year (excluding from the computation of Current Expenses for any Fiscal Year any amount received from any source other than Revenues and applied to the payment of Current Expenses in such Fiscal Year) will be sufficient to provide an amount in such Fiscal Year at least equal to one hundred twenty-five per centum (125%) of the Principal and Interest Requirements for such Fiscal Year on account of the Bonds then Outstanding and one hundred per centum (100%) of all amounts required to be deposited to the Accounts pursuant to clauses (c), (d), (e) and (f) of Section 505 of this Resolution for such Fiscal Year; provided, however, that if either Impact Fees or Special Assessments are legally available for application with respect to any Series of Additional Bonds under clause "FIRST" of Section 515 in the case of Impact Fees or clause "FIRST" of Section 516 in the case of Special Assessments, then, in addition to the foregoing, the City further covenants that the Net Revenues received in each Fiscal Year, together with the Impact Fees and/or the Special Assessments, as applicable, will be sufficient to provide an amount in such Fiscal Year at least equal to one hundred thirty per centum (130%) of the Principal and Interest Requirements for such Fiscal Year on account of the Bonds then Outstanding.

If the City covenants to levy Special Assessments or Impact Fees against improved property to be benefitted by the Improvements (which levy will be done in accordance with State law), the cost of which shall be paid from the proceeds of the proposed Additional Bonds and if such Special Assessments or Impact Fees are legally available for application with respect to such Additional Bonds as permitted under clause "FIRST" of Section 515 in the case of Impact Fees or clause "FIRST" of Section 516 in the case of Special Assessments, then, as the case may be, Net Revenues for purposes of this Section 502 shall be increased by an amount equal to one hundred per centum (100%) of the amount which the Consulting Engineer estimates will be received in each year from the levy of said Impact Fees or Special Assessments, as applicable (without taking into account the possibility of prepayment of Special Assessments), said amount to be the total received from the installment payments on the Special Assessments or Impact Fees, as the case may be, plus, in the case of Special Assessments, any interest paid on the

43

If for any reason the City shall not have adopted the Annual Budget before the first day of any Fiscal Year, the Annual Budget for the preceding Fiscal Year shall, until the adoption of the Annual Budget, be deemed to be in force and shall be treated as the Annual Budget under the provisions of this Article.

The City may at any time adopt an amended or supplemental Annual Budget for the remainder of the then current Fiscal Year and the Annual Budget so amended or supplemented shall be treated as the Annual Budget under the provisions of this Article. There shall be no limitation on the nature or amount covered by any such amendment to the Annual Budget.

The City further covenants that the amount expended for Current Expenses in any Fiscal Year will not exceed the reasonable and necessary amount therefor, and that it will not expend any amount for maintenance, repair and operation of the Water and Sewer System in excess of the total amount provided for Current Expenses in the Annual Budget. Nothing in this Section contained shall limit the amount which the City may expend for Current Expenses in any Fiscal Year provided any amounts expended therefor in excess of the total amount provided in the Annual Budget shall be received by the City from some source other than the Revenues of the Water and Sewer System.

Section 504. Enterprise Fund; Revenue Account. A special fund is hereby created and designated the "Water and Sewer Enterprise Fund" (herein called the "Enterprise Fund"). A special account is hereby created within the Enterprise Fund and designated "Water and Sewer Revenue Account" (herein called the "Revenue Account"). Except as provided in Article VI of this Resolution with respect to investment income on certain Funds and Accounts, the City covenants that all Revenues will be collected by the City and deposited as received with a Depository or Depositories to the credit of the Revenue Account. All moneys in the Enterprise Fund and the Accounts and Subaccounts therein shall be held by the City in trust and applied as provided in this Article.

Section 505. Sinking Fund Account and Other Accounts. A special account is hereby created within the Enterprise Fund and designated "Water and Sewer Revenue Bonds Sinking Fund Account" (herein called the "Sinking Fund Account"). There are hereby created in the Sinking Fund Account two separate subaccounts designated "Bond Service Subaccount" and "Redemption Subaccount". Five additional special accounts are hereby created within the Enterprise Fund and designated "Water and Sewer Revenue Bonds Reserve Account" (herein called the "Reserve Account"), "Water and Sewer Rate Stabilization Account" (hereinafter called the "Rate Stabilization Account"), "Water and Sewer Subordinated Indebtedness Account" (herein called the "Subordinated Indebtedness Account"), "Water and Sewer Renewal, Replacement and Improvement Account" (herein called the "Renewal, Replacement and Improvement Account"), and "Water and Sewer General Reserve Account" (herein called the "General Reserve Account").

45

If required by the terms of any Series of Additional Bonds issued pursuant to Sections 209 or 211(b) of this Resolution or any series of Refunding Bonds issued pursuant to Section 210 of this Resolution, the City hereby covenants to establish and maintain, pursuant to the resolution awarding such Additional Bonds and Refunding Bonds to the original purchasers thereof, a separate Sinking Fund Account to provide for the payment of the principal of, redemption premium, if any, and interest on such Series of Bonds or to provide within the Sinking Fund Account and the subaccounts therein separate subaccounts as required by the terms of such Bonds. To the extent required in the applicable Series Resolution, the City hereby covenants to establish and maintain, pursuant to the Series Resolution for each Series of Additional Bonds, a separate subaccount in the Reserve Account to be maintained solely for the benefit of the Holders of such Series of Bonds; otherwise, all Bonds Outstanding shall be secured by amounts on deposit to the credit of the Reserve Account (except for amounts to the credit of any subaccount established solely for the benefit of a particular Series of Bonds) or unless the Series Resolution for a particular Series of Bonds expressly provides that such Series of Bonds is not to be secured by the Reserve Account or any subaccount therein. If any separate Sinking Fund Accounts or separate subaccounts within the Sinking Fund Account or the subaccounts therein or if any separate reserve accounts are created pursuant to this paragraph, such Sinking Fund Accounts, separate subaccounts or separate reserve accounts shall be funded in the manner and at the times required by such award resolution or Series Resolution, as the case may be, and shall be held by the Finance Director separate and apart from the Sinking Fund Accounts or the Reserve Account or other separate reserve accounts with respect to any other Series of Bonds issued under this Resolution, and shall be held solely for the benefit and security of the Series of Bonds with respect to which such separate Sinking Fund Account, separate subaccounts or separate reserve accounts were created. Each such separate Sinking Fund Account or separate subaccounts with respect to a Series shall be designated "Series ____ Sinking Fund Account" or "Series ____ Subaccount," as the case may be, and each such separate reserve account shall be designated "Series ____ Reserve Account" (inserting an identifying Series year, and if more than one Series is to be issued in a single calendar year, an identifying Series letter).

The moneys in each of said Funds and Accounts shall be held in trust and applied as hereinafter provided with regard to each such Fund and Account and, pending such application, shall be subject to a lien and charge in favor of the Holders of the Bonds issued and Outstanding under this Resolution and for the further security of such Holders until paid out or transferred as herein provided.

The City shall, on or before the 20th day of the month next succeeding the month in which Bonds are issued under the provisions of Section 208 of this Resolution and not later than the 20th day of each month thereafter, withdraw the balance remaining in the Revenue Account, less an amount (to be held for the payment of Current Expenses) equal to the amount shown by the Annual Budget to be necessary for Current Expenses during the next ensuing two (2) months, and deposit the sum so withdrawn to the credit of the following Accounts or Subaccounts in the following order:

46

may be required to make the amount deposited in such month to the credit of the Renewal, Replacement and Improvement Account equal to one-twelfth (1/12) of the difference between any lesser amount on deposit therein and the Renewal, Replacement and Improvement Account Requirement for such Fiscal Year.

(g) To the credit of the General Reserve Account, the balance, if any, remaining after making the deposits under clauses (a), (b), (c), (d), (e) and (f) above.

The amount of the Impact Fees shall be deposited as received directly to the credit of the Impact Fee Account and applied as set forth in Section 515 of this Resolution.

If the amount deposited in any month to the credit of any of the Accounts or Subaccounts shall be less than the amount required to be deposited under the foregoing provisions of this Section, the requirement therefor shall nevertheless be cumulative and the amount of any deficiency in any month shall be added to the amount otherwise required to be deposited in each month thereafter until such time as all such deficiencies have been made up.

Section 506. Payment of Current Expenses. The Current Expenses shall be paid from the Revenue Account as the same become due and payable. Payments from the Revenue Account shall be made in accordance with procedures established by the City from time to time, the Annual Budget and the covenants in Section 503 of this Article.

Section 507. Application of Moneys in Bond Service Subaccount. The City shall on the business day immediately preceding each Interest Payment Date withdraw from the Bond Service Subaccount and deposit in trust with the Bond Registrar to enable the Bond Registrar to remit by mail to each registered owner of Bonds the amount required for paying the interest on such Bonds as such interest becomes due and payable. The Bond Registrar shall be permitted to transfer by wire to owners of at least \$1,000,000 principal amount of the Bonds the amounts required for paying the interest on such Bonds as such interest becomes due and payable, as more specifically set forth in the corresponding Series Resolution. The City shall on the business day immediately preceding a date on which principal is due on Serial Bonds withdraw from the Bond Service Subaccount and deposit in trust with the Bond Registrar the amounts required for paying the principal of all Serial Bonds as such principal becomes due and payable. The City, in its discretion, may make the deposits required in this Section with the Bond Registrar by wire transfer.

Section 508. Application of Moneys in Redemption Subaccount. Moneys held for the credit of the Redemption Subaccount shall be applied to the retirement of the Bonds issued under the provisions of this Resolution as follows:

(a) Subject to the provisions of paragraph (c) of this Section, the City shall endeavor to purchase any Bonds secured hereby and then Outstanding, whether or not

48

(a) To the credit of the Bond Service Subaccount of the Sinking Fund Account, an amount equal to one-sixth (1/6) of the amount of interest payable on the Bonds of each Series on the next succeeding Interest Payment Date and an amount equal to one-twelfth (1/12) or, if principal is payable semiannually, one-sixth (1/6) of the next maturing installment of principal on all Serial Bonds then Outstanding; provided, however, that in each month intervening between the date of delivery of Bonds pursuant to Sections 208, 209, 210 or 211(b) of this Resolution (beginning with the month following the month in which such delivery takes place) and the next succeeding Interest Payment Date and the next succeeding principal payment date, respectively, the amount specified in this subparagraph shall be that amount which when multiplied by the number of deposits to the credit of the Bond Service Subaccount required to be made during such respective periods as provided above will equal the amounts required (in addition to any amounts received as accrued interest or capitalized interest from the proceeds of such Bonds) for such next succeeding interest payment and next maturing installment of principal, respectively.

(b) To the credit of the Redemption Subaccount of the Sinking Fund Account, an amount equal to one-twelfth (1/12) or, if any Bonds are required to be retired semiannually in satisfaction of the Amortization Requirements therefor, one sixth (1/6) of the principal amount of Term Bonds of each Series then Outstanding required to be retired, in satisfaction of the Amortization Requirements, if any, for such Fiscal Year.

(c) To the credit of the Reserve Account, such amount, if any, of any balance remaining after making the deposits under clauses (a) and (b) above (or the entire balance if less than the required amount) as may be required to make the amount deposited to the credit of the Reserve Account in such month equal to the Reserve Account Deposit Requirement for such month.

(d) To the credit of the Rate Stabilization Account such amounts as shall be determined from time to time by the City Commission for crediting thereto.

(e) To the credit of the Subordinated Indebtedness Account, an amount, if any, of any balance remaining after making the deposits under clauses (a), (b), (c) and (d) above (or the entire balance if less than the required amount) equal to the sum of one-twelfth (1/12) of the principal of, redemption premium, if any, and interest coming due on any Subordinated Indebtedness during the next succeeding twelve month period and the amount, if any, required to be deposited in any special reserve subaccount established within the Subordinated Indebtedness Account as provided in Section 511 hereof.

(f) To the credit of the Renewal, Replacement and Improvement Account, such amount, if any, of any balance remaining after making the deposits under clauses (a), (b), (c), (d) and (e) above (or the entire balance if less than the required amount) as

47

such Bonds shall then be subject to redemption, on the most advantageous terms obtainable with reasonable diligence. The City shall pay the interest accrued on such Bonds to date of settlement therefor from the Bond Service Subaccount and the purchase price from the Redemption Subaccount, but no such purchase shall be made by the City within the period of forty-five (45) days next preceding any Interest Payment Date on which such Bonds are subject to call for redemption under the provisions of this Resolution, except from moneys other than moneys set aside or deposited for the redemption of Bonds.

(b) Subject to the provisions of Article III of this Resolution and paragraph (c) of this Section, the City may call for redemption on each Interest Payment Date on which Bonds are subject to redemption such amount of such Bonds as, with the redemption premium, if any, will exhaust the moneys which will be held for the credit of the Redemption Subaccount on said Interest Payment Date as nearly as may be; provided, however, that not less than Fifty Thousand Dollars (\$50,000) principal amount of Bonds shall be called for redemption at any one time unless a lesser amount shall be required to satisfy the Amortization Requirement for any Fiscal Year. Such redemption shall be made pursuant to the provisions of Article III of this Resolution. The City shall during the period of five (5) business days prior to the Redemption Date withdraw from the Bond Service Subaccount and the Redemption Subaccount and set aside in separate accounts or deposit with the Bond Registrar the respective amounts required for paying the interest on, and the principal of and redemption premium, if any, the Bonds so called for redemption.

(c) Moneys held in the Redemption Subaccount shall be applied by the City each Fiscal Year to the retirement of Bonds of each Series then Outstanding in the following order:

First: the Term Bonds of each such Series to the extent of the Amortization Requirements, if any, for such Fiscal Year for such Term Bonds, plus the applicable redemption premium, if any, and any deficiency in any preceding Fiscal Years in the purchase or redemption of such Term Bonds under the provisions of this subdivision and, if the amount available in such Fiscal Year shall not be sufficient therefor, then in proportion to the Amortization Requirements, if any, for such Fiscal Year for the Term Bonds of each such Series then Outstanding, plus the applicable redemption premium, if any, and any such deficiency;

Second: Term Bonds of each Series, if any, in proportion (as nearly as practicable) to the aggregate principal amount of the Bonds of each such Series originally issued; and

49

Third: after the retirement of all Term Bonds, if any, Serial Bonds issued under the provisions of this Resolution in such order as the City shall select and, to the extent that Serial Bonds of different Series mature on the same date, in proportion (as nearly as practicable) to the principal amount of Bonds of each Series maturing on such date.

Upon the retirement of any Bonds by purchase or redemption there shall be filed with the Finance Director a statement briefly describing such Bonds and setting forth the date of their purchase or redemption, the amount of the purchase price or the redemption price of such Bonds and the amount paid as interest thereon. The expenses in connection with the purchase or redemption of any Bonds shall be paid by the City from the General Reserve Account.

Section 509. Application of Moneys in Reserve Account. The Reserve Account shall be held for the benefit of all Bonds Outstanding except that: (i) the Series Resolution for a particular Series of Bonds may provide that such Series of Bonds is not to be secured by the Reserve Account and, in such event, such Series of Bonds shall not be secured by the Reserve Account and the moneys held for the credit of the Reserve Account shall not be applied for the benefit of such Series of Bonds, and (ii) the Series Resolution for one or more particular Series of Bonds may establish a separate subaccount within the Reserve Account for such particular Series of Bonds and, in such event, such Series of Bonds shall be secured only by the moneys held for the credit of such subaccount and by no other amounts held for the credit of the Reserve Account, and the Bonds Outstanding of any other Series shall have no claim whatsoever on the moneys held for the credit of such separate subaccount in the Reserve Account. Moneys held for the credit of the Reserve Account shall first be used for the purpose of paying the interest on and the principal of the Bonds which are secured by the Reserve Account whenever and to the extent that the moneys held for the credit of the Bond Service Subaccount shall be insufficient for such purpose and thereafter for the purpose of making deposits to the credit of the Redemption Subaccount in respect of such Bonds pursuant to the requirements of clause (b) of Section 505 of this Resolution whenever and to the extent that withdrawals from the Revenue Account are insufficient for such purposes; provided, however, that moneys held for the credit of a separate subaccount in the Reserve Account shall be applied to the foregoing purposes and in the foregoing manner, but only for the benefit of the Series of Bonds for which such separate subaccount was established. If at any time the moneys held for the credit of the Reserve Account shall exceed the Reserve Account Requirement, such excess shall be withdrawn and deposited to the credit of the Revenue Account; provided, however, the City Commission, pursuant to the Series Resolution or the resolution awarding any Series of Bonds hereunder to the original purchasers thereof, may provide for a different disposition of any such excesses which relate to such Series of Bonds.

Notwithstanding the foregoing, in lieu of the required deposit into the Reserve Account (or any subaccount therein), the City may, with the consent of any applicable issuer of a Credit Facility or Liquidity Facility then in effect, cause to be deposited into such Reserve Account (or

50

the applicable subaccount therein) a Reserve Account Insurance Policy or Reserve Account Letter of Credit for the benefit of the Holders of the Bonds either in substitution for the full amount then on deposit therein, or in an amount equal to the difference between the amount required to be deposited in such Reserve Account (or the applicable subaccount therein) and the sum, if any, then on deposit in such Reserve Account (or the applicable subaccount therein), which Reserve Account Insurance Policy or Reserve Account Letter of Credit shall be payable (upon the giving of notice as required thereunder) on any Interest Payment Date on which a deficiency exists for the Bonds or the Series of Bonds for which such Reserve Account Insurance Policy or Reserve Account Letter of Credit was issued, which cannot be cured by moneys in any other Fund, Account or Subaccount held pursuant to this Resolution and available for such purpose. If any such Reserve Account Insurance Policy or Reserve Account Letter of Credit is substituted for moneys on deposit in the Reserve Account (or the applicable subaccount therein), the excess moneys in the Reserve Account (or the applicable subaccount therein) shall be applied to satisfy any such deficiency in any of the Funds, Accounts or Subaccounts under this Resolution, and any remaining balance shall be deemed surplus, shall be released from the lien of this Resolution and may be used by the City for any lawful purpose. If a disbursement is made from a Reserve Account Insurance Policy or Reserve Account Letter of Credit, the City shall be obligated to either reinstate the maximum limits of such Reserve Account Insurance Policy or Reserve Account Letter of Credit immediately following such disbursement or to deposit into the Reserve Account (or the applicable subaccount therein), as provided in Section 505 (c), funds in the amount of the disbursement made under such Reserve Account Insurance Policy or Reserve Account Letter of Credit.

In the event that all or a portion of the Reserve Account Requirement for any Series shall be provided by a Reserve Account Insurance Policy or Reserve Account Letter of Credit, the City shall do all things necessary to receive in a timely fashion from the provider of such Reserve Account Insurance Policy or Reserve Account Letter of Credit amounts required to be expended pursuant to this Section.

Section 510. Application of Moneys in Rate Stabilization Account. Moneys held for the credit of the Rate Stabilization Account shall be disbursed, upon the written direction of the Finance Director, for transfer to the Revenue Account, at such times and in such amounts as the Finance Director shall determine, and may be used to pay Current Expenses and for the following additional purposes. If at any time the moneys held for the credit of the Bond Service Subaccount and the Reserve Account shall be insufficient for the purpose of paying the interest on and the principal of the Bonds as such interest and principal become due and payable, then the City shall withdraw from any moneys held for the credit of the Rate Stabilization Account and deposit to the credit of the Bond Service Subaccount an amount sufficient to make up any such deficiency. If at any time the Net Revenues and the moneys held for the credit of the Reserve Account shall be insufficient for making the deposits to the credit of the Redemption Subaccount required by clause (b) of Section 505 of this Article, then the City shall withdraw from any moneys held for the credit of the Rate Stabilization Account and deposit to the credit of the

51

Redemption Subaccount an amount sufficient to make up any such deficiency; provided, however, that no such transfer shall be made unless the moneys then held for the credit of the Bond Service Subaccount are at least equal to the maximum requirement therefor under clause (a) of said Section 505.

Section 511. Application of Moneys in Subordinated Indebtedness Account. The City shall on the business day immediately preceding the date on which any payment in respect of principal of, redemption premium, if any, or interest on any Subordinated Indebtedness shall become due withdraw from the Subordinated Indebtedness Account and deposit in trust with the paying agent for such Subordinated Indebtedness to enable such paying agent to pay to the holders of such Subordinated Indebtedness the amount required to pay such principal, redemption premium or interest becoming due and payable, all as provided in the ordinance, resolution or other instrument pursuant to which such Subordinated Indebtedness has been incurred (the "Subordinated Indebtedness Instrument").

The City may, pursuant to the Subordinated Indebtedness Instrument relating to any Subordinated Indebtedness, establish within the Subordinated Indebtedness Account a special reserve subaccount for such Subordinated Indebtedness. Moneys deposited to the credit of the Subordinated Indebtedness Account with respect to any reserve subaccount deposit requirement established in a Subordinated Indebtedness Instrument shall be deposited in said subaccount and held as a reserve for the corresponding Subordinated Indebtedness, as shall be more fully set forth in such Subordinated Indebtedness Instrument.

If at any time the moneys held for the credit of the Bond Service Subaccount and the Reserve Account shall be insufficient for the purpose of paying the interest on and the principal of the Bonds as such interest and principal become due and payable, then the City shall withdraw from any moneys held for the credit of the Subordinated Indebtedness Account and deposit to the credit of the Bond Service Subaccount an amount sufficient to make up any such deficiency.

Section 512. Application of Moneys in Renewal, Replacement and Improvement Account. Except as hereinafter provided in this Section, or except in case of an emergency caused by some extraordinary occurrence, so characterized in a certificate signed by the Finance Director, and an insufficiency of moneys held for the credit of the Revenue Account to meet such emergency, moneys held for the credit of the Renewal, Replacement and Improvement Account shall be disbursed, subject to the provisions of the third paragraph of this Section 512, only for the purpose of paying the costs of unusual or extraordinary maintenance or repairs, the cost of renewals and replacements, the cost of acquiring, installing or replacing equipment, the cost of Improvements and engineering expenses related to the foregoing and the cost of providing a local share of moneys required to entitle the City to receive Federal or State grants or to participate in Federal or State assistance programs related to the Water and Sewer System.

52

Payments from the Renewal, Replacement and Improvement Account, except the withdrawal which the City is authorized to make as hereinafter provided in this Section, shall be made in accordance with the provisions of Section 402 of this Resolution for payments from the Construction Account to the extent that such provisions may be applicable.

If at any time the moneys held for the credit of the Bond Service Subaccount and the Reserve Account shall be insufficient for the purpose of paying the interest on and the principal of the Bonds as such interest and principal become due and payable, then the City shall withdraw from any moneys held for the credit of the Renewal, Replacement and Improvement Account and deposit to the credit of the Bond Service Subaccount an amount sufficient to make up any such deficiency. If at any time the Net Revenues and the moneys held for the credit of the Reserve Account shall be insufficient for making the deposits to the credit of the Redemption Subaccount required by clause (b) of Section 505 of this Article, then the City shall withdraw from any moneys held for the credit of the Renewal, Replacement and Improvement Account and deposit to the credit of the Redemption Subaccount an amount sufficient to make up any such deficiency; provided, however, that no such transfer shall be made unless the moneys then held for the credit of the Bond Service Subaccount are at least equal to the maximum requirement therefor under clause (a) of said Section 505. Any moneys so withdrawn from the Renewal, Replacement and Improvement Account and deposited to the credit of the Bond Service Subaccount or the Redemption Subaccount shall be restored from available moneys in the Revenue Account, subject to the same conditions as are prescribed for deposits to the credit of the Renewal, Replacement and Improvement Account under the provisions of Section 505 of this Article.

Section 513. Application of Moneys in General Reserve Account. Moneys held for the credit of the General Reserve Account may at the election of the City be applied:

- (a) to pay the Cost of Improvements,
- (b) to purchase or redeem Bonds,
- (c) to make up deficiencies in any of the Accounts and Funds created by this Resolution,
- (d) to pay the Cost of any item qualifying as an authorized expenditure from the Renewal, Replacement and Improvement Account,
- (e) to make payments required under Interest Rate Swap agreements, and
- (f) for any other lawful purpose of the City.

53

Section 514. Application of Moneys in Sinking Fund Account. Subject to the terms and conditions set forth in this Resolution, moneys held for the credit of the Sinking Fund Account shall be held in trust and disbursed for (a) the payment of interest on the Bonds issued under the provisions of Sections 208, 209, 210 and 211(b) of this Resolution as such interest becomes due and payable, or (b) the payment of the principal of such Bonds at their maturities, or (c) the payment of the purchase or redemption price of such Bonds before their maturity and such moneys are hereby pledged to and charged with the payments mentioned in this Section.

Section 515. Impact Fee Account. A special account is hereby created within the Enterprise Fund and designated "Water and Sewer Impact Fee Account" (herein called the "Impact Fee Account"). To the extent required by law and imposed by the City pursuant to Series Resolution to secure a Series of Bonds hereunder, for so long as there are any Bonds Outstanding which are secured by such Impact Fees, there shall be deposited into the Impact Fee Account all Impact Fees, if any, charged and collected by the City. The moneys, if any, on deposit in the Impact Fee Account, together with investment earnings thereon, shall be used by the City, to the extent permitted by State law, in the following manner and order of priority:

FIRST, for deposit into the Bond Service Subaccount and the Redemption Subaccount of the Sinking Fund Account, as needed, in order to make payments of principal of, redemption premium, if any, and interest on the Series of Bonds issued to finance the Costs of Improvements in respect of which the Impact Fees have been imposed; and

SECOND, to pay the Costs of expanding, oversizing, separating or constructing Improvements in respect of which the Impact Fees have been imposed.

Moneys on deposit in the Impact Fee Account may also be pledged to the payment of principal of, redemption premium, if any, and interest on Subordinated Indebtedness but only to the extent permitted by law and only on a basis of such pledge being subordinate and junior to the pledge made to secure any Series of Bonds.

Section 516. Special Assessment Account. A special account is hereby created within the Enterprise Fund and designated "Water and Sewer Special Assessment Account" (herein called the "Special Assessment Account"). To the extent required by law and levied by the City and pledged pursuant to Series Resolution to secure a Series of Bonds hereunder, for so long as there are any Bonds Outstanding which are secured by such Special Assessments, there shall be deposited into the Special Assessment Account all Special Assessments, if any, levied and collected by or on behalf of the City and pledged with respect to a Series of Bonds. The moneys, if any, on deposit in the Special Assessment Account, together with investment earnings thereon, shall be used by the City, to the extent permitted by State law, in the following manner and order of priority:

54

ARTICLE VI DEPOSITARIES OF MONEYS, SECURITY FOR DEPOSITS AND INVESTMENT OF FUNDS

Section 601. Security for Deposits. All moneys received by the City under the provisions of this Resolution shall be held either in accordance herewith or shall be deposited with a Depositary or Depositaries, shall be held in trust, shall be applied only in accordance with the provisions of this Resolution and shall not be subject to lien or attachment by any creditor of the City.

All moneys held by the City or deposited with any Depositary hereunder in excess of the amount guaranteed by the Federal Deposit Insurance Corporation or other Federal agency shall be continuously secured for the benefit of the City and the Holders of the Bonds, either (a) by lodging with a bank or trust company approved by the City as custodian, or, if then permitted by law, by setting aside under control of the trust department of the bank holding such deposit as collateral security, Government Obligations, or, with the approval of the City, other marketable securities eligible as security for the deposit of trust funds under applicable regulations of the Comptroller of the Currency of the United States or applicable State of Florida laws or regulations, having a market value (exclusive of accrued interest) not less than the amount of such deposit, or, if the furnishing of security as provided in (a) of this Section is not permitted by applicable law, (b) in such other manner as may then be required or permitted by applicable State of Florida or Federal law or regulations regarding the security for, or granting a preference in the case of, the deposit of trust funds; provided, however, that it shall not be necessary for the Bond Registrar to give security for the deposits of any moneys with them for the payment of the principal of or the redemption premium or the interest on any Bonds issued hereunder, or for the City to give security for any moneys which shall be represented by obligations purchased under the provisions of this Article as an investment of such moneys.

All moneys held by the City and deposited with each Depositary shall be credited to the particular Fund or Account to which such moneys belong.

Section 602. Investment of Moneys. Moneys held for the credit of the Construction Account, the Revenue Account, the Sinking Fund Account, the Bond Service Subaccount, the Redemption Subaccount, the Reserve Account, the Rate Stabilization Account, the Renewal, Replacement and Improvement Account, the General Reserve Account, the Impact Fee Account and the Special Assessment Account shall, as nearly as may be practicable, be continuously invested and reinvested in Investment Obligations which shall mature, or which shall be subject to redemption by the holder thereof at the option of such holder, not later than the respective dates when moneys held for the credit of said Funds, Accounts and Subaccounts will be required for the purposes intended; provided, however, that amounts on deposit in the Reserve Account or

56

FIRST, for deposit into the Bond Service Subaccount and the Redemption Subaccount of the Sinking Fund Account, as needed, in order to make payments of principal of, redemption premium, if any, and interest on the Series of Bonds issued to finance the Costs of Improvements in respect of which the Special Assessments have been levied; and

SECOND, to pay the Costs of Improvements in respect of which the Special Assessments have been levied.

Moneys on deposit in the Special Assessment Account may also be pledged to the payment of principal of, redemption premium, if any, and interest on Subordinated Indebtedness but only to the extent permitted by law and only on a basis of such pledge being subordinate and junior to the pledge made to secure any Series of Bonds.

Section 517. Money Held in Trust. All moneys which the City shall have withdrawn from the Sinking Fund Account or shall have received from any other source and deposited with the Bond Registrar, for the purpose of paying any of the Bonds hereby secured, either at the maturity thereof or upon call for redemption, or for the purpose of paying any interest on any of the Bonds hereby secured, shall be held in trust for the respective Holders of such Bonds. But any moneys which shall be so set aside or deposited and which shall remain unclaimed by the Holders of such Bonds for the period of four (4) years after the date on which such Bonds or the interest thereon shall have become due and payable shall upon request in writing be paid to the City or to such officer, board or body as may then be entitled by law to receive the same, and thereafter the Holders of such Bonds shall look only to the City or to such officer, board or body, as the case may be, for the payment and then only to the extent of the amounts so received without any interest thereon, and the Bond Registrar shall have no responsibility with respect to such moneys.

Section 518. Cancellation of Bonds. All Bonds, paid, redeemed or purchased either at or before maturity shall be cancelled upon the payment, redemption or purchase of such Bonds and shall be delivered to the Bond Registrar when such payment, redemption or purchase is made. All Bonds cancelled under any of the provisions of this Resolution shall be destroyed by the Bond Registrar, which shall execute a certificate in duplicate describing the Bonds so destroyed, and one executed certificate shall be filed with the Finance Director and the other executed certificate shall be retained by the Bond Registrar.

[END OF ARTICLE V]

55

subaccount therein shall be invested in Investment Obligations which mature not later than the final maturity date of the Bonds Outstanding to which such account or subaccount relates.

Investment Obligations so purchased as an investment of moneys in any such Fund or Account shall be deemed at all times to be part of such Fund or Account. The interest accruing thereon and any profit realized from such investment shall be credited to such Fund or Account and any loss resulting from such investment shall be charged to such Fund or Account.

Investment earnings on moneys on deposit to the credit of the following Funds and Accounts shall be applied as follows:

(a) Investment earnings on moneys on deposit to the credit of the Bond Service Subaccount and the Redemption Subaccount may, at the option of the City, be retained in said Accounts if the amounts are required for paying interest on the Bonds on the next Interest Payment Date and principal of Serial Bonds or the Amortization Requirements for Term Bonds when due, and to the extent that earnings are so retained, the City shall receive a credit against the amounts required to be deposited to said Accounts pursuant to Section 505 of this Resolution or the City may withdraw such earnings and deposit them to the credit of the Revenue Account.

(b) Investment earnings on money on deposit in a subaccount of the Reserve Account or the Reserve Account shall be retained in said Account or subaccount at any time that the amounts on deposit to the credit of said Account or subaccount are less than the Reserve Account Requirement for the Bonds or for the Series of Bonds for which such subaccount was created, as applicable, or if moneys on deposit therein are sufficient for such purpose, then such earnings shall be withdrawn and deposited to the credit of the Revenue Account.

(c) Investment earnings on moneys on deposit to the credit of the Rate Stabilization Account and the Renewal, Replacement and Improvement Account may, at the option of the City, be retained in said Account or withdrawn and deposited to the credit of the Revenue Account.

(d) Investment earnings on moneys on deposit to the credit of the General Reserve Account may, at the option of the City be retained in said Account or withdrawn and deposited to the credit of the Revenue Account.

(e) Investment earnings on moneys held for the credit of the Subordinated Indebtedness Account for the purpose of payment of the principal of, redemption premium, if any and interest on Subordinated Indebtedness shall be applied in accordance with the corresponding Subordinated Indebtedness Instrument.

57

(f) Investment earnings on moneys on deposit to the credit of the Construction Account may, at the option of the City, be retained in said Account or, if deemed to be surplus to the requirements of the Construction Account, withdrawn and deposited to the credit of the Revenue Account. Anything in this clause (f) to the contrary notwithstanding, no transfer of investment earnings to the Revenue Account as permitted herein shall affect the definition of Revenues contained in this Resolution.

(g) Investment earnings on moneys on deposit to the credit of the Impact Fee Account and the Special Assessment Account shall be retained therein until applied pursuant to Section 515 and Section 516, respectively, of this Resolution.

The City shall sell or present for payment or redemption any Investment Obligations so acquired whenever it shall be necessary so to do in order to provide moneys to meet any payment from such Fund or Account. Neither the City nor any agent thereof shall be liable or responsible for any loss resulting from any investment.

Section 603. Valuation of Investment Obligations. In computing the amount in any Fund or Account created pursuant to the provisions of this Resolution, obligations purchased as an investment of moneys therein shall be valued at par if purchased at the lower of (i) par or at amortized value if purchased at other than par, or (ii) market value, plus, in each case, accrued interest. Amortized value, when used with respect to an obligation purchased at a premium above or a discount below par, means the value as of any given time obtained by dividing the total premium or discount at which such obligation was purchased by the number of days remaining to maturity on such obligation at the date of such purchase and by multiplying the amount thus calculated by the number of days having passed since such purchase; and (1) in the case of an obligation purchased at a premium by deducting the product thus obtained from the purchase price, and (2) in the case of an obligation purchased at a discount by adding the product thus obtained to the purchase price. Valuation on any particular date shall include the amount of interest then earned or accrued to such date or any moneys or investments in such Fund or Account. The computation of the amount on deposit in or credited to the Funds and Accounts created under this Resolution and the valuation of the investments of such amount shall be performed by the City on the last day of each Fiscal Year, and such computation and valuation shall not be required to be performed at other times.

Section 604. Accounting for Funds and Accounts. For the purposes of this Resolution, each Fund and Account created hereunder shall be a series of self-balancing accounts within the book of accounts of the Water and Sewer System and shall connote a segregation of accounts, which will support special purpose disclosure reports, not to be construed as a separate set of books of accounts.

For the purpose of investing or reinvesting, the City may commingle moneys in the Funds and Accounts created and established hereunder in order to achieve greater investment

58

ARTICLE VII PARTICULAR COVENANTS

Section 701. Payment of Principal, Interest and Premium; Pledge of Net Revenues. The City covenants that it will promptly pay the principal of and the interest on each and every Bond and all other Utility Debt issued under the provisions of this Resolution at the places, on the dates and in the manner specified herein and in said Bonds or Utility Debt, and any premium required for the retirement of said Bonds and Utility Debt by purchase or redemption, according to the true intent and meaning thereof. Such principal, interest and premium will be payable solely from and secured by a lien on and pledge of the Net Revenues and, to the extent provided herein, from Impact Fees and Special Assessments, and said Net Revenues, Impact Fees and Special Assessments are hereby pledged to the payment thereof in the manner and to the extent hereinabove particularly specified.

Bonds and other Utility Debt issued under the provisions of this Resolution shall not be deemed to constitute a debt of the City, Broward County, Florida, the State of Florida or any political subdivision thereof or a pledge of the faith and credit of the City, Broward County, Florida, the State of Florida or any political subdivision thereof, but such Bonds and other Utility Debt shall be payable solely from the Funds and Accounts provided therefor from Net Revenues and, to the extent provided herein, from Impact Fees and Special Assessments and the Bonds and other Utility Debt shall not directly or indirectly or contingently obligate the City, Broward County, Florida, the State of Florida or any political subdivision thereof to levy or to pledge any form of taxation whatever therefor, nor shall any such Bonds and other Utility Debt constitute a charge, lien or encumbrance, legal or equitable, upon any property of the City, Broward County, Florida, the State of Florida or any political subdivision thereof.

Section 702. Construction of Project and Improvements; Operation of Water and Sewer System. The City further covenants that it will construct the Project and all Improvements for the construction or acquisition of which Bonds or other Utility Debt shall be issued under the provisions of this Resolution, or for which moneys repayable from the proceeds of Bonds or other Utility Debt issued under the provisions of this Resolution shall have been advanced to the City, in accordance with the plans theretofore approved by the Consulting Engineers and that upon the completion of the Project and such Improvements it will operate and maintain the same as a part of the Water and Sewer System. The City further covenants that any contract with any person for the construction of all or a portion of the Project or any Improvements shall provide for such performance and payment bonds or security in lieu thereof and for such retainages as shall be in compliance with the laws of the State of Florida and the normally established practices of the City from time to time in effect.

The City further covenants that it will establish and enforce reasonable rules and regulations governing the use of the Water and Sewer System and the operations thereof, that all

income; provided that the City shall separately account for the amounts so commingled. The amounts required to be accounted for in each of the Funds and Accounts designated herein may be deposited in a single bank account for the Water and Sewer System provided that adequate accounting procedures are maintained to reflect and control the restricted allocations of the amounts on deposit therein for the various purposes of such Funds and Accounts as herein provided. The designation and establishment of funds and accounts in and by this Resolution shall not be construed to require the establishment of any completely independent funds and accounts but rather is intended solely to constitute an allocation of certain revenues and assets of the Water and Sewer System for certain purposes and to establish such certain priorities for application of certain revenues and assets as herein provided.

Section 605. Tax Covenants. The City covenants to the Holders of Bonds that it will not make or direct the making of any investment or other use of the proceeds of any Series of Bonds issued hereunder which would cause such Bonds to be "private activity bonds" as that term is defined in Section 141 of the Code, "arbitrage bonds" as that term is defined in Section 148 of the Code or "hedge bonds" as that term is defined in Section 149(g)(3) of the Code, and that it will comply with all the requirements of such Code sections and related regulations throughout the term of such Bonds. The City also covenants that it will not take or fail to take any action that would adversely affect the exclusion from gross income of interest on any Series of Bonds to the extent that such Bonds were initially issued as Bonds the interest on which is to be excluded from the gross income of the Holders thereof for Federal income tax purposes. The City shall not direct the making of any investment inconsistent with the foregoing covenants.

The City covenants and agrees that so long as any Bonds remain outstanding, it shall comply with the requirements of the Code, including any arbitrage rebate covenants contained in any rebate instructions or agreement entered into by and between the City and any Depository in connection with the issuance of any Series of Bonds, except to the extent to so comply would not, in the opinion of counsel of recognized standing in the field of law relating to municipal bonds, result in the interest payable on such Bonds being included in gross income for Federal income tax purposes to the Holders thereof under the Code. Notwithstanding anything to the contrary contained herein or otherwise, the City shall not be required to comply with the covenants herein contained to the extent that interest on any Bonds issued hereunder shall be intended by the City, on the date of issuance of such Bonds, to be included in gross income for Federal income tax purposes to the Holders thereof under the Code.

[END OF ARTICLE VI]

59

compensation, salaries, fees and wages paid by it in connection with the maintenance, repair and operation of the Water and Sewer System will be reasonable, that it will operate the Water and Sewer System in an efficient and economical manner, that it will at all times maintain the Water and Sewer System or any part thereof in good repair and in sound operating condition and will make all necessary repairs, renewals and replacements, that it will duly observe and comply with all valid requirements of any municipal or governmental authority relative to the Water and Sewer System, that it will not create or suffer to be created any lien or charge upon the Water and Sewer System or any part thereof or upon the Net Revenues ranking equally with or prior to the Bonds, and that, out of the Net Revenues, it will pay or cause to be discharged, within sixty (60) days after the same shall accrue, all lawful claims and demands for labor, materials, supplies or other objects which, if unpaid, might by law become a lien upon the Water and Sewer System or any part thereof or upon the Revenues; provided, however, that nothing contained in this Section shall require the City to pay or cause to be discharged, or make provision for, any such lien or charge so long as the validity thereof shall be contested in good faith and by appropriate legal proceedings.

Section 703. Employment of Consulting Engineers. The City covenants and agrees that so long as any Bonds are Outstanding under this Resolution, it will employ an independent engineer or engineering firm or corporation having a favorable reputation for skill and experience in the construction and operation of waterworks and sewer systems. Except for any fees and expenses incurred under the provisions of Section 403 of this Resolution, the cost of employing Consulting Engineers shall be treated as a part of the cost of operation and maintenance of the Water and Sewer System.

Upon the request of the City not less than bi-annually, it shall be the duty of the Consulting Engineers to prepare and file with the City a report setting forth such advice and recommendations as they may deem desirable in respect of the Water and Sewer System.

The City further covenants that the Consulting Engineers shall at all times have free access to all properties of the Water and Sewer System and every part thereof for the purposes of inspection and examination and that its books, records and accounts may be examined by the Consulting Engineers at all reasonable times.

Section 704. Employment of Accountant. The City covenants and agrees that it will for the purpose of performing and carrying out the duties imposed on the Accountant by this Resolution employ an independent certified public accountant or firm of independent certified public accountants of suitable experience and responsibility, having a favorable reputation for skill and experience in the auditing of water and sewer utility systems.

Section 705. Insurance. The City covenants that it will at all times carry insurance, in a responsible insurance company or companies authorized and qualified under the laws of the State of Florida to assume the risk thereof, covering such properties belonging to the Water and

60

61

Sewer System as are customarily insured, and against loss or damage from such causes as are customarily insured against by companies engaged in similar business.

All such policies shall be for the benefit of the City, shall be made payable to the City and shall be deposited with the City, and the City shall have the sole right to receive the proceeds of such policies and to collection and receipt for claims thereunder. The proceeds of any and all such insurance shall be deposited in the name of the City in a Depositary.

The City covenants that, immediately after any loss or damage to any properties of the Water and Sewer System resulting from any cause, whether or not such loss or damage shall be covered by insurance, it will cause its engineers to prepare plans and specifications for repairing, replacing or reconstructing (either in accordance with the original or a different design) the damaged or destroyed property, and that it will forthwith commence and diligently prosecute the repair, replacement or reconstruction of the damaged or destroyed property unless it shall determine that the repair, replacement or reconstruction of such property is not essential to the efficient or economic operation of the Water and Sewer System. In the event that the City shall determine that the repair or replacement of such damaged or destroyed property is not essential to the efficient or economic operation of the Water and Sewer System, the proceeds of such insurance received by the City, at the option of the City, shall be deposited to the credit of either the Redemption Subaccount or the Renewal, Replacement and Improvement Account.

The proceeds of all insurance referred to in this Section shall be available for and shall, to the extent necessary, be applied to the repair, replacement or reconstruction of the damaged or destroyed property, and shall be paid out in the manner hereinabove provided for payments from the Construction Account. If such proceeds are more than sufficient for such purpose, the balance remaining shall be deposited to the credit of the Renewal, Replacement and Improvement Account. If such proceeds shall be insufficient for such purpose, the deficiency may be supplied out of any moneys in the Renewal, Replacement and Improvement Account or the General Reserve Account.

All insurance policies shall be open to the inspection of the Bondholders and their representatives at all reasonable times. The Finance Director is hereby authorized in the name of the City to demand, collect, sue and receive the insurance money which may become due and payable under any policies payable to it. Any appraisal or adjustment of any loss or damage and any settlement or payment of indemnity therefor which may be agreed upon between the City and any insurer shall be evidenced to the Finance Director by a certificate signed by the officer or officers of the City responsible for managing the Water and Sewer System.

Notwithstanding the foregoing provisions of this Section, the City may institute self-insurance programs with regard to such risks as shall be consistent with the practices of municipally owned utilities operating in a manner similar to the Water and Sewer System.

62

Section 710. Separate System. The City Commission may by resolution determine to own and/or operate, either solely or jointly, Separate Systems or to cause Separate Systems to be operated on its behalf; provided, however, that prior to the adoption of any such resolution designating any facilities as a separate system, there shall be delivered to the City Manager a certificate of the Finance Director containing his determination that the ownership and operation of such Separate System will not have a material adverse impact on the Net Revenues of the Water and Sewer System and stating his reasons for such determination.

The City may incur Utility Debt to acquire or improve Separate Systems without compliance with any test or limit contained in the Resolution so long as such is payable solely from the revenues generated by such Separate System and the holders of such Utility Debt have no recourse and are in no way payable from the Revenues of the Water and Sewer System. The revenues, current expenses and debt service associated with such Separate System and any Utility Debt of the City incurred therefor shall not be included in Revenues, Current Expenses and Principal and Interest Requirements, each as defined in this Resolution.

Any such Separate System may be consolidated with the Water and Sewer System upon demonstration of compliance with the tests for the incurrence of Additional Bonds contained in clause (c) of Section 209 of this Resolution. In determining compliance with the test mentioned above, the revenues and current expenses of the Water and Sewer System and the debt service on any Utility Debt payable from revenues of such Separate Systems shall be included in Principal and Interest Requirements. Prior to any such consolidation, compliance with the tests set forth in clause (c) of Section 209 shall be demonstrated regardless of whether there shall be any Utility Debt outstanding with respect to such Separate System.

Section 711. No Free Service. To the extent permitted by law, the City will not render or cause to be rendered any free services of any nature by the facilities of the Water and Sewer System nor will any preferential rates be established for users of the same class, except that the City including its departments, agencies and instrumentalities, may avail itself of the facilities of the Water and Sewer System free of rates, fees or charges applicable to other customers receiving like services.

Section 712. Failure to Pay for Services. To the extent permitted by law, upon failure of any user to pay for water services rendered, the City shall shut off the connection of such user to the Water and Sewer System in accordance with applicable City ordinances and resolutions, but no later than sixty (60) days. This covenant shall not, however, prevent the City from causing any connection to be shut off sooner if permitted by law.

Section 713. Enforcement of Collections. The City will diligently enforce and collect the rates, fees and other charges for the services of the Water and Sewer System; will take all steps, actions and proceedings for the enforcement and collection of such rates, fees and charges as shall become delinquent to the full extent permitted or authorized by law; and will maintain

64

Section 706. Use of Revenues. The City covenants and agrees that, so long as any of the Bonds secured hereby shall be outstanding, none of the Revenues will be used for any purpose other than as provided in this Resolution, and that no contract or contracts will be entered into or any action taken by which the rights of Holders of the Bonds might be impaired or diminished.

Section 707. Records, Accounts and Audits. The City covenants that it will keep the funds and accounts of the Water and Sewer System separate from all other funds and accounts of the City or any of its departments, and that it will keep accurate records and accounts of all items of costs and of all expenditures relating to the Water and Sewer System and of the Revenues collected and the application of such Revenues, and of the number of users of the Water and Sewer System in each classification. Such records and accounts shall be open to the inspection of all interested persons.

The City further covenants that within six months after the close of each Fiscal Year it will cause an audit to be made of its books and accounts pertaining to the Water and Sewer System by the Accountant. Within a reasonable time thereafter reports of each audit shall be filed with the City Commission and the Finance Director, and copies of such report shall be mailed to any Bondholder who shall have filed his name and address with the Finance Director for such purpose. Such audit reports shall be open to the inspection of all interested persons.

The City further covenants that it will cause any additional reports or audits relating to the Water and Sewer System to be made as required by law or by any applicable rules or regulations of any governmental authority or of any securities exchange on which the Bonds may be listed or traded. Such reports or audits may be extracted from the portions of the Financial Statements relating to the Water and Sewer System. The cost of such audits shall be treated as a part of the cost of operation.

Section 708. Franchises. Except as provided in Section 710 hereof and to the extent permitted by law, the City will not grant a franchise to any person for the operation of a water and sewer system or a water system or a sewer system which would be in competition with the Water and Sewer System so long as any Bonds are Outstanding under this Resolution. Nothing in this Section 708 or elsewhere contained in this Resolution shall prevent the City from granting a franchise to any person for the operation of a water and/or sewer system for any area within the City currently not served by the Water and Sewer System.

Section 709. Supervisory Personnel. The City in operating the Water and Sewer System will employ or designate one or more of its qualified employees as manager who has demonstrated ability and experience in operating similar facilities, and will require all employees who may have possession of money derived from the operation of the Water and Sewer System to be covered by a fidelity bond, written by a responsible indemnity company in amounts fully adequate to protect the City from loss.

63

accurate records with respect thereto. All such rates, fees, charges and revenues herein pledged shall, as collected, be held in trust to be applied as provided in this Resolution and not otherwise.

Section 714. Sale or Other Disposition of the Water and Sewer System. Except as provided in this Section, the City shall not sell or otherwise dispose of all or any part of the Water and Sewer System.

(a) To the extent permitted by law, the City, without restriction, may in any Fiscal Year sell, lease or otherwise dispose of assets forming a part of the Water and Sewer System, the aggregate value of which in each such Fiscal Year does not exceed the greater of \$1,000,000 or one half of one per centum (1/2 of 1%) of the book value of the net property, plant and equipment of the Water and Sewer System as shown on the audited financial statements of the Water and Sewer System for the latest Fiscal Year for which such audited statements are available. The proceeds of a sale pursuant to this clause (a) shall be: (i) deposited into the Bond Service Subaccount to be used for the purposes permitted under Section 507 of this Resolution; (ii) deposited into the Redemption Subaccount to be used for the purposes permitted under Section 508 of this Resolution; or (iii) applied in such manner as will result in the defeasance of Bonds pursuant to Section 1101 of this Resolution.

(b) To the extent permitted by law, the City may in any Fiscal Year sell, lease or otherwise dispose of assets forming a part of the Water and Sewer System in excess of the amount set forth in clause (a) of this Section, if, before any such transfer, there is delivered to the City Manager a report of the Consulting Engineer or Rate Consultant demonstrating that the sale, lease or other disposition of such property will not have an adverse impact on the Net Revenues, the Special Assessments or the Impact Fees and stating his reasons therefor. In determining whether to render such report, the Consulting Engineer shall consider the usefulness of the assets to be disposed of to the operations of the Water and Sewer System, the uses to be made of any proceeds of a sale and the rental income to be received with respect to any lease thereof. The proceeds of a sale pursuant to this clause (b) shall be: (i) deposited into the Bond Service Subaccount to be used for the purposes permitted under Section 507 of this Resolution; (ii) deposited into the Redemption Subaccount to be used for the purposes permitted under Section 508 of this Resolution; or (iii) applied in such manner as will result in the defeasance of Bonds pursuant to Section 1101 of this Resolution.

(c) To the extent permitted by law, the City may in any Fiscal Year sell, lease or otherwise dispose of any assets forming a part of the Water and Sewer System without regard to the limitations and conditions in paragraphs (a) and (b) above if the City Commission by resolution declares that such assets are not needed or serve no useful purpose in connection with the maintenance and operation of the Water and Sewer System. The proceeds of a sale pursuant to this clause (c) shall be: (i) deposited into the

65

Bond Service Subaccount to be used for the purposes permitted under Section 507 of this Resolution; (ii) deposited into the Redemption Subaccount to be used for the purposes permitted under Section 508 of this Resolution; or (iii) applied in such manner as will result in the defeasance of Bonds pursuant to Section 1101 of this Resolution.

(d) To the extent permitted by law, the City may sell, lease or otherwise dispose of the assets of the entire Water and Sewer System, if, upon the application of the proceeds of any such sale as hereinafter required, there shall be no Bonds deemed to be Outstanding under the provisions of this Resolution and the City shall have paid or made full provision for the payment of all other obligations of the City payable from the Revenues of the Water and Sewer System, including but not limited to, Current Expenses then due and payable or to become due and payable, and all other Utility Debt payable in any way from the Revenues of the Water and Sewer System and all fees then due and owing or to become due in the future with respect to Credit Facilities. The proceeds of any sale, lease or other disposition permitted by this clause (d) shall be applied first to the payment or provision for payment of the obligations, including the Bonds, set forth above, and only after all such obligations shall have been paid or full provision for their payment been made, shall the City apply any of such proceeds to any other lawful purpose of the City.

No sale or any other disposition of assets of the Water and Sewer System shall be consummated nor shall the proceeds of any such sale be applied unless prior to such consummation or application, there shall be delivered an opinion of Bond Counsel to the effect that such sale and the application of the proceeds as required herein will have no adverse impact on the exclusion of interest on any of the Bonds or other Utility Debt from gross income for Federal income purposes (except that such opinion shall not be required with respect to any Bonds issued with the intention that the interest thereon be included in gross income for Federal income tax purposes to the Holders thereof under the Code).

[END OF ARTICLE VII]

66

property and any of the aforesaid adjudications, orders, judgments or decrees shall not be vacated or set aside or stayed within ninety (90) days from the date of entry thereof; or

(g) the City shall file a petition or answer seeking reorganization or any arrangement under the Federal bankruptcy laws or any other applicable law or statute of the United States of America or any state thereof; or

(h) under the provisions of any other law for the relief or aid of debtors, any court of competent jurisdiction shall assume custody or control of the City or of the whole or any substantial part of its property, and such custody or control shall not be terminated within ninety (90) days from the date of assumption of such custody or control; or

(i) the City shall default in the due and punctual performance of any other of the covenants, conditions, agreements and provisions contained in the Bonds or in this Resolution or in the Series Resolution on the part of the City to be performed and such default shall continue for thirty (30) days after written notice specifying such default and requiring the same to be remedied shall have been given to the City by the holders of not less than ten per centum (10%) in aggregate principal amount of the Bonds then Outstanding; provided, however, if the default specified in this clause (i) shall be of a type which cannot be remedied within thirty (30) days, its shall not constitute an event of default if the City shall begin to remedy such default within such thirty-day period and shall diligently pursue such remedy.

Section 803. Acceleration of Maturities. Upon the happening and continuance of any Event of Default specified in clauses (a) through (i) of Section 802 of this Article, then and in every such case the Holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding may, by a notice in writing to the City, declare the principal of all of the Bonds then Outstanding (if not then due and payable) to be due and payable immediately, and upon such declaration the same shall become and be immediately due and payable, anything contained in the Bonds or in this Resolution to the contrary notwithstanding; provided, however, that if at any time after the principal of the Bonds shall have been so declared to be due and payable, and before the entry of final judgment of decree in any suit, action or proceeding instituted on account of such default, or before the completion of the enforcement of any other remedy under this Resolution, moneys shall have accumulated in the Sinking Fund Account sufficient to pay the principal of all matured Bonds and all arrears of interest, if any, upon all Bonds then Outstanding (except the principal of any Bonds not then due except by virtue of such declaration and the interest accrued on such Bonds since the last Interest Payment Date), and all amounts then payable by the City hereunder shall have been paid or a sum sufficient to pay the same have been deposited with the Bond Registrar, and every other default in the observance or performance of any covenant, condition, agreement or provision contained in the Bonds or in this Resolution (other than a default in the payment of the principal of such Bonds then due only

68

ARTICLE VIII REMEDIES

Section 801. Extension of Interest Payment. In case the time for the payment of any interest on any Bond shall be extended, whether or not such extension be by or with the consent of the City, such interest so extended shall not be entitled, in case of default hereunder, to the benefit or security of this Resolution except subject to the prior payment in full of the principal of all Bonds then Outstanding and all interest the time for the payment of which shall not have been extended.

Section 802. Events of Default. Each of the following events is hereby declared an "Event of Default":

(a) payment of the principal and of the redemption premium, if any, of any of the Bonds shall not be made when the same shall become due and payable, either at maturity or by proceedings for redemption or otherwise; or

(b) payment of any installment of interest on any of the Bonds shall not be made when the same shall become due and payable; or

(c) the City shall for any reason be rendered incapable of fulfilling its obligations hereunder; or

(d) final judgment for the payment of money shall be rendered against the City as a result of the ownership, control or operation of the Water and Sewer System and any such judgment shall not be discharged within sixty (60) days from the entry thereof or an appeal shall not be taken therefrom or from the order, decree or process upon which or pursuant to which such judgment shall have been granted or entered, in such manner as to stay the execution of or levy under such judgment, order, decree or process or the enforcement thereof; or

(e) the City admits in writing its inability to pay its debts generally as they become due, or files a petition in bankruptcy or makes an assignment for the benefit of its creditors or consents to the appointment of a receiver or trustee for itself or for the whole or any part of the Water and Sewer System or a receiver or trustee for such purpose is appointed without the consent of the City; or

(f) the City is adjudged insolvent by a court of competent jurisdiction, or is adjudged a bankrupt on a petition in bankruptcy filed against the City, or an order, judgment or decree is entered by a court of competent jurisdiction appointing, without the consent of the City, a receiver or trustee of the City or of the whole or any part of its

67

because of a declaration under this Section) shall have been remedied, then and in every such case the Holders of not less than a majority in aggregate principal amount of the Bonds then due except by virtue of such declaration and then Outstanding may, by written notice to the City, rescind and annul such declaration and its consequences, but no such rescission or annulment shall extend to or affect any subsequent default or impair any right consequent thereon.

Section 804. Enforcement of Remedies. Upon the happening and continuance of any Event of Default then and in every such case the Holders of not less than ten per centum (10%) in aggregate principal amount of the Bonds then Outstanding hereunder may proceed to protect and enforce the rights of the Bondholders under state law, or under this Resolution by such suits, actions or special proceedings in equity or at law, either for the specific performance of any covenant or agreement contained herein or in aid or execution of any power herein granted or for the enforcement of any proper legal or equitable remedy, as such Bondholder shall deem most effectual to protect and enforce such rights. Such Holders of Bonds, or any trustee appointed to represent Bondholders as hereinafter provided, shall be entitled as of right to the appointment of a receiver of the Water and Sewer System in an appropriate judicial proceeding in a court of competent jurisdiction, whether or not such Holder or trustee is also seeking or shall have sought to enforce any other right or exercise any other remedy in connection with Bonds issued pursuant to this Resolution.

The receiver so appointed shall forthwith, directly or by his agents and attorneys, enter into and upon and take possession of the Water and Sewer System, and each and every part thereof, and shall hold, operate and maintain, manage and control the Water and Sewer System, and each and every part thereof, and in the name of the City shall exercise all the rights and powers of the City with respect to the Water and Sewer System as the City itself might do. Such receiver shall collect and receive all Revenues and maintain and operate the Water and Sewer System in the manner provided in this Resolution and comply under the jurisdiction of the court appointing such receiver, with all of the provisions of this Resolution.

Whenever all that is due upon the Bonds, and interest thereon, and under any covenants of this Resolution for the Funds and Accounts, and upon any other obligations and interest thereon having a charge, lien or encumbrance upon the Revenues of the Water and Sewer System and the Special Assessments and the Impact Fees shall have been paid and made good, and all defaults under the provisions of this Resolution shall have been cured and made good, possession of the Water and Sewer System shall be surrendered to the City upon the entry of an order of the court to that effect. Upon any subsequent Event of Default, any Holder of Bonds issued pursuant to this Resolution or any trustee appointed for Bondholders as hereinafter provided, shall have the right to secure the further appointment of a receiver.

Such receiver shall in the performance of the powers hereinabove conferred upon him be under the direction and supervision of the court making such appointment, shall at all times be subject to the orders and decrees of such court and may be removed thereby and a successor

69

receiver appointed in the discretion of such court. Nothing herein contained shall limit or restrict the jurisdiction of such court to enter such other and further orders and decrees as such court may deem necessary or appropriate for the exercise by the receiver of any function not specifically set forth herein.

Any receiver appointed as provided herein shall hold and operate the Water and Sewer System in the name of the City and for the joint protection and benefit of the City and the Holders of Bonds issued pursuant to this Resolution. Such receiver shall have no power to sell, assign, mortgage or otherwise dispose of any assets of any kind or character belonging or pertaining to the Water and Sewer System, except as provided herein, but the authority of such receiver shall be limited to the possession, operation and maintenance of the Water and Sewer System for the sole purpose of the protection of both the City and the Bondholders.

The Holder or Holders of Bonds in an aggregate principal amount of more than fifty per centum (50%) of the Bonds then Outstanding may by a duly executed certificate in writing appoint a trustee for Holders of Bonds issued pursuant to this Resolution with authority to represent such Bondholders in any legal proceedings for the enforcement and protection of the rights of such Bondholders. Such certificate shall be executed by such Bondholders or their duly authorized attorneys or representatives, and shall be filed in the office of the City Clerk of the City.

Notwithstanding anything in this Resolution to the contrary, so long as the issuer of a Credit Facility shall not be in default in its payment obligations under such Credit Facility, such issuer shall be deemed to be the holder of all Bonds so insured for all purposes of this Article VIII.

Section 805. Pro Rata Application of Funds. Anything in this Resolution to the contrary notwithstanding, if at any time the moneys in the Sinking Fund Account shall not be sufficient to pay the principal of or the interest on the Bonds as the same become due and payable (either by their terms or by acceleration of maturities under the provisions of Section 803 of this Article), such moneys, together with any moneys then available for such purpose, whether through the exercise of the remedies provided for in this Article or otherwise, shall be applied as follows:

(a) Unless the principal of all the Bonds shall have become due and payable or shall have been declared due and payable, all such moneys shall be applied:

First: to the payment of the persons entitled thereto of all installments of interest then due and payable, in the order in which such installments become due and payable, and, if the amount available shall not be sufficient to pay in full, any particular installment, then to the payment ratably, according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or

70

application and the likelihood of additional moneys becoming available for such application in the future; the deposit of such moneys with the Bond Registrar, or otherwise setting aside such moneys, in trust for the proper purpose, shall constitute proper application by the City; and the City shall incur no liability whatsoever to any Bondholder or to any other person for any delay in applying any such funds, so long as the City acts with reasonable diligence, having due regard to the circumstances, and ultimately applies the same in accordance with such provisions of this Resolution as may be applicable at the time of application. Whenever the City shall exercise such discretion in applying such funds, it shall fix the date upon which such application is to be made and upon such date interest on the amounts of principal to be paid on such date shall cease to accrue. The City shall give such notice as it may deem appropriate and as otherwise required herein of the fixing of any such date, and shall not be required to make payment to the Holder of any unpaid Bond until such Bond shall be surrendered to it for appropriate endorsement.

Section 806. Effect of Discontinuance of Proceedings. In case any proceeding taken by any Bondholder on account of any default shall have been discontinued or abandoned for any reason, then and in every such case the City and the Bondholder shall be restored to their former positions and rights hereunder, respectively, and all rights and remedies of the Bondholders shall continue as though no such proceeding had been taken.

Section 807. Restrictions on Individual Bondholder Actions. No Holder or Holders of any of the Bonds hereby secured shall have any right in any manner whatever by his or their action to affect, disturb or prejudice the security of this Resolution, or to enforce any right hereunder except in the manner herein provided, and all proceedings at law or in equity shall be instituted, had and maintained for the benefit of all Holders of such Bonds.

Section 808. No Remedy Exclusive. No remedy herein conferred upon the Bondholders is intended to be exclusive of any other remedy or remedies herein provided, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder.

Section 809. Delay Not a Waiver. No delay or omission of any Bondholder to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver of any such default or an acquiescence therein; and every power and remedy given by this Article to the Bondholder may be exercised from time to time and as often as may be deemed expedient.

Section 810. Right to Enforce Payment of Bonds. Nothing in this Article shall affect or impair the right of any Bondholder to enforce the payment of the principal of and interest on his Bond, or the obligation of the City to pay the principal of and interest on each Bond to the Holder thereof at the time and place in said Bond expressed.

[END OF ARTICLE VIII]

72

preference except as to any difference in the respective rates of interest specified in the Bonds;

Second: to the payment of the persons entitled thereto of the unpaid principal of any of the Bonds which shall have become due (other than Bonds called for redemption for the payment of which sufficient moneys are held pursuant to the provisions of this Resolution), in the order of their due dates, with interest upon such Bonds at the respective rates specified therein from the respective dates upon which they became due, and, if the amount available shall not be sufficient to pay in full the principal of Bonds due on any particular date, together with such interest, then to the payment of such principal, ratably according to the amount of such principal due on such date, to the persons entitled thereto without any discrimination or preference except as to any difference in the respective rates of interest specified in the Bonds; and

Third: to the payment of the interest on and the principal of the Bonds, to the purchase and retirement of Bonds and to the redemption of Bonds, all in accordance with the provisions of Article V of this Resolution.

(b) If the principal of all the Bonds shall have become due and payable or shall have been declared due and payable, all such moneys shall be applied to the payment of the principal and interest then due and unpaid upon the Bonds, without preference or priority of principal over interest or of interest over principal or of any installment of interest over any other installment of interest, or of any Bond over any other Bond, ratably, according to the amounts due respectively for principal and interest, to the persons entitled thereto without any discrimination or preference except as to any difference in the respective rates of interest specified in the Bonds.

(c) If the principal of all the Bonds shall have been declared due and payable and if such declaration shall thereafter have been rescinded and annulled under the provisions of Section 803 of this Article, then, subject to the provisions of paragraph (b) of this Section, in the event that the principal of all the Bonds shall later become due or be declared due and payable, the moneys remaining in and thereafter accruing to the Sinking Fund Account shall be applied in accordance with the provisions of paragraph (a) of this Section.

The provisions of this Section are in all respects subject to the provisions of Section 801 of this Article.

Whenever moneys are to be applied by the City pursuant to the provisions of this Section, such moneys shall be applied by the City at such times, and from time to time, as the City in its sole discretion shall determine, having due regard to the amount of such moneys available for

71

ARTICLE IX EXECUTION OF INSTRUMENTS BY BONDHOLDERS AND PROOF OF OWNERSHIP OF BONDS

Section 901. Execution of Instruments by Bondholders and Proof of Ownership of Bonds. Any request, direction, consent or other instrument in writing required or permitted by this Resolution to be signed or executed by Bondholders may be in any number of concurrent instruments of similar tenor and may be signed or executed by such Bondholders or their attorneys or legal representatives. Proof of the execution of any such instrument and of the ownership of Bonds shall be sufficient for any purpose of this Resolution and shall be conclusive in favor of the City with regard to any action taken by it under such instrument if made in the following manner:

(a) The fact and date of the execution by any person of any such instrument may be proved by the verification of any officer in any jurisdiction who, by the laws thereof, has power to take affidavits within such jurisdiction, to the effect that such instrument was subscribed and sworn to before him, or by an affidavit of a witness to such execution. Where such execution is on behalf of a person other than an individual such verification or affidavit shall also constitute sufficient proof of the authority of the signer thereof.

(b) The fact of the ownership of Bonds shall be proved by the registration books required to be maintained pursuant to Article II of this Resolution.

Nothing contained in this Article shall be construed as limiting the City to such proof, it being intended that the City may accept any other evidence of the matters herein stated which it may deem sufficient. Any request or consent of the Holder of any Bond shall bind every future Holder of the same Bond in respect of anything done by the City in pursuance of such request or consent.

Notwithstanding any of the foregoing provisions of this Section, the City shall not be required to recognize any person as a Holder of any Bond or to take any action at his request unless such Bond shall be deposited with it.

[END OF ARTICLE IX]

73

ARTICLE X
SUPPLEMENTAL RESOLUTIONS

Section 1001. Supplemental Resolution without Bondholders Consent. The City Commission may, from time to time and at any time adopt such resolutions supplemental hereto as shall not be inconsistent with the terms and provisions hereof (which supplemental resolution shall thereafter form a part hereof):

- (a) to cure any ambiguity or formal defect or omission or to correct any inconsistent provisions in this Resolution or in any supplemental resolution, or
- (b) to grant to or confer upon the Bondholders any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Bondholders, or
- (c) to add to the conditions, limitations and restrictions on the issuance of Bonds under the provisions of this Resolution other conditions, limitations and restrictions thereafter to be observed, or
- (d) to add to the covenants and agreements of the City in this Resolution other covenants and agreements thereafter to be observed by the City or to surrender any right or power herein reserved to or conferred upon the City, or
- (e) to permit the issuance of Bonds in coupon form, if as a condition precedent to the adoption of such supplemental resolution, there shall be delivered to the City an opinion of Bond Counsel to the effect that the issuance of Bonds in coupon or bearer form are then permitted by law to be issued and that the interest on such Bonds would be exempt from Federal income taxation, or
- (f) to permit the City to issue Bonds the interest on which is not exempt from Federal income taxation, or
- (g) to qualify the Bonds or any of them for registration under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, or
- (h) to qualify this Resolution as an "indenture" under the Trust Indenture Act of 1939, as amended, or
- (i) to create additional Sinking Fund Accounts for Series of Additional Bonds as permitted by Section 505 hereof, or
- (j) to permit Bonds to be issued in denominations smaller than \$5,000, or

74

Manhattan, City and State of New York, and, on or before the date of the first publication of such notice, it shall also cause a similar notice to be mailed, postage prepaid, to all registered owners of Bonds then Outstanding at their addresses as they appear on the registration books. Such notice shall briefly set forth the nature of the proposed supplemental resolution and shall state that the copies thereof are on file at the office of the City Clerk for inspection by all Bondholders. The City shall not, however, be subject to any liability to any Bondholder by reason of its failure to cause the notice required by this Section to be mailed and any such failure shall not affect the validity of such supplemental resolution when consented to and approved as provided in this Section.

Whenever, at the time within one year after the date of the first publication of such notice, the City shall deliver to the Finance Director an instrument or instruments in writing purporting to be executed by the Holders of not less than a majority in aggregate principal amount of the Bonds then outstanding, which instrument or instruments shall refer to the proposed supplemental resolution described in such notice and shall specifically consent to and approve the adoption thereof in substantially the form of the copy thereof referred to in such notice, thereupon, but not otherwise, the City Commission may adopt such supplemental resolution in substantially such form, without liability or responsibility to any holder of any Bond, whether or not such Holder shall have consented thereto; provided, however, the City may adopt such supplemental resolution prior to the time such requisite consents are obtained, provided that such supplemental resolution shall not become effective prior to the time which the City has obtained the requisite consents.

If the Holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding at the time of the adoption or effective date of such supplemental resolution shall have consented to and approved the adoption or effectiveness thereof as herein provided, no Holder of any Bond shall have any right to object to the adoption or effectiveness of such supplemental resolution, or to object to any of the terms and provisions contained therein or the operation thereof, or in any manner to question the propriety of the adoption or effectiveness thereof, or to enjoin or restrain the City Commission from adopting the same, having the supplemental resolution take effect or from taking any action pursuant to the provisions thereof.

Upon the effective date of any supplemental resolution pursuant to the provisions of this Section, this Resolution shall be deemed to be modified and amended in accordance therewith, and the respective rights, duties and obligations under this Resolution of the City and all Holders of Bonds then Outstanding shall thereafter be determined, exercised and enforced in all respects under the provisions of this Resolution as so modified and amended.

Section 1003. Amendment with Consent of Credit Facility Provider in Lieu of Bondholders. If any Bonds Outstanding under this Resolution shall have, when issued, been secured by a Credit Facility to provide security for the payment of principal and interest when due, and if such Credit Facility is still in effect at the time of the proposed supplemental

76

- (k) to comply with requirements of entities providing Credit Facilities, Reserve Account Insurance Policies and Reserve Account Letters of Credit.

At least thirty (30) days prior to the adoption of any supplemental resolution for any of the purposes of this Section, the City shall cause a notice of the proposed adoption of such supplemental resolution to be published once in each week for two (2) successive weeks in a Daily Newspaper of general circulation published in the County, and in a Daily Newspaper of general circulation or a financial journal published in the Borough of Manhattan, City and State of New York. Such notice shall briefly set forth the nature of the proposed supplemental resolution and shall state that copies thereof are on file at the office of the City Clerk for inspection by all Bondholders.

Section 1002. Supplemental Resolution with Bondholders' Consent. Subject to the terms and provisions contained in this Section and Section 1003 hereof, and not otherwise, the Holders of not less than a majority in aggregate principal amount of the Bonds then outstanding shall have the right, from time to time, anything contained in this Resolution to the contrary notwithstanding, to consent to and approve the adoption of such resolution or resolutions supplemental hereto as shall be deemed necessary or desirable by the City for the purpose of modifying, altering, amending, adding to or rescinding, in any particular, any of the terms or provisions contained in this Resolution or in any supplemental resolution; provided, however, that nothing herein contained shall permit, or be construed as permitting, without the consent of the Holders of all of the Bonds Outstanding, (a) an extension of the maturity of the principal of or the interest on any Bond issued hereunder, or (b) a reduction in the principal amount of any Bond or the redemption premium or the rate of interest thereon, or (c) the creation of a lien upon or a pledge of Revenues other than the lien and pledge created by this Resolution, or (d) a preference or priority of any Bond or Bonds over any other Bond or Bonds, or (e) a reduction in the aggregate principal amount of the Bonds required for consent to such supplemental resolution. Nothing herein contained, however, shall be construed as making necessary the approval by Bondholders of the adoption of any supplemental resolution as authorized in Section 1001 of this Article.

The consent of the Holders of any Series of Additional Bonds to be issued hereunder shall be deemed given if the underwriters or initial purchasers for resale consent in writing to such supplemental resolution and the nature of the amendment effected by such supplemental resolution is disclosed in the official statement or other offering document pursuant to which such Series of Additional Bonds is offered and sold to the public.

If at any time the City shall determine that it is necessary or desirable to adopt any supplemental resolution for any of the purposes of this Section, the City shall cause notice of the proposed adoption of such supplemental resolution to be published once in each week for two (2) successive weeks in a Daily Newspaper of general circulation published in the County, and in a Daily Newspaper of general circulation or a financial journal published in the Borough of

75

resolution amending this Resolution and the issuer of such Credit Facility is not in default in its payment obligations under such Credit Facility, and if the credit of the Credit Facility provider is of sufficient quality to entitle debt backed by the Credit Facility to be rated in one of the two highest rating categories by a Rating Agency, the City may amend all or any part of this Resolution without the consent of any Holder of any Bond secured by such Credit Facility but with the written consent of the Credit Facility provider in lieu of the Holders of the Bonds secured by such Credit Facility (and the acknowledgement by that Credit Facility provider that the Credit Facility will remain in full force and effect). The consent and acknowledgment of the Credit Facility provider shall be filed with the Bond Registrar. The foregoing right of amendment, however, does not apply to any amendment with respect to the exclusion of interest on the Bonds from the gross income of their owners for purposes of Federal income taxation nor may any amendment deprive the owner of any Bond of the right to payment of the Bonds from the Net Revenues or to any amendment prohibited by clauses (a) through (e) of the first paragraph of Section 1002 of this Article without the consent of the Holders of all of the Bonds Outstanding (as provided for in Section 1002 hereof).

Section 1004. Supplemental Resolutions Part of Resolution. Any supplemental resolution adopted in accordance with the provisions of this Article and approved as to legality by the City Attorney shall thereafter form a part of this Resolution, and all of the terms and conditions contained in any such supplemental resolution as to any provision authorized to be contained therein shall be and shall be deemed to be part of the terms and conditions of this Resolution for any and all purposes. In case of the adoption and approval of any supplemental resolution, express reference may be made thereof in the text of any Bonds issued thereafter, if deemed necessary or desirable by the City.

[END OF ARTICLE X]

77

ARTICLE XI DEFEASANCE

Section 1101. Cessation of Interests of Bondholders. If, when the Bonds (or any Series of Bonds or portion thereof) secured hereby (a) shall have become due and payable in accordance with their terms or (b) shall have been duly called for redemption or (c) irrevocable instructions to call the Bonds (or any Series of Bonds or portion thereof) for redemption or to pay such Bonds at their respective maturities or combination of such payment and redemption shall have been given by the City, the whole amount of the principal and the interest and premium, if any, so due and payable upon all of the Bonds (or any Series of Bonds or portion thereof) then Outstanding shall be paid or sufficient moneys, or Government Obligations the principal of and the interest (which with respect to any Variable Rate Bonds shall be assumed to be the maximum interest rate permitted under the documents governing such Variable Rate Bonds) on which when due will provide sufficient moneys (as evidenced by a verification report of an independent nationally recognized person or firm which has a favorable reputation for skill and experience to verify the sufficiency of such deposits), shall be held by the Bond Registrar or other bank, trust company or other appropriate financial institution, acting as escrow agent, for such purpose under the provisions of this Resolution, and provision shall also be made for paying all other sums payable hereunder by the City in connection with such Bonds, then and in that case the right, title and interest of the Holders of such Bonds secured hereby in the Net Revenues, Funds and Accounts mentioned in this Resolution shall thereupon cease, determine and become void, the City shall have no obligation with respect to such Bonds except for the payment of the principal of, redemption premium, if any, and interest thereon solely from the moneys or Government Obligations deposited pursuant to this Section, and the City Commission in such case, shall repeal and cancel this Resolution as to such Bonds and may apply any surplus in any subaccount in the Sinking Fund Account and all balances remaining in any other Funds or Accounts other than moneys held for the redemption or payment of Bonds or the interest thereon to any lawful purpose of the City as the City Commission shall determine; otherwise this Resolution shall be, continue and remain in full force and effect; provided, however, that in the event Government Obligations shall be deposited with and held by the Bond Registrar or other bank, trust company or other appropriate financial institution, acting as escrow agent, as hereinabove provided, and in addition to the requirements set forth in Article III of this Resolution, the City shall within thirty (30) days after such Government Obligations shall have been deposited with the Bond Registrar or other bank, trust company or other appropriate financial institution, acting as escrow agent, cause a notice to be published in a Daily Newspaper of general circulation published in the City, and in a Daily Newspaper of general circulation or a financial journal published in the Borough of Manhattan, City and State of New York, setting forth (a) the date, if any, designated for the redemption of the Bonds or if a portion of the Outstanding Bonds are not being redeemed prior to their maturities or mandatory redemption dates, a statement to the effect that such Bonds are being paid at maturity and any Term Bonds are being redeemed in amounts and at times which will satisfy the Amortization Requirements

78

applied to the payment, when due, of the principal of, and the interest and the premium, if any, on the Bonds payable therefrom.

[END OF ARTICLE XI]

80

therefor, (b) a description of the Government Obligations so held by the Bond Registrar or other bank, trust company or other appropriate financial institution, acting as escrow agent, and (c) that this Resolution has been repealed and cancelled in accordance with the provisions of this Section.

With respect to Variable Rate Bonds or Optional Tender Bonds, prior to the release of this Resolution, there shall be filed with the Finance Director, the following: (i) a resolution adopted by the City Commission determining (which determination may be based upon opinions of Bond Counsel or investment bankers) that the rights of the owners of such Variable Rate Bonds or Optional Tender Bonds to receive payment of interest at the Variable Rate as provided in the documents pursuant to which such Bonds were issued and the right to receive payment of the purchase price of such Bonds upon tender for purchase, as provided in the documents pursuant to which such Bonds were issued, either pursuant to a Credit Facility provided therefor or otherwise will not be materially adversely impaired by the release of this Resolution pursuant to this Article XI; (ii) a resolution, adopted by the City Commission, which may be the same resolution specified in clause (i) above, specifying the uses to which any Current Excess Interest Earnings (as hereinafter defined) may be applied, which may include the financing of Improvements or Capital Expenditures, as defined in this Resolution, for the Water and Sewer System or Current Expenses of the Water and Sewer System to the extent that expenditure of such sums for such purpose reduces the required Revenues, or, if the City no longer owns the Water and Sewer System, the capital expenditures for other lawful purposes of the City, in each event, such uses shall be for facilities the construction or acquisition of which would, but for the receipt of such Current Excess Interest Earnings, have been constructed or acquired using proceeds of unissued Bonds or other bonds of the City or paid from future revenues of the City; and (iii) there shall have been furnished to the City, as a condition of the release of this Resolution, an opinion of Bond Counsel to the effect that such release will not have an adverse effect on the Federal income tax exemption of interest on any of such Bonds as are then exempt from such taxation.

For the purposes of this Section, "Current Excess Interest Earnings" shall mean for each period for which interest is received by the escrow agent on the Government Obligations held in escrow for the Holders of the defeased Bonds, the excess, if any, of interest received on such Government Obligations over the amount of interest paid on the Variable Rate Bonds in such period. The agreement pursuant to which such Government Obligations are held by the escrow agent shall provide for withdrawal of such Current Excess Interest Earnings when received by the escrow agent and payment of such sums to the City for expenditure in the manner provided in the resolution mentioned in clause (ii) of the preceding paragraph.

All moneys and obligations held by the Bond Registrar or other bank, trust company or other appropriate financial institution, acting as escrow agent, pursuant to this Section shall be held in trust and the principal of and interest on said obligations when received, and said moneys,

79

ARTICLE XII MISCELLANEOUS PROVISIONS

Section 1201. Effect of Covenants. All covenants, stipulations, obligations and agreements of the City contained in this Resolution shall be deemed to be covenants, stipulations, obligations and agreements of the City and of the City Commission and of each department and agency of the City to the full extent authorized or permitted by law, and all such covenants, stipulations, obligations and agreements shall bind or inure to the benefit of the successor or successors thereof from time to time and any officer, board, body or commission to whom or to which any power or duty affecting such covenants, stipulations, obligations and agreements shall be transferred by or in accordance with law.

Except as otherwise provided in this Resolution, all rights, powers and privileges conferred and duties and liabilities imposed upon the City or upon the City Commission by the provisions of this Resolution shall be exercised or performed by the City Commission, or by such other officers, board, body or commission as may be required by law to exercise such powers or to perform such duties.

No covenant, stipulation, obligation or agreement herein contained shall be deemed to be a covenant, stipulation, obligation or agreement of any member, agent or employee of the City Commission in his individual capacity, and neither the members of the City Commission nor any official executing the Bonds shall be liable personally on the Bonds or be subject to any personal liability or accountability by reason of the issuance thereof.

Section 1202. Manner of Giving Notice. Any notice, demand, direction, request or other instrument authorized or required by this Resolution to be given to or filed with the City shall be deemed to have been sufficiently given or filed for all purposes of this Resolution if and when sent by registered mail, return receipt requested, to the City at:

City of Fort Lauderdale, Florida
100 North Andrews Avenue
Fort Lauderdale, Florida 33302
Attention: Director of Finance

All documents received by the City and the City Commission under the provisions of this Resolution shall be retained in their possession, subject at all reasonable times to the inspection of the City, any Bondholder, and the agents and representatives thereof.

Section 1203. Successorship of Bond Registrar. To the extent that the Bond Registrar is other than the City, any bank or trust company with or into which the Bond Registrar may be merged or consolidated, or to which the assets and business of such Bond Registrar may be sold, shall be deemed the successor of such Bond Registrar for the purposes of this Resolution. If the

81

position of the Bond Registrar shall become vacant for any reason, the City Commission shall, within thirty (30) days thereafter, appoint a bank or trust company as the Bond Registrar to fill such vacancy. The City shall have the right at any time to remove the Bond Registrar and to appoint a successor Bond Registrar; provided, however, that no such removal and appointment shall cause a delay in the payment of principal of, redemption premium, if any, or interest on any Bond Outstanding under this Resolution.

Section 1204. Successorship of City Officers. In the event that the offices of Mayor, Finance Director, City Manager, City Clerk or City Attorney shall be abolished or any two or more of such offices shall be merged or consolidated, or in the event of a vacancy in any such office by reason of death, resignation, removal from office or otherwise, or in the event any such officer shall become incapable of performing the duties of his office by reason of sickness, absence from the City or otherwise, all powers conferred and all obligations and duties imposed upon such officer shall be performed by the officer succeeding to the principal functions thereof or by the officer upon whom such powers, obligations and duties shall be imposed by law.

Section 1205. Substitute Publication. If, because of the temporary or permanent suspension of publication of any Daily Newspaper or financial journal or for any other reason, the Finance Director or the City shall be unable to publish in a Daily Newspaper or financial journal any notice required to be published by any provision of this Resolution, the City shall give such notice in such other manner as in its judgment shall most effectively approximate such publication, and the giving of such notice in such manner, for all purposes of this Resolution shall be deemed to be in compliance with the requirement for the publication thereof.

Section 1206. Inconsistent Resolutions. All resolutions and parts thereof which are inconsistent with any of the provisions of this Resolution are hereby declared to be inapplicable to the provisions of this Resolution.

Section 1207. Further Acts. The officers and agents of the City are hereby authorized and directed to do all the acts and things required of them by the Bonds and this Resolution, for the full, punctual and complete performance of all of the terms, covenants, provisions and agreements contained in the Bonds and this Resolution.

Section 1208. Headings Not Part of Resolution. Any headings preceding the texts of the several Articles and Sections hereof and any table of contents, marginal notes or footnotes appended to copies hereof shall be solely for convenience of reference, and shall not constitute a part of this Resolution, nor shall they affect its meaning, construction or effect.

Section 1209. Beneficiaries under Resolution. Except as herein otherwise expressly provided, nothing in this Resolution, expressed or implied, is intended or shall be construed to confer upon any person, firm or corporation, other than the City, the Holders of the Bonds issued under and secured by this Resolution and the issuer of any Credit Facility or Liquidity Facility,

82

EXHIBIT A

THE PROJECT

The Project shall consist of Improvements to the City's Water System, including the construction of wellfield upgrades, construction of new membrane softening treatment facilities at the Peele-Dixie Water Treatment Plant and the Fiveash Water Treatment Plant, construction and reconstruction of Improvements to the Fiveash Water Treatment Plant, the construction of new pipelines and storage tanks for the water distribution system, the construction of new wells at the Prospect Wellfield and the rehabilitation of existing wells and generators at both the Prospect Wellfield and the Dixie Wellfield, the construction of new injection wells and pump stations at the Fiveash Water Treatment Plant; and Improvements to the City's Sewer System, including the acquisition and construction of extensions to the sewer collection system into previously unsewered areas, modifications, repairs and improvements to the existing sewer collection system, the construction, reconstruction and Improvements to the sewer transmission system, consisting of the replacement of pumps and the construction of a force main along Davie Boulevard, and the construction of Improvements to the Regional Wastewater Treatment Plant.

any right, remedy or claim, legal or equitable, under or by reason of the Resolution or any provisions hereof, this Resolution and all its provisions being intended to be and being for the sole and exclusive benefit of the City and the Holders from time to time of the Bonds issued hereunder and the issuer of any Credit Facility and Liquidity Facility.

Section 1210. Effect of Partial Invalidity. In case any one or more of the provisions of this Resolution or of any Bonds issued hereunder shall for any reason be held to be illegal or invalid, such illegality or invalidity shall not affect any other provision of this Resolution or of the Bonds, but this Resolution and the Bonds shall be construed and enforced as if such illegal or invalid provision had not been contained therein. The Bonds are issued and this Resolution is adopted with the intent that the laws of the State of Florida shall govern their construction.

Section 1211. Repeal of Resolution No. 93-46. Resolution No. 93-46 of the City Commission adopted on March 15, 1993 is hereby repealed in its entirety and is of no further force or effect.

Section 1212. Resolution Effective. This Resolution shall be effective immediately upon its adoption.

ADOPTED this the 18th day of February, 2003.

/s/ Jim Naugle
Mayor

ATTEST:

/s/ Lucy Kisela
City Clerk

83

EXHIBIT B

FORM OF BOND

No. R-_____ \$ _____

UNITED STATES OF AMERICA
STATE OF FLORIDA
CITY OF FORT LAUDERDALE
WATER AND SEWER REVENUE BOND
SERIES _____

<u>Maturity Date</u>	<u>Interest Rate</u>	<u>Date of Original Issuance</u>	<u>CUSIP</u>
_____, 1, _____	_____%	_____, _____	_____

Registered Holder:

Principal Amount:

The City of Fort Lauderdale (herein called the "City"), a municipal corporation in Broward County, Florida, duly organized and operating under the Constitution and laws of the State of Florida, is justly indebted and for value received hereby promises to pay to the registered holder shown above or to the registered assigns or legal representative thereof on the date specified above (or earlier as hereinafter referred to), upon the presentation and surrender hereof, at the office of the Director of Finance of the City as registrar for the Bonds (the "Bond Registrar"), the principal sum shown above, and to pay to the registered owner hereof, by check or draft mailed to the registered owner at such registered owner's address as it appears on the bond registration books of the City, or by wire transfer to the registered owner of at least \$1,000,000 principal amount of the Bonds, interest on such principal sum from the date hereof or from the March 1 or September 1 next preceding the date of authentication to which interest shall have been paid, unless such date of authentication is a March 1 or September 1 to which interest shall have been paid, in which case from such date, such interest to the maturity hereof being payable on March 1 and September 1 in each year, commencing _____ 1, _____, at the rate per annum specified above, until payment of such principal sum. The interest so payable and punctually paid, or duly provided for, on any interest payment date will be paid to the person in whose name this bond is registered at the close of business on the Regular Record Date for such

interest, which shall be the 15th day (whether or not a business day) of the calendar month next preceding such interest payment date. Any such interest not so punctually paid or duly provided for shall forthwith cease to be payable to the registered holder on such Regular Record Date, and may be paid to the person in whose name this bond is registered at the close of business on a Special Record Date for the payment of such defaulted interest to be fixed by the Bond Registrar, notice whereof being given to the holders not less than 10 days prior to such Special Record Date, or may be paid at any time in any other lawful manner not inconsistent with the requirements of any securities exchange on which the Bonds of this series may be listed and upon such notice as may be required by such exchange, or as more fully provided in the Resolution under which this Bond is issued hereinafter mentioned or by wire transfer as mentioned above. Such payment of interest shall be by check mailed to the holder at such holder's address as it appears on the bond registration books maintained by the Bond Registrar. All such payments shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts.

This bond shall not be deemed to constitute an indebtedness of the City, Broward County, Florida, the State of Florida or any political subdivision thereof within the meaning of any constitutional or statutory provision or limitation and the City, Broward County, Florida, the State of Florida or any political subdivision thereof is not obligated to pay the principal of, the premium, if any, or the interest on this bond except for the City's obligation to pay the same from the special fund hereinafter mentioned, and the faith and credit of the City, Broward County, Florida, the State of Florida or any political subdivision thereof are not pledged to the payment of the principal of, the premium, if any, or the interest on this bond. The issuance of this bond shall not directly, indirectly or contingently obligate the City, Broward County, Florida, the State of Florida or any political subdivision thereof to levy or to pledge any taxes whatever therefor or to make any appropriation for the payment of the principal of, the premium, if any, or the interest on this bond except as provided in the hereinafter described Resolution.

This bond is one of a series of bonds designated "Water and Sewer Revenue Bonds, Series _____" and issued by the City for the purpose of providing funds, with any other available funds, to (i) finance the construction and acquisition of certain improvements to the City's Water and Sewer System (as defined in the Resolution), (ii) fund a deposit to the Reserve Account established under the Resolution or pay the costs of a Reserve Account Insurance Policy, and (iii) pay the costs of issuance of the bonds. This bond is issued under and pursuant to Resolution No. 03-____, adopted by the City Commission of the City (the "City Commission") on February 18, 2003 (the "Bond Resolution") and Resolution No. 03-____, adopted by the City Commission in furtherance of the Bond Resolution on February 18, 2003 (the "Series Resolution" and, together with the Bond Resolution, the "Resolution").

The bonds of this series consist of bonds maturing on September 1 and March 1, of the years ____ to ____, inclusive, and _____ 1, ____.

2

subject to certain conditions provided in the Resolution, bonds of this series may be exchanged for an equal aggregate principal amount of bonds of the same maturity, or authorized denomination and bearing interest at the same rate.

The Bond Registrar is required to keep at its designated office the books of the City for the registration of and for the registration of transfers of bonds. The transfer of this bond may be registered only upon such books and as otherwise provided in the Resolution upon the surrender hereof to the Bond Registrar together with an assignment fully executed by the registered owner hereof or such registered owner's attorney or legal representative in such form as shall be satisfactory to the Bond Registrar. Upon any such registration of transfer, the Bond Registrar shall deliver in exchange for this bond a new bond or bonds, registered in the name of the transferee, of authorized denominations, and in aggregate principal amount equal to the unredeemed principal amount of this bond, of the same maturity and bearing interest at the same rate.

The Bond Registrar shall not be required to exchange or register any transfer of this bond during the 15 days immediately preceding the date of mailing of a notice of redemption or after this bond or any portion thereof has been selected for redemption.

This bond is issued and the Resolution was adopted under and pursuant to the City Charter of the City and the laws of the State of Florida. The Resolution provides for the creation of a special account designated "Water and Sewer Revenue Bonds Sinking Fund Account", which fund is pledged to and charged with the payment of the principal of, premium, if any, and the interest on all bonds issued and outstanding under the Resolution, and the City has covenanted in the Resolution to deposit to the credit of said special fund a sufficient amount of the Net Revenues (as defined in the Resolution) of the City's Water and Sewer System to provide for the payment of the principal of, premium, if any, and interest on the bonds issued under the provisions of the Resolution as the same shall become due and to create a reserve for such purpose.

All acts, conditions and things required by the Constitution and laws of the State of Florida and the ordinances and resolutions of the City to happen, exist and be performed precedent to and in the issuance of this bond have happened, exist and have been performed as so required.

This bond shall not be valid or become obligatory for any purpose or be entitled to any benefit or security under the Resolution until this bond shall have been authenticated by the execution by the Bond Registrar of the certificate of authentication endorsed hereon.

4

The bonds maturing prior to March 1, ____ are not subject to redemption prior to maturity. The bonds of this series at the time outstanding which mature on and after September 1, ____ may be redeemed prior to their respective maturities, at the option of the City, from any moneys that may be made available for such purpose, either in whole, on any date not earlier than March 1, ____, or in part, in any order of maturity selected by the City and by lot within a maturity, on the first Business Day of any calendar month not earlier than March 1, ____, at the following redemption dates and at the following redemption prices (expressed as percentages of principal amount to be redeemed) plus accrued interest to the redemption date as follows:

<u>Redemption Period (inclusive)</u>	<u>Redemption Price</u>
September 1, ____ to August 31, ____	____ %
September 1, ____ and thereafter	____

If less than all of the bonds of any one maturity shall be called for redemption, the particular bonds to be redeemed shall be selected by lot as provided in the Resolution.

At least thirty (30), but not more than sixty (60) days before the redemption date of any bonds to be redeemed, whether such redemption be in whole or in part, the City shall cause a notice of such redemption to be filed with the Bond Registrar, mailed, first class postage prepaid, to all registered owners of bonds to be redeemed in whole or in part at their last addresses appearing upon the registration books of the City. The failure to mail such notice shall not affect the validity of such redemption. Such further notice of redemption shall be given as provided in the Resolution. On the date fixed for redemption, notice having been given as aforesaid, the bonds or portions thereof so called for redemption shall be due and payable at the redemption price provided for the redemption of such bonds or portion thereof and, if moneys for payment of such redemption price and the accrued interest are held by the Bond Registrar or any appropriate fiduciary institution acting as escrow agent, as provided in the Resolution, interest on the bonds or the portions thereof so called for redemption shall cease to accrue. If a portion of this bond shall be called for redemption a new bond or bonds in principal amount equal to the unredeemed portion hereof will be issued to the registered owners hereof or his legal representative upon the surrender hereof.

The holder of this bond shall have no right to enforce the provisions of the Resolution, or to institute action to enforce the covenants therein, or to take any action with respect to any event of default under the Resolution, or to institute, appear in or defend any suit or other proceeding with respect thereto, except as provided in the Resolution.

Modifications or alterations of the Resolution or of any resolution supplemental thereto may be made only to the extent and in the circumstances permitted by the Resolution.

The bonds are issuable as fully registered bonds in the denomination of \$5,000 or any whole multiple thereof. At the designated office of the Bond Registrar, in the manner and

3

IN WITNESS WHEREOF, said City of Fort Lauderdale, by resolution duly adopted by its City Commission, has caused this bond to bear the signature of its Mayor and its City Manager and to bear the signature of its Clerk and the official seal of the City to be imprinted hereon.

Mayor

City Manager

[SEAL]

ATTEST:

City Clerk

5

CERTIFICATE OF AUTHENTICATION

This bond is one of the bonds of the series designated herein and issued under the provisions of the Resolution.

CITY OF FORT LAUDERDALE, FLORIDA
as Bond Registrar

By: _____
Director of Finance

Date of authentication: _____

6

ASSIGNMENT

FOR VALUE RECEIVED, the undersigned hereby sells, assigns and transfers unto _____

(please print or typewrite name and address of transferee)
the within Bond and all rights thereunder, and hereby irrevocably constitutes and appoints _____ Attorney to transfer the within Bond on the books kept for registration thereof, with full power of substitution in the premises.

Dated: _____

NOTICE: The signature to this assignment must correspond with the name of the registered owner as it appears upon the face of the within Bond in every particular, without alteration or enlargement or any change whatsoever.

Signature Guaranteed:

NOTICE: Signatures must be guaranteed by a member firm or the New York Stock Exchange or a commercial bank or a trust company.

7

FORM OF ABBREVIATIONS FOR BONDS

The following abbreviations, when used in the inscription on the face of the within Bond, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM	- as tenants in common	UNIF GIFT MIN ACT - _____	Custodian _____
TEN ENT	- as tenants by the entireties	(Cust)	(Minor)
JT TEN	- as joint tenants with right of survivorship and not as tenants in common	under Uniform Gifts to Minors Act _____	(State)

Additional abbreviations may also be used though not in the above list.

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8

RESOLUTION NO. 18 -16

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF FORT LAUDERDALE, FLORIDA, AUTHORIZING THE ISSUANCE AND SALE OF WATER AND SEWER REVENUE BONDS, SERIES 2018, IN THE AGGREGATE PRINCIPAL AMOUNT OF NOT EXCEEDING \$200,000,000 FOR THE PURPOSE OF (i) PAYING A PORTION OF THE COST OF IMPROVEMENTS TO THE CITY'S WATER AND SEWER SYSTEM, INCLUDING, WITHOUT LIMITATION, REIMBURSEMENT TO THE CITY FOR COSTS OF SUCH IMPROVEMENTS ADVANCED BY THE CITY FROM ITS INTERNAL FUNDS, AND (ii) PAYING THE COST OF ISSUANCE OF THE SERIES 2018 BONDS; FIXING THE FORM AND DENOMINATIONS OF SAID SERIES 2018 BONDS AND PROVIDING FOR THE FIXING OF THE PRINCIPAL AMOUNTS, DATES, RATES OF INTEREST, MATURITY DATES AND REDEMPTION PROVISIONS OF SAID SERIES 2018 BONDS BY THE CITY MANAGER WITHIN THE PARAMETERS SET FORTH HEREIN; AUTHORIZING THE EXECUTION AND DIRECTING THE AUTHENTICATION AND DELIVERY OF SAID SERIES 2018 BONDS; AUTHORIZING THE PUBLIC SALE BY COMPETITIVE BID OF SUCH SERIES 2018 BONDS; APPROVING THE FORM OF OFFICIAL NOTICE OF BOND SALE; AUTHORIZING THE CITY MANAGER TO AWARD THE SERIES 2018 BONDS WITHIN THE PARAMETERS SET FORTH HEREIN; AUTHORIZING THE USE OF A PRELIMINARY OFFICIAL STATEMENT AND THE EXECUTION AND DELIVERY OF AN OFFICIAL STATEMENT WITH RESPECT TO SAID SERIES 2018 BONDS; APPROVING UNCERTIFICATED, BOOK-ENTRY ONLY REGISTRATION OF SAID SERIES 2018 BONDS WITH THE DEPOSITORY TRUST COMPANY; PROVIDING FOR THE APPLICATION OF THE PROCEEDS OF SAID SERIES 2018 BONDS; APPOINTING A PAYING AGENT AND BOND REGISTRAR FOR THE SERIES 2018 BONDS; APPROVING THE FORM AND AUTHORIZING THE EXECUTION OF A PAYING AGENT AND BOND REGISTRAR AGREEMENT; COVENANTING TO PROVIDE CONTINUING DISCLOSURE IN CONNECTION WITH SUCH SERIES 2018 BONDS IN ACCORDANCE WITH RULE 15c2-12 AND AUTHORIZING THE EXECUTION AND DELIVERY OF A CONTINUING DISCLOSURE COMMITMENT WITH RESPECT THERETO; AUTHORIZING OTHER REQUIRED ACTIONS; AND PROVIDING AN EFFECTIVE DATE.

by the City Clerk. Any reference in this resolution to the Finance Director shall mean either the Director of Finance or the Deputy Director of Finance of the City. Any reference in this resolution to the City Attorney shall mean either the City Attorney of the City or an Assistant City Attorney designated by the City Attorney. For purposes of the Series 2018 Bonds, the terms "Bond Counsel" means Greenberg, Traurig, P.A.; "Disclosure Counsel" means the Law Offices of Steve E. Bullock, P.A.; and "Financial Advisor" means Hilltop Securities, Inc.

SECTION 3. AUTHORIZATION OF SERIES 2018 BONDS; TERMS AND PROVISIONS APPLICABLE TO SERIES 2018 BONDS.

There is hereby authorized a series of revenue bonds of the City designated "City of Fort Lauderdale, Florida Water and Sewer Revenue Bonds, Series 2018" to be issued under and pursuant to Section 209 of the Bond Resolution. The aggregate principal amount of the Series 2018 Bonds shall not exceed Two Hundred Million Dollars (\$200,000,000), with the exact aggregate principal amount of said Series 2018 Bonds to be determined by the City Manager prior to the awarding of the Series 2018 Bonds to the successful bidder. The Series 2018 Bonds shall be issued for the purpose of providing funds, together with other available moneys, to (i) pay a portion of the Cost of the Series 2018 Project, including, without limitation, reimbursement to the City for costs of the Series 2018 Project advanced by the City from its internal funds, and (ii) pay the cost of issuance relating to the Series 2018 Bonds.

SECTION 4. SALE AND AWARD OF SERIES 2018 BONDS; TERMS; REDEMPTION AND FORM OF SERIES 2018 BONDS.

(a) The City Manager is hereby authorized and directed to provide for the public sale of the Series 2018 Bonds by competitive bid in the manner provided in Section 218.385, Florida Statutes, at an aggregate purchase price as approved by the City Manager of not less than ninety-eight percent (98%) of the original principal amount of the Series 2018 Bonds (including underwriter's discount, but not including original issue discount or original issue premium) and at a true interest cost rate ("TIC"), as approved by the City Manager, but not to exceed five percent (5.00%) (the "Maximum TIC"). Without limiting the generality of the foregoing, such public sale may be conducted by an internet bidding process through Bidcomp/Parity Competitive Bidding System or other similar website. The City Manager is hereby authorized to determine the most advantageous date and time of sale and to publish the Official Notice of Bond Sale, or a summary thereof, in one or more newspapers of general circulation or financial journals published within or without the State of Florida, as he shall deem appropriate, such publication to be not less than ten (10) days prior to the date of sale; and if all bids received are rejected, such Series 2018 Bonds may again be offered for sale. The Official Notice of Bond Sale shall be in substantially the form thereof attached hereto as Exhibit "B," and the Official Bid Form shall be in the form provided by Bidcomp/Parity Competitive Bidding or other internet bidding service, with such deletions, changes,

WHEREAS, on February 18, 2003, the City Commission (the "City Commission") of the City of Fort Lauderdale, Florida (the "City") adopted Resolution No. 03-29 (the "Bond Resolution"), providing for the issuance of its Water and Sewer Revenue Bonds, in one or more series; and

WHEREAS, the City has determined to issue its Water and Sewer Revenue Bonds, Series 2018, in the aggregate principal amount of not exceeding \$200,000,000 (the "Series 2018 Bonds"), in order to provide funds, together with other available moneys, to (i) pay a portion of the Cost of the Improvements described in Exhibit "A" hereto (the "Series 2018 Project"), including, without limitation, reimbursement to the City for costs of the Series 2018 Project advanced by the City from its internal funds, and (ii) pay the costs of issuance relating to the Series 2018 Bonds; and

WHEREAS, the Bond Resolution provides that certain details of the Series 2018 Bonds issued under the Bond Resolution and certain other matters relating to said Series 2018 Bonds shall be determined in a Series Resolution; and

WHEREAS, the City now desires to (i) provide for the issuance of the Series 2018 Bonds and the fixing of the terms, provisions and other matters relating to the Series 2018 Bonds within the parameters set forth herein, (ii) provide for the public sale by competitive bid of the Series 2018 Bonds and the form of the Official Notice of Bond Sale, (iii) authorize the use and distribution of a Preliminary Official Statement relating to the Series 2018 Bonds and the execution and delivery of an Official Statement (as such terms are defined herein), (iv) provide for the execution and delivery of a Paying Agent and Bond Registrar Agreement and a Continuing Disclosure Commitment, as described herein, and (v) the taking of such other actions as may be required in connection with the issuance and delivery of the Series 2018 Bonds;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF FORT LAUDERDALE, FLORIDA:

SECTION 1. AUTHORITY FOR THIS RESOLUTION. This resolution is adopted pursuant to the provisions of the Act and the Bond Resolution. This resolution constitutes a "Series Resolution" with respect to the Series 2018 Bonds, as contemplated by the Bond Resolution.

SECTION 2. DEFINITIONS. Capitalized terms used herein without definition shall have the meanings ascribed thereto in the Bond Resolution, unless otherwise provided or unless the context otherwise clearly requires. Any reference in this resolution to the Mayor shall mean either the Mayor or the Vice Mayor of the City. Any reference in this resolution to the City Manager shall mean either the City Manager or an Assistant City Manager designated by the City Manager. Any reference in this resolution to the City Clerk shall mean either the City Clerk or an Assistant City Clerk designated

2

revisions or modifications as may be approved by the City Manager, including, without limitation, such changes as may be required to provide for public sale by competitive bids through an internet bidding process. The City Manager is further authorized to award the Series 2018 Bonds to the bidder(s) naming the lowest TIC (but not in excess of the Maximum TIC) in the Official Bid Form and who otherwise meets and satisfies the terms and conditions of the Official Notice of Bond Sale.

(b) The Series 2018 Bonds are being issued under the provisions of Section 209 of the Bond Resolution. The Series 2018 Bonds are issuable only in fully registered form and shall be in substantially the form thereof provided for in Section 203 of the Bond Resolution, with such appropriate variations, omissions and insertions as may be required therein and approved by the City Manager, upon consultation with Bond Counsel, with the Mayor's and the City Manager's execution of the Series 2018 Bonds being conclusive evidence of the City Manager's and the City Commission's approval of such variations, omissions and insertions. The Series 2018 Bonds shall be issued in denominations of \$5,000 or any multiple thereof. The Series 2018 Bonds shall be dated such date as the City Manager shall determine, and shall bear interest from their dated date as set forth in the Bond Resolution. Interest on the Series 2018 Bonds shall be payable semiannually on March 1 and September 1 of each year, commencing on September 1, 2018. The Series 2018 Bonds shall be numbered consecutively from R-1 and upwards. The Series 2018 Bonds shall mature semiannually on March 1 and September 1, subject to prior redemption, in such years as shall be determined by the City Manager, provided that the final maturity date shall be not later than September 1, 2048. Subject to the foregoing, the aggregate principal amount, maturities, interest rates and other terms of the Series 2018 Bonds and the determination of the successful bidder(s) shall be as approved and determined by the City Manager and set forth in a certificate of the City Manager delivered on or prior to the date of issuance of the Series 2018 Bonds (the "Details Certificate of the City Manager"). The execution and delivery of the Details Certificate of the City Manager shall be conclusive evidence of the City Manager's and the City Commission's approval of the final details and prices of the Series 2018 Bonds.

The Series 2018 Bonds shall be initially issued as uncertificated, book-entry only bonds through the book-entry only system maintained by The Depository Trust Company, New York, New York ("DTC"), which will act as securities depository for the Series 2018 Bonds.

(c) **Optional Redemption.** The Series 2018 Bonds are subject to redemption prior to maturity at the option of the City, in whole or in part at any time at such times, and at the redemption prices, as approved and determined by the City Manager, as set forth in the Details Certificate of the City Manager; provided, however, that the first optional redemption date shall not be later than ten (10) years after the date of issuance of the Series 2018 Bonds and the redemption price of the Series 2018 Bonds shall not exceed one hundred percent (100%) of the principal amount of the Series 2018 Bonds to

4

3

be redeemed. The execution and delivery of the Series 2018 Bonds by the Mayor and the City Manager shall be conclusive evidence of the City Manager's and the City Commission's approval of the optional redemption provisions relating to the Series 2018 Bonds.

(d) Mandatory Sinking Fund Redemption. The Series 2018 Bonds consisting of Term Bonds, if any, shall be subject to mandatory redemption prior to maturity to the extent of the Amortization Requirements therefor at the principal amount of such Series 2018 Bonds to be redeemed, plus accrued interest to the date fixed for redemption, but without premium, on each March 1 and September 1 for which there is an Amortization Requirement due on such Series 2018 Bonds. The Amortization Requirements for the Series 2018 Bonds consisting of Term Bonds shall be as approved and determined by the City Manager, as set forth in the Details Certificate of the City Manager. The execution and delivery of the Series 2018 Bonds by the Mayor and the City Manager shall be conclusive evidence of the City Manager's and the City Commission's approval of the mandatory sinking fund redemption provisions relating to the Series 2018 Bonds.

(e) Construction Subaccount and Cost of Issuance Subaccount. A special subaccount within the Construction Account is hereby created and designated "Series 2018 Water and Sewer Project Construction Subaccount" in which shall be deposited the amount specified in a certificate of the Finance Director delivered on the date of closing of the Series 2018 Bonds to pay the Costs of the Series 2018 Project that are to be paid from the proceeds of the Series 2018 Bonds, including, without limitation, reimbursement to the City for costs of the Series 2018 Project advanced by the City from its internal funds. A second special subaccount within the Construction Account is hereby created and designated "Series 2018 Cost of Issuance Subaccount" in which shall be deposited the amount specified in a certificate of the Finance Director delivered on the date of closing of the Series 2018 Bonds to pay expenses relating to the issuance of the Series 2018 Bonds.

(f) Establishment of Reserve Account Requirement for Series 2018 Bonds. The Reserve Account Requirement for the Series 2018 Bonds (the "2018 Reserve Account Requirement") is hereby established for the Series 2018 Bonds in the amount of zero dollars (\$0.00). The Series 2018 Bonds shall not be secured by the Reserve Account or any subaccount therein.

SECTION 5. AUTHORIZATION OF EXECUTION, AUTHENTICATION AND DELIVERY OF SERIES 2018 BONDS. The Mayor and the City Manager are hereby authorized and directed to cause the Series 2018 Bonds to be signed with their manual or facsimile signatures and the City Clerk is hereby authorized and directed to attest to the execution of the Series 2018 Bonds by the Mayor and the City Manager with his manual or facsimile signature and is hereby directed and authorized to cause the official seal of the City or a facsimile thereof to be imprinted on each of the Series 2018 Bonds, and the Series 2018 Bonds shall thereupon be delivered to the Bond Registrar for

5

SECTION 8. APPLICATION OF BOND PROCEEDS AND OTHER AVAILABLE MONEYS. The proceeds of the Series 2018 Bonds shall be applied for the purposes described in Section 3 hereof and in a manner consistent with the Estimated Sources and Uses of Funds section of the Official Statement. The specific amounts to be deposited in the funds and accounts established by the Bond Resolution shall be set forth in a certificate to be delivered by the Finance Director simultaneously with the delivery of the Series 2018 Bonds.

Since the 2018 Reserve Account Requirement has been established at zero dollars (\$0.00), no proceeds of the Series 2018 Bonds or any other moneys of the City shall be deposited in or to the credit of the Reserve Account in connection with the issuance of the Series 2018 Bonds or at any other time while the Series 2018 Bonds remain outstanding.

SECTION 9. INTEREST PAYMENT BY WIRE TRANSFER. If the DTC system of book-entry only registration for the Series 2018 Bonds is discontinued, any registered owner of at least \$1,000,000 in principal amount of the Series 2018 Bonds shall be entitled, upon giving appropriate notice, to receive periodic payments of interest on such registered owner's Series 2018 Bonds by wire transfer to a bank located within the continental United States.

SECTION 10. APPOINTMENT OF PAYING AGENT AND BOND REGISTRAR.

(a) The City hereby designates and appoints Regions Bank as the initial paying agent for the Series 2018 Bonds (the "Paying Agent") and the initial Bond Registrar for the Series 2018 Bonds.

(b) The City hereby approves the execution and delivery of a Paying Agent and Bond Registrar Agreement with the Paying Agent in substantially the form thereof attached hereto as Exhibit "D," with such variations, omissions and insertions therein as may be approved by the City Manager, upon consultation with Bond Counsel. The Paying Agent and Bond Registrar Agreement shall be executed by the Mayor and attested by the City Clerk and the City Clerk shall also affix the official seal of the City thereto. The execution and delivery of the Paying Agent and Bond Registrar Agreement by the Mayor shall be deemed to be conclusive evidence of the City Manager's and the City Commission's approval of any variations, omissions and insertions to the form of the Paying Agent and Bond Registrar Agreement attached hereto as Exhibit "D."

SECTION 11. CONTINUING DISCLOSURE. For the benefit of the holders and beneficial owners from time to time of the Series 2018 Bonds, the City agrees, in accordance with and as the only obligated person with respect to the Series 2018 Bonds under the Rule, to provide or cause to be provided such financial information and operating data, financial statements and notices, in such manner, as may be required for purposes of paragraph (b)(5) of the Rule. In order to describe and specify certain terms

7

authentication. The Bond Registrar is hereby authorized and directed to authenticate and deliver the Series 2018 Bonds at one time to or upon the order of the successful bidder(s) upon payment therefor.

SECTION 6. PRELIMINARY OFFICIAL STATEMENT: OFFICIAL STATEMENT. The form, terms and provisions of the Official Statement relating to the Series 2018 Bonds shall be substantially as set forth in the Preliminary Official Statement relating to the Series 2018 Bonds in the form approved at this meeting and attached hereto as Exhibit "C." The use and distribution of the Preliminary Official Statement in connection with the sale of the Series 2018 Bonds is hereby approved. The Finance Director is hereby authorized and directed to execute and deliver to the successful bidder(s) in connection with the actual Preliminary Official Statement issued and distributed in connection with the sale of the Series 2018 Bonds a certificate deeming said Preliminary Official Statement "Final" for purposes of subsection (b)(1) of Securities and Exchange Commission Rule 15c2-12 (the "Rule"). The Mayor, the City Manager and the Finance Director are hereby authorized and directed to execute and deliver the Official Statement in the name and on behalf of the City, and thereupon to cause said Official Statement to be delivered to the successful bidder(s) within seven business days of the award of the Series 2018 Bonds, with such variations, omissions and insertions as may be approved by the Mayor, City Manager and Finance Director. Said Official Statement, including any such variations, omissions and insertions as approved by the Mayor, City Manager and Finance Director and the information contained therein are hereby authorized to be used in connection with the sale of the Series 2018 Bonds to the public. Execution by the Mayor, City Manager and Finance Director of the Official Statement shall be deemed to be conclusive evidence of their approval and the City Commission's approval of any variations, omissions and insertions in the Official Statement.

SECTION 7. SYSTEM OF UNCERTIFICATED REGISTRATION. There is hereby established a system of registration with respect to the Series 2018 Bonds as permitted by Chapter 279, Florida Statutes, pursuant to which both certificated and uncertificated registered Series 2018 Bonds are issued. The system shall be as described in the Official Statement. The City reserves the right to amend, discontinue or reinstitute this system from time to time subject to the covenants with the beneficial owners of the Series 2018 Bonds.

Neither the City nor the Paying Agent (as specified in Section 10 hereof) shall be liable for the failure of the depository of the Series 2018 Bonds to perform its obligations as described in the Official Statement, nor for the failure of any participant in the system maintained by the depository to perform any obligation the participant may have or incur to a beneficial owner of any Series 2018 Bonds.

6

of the City's continuing disclosure agreement, including provisions for enforcement, amendment and termination, the Finance Director is hereby authorized and directed to sign and deliver, in the name and on behalf of the City, a Continuing Disclosure Commitment (the "Continuing Disclosure Commitment"), in substantially the form attached hereto as Exhibit "E," with such changes, insertions and omissions and such filling in of blanks therein as may be approved by the Finance Director. The execution of the Continuing Disclosure Commitment, for and on behalf of the City by the Finance Director, shall be deemed conclusive evidence of the Finance Director's and the City Commission's approval of the Continuing Disclosure Commitment. The agreement formed by this paragraph and the Continuing Disclosure Commitment shall be the City's continuing disclosure agreement for purposes of the Rule, and its performance shall be subject to the availability of funds to meet costs the City would be required to incur to perform it. Notwithstanding any other provisions of this Series Resolution or the Bond Resolution, any failure by the City to comply with any provisions of the Continuing Disclosure Commitment or this Section 11 shall not constitute a default under the Bond Resolution and the remedies therefor shall be solely as provided in the Continuing Disclosure Commitment.

The Finance Director is further authorized and directed to establish, or cause to be established, procedures in order to ensure compliance by the City with the Continuing Disclosure Commitment, including the timely provision of information and notices. Prior to making any filing in accordance with such agreement, the Finance Director shall consult with the City Attorney, Bond Counsel and/or Disclosure Counsel, as the Finance Director deems appropriate. The Finance Director, acting in the name and on behalf of the City, shall be entitled to rely upon any legal advice provided by the City Attorney, Bond Counsel and/or Disclosure Counsel in determining whether a filing should be made.

The City Commission hereby authorizes and approves the appointment of Digital Assurance Certification, Inc. ("DAC"), as dissemination agent under the Continuing Disclosure Commitment, if the Finance Director determines it is in the best interests of the City to have DAC serve in such capacity, and the City Commission hereby further authorizes and approves the execution and delivery by the Finance Director, in consultation with the City Attorney, Bond Counsel and/or Disclosure Counsel, of any agreement necessary with respect to such appointment.

SECTION 12. GENERAL AUTHORITY. The members of the City Commission, the City Manager, the Finance Director, the City Attorney, the City Clerk and the officers, attorneys and other agents or employees of the City are hereby authorized to do all acts and things required of them by this resolution, the Bond Resolution, the Official Statement, the Official Notice of Bond Sale, the Paying Agent and Bond Registrar Agreement or the Continuing Disclosure Commitment or desirable or consistent with the requirements of this resolution, the Bond Resolution, the Official Statement, the Official

8

Notice of Bond Sale, the Paying Agent and Bond Registrar Agreement or the Continuing Disclosure Commitment for the full, punctual and complete performance of all the terms, covenants and agreements contained herein or therein, and each member, employee, attorney and officer of the City Commission, the City Manager, the Finance Director, the City Attorney and the City Clerk is hereby authorized and directed to execute and deliver any and all papers and instruments and to do and to cause to be done any and all acts and things necessary or proper for carrying out the transactions contemplated hereunder.

SECTION 13. HEADINGS FOR CONVENIENCE ONLY. The headings preceding the texts of the several sections and subsections hereof shall be solely for convenience of reference and shall not constitute a part of this resolution, nor shall they affect its meaning, construction or effect.

SECTION 14. SEVERABILITY OF INVALID PROVISIONS. If any one or more of the covenants, agreements or provisions herein contained shall be held contrary to any express provision of law or contrary to the policy of express law, though not expressly prohibited or against public policy, or shall for any reason whatsoever be held invalid, then such covenants, agreements or provisions shall be null and void and shall be deemed separable from the remaining covenants, agreements or provisions and shall in no way affect the validity of any of the other provisions hereof.

SECTION 15. EFFECTIVE DATE. This resolution shall take effect immediately upon its adoption.

ADOPTED this the 23rd day of January, 2018.

ATTEST: _____
/s/ John P. Seiler
Mayor
JOHN P. "JACK" SEILER

/s/ Jeffrey A. Modarelli
City Clerk
JEFFREY A. MODARELLI

EXHIBIT "A"

SERIES 2018 PROJECT

The Series 2018 Project consists of the capital improvements to the City's Water and Sewer System described in Table 5-4 of the Series 2018 Water and Sewer Revenue Bonds Feasibility Report (the "Report") prepared by CH2M Hill, Inc., Hazen and Sawyer, P.C. and Stantec, Inc. (or any replacement table of capital improvements for such Table 5-4 included in the Report). The capital improvements comprising the Series 2018 Project have been identified as critical projects within the City's FY2018 – FY2022 Community Investment Plan (the "Community Investment Plan"), the City's 2017 Comprehensive Utilities Strategic Master Plan (the "CUSMP") and the Florida Department of Environmental Protection Consent Order dated September 29, 2017.

In its discretion, the City may add as part of the Series 2018 Project one or more different projects that are included in the Community Investment Plan, the CUSMP or the FDEP Consent Order in substitution for one or more of the projects described in Table 5-4 of the Report or altogether remove a project listed in Table 5-4 of the Report as part of the Series 2018 Project without substituting another project therefor, provided that any project added to the Series 2018 Project is eligible to be financed under the Bond Resolution with proceeds of tax-exempt bonds.

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APPENDIX E

Proposed Form of Opinion of Bond Counsel

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FORM OF BOND COUNSEL OPINION

On the date of issuance of the Series 2018 Bonds, Greenberg Traurig, P.A., Bond Counsel, proposes to issue its approving opinion in substantially the following form:

February __, 2018

City Commission
City of Fort Lauderdale, Florida

Re: \$196,035,000 City of Fort Lauderdale, Florida Water and Sewer Revenue
Bonds, Series 2018

Gentlemen:

We have served as bond counsel to the City of Fort Lauderdale, Florida (the “City”) in connection with the issuance on this date by the City of the referenced bonds (the “Series 2018 Bonds”). The Series 2018 Bonds are being issued pursuant to the Constitution and laws of the State of Florida, particularly Chapter 166, Part II, Florida Statutes, as amended, the Charter of the City and other applicable provisions of law (collectively, the “Act”) and Resolution No. 03-29, adopted by the City Commission of the City (the “City Commission”) on February 18, 2003 (the “Bond Resolution”), as supplemented by Resolution No. 18-16, adopted by the City Commission on January 23, 2018 (the “Series Resolution” and, together with the Bond Resolution, the “Resolution”). The Series 2018 Bonds are being issued in order to provide funds, together with other legally available moneys, to (i) pay a portion of the cost of the Series 2018 Project, including, without limitation, reimbursement to the City for costs of the Series 2018 Project advanced by the City from its internal funds, and (ii) pay the costs of issuance relating to the Series 2018 Bonds. The Series 2018 Bonds are dated and mature in such amounts and at such times, and bear interest, all as provided in the Resolution. All capitalized words and phrases used herein, unless otherwise defined herein, have the meaning ascribed to them in the Resolution.

In rendering this opinion we have examined the transcript of the proceedings relating to the issuance of the Series 2018 Bonds (the “Transcript”), which includes the Resolution and certain other documentation and such other documents as we have deemed necessary to deliver this opinion. We have also examined one of the Series 2018 Bonds as executed and authenticated or a facsimile thereof. We assume that all other Series 2018 Bonds have been similarly executed and authenticated. As to questions of fact material to this opinion, we have relied upon certain certified proceedings set forth in the Transcript and other certifications of public officials furnished to us without undertaking to verify the same by independent investigation.

In order to secure the payment of the principal of and interest on the Series 2018 Bonds, the City has irrevocably pledged the Net Revenues to the payment of the principal of and interest on the Series 2018 Bonds.

Based on the foregoing, we are of the opinion that:

1. The City is a municipal corporation of the State of Florida with the power to adopt the Resolution, to issue the Series 2018 Bonds and to perform its obligations under the Resolution and the Series 2018 Bonds.
2. The Resolution has been duly adopted by the City. The Resolution creates a valid pledge of the Net Revenues and constitutes a valid and binding obligation of the City enforceable against the City in accordance with its terms.
3. The issuance and sale of the Series 2018 Bonds has been duly authorized by the City and, on the assumption as to execution and authentication stated above, the Series 2018 Bonds constitute valid and binding limited obligations of the City payable in accordance with, and as limited by, the terms of the Resolution.
4. The Series 2018 Bonds and the income thereon are not subject to taxation under the laws of the State of Florida, except as to estate taxes and taxes under Chapter 220, Florida Statutes, on interest, income or profits on debt obligations owned by corporations as defined therein.
5. The Internal Revenue Code of 1986, as amended (the "Code"), includes requirements which the City must continue to meet after the issuance of the Series 2018 Bonds in order that interest on the Series 2018 Bonds be and remain excludable from gross income for federal income tax purposes. The City's failure to meet these requirements may cause interest on the Series 2018 Bonds to be included in gross income for federal income tax purposes retroactive to their date of issuance. The City has covenanted in the Resolution to take the actions required by the Code in order to maintain the exclusion from gross income for federal income tax purposes of interest on the Series 2018 Bonds. The City has full legal power and authority to comply with such covenants.

Under existing statutes, regulations, rulings and court decisions, subject to the assumption stated in the following paragraph, interest on the Series 2018 Bonds is excludable from gross income for federal income tax purposes. Further, interest on the Series 2018 Bonds is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals. For corporations, tax legislation enacted in 2017 eliminated the alternative minimum tax for

taxable years beginning after December 31, 2017; we express no opinion with respect to the alternative minimum tax imposed on corporations for taxable years beginning before January 1, 2018. We express no opinion regarding other federal tax consequences resulting from the ownership, receipt or accrual of interest on, or disposition of the Series 2018 Bonds.

In rendering the opinion expressed above, we have assumed continuing compliance with the tax covenants referred to above that must be met after the issuance of the Series 2018 Bonds in order that interest on the Series 2018 Bonds not be included in gross income for federal income tax purposes.

We wish to call to your attention that the Series 2018 Bonds do not (i) constitute a debt of the City for which the faith and credit of the City is pledged, but are payable solely from the Net Revenues, (ii) directly or indirectly or contingently obligate the City to levy or to pledge any form of taxation whatsoever therefor, or (iii) constitute a charge, lien or encumbrance, legal or equitable, upon any property of the City.

Except as stated in paragraphs number 4 and 5 above, we express no opinion as to any other tax consequences regarding the Series 2018 Bonds.

This opinion is qualified to the extent that the enforceability of the Series 2018 Bonds and the Resolution, respectively, may be limited by general principles of equity which may permit the exercise of judicial discretion, and by bankruptcy, insolvency, moratorium, reorganization or similar laws relating to the enforcement of creditors' rights generally, now or hereafter in effect.

In rendering the foregoing opinions we have assumed the accuracy and truthfulness of all public records and of all certifications, documents and other proceedings examined by us that have been executed or certified by public officials acting within the scope of their official capacities and have not verified the accuracy or truthfulness thereof. We have also assumed the genuineness of the signatures appearing upon such public records, certifications, documents and proceedings.

We have not been engaged nor have we undertaken to review or verify and therefore express no opinion as to the accuracy, adequacy, fairness or completeness of any official statement or other offering materials relating to the Series 2018 Bonds. In addition, other than as expressly set forth herein, we have not passed upon and therefore express no opinion as to the compliance by the City or any other party involved in this financing, or the necessity of such parties complying, with any federal or state registration requirements or securities statutes, regulations or rulings with respect to the offer and sale of the Series 2018 Bonds.

We express no opinion with respect to any other document or agreement entered into by the City or by any other person in connection with the Series 2018 Bonds, other than as expressed herein.

Our opinions expressed herein are predicated upon present laws, facts and circumstances, and we assume no affirmative obligation to update the opinions expressed herein if such laws, facts or circumstances change after the date hereof.

Respectfully submitted,

[To be signed "*Greenberg Traurig, P.A.*"]

APPENDIX F

Proposed Form of Opinion of Disclosure Counsel

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Date of Delivery

City Commission of the
City of Fort Lauderdale, Florida
100 North Andrews Avenue
Fort Lauderdale, Florida 33301

\$196,035,000
City of Fort Lauderdale, Florida
Water and Sewer Revenue Bonds
Series 2018

Ladies and Gentlemen:

We have served as Disclosure Counsel in connection with the issuance by the City of Fort Lauderdale, Florida (the “City”) of its \$196,035,000 in aggregate principal amount of Water and Sewer Revenue Bonds, Series 2018 (the “Series 2018 Bonds”). The Series 2018 Bonds are being issued with the terms, for the purposes and subject to the conditions set forth in Resolution No. 03-29 adopted by the City Commission of the City (the “City Commission”) on February 18, 2003 (the “Bond Resolution”), as supplemented by Resolution No. 18-16 adopted by the City Commission on January 23, 2018 (the “Series Resolution” and, together with the Bond Resolution, the “Resolution”), as described in the Official Statement dated February 6, 2018 relating to the Series 2018 Bonds (the “Official Statement”). All capitalized terms used in this opinion that are not defined herein and not normally capitalized shall have the meaning ascribed to such terms in the Official Statement.

In connection with the issuance and delivery of this opinion, we have considered such matters of law and fact and have relied upon such certificates and other information furnished to us as we have deemed appropriate. We are not expressing any opinion or views herein on the authorization, issuance, delivery or validity of the Series 2018 Bonds. To the extent that the opinions expressed herein relate to or are dependent upon the determination that the proceedings and actions related to the authorization, issuance and sale of the Series 2018 Bonds are lawful and valid under the laws of the State of Florida, or that the Series 2018 Bonds are valid and binding obligations of the City enforceable in accordance with their terms, or that interest on the Series 2018 Bonds is excluded from the gross income of the owners thereof for federal income tax purposes, we understand that you are relying upon the opinions delivered on the date hereof of Greenberg Traurig, P.A. and no opinion is expressed herein as to such matters.

The scope of our engagement with respect to the issuance of the Series 2018 Bonds was not to establish factual matters and, because of the wholly or partially non-legal character of many of the determinations involved in the preparation of the Official Statement, we are not passing on and do not assume any responsibility for, except as set forth in the last sentence of this paragraph, the accuracy or completeness of the contents of the Official Statement (including, without limitation, its appendices) and we make no representation that we have independently verified the accuracy, completeness or fairness of such contents. As your counsel, we have participated in the preparation of the Official Statement and in discussions and conferences with officials of the City, Bond Counsel for the City, the Financial Advisor for the City, and the Feasibility Consultants for the City, in which the contents of the Official Statement and related matters were discussed. Solely on the basis of our participation in the preparation of the Official Statement, our examination of certificates, documents, instruments and records relating to the City

and the issuance of the Series 2018 Bonds and the above-mentioned discussions, nothing has come to our attention which would lead us to believe that the Official Statement (except for the financial, statistical and demographic data and information in the Official Statement, including, without limitation, the appendices thereto, and the information relating to DTC, its operations and the book-entry only system, as to which no opinion is expressed) contains an untrue statement of a material fact or omits to state a material fact that is necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

We are also of the opinion that the continuing disclosure undertaking set forth in the Resolution and in the Continuing Disclosure Commitment of the City dated the date of and delivered at the closing for the Series 2018 Bonds, satisfies the requirements set forth in Rule 15c2-12(b)(5) of the United States Securities and Exchange Commission, as such requirements apply to the issuance of the Series 2018 Bonds.

In reaching the conclusions expressed herein we have, with your concurrence, assumed and relied on, without independent verification, the genuineness and authenticity of all signatures not witnessed by us, the authenticity of all documents, records, instruments and letters submitted to us as originals, the conformity to originals of all items submitted to us as certified or photostatic copies, the legal capacity and authority of the persons who executed such items, the accuracy of all warranties, representations and statements of fact contained in the documents and instruments submitted to us, and the continuing accuracy on this date of any certificates or other items supplied to us regarding the matters addressed herein. As to questions of fact material to our opinions, we have relied upon and assumed the correctness of the public records and certificates by, and representations of, public officials and other officers, and representatives of the parties to this transaction. We have no actual knowledge of any factual information that would lead us to form a legal opinion that the public records or certificates which we have relied upon contain any untrue statement of a material fact.

The opinions expressed herein are based upon existing law as of the date hereof and we express no opinion herein as of any subsequent date or with respect to any pending legislation. We assume no obligation to supplement this opinion if any applicable laws change after the date hereof or if we become aware of any facts that might change the opinions expressed herein after the date hereof. The opinions expressed herein represent our professional judgment, are not a guarantee of result, and are limited to the laws of the State of Florida and the United States of America.

The opinions expressed herein are furnished by us as Disclosure Counsel to our client, the City, and solely for the use of the addressee named above. Such opinions shall not extend to, and may not be relied upon by, any other persons, firms, or corporations without our express prior written consent. The opinions expressed herein are limited to the matters set forth herein, and to the documents referred to herein, and do not extend to any other agreements, documents or instruments executed by the City. No other opinion should be inferred beyond the matters expressly stated herein.

Respectfully submitted,

LAW OFFICES OF STEVE E. BULLOCK, P.A.

APPENDIX G

Form of Continuing Disclosure Commitment

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CONTINUING DISCLOSURE COMMITMENT

This CONTINUING DISCLOSURE COMMITMENT dated as of February __, 2018 is executed and delivered by the CITY OF FORT LAUDERDALE, FLORIDA (the “City”), a municipal corporation and public body corporate and politic, duly organized and existing under the Constitution and laws of the State of Florida in connection with the issuance of \$196,035,000 in aggregate principal amount of City of Fort Lauderdale, Florida Water and Sewer Revenue Bonds, Series 2018 (the “Series 2018 Bonds”). The Series 2018 Bonds are being issued pursuant to Resolution No. 03-29 adopted by the City Commission of the City (the “City Commission”) on February 18, 2003 (the “Bond Resolution”), as supplemented by Resolution No. 18-16 adopted by the City Commission on January 23, 2018 (the “Series Resolution” and, together with the Bond Resolution, the “Resolution”). The City covenants and agrees as follows:

SECTION 1. Purpose of Disclosure Commitment. This Disclosure Commitment is being executed and delivered by the City in order to assist the Participating Underwriter in complying with Rule 15c2-12(b)(5) of the United States Securities and Exchange Commission (the “SEC”). This Disclosure Commitment, together with Section 11 of the Series Resolution (collectively, the “Disclosure Agreement”) shall constitute the continuing disclosure agreement of the City in accordance with the requirements of the Rule for the benefit of the Beneficial Owners.

SECTION 2. Definitions. In addition to the definitions set forth in the Resolution, which apply to any capitalized term used in this Disclosure Commitment, unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

“Annual Report” shall mean any Annual Report provided by the City pursuant to, and as described in, Sections 3 and 4 of this Disclosure Commitment.

“Beneficial Owner” shall mean any person which (a) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Series 2018 Bonds (including persons holding Series 2018 Bonds through nominees, depositories or other intermediaries), or (b) is treated as the owner of any Series 2018 Bonds for federal income tax purposes.

“Business Day” shall mean any day other than a Saturday, Sunday or a day when banks in the City of New York, New York, or in the City of Fort Lauderdale, Florida, or in the city in which the principal offices of the Bond Registrar are required or authorized by law to be closed or on which the New York Stock Exchange is closed.

“Dissemination Agent” shall mean Digital Assurance Certification, L.L.C., or any successor or alternate Dissemination Agent designated in writing by the City and which has filed with the City a written acceptance of such designation.

“Force Majeure Event” means: (i) acts of God, war, or terrorist action; (ii) failure or shut-down of the Electronic Municipal Market Access system maintained by the MSRB; or (iii) to the extent beyond the Dissemination Agent’s reasonable control, interruptions in telecommunications or utilities services, failure, malfunction or error of any telecommunications, computer or other electrical, mechanical or technological application, service or system, computer virus, interruptions in Internet service or telephone service (including due to a virus, electrical delivery problem or similar occurrence) that affect Internet users generally, or in the local area in which the Dissemination Agent or the MSRB is located, or acts of any

government, regulatory or any other competent authority the effect of which is to prohibit the Dissemination Agent from the performance of its obligations under the Disclosure Agreement.

“Listed Events” shall mean any of the events listed in Section 5(a) of this Disclosure Commitment.

“MSRB” means the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(1) of the Securities Exchange Act of 1934.

“Participating Underwriter” shall mean any of the original underwriters of the Series 2018 Bonds required to comply with the Rule in connection with the offering of the Series 2018 Bonds.

“Repository” shall mean any municipal securities information repository approved from time to time by the SEC, or otherwise established by law or regulation, where information is required to be filed in accordance with the Rule and initially shall constitute the entity set forth on Exhibit A of this Disclosure Commitment.

“Rule” shall mean Rule 15c2-12(b)(5) adopted by the SEC under the Securities Exchange Act of 1934, as the same may be amended from time to time.

SECTION 3. Provision of Annual Reports.

(a) The City shall, or shall cause the Dissemination Agent to, not later than the 243rd day following the end of each Fiscal Year, commencing with the Fiscal Year ended September 30, 2017, provide to each Repository an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Commitment (provided, however, that the information referred to in Section 4(b) may be provided no later than September 1 of each year, commencing September 1, 2018 with respect to the report for the 2016-2017 Fiscal Year). The Annual Report may be submitted as a single document or as separate documents comprising a package, and may cross-reference other information as provided in Section 4 of this Disclosure Commitment; provided, however, that the audited financial statements of the City may be submitted separately from the balance of the Annual Report and later than the date required above for the filing of the Annual Report if the audited financial statements are not available by that date. If the City’s Fiscal Year changes, it shall give notice of such change in the same manner as for a Listed Event under Section 5(c).

(b) Not later than ten (10) Business Days prior to the date the Annual Report is to be filed with each Repository, the City shall provide the Annual Report to the Dissemination Agent (if other than the City). If the City is unable to provide to the Repository an Annual Report by the date required in subsection (a) of this Section, or if the City shall fail to provide the Annual Report to the Dissemination Agent in time for the Dissemination Agent to deliver the Annual Report to the Repository by the date required in subsection (a) of this Section, the City or the Dissemination Agent, as applicable, shall send a notice to each Repository in a timely manner in substantially the form attached as Exhibit B to this Disclosure Commitment.

(c) If the audited financial statements of the City are prepared but not available prior to the date the Annual Report is required to be filed, the City may provide an electronic copy of its unaudited financial statements to the Dissemination Agent and shall, when the audited financial statements of the City are available, provide in a timely manner an electronic copy of such audited financial statements to the Dissemination Agent, accompanied by any required documentation, in each case, for filing with the MSRB. Compliance with the provisions of this Section 3(c) shall

constitute the City's filing of the Annual Report until the audited financial statements of the City are filed.

(d) In addition to filing the notice required by subsection (b) of this Section, as applicable, the Dissemination Agent shall:

(i) determine each year prior to the date for providing the Annual Report the name and address of each Repository and verify the filing specifications of such Repository; and

(ii) if the Dissemination Agent is other than the City, file a report with the City certifying that the Annual Report has been provided pursuant to the Disclosure Agreement, stating the date it was provided and listing each Repository to which it was provided.

SECTION 4. Content of Annual Reports. The City's Annual Report shall contain or include by reference the following:

(a) The audited financial statements of the City for the prior Fiscal Year, prepared in accordance with generally accepted accounting principles as promulgated to apply to governmental entities from time to time by the Governmental Accounting Standards Board, which may be a part of the City's comprehensive audited financial report. If the City's audited financial statements are not available by the time the Annual Report is required to be filed pursuant to Section 3(a), the Annual Report may contain unaudited financial statements in a format similar to the financial statements contained in the final Official Statement for the Series 2018 Bonds, if available, and the audited financial statements shall be filed in the same manner as the Annual Report when they become available.

(b) Any portion of an annual report of the Consulting Engineers relating to the Water and Sewer System, prepared in accordance with Section 703 of the Bond Resolution (or pursuant to any other requirements of the Water and Sewer System for the preparation of a similar study or report), to the extent such report or a portion thereof (i) updates information provided in the Official Statement prepared in connection with the issuance of the Series 2018 Bonds and (ii) is filed with the City (the "Engineer's Report").

(c) To the extent such information is not otherwise included as part of the annual audited financial statements of the City or the Engineer's Report, updated information from that set forth in the Official Statement for the Series 2018 Bonds under the subheadings "History," "Organizational Structure" and "Governmental Regulations" of the section "WATER AND SEWER SYSTEM," the annual pension cost and funding status information under the caption "PENSION PLANS" and the annual cost and contribution information under the caption "GASB STATEMENT NO. 45."

Any or all of the items listed above may be included by specific reference to other documents, including official statements of debt issues of the City or related public entities, which have been submitted to each Repository or to the SEC. If the document included by reference is a final official statement, such final official statement must be available in electronic format from the MSRB. The City shall clearly identify each such other document so included by reference.

SECTION 5. Reporting of Significant Events.

(a) Pursuant to the provisions of this Section 5, the City shall give, or cause to be given, notice of the occurrence of any of the following events with respect to the Series 2018 Bonds within ten (10) Business Days of the occurrence of the event:

1. principal and interest payment delinquencies;
2. non-payment related defaults, if material;
3. unscheduled draws on the debt service reserves reflecting financial difficulties;
4. unscheduled draws on the credit enhancements reflecting financial difficulties.
5. substitution of the credit or liquidity providers or their failure to perform;
6. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Series 2018 Bonds, or other material events affecting the tax status of the Series 2018 Bonds;
7. modifications to rights of Bondholders, if material;
8. bond calls, if material, and tender offers;
9. defeasances;
10. release, substitution or sale of property securing repayment of the Series 2018 Bonds, if material;
11. rating changes;
12. Bankruptcy, insolvency, receivership or similar event of the City;

Note: for the purposes of the event identified in this subsection 5(a)(12), the event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for the City in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the City, or if such jurisdiction has been assumed by leaving the existing governmental body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the City.

13. The consummation of a merger, consolidation or acquisition involving the City or the sale of all or substantially all of the assets of the City, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and
14. Appointment of a successor or additional Bond Registrar, Paying Agent or trustee or the change of name of a Bond Registrar, Paying Agent or trustee, if material.

(b) Notice to the Dissemination Agent of any Listed Event shall be in writing. Such notice shall (i) identify the Listed Event that has occurred; (ii) include the text of the disclosure that the City desires to make; (iii) contain the written authorization of the City for the Dissemination Agent to disseminate such information, and (iv) identify the date the City desires the Dissemination Agent to disseminate the information (provided that such date is not later than the tenth (10th) Business Day after the occurrence of the Listed Event).

(c) The Dissemination Agent is not obligated to notify the City of an event that may constitute a Listed Event. In the event the Dissemination Agent so notifies the City, the City shall, within two (2) Business Days of receipt of such notice (but in any event not later than the tenth (10th) Business Day after the occurrence of the Listed Event, if the City determines that a Listed Event has occurred), instruct the Dissemination Agent that a Listed Event either (i) has not occurred and no filing is to be made or (ii) has occurred and the Dissemination Agent shall be provided notice thereof in the manner provided in Section 5(b).

SECTION 6. Termination of Reporting Obligation. The obligations of the City under the Disclosure Agreement shall remain in effect only for such period that the Series 2018 Bonds are Outstanding in accordance with their terms and the terms of the Resolution and the City remains an obligated person with respect to the Series 2018 Bonds within the meaning of the Rule. The obligation of the City to provide the Annual Report and notices of Listed Events shall terminate if and when the City no longer remains such an obligated person. The Disclosure Agreement also shall terminate upon the termination of the continuing disclosure requirements of the Rule by legislative, judicial or administrative action.

SECTION 7. Amendment; Waiver. Notwithstanding any other provision of the Disclosure Agreement, the City may amend the Disclosure Agreement, and non-compliance with any provision of the Disclosure Agreement may be waived, provided the following conditions are satisfied:

(a) If the amendment or waiver relates to the provisions of Sections 3(a), 4, or 5(a) hereof (unless the amendment or waiver is necessary or appropriate for the City to achieve compliance with any applicable federal law or rule, or to cure any ambiguity, inconsistency, formal defect or omission in the provisions of the Disclosure Agreement), it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of an obligated person with respect to the Series 2018 Bonds, or the type of business conducted;

(b) The Disclosure Agreement, as amended or taking into account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the Series 2018 Bonds, after taking into account any

applicable amendments to or official interpretations of the Rule, as well as any change in circumstances; and

(c) The amendment or waiver either (i) is approved by the Holders of the Series 2018 Bonds in the same manner as provided in the Resolution for amendments to the Resolution with the consent of Holders, or (ii) does not, in the opinion of nationally recognized bond counsel, materially impair the interests of the Beneficial Owners.

In the event of any amendment or waiver of a provision of the Disclosure Agreement, the City shall describe such amendment in the next Annual Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by the City. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements, (i) notice of such change shall be given in the same manner as for a Listed Event under Section 5(a), and (ii) the Annual Report for the year in which the change is made should present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

SECTION 8. Additional Information. Nothing in the Disclosure Agreement shall be deemed to prevent the City from disseminating any other information, using the means of dissemination set forth in this Disclosure Commitment or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Listed Event, in addition to that which is required by the Disclosure Agreement. If the City chooses to include any information in any Annual Report or notice of occurrence of a Listed Event in addition to that which is specifically required by the Disclosure Agreement, the City shall have no obligation under the Disclosure Agreement to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event.

SECTION 9. Remedy for Breach. The Disclosure Agreement shall be solely for the benefit of the Beneficial Owners from time to time of the Series 2018 Bonds. The exclusive remedy for any breach of the Disclosure Agreement by the City shall be limited, to the extent permitted by law, to a right of Beneficial Owners to institute and maintain, or to cause to be instituted and maintained, such proceedings as may be authorized at law or in equity to obtain the specific performance by the City of its obligations under the Disclosure Agreement. Any holder or beneficial owner may exercise individually any such right to require the City to specifically perform its obligation to provide or cause to be provided a pertinent filing if such a filing is due and has not been made. Notwithstanding any other provisions of the Resolution or the Disclosure Agreement, any failure by the City to comply with any provision of the Disclosure Agreement shall not constitute a default under the Series 2018 Bonds or under the Resolution.

SECTION 10. Duties, Immunities and Liabilities of Dissemination Agent.

(a) The services provided by the Dissemination Agent under or pursuant to the Disclosure Agreement shall solely relate to the execution of instructions received by the Dissemination Agent from the City and do not constitute “advice” within the meaning of the Dodd-Frank Wall Street Reform and Consumer Protection Act (“Dodd-Frank”). The Dissemination Agent shall not provide any advice or recommendation to the City or anyone on the City’s behalf regarding the “issuance of municipal securities” or any “municipal financial product,” as such terms are defined in Dodd-Frank, and nothing in the Disclosure Agreement shall be interpreted to the contrary.

(b) For purposes of satisfying the reporting requirements of the Disclosure Agreement, the City has delegated to the Dissemination Agent the duties, functions and responsibilities of disclosing information undertaken by the City in the Disclosure Agreement. The City may, from time to time, appoint or engage an alternate or substitute Dissemination Agent to assist it in carrying out its obligations under the Disclosure Agreement, and may discharge any such Dissemination Agent, with or without appointing a successor, alternate or substitute Dissemination Agent. The Dissemination Agent (other than the City) shall not be responsible in any manner for the content of any notice or report prepared by the City pursuant to the Disclosure Agreement.

(c) Any information received by the Dissemination Agent before 6:00 p.m. Eastern time on any Business Day that it is required to file with the MSRB pursuant to the terms of the Disclosure Agreement will be filed by the Dissemination Agent with the MSRB no later than 11:59 p.m. Eastern time on the same Business Day; provided, however, the Dissemination Agent shall have no liability for any delay in filing with the MSRB if such delay is caused by a Force Majeure Event, provided that the Dissemination Agent uses reasonable efforts to make any such filing as soon as possible.

(d) The Dissemination Agent shall have only such duties as are specifically set forth in the Disclosure Agreement, and the City agrees to indemnify and save the Dissemination Agent, its officers, directors, employees and agents, harmless against 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 Dissemination Agent's negligence or willful misconduct. The obligations of the City under this Section shall survive resignation or removal of the Dissemination Agent and payment of the Series 2018 Bonds.

SECTION 11. Extent of Covenants; No Personal Liability. All covenants, stipulations, obligations and agreements of the City contained in the Disclosure Agreement are and shall be deemed to be covenants, stipulations, obligations and agreements of the City to the full extent authorized by law. No covenant, stipulation, obligation or agreement of the City contained in the Disclosure Agreement shall be deemed to be a covenant, stipulation, obligation or agreement of any present or future officer, agent or employee of the City in other than that person's official capacity.

SECTION 12. Obligated Persons. If any person, other than the City, becomes an "obligated person" with respect to the Series 2018 Bonds within the meaning of the Rule, the City shall use its best efforts to require such "obligated person" to comply with all provisions of the Rule applicable to such "obligated person."

SECTION 13. Electronic Filing. Any filing under the Disclosure Agreement with a Repository shall be made in compliance with the formal rules, notices or releases for such filings, as established by the SEC or the MSRB and, until established otherwise by such rules, notices or releases, any filing under the Disclosure Agreement shall be made electronically at <http://emma.msrb.org/> in accordance with the procedures of the MSRB for such filings.

SECTION 14. Beneficiaries. The Disclosure Agreement shall inure solely to the benefit of the City, the Dissemination Agent, the Participating Underwriter and the Beneficial Owners, and shall create no rights in any other person or entity.

SECTION 15. Severability. In case any section or provision of the Disclosure Agreement, or any covenant, stipulation, obligation, agreement, act or action, or part thereof made, assumed, entered into, or

taken thereunder or any application thereof, is for any reason held to be illegal or invalid, such illegality or invalidity shall not affect the remainder thereof or any other section or provision thereof or any other covenant, stipulation, obligation, agreement, act or action, or part thereof made, assumed, entered into, or taken thereunder (except to the extent that such remainder or section or provision or other covenant, stipulation, obligation, agreement, act or action, or part thereof is wholly dependent for its operation on the provision determined to be invalid), which shall be construed and enforced as if such illegal or invalid portion were not contained therein, nor shall such illegality or invalidity of any application thereof affect any legal and valid application thereof, and each such section, provision, covenant, stipulation, obligation, agreement, act or action, or part thereof shall be deemed to be effective, operative, made, entered into or taken in the manner and to the full extent permitted by law.

SECTION 16. Headings. The headings preceding the text of the sections of this Disclosure Commitment are solely for convenience of reference and shall not affect the meaning, construction or effect of any of the provisions of the Disclosure Agreement.

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IN WITNESS WHEREOF, the City has caused this Disclosure Commitment to be executed by its duly authorized officer and delivered to the Participating Underwriter in connection with the original issuance and delivery of the Series 2018 Bonds, all as of the date set forth above, and the Beneficial Owners and Holders of the Series 2018 Bonds from time to time shall be deemed to have accepted the Disclosure Agreement, as contained in Section 11 of the Series Resolution and further described and specified herein, in accordance with the Rule.

CITY OF FORT LAUDERDALE, FLORIDA

By: _____
LINDA A. LOGAN-SHORT
Chief Financial Officer
Deputy Director of Finance

EXHIBIT A

Municipal Securities Information Repositories approved by the United States Securities and Exchange Commission:

Municipal Securities Rulemaking Board:

<http://emma.msrb.org/>

A list of names and addresses of all designated Municipal Securities Information Repositories as of any point in time is available by visiting the SEC's website at <https://www.sec.gov/municipal>.

EXHIBIT B

NOTICE TO REPOSITORIES OF FAILURE TO FILE ANNUAL REPORT

Name of Issuer: City of Fort Lauderdale, Florida

Name of Bond Issue: Water and Sewer Revenue Bonds, Series 2018 (the "Series 2018 Bonds")

Date of Issuance: February __, 2018

NOTICE IS HEREBY GIVEN that the City has not provided an Annual Report with respect to the Series 2018 Bonds as required by Section 11 of the Series Resolution adopted by the City Commission of the City in connection with the issuance of the Series 2018 Bonds. The City anticipates that the Annual Report will be filed by _____.

Dated: _____

[Dissemination Agent]

By: _____
Name:
Title:

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