NEW ISSUES — BOOK ENTRY-ONLY

RATINGS: Moody's: Aa2
S&P: AAA

PRELIMINARY OFFICIAL STATEMENT DATED MAY 4, 2021

In the opinion of Greenberg Traurig, LLP, Bond Counsel, assuming compliance with certain tax covenants, interest on the Tax-Exempt Bonds is excluded from gross income for federal income tax purposes under existing statutes, regulations, rulings and court decisions. Interest on the Tax-Exempt Bonds is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals. Bond Counsel is further of the opinion that assuming interest on the Tax-Exempt Bonds is so excludable for federal income tax purposes, the interest on the Tax-Exempt Bonds is exempt from income taxation under the laws of the State of Arizona. See "TAX EXEMPTION" herein. Bond Counsel expresses no opinion as to the exclusion from gross income of interest on the Taxable Bonds from gross income for federal and State of Arizona income tax purposes. See "CERTAIN UNITED STATES FEDERAL TAX CONSIDERATIONS WITH RESPECT TO THE TAXABLE BONDS" herein.

CITY OF PHOENIX CIVIC IMPROVEMENT CORPORATION

$200,000,000*	**$69,050,000***	**$78,170,000***
Junior Lien Water System Revenue Bonds, Series 2021A	**Junior Lien Water System Revenue Refunding Bonds, Series 2021B**	**Junior Lien Water System Revenue Refunding Bonds, Taxable Series 2021C**

Dated: Date of Delivery **Due: July 1, as shown on inside front cover**

The principal of and premium, if any, and interest on the Junior Lien Water System Revenue Bonds, Series 2021A (the *"2021A Bonds*"), the Junior Lien Water System Revenue Refunding Bonds, Series 2021B (the *"2021B Bonds"* and together with the 2021A Bonds, the *"Tax-Exempt Bonds"*) and Junior Lien Water System Revenue Refunding Bonds, Taxable Series 2021C (the *"Taxable Bonds"* and together with the Tax-Exempt Bonds, the *"Bonds"*) will be paid by U.S. Bank National Association, as trustee (the "*Trustee*," also referred to herein as the "*Registrar*," and the "*Paying Agent*"). The Bonds will be issued as fully registered bonds in the denominations of $5,000 each or any integral multiple thereof. The Bonds, when issued, will be registered in the name of The Depository Trust Company (*"DTC"*) or its nominee and will be available to purchasers initially only through the book-entry-only system maintained by DTC. So long as the book-entry-only system is maintained, no physical delivery of the Bonds will be made to the ultimate purchasers thereof and all payments of principal of and premium, if any, and interest on the Bonds will be made to such purchasers through DTC. Interest on the Bonds is payable semiannually on January 1 and July 1 of each year, commencing July 1, 2021. The Bonds are being issued pursuant to a Bond Indenture dated as of June 1, 2021, by and between the City of Phoenix Civic Improvement Corporation (the *"Corporation"*) and the Trustee.

The Bonds are subject to redemption prior to maturity as described herein.

The Bonds are special revenue obligations of the Corporation and are payable solely from payments required to be paid by the City of Phoenix, Arizona (the *"City"*) to the Corporation pursuant to the City Purchase Agreement dated as of June 1, 2021 (the *"City Purchase Agreement"*), by and between the City and the Corporation. The obligations of the City to make the payments and any other obligations of the City under the City Purchase Agreement are payable from a pledge of Designated Revenues (as defined herein) received from the City's water system and do not constitute a pledge of the full faith and credit or the ad valorem taxing power of the City. The Bonds are issued on a parity basis with certain other outstanding junior lien water system revenue obligations of the City and the Corporation. See "SECURITY AND SOURCE OF PAYMENT" herein.

This cover page contains only a brief description of the Bonds and the security therefor, and is designed for quick reference only. The cover page is not a summary of all material information with respect to the Bonds, and investors are advised to read the entire Official Statement in order to obtain information essential to making an informed investment decision.

The Bonds are offered when, as and if issued and received by the Underwriters, and subject to the legal opinion of Greenberg Traurig, LLP, Bond Counsel, as to validity, and tax exemption with respect to the Tax-Exempt Bonds. Certain legal matters will be passed upon for the Underwriters by Squire Patton Boggs (US) LLP, counsel to the Underwriters. Certain matters will be passed upon for the Corporation by Greenberg Traurig, LLP, special counsel to the Corporation. It is expected that the Bonds will be available for delivery in book-entry-only form through the facilities of DTC on or about June , 2021.

Siebert Willams Shank & Co., LLC

BofA Securities **RBC Capital Markets**

Drexel Hamilton, LLC

* Subject to change.

MATURITY SCHEDULES*
CITY OF PHOENIX CIVIC IMPROVEMENT CORPORATION

$200,000,000*
Junior Lien Water System Revenue Bonds,
Series 2021A

Maturity July 1	Principal Amount	Interest Rate	Yield	Maturity July 1	Principal Amount	Interest Rate	Yield
2026	$6,050,000	%	%	2034	$ 8,935,000	%	%
2027	6,350,000			2035	9,385,000		
2028	6,670,000			2036	9,855,000		
2029	7,000,000			2037	10,345,000		
2030	7,350,000			2038	10,860,000		
2031	7,720,000			2039	11,405,000		
2032	8,105,000			2040	11,975,000		
2033	8,510,000			2041	12,575,000		

$56,910,000 Term Bonds due July 1, 2045

$69,050,000*
Junior Lien Water System Revenue Refunding Bonds,
Series 2021B

Maturity July 1	Principal Amount	Interest Rate	Yield	Maturity July 1	Principal Amount	Interest Rate	Yield
2022	$ 5,665,000	%		2025	$16,215,000	%	%
2023	14,705,000			2026	17,025,000		
2024	15,440,000						

$78,170,000*
Junior Lien Water System Revenue Refunding Bonds,
Taxable Series 2021C

Maturity July 1	Principal Amount	Interest Rate	Yield	Maturity July 1	Principal Amount	Interest Rate	Yield
2026	$1,035,000	%	%	2033	$6,660,000	%	%
2027	1,075,000			2034	6,155,000		
2028	1,100,000			2035	7,065,000		
2029	6,000,000			2036	7,280,000		
2030	6,150,000			2037	7,515,000		
2031	6,310,000			2038	7,765,000		
2032	6,475,000			2039	7,585,000		

$ Term Bonds due July 1, , Yield %

* Subject to change.

CITY OF PHOENIX, ARIZONA
CITY OF PHOENIX CIVIC IMPROVEMENT CORPORATION

Michael R. Davis
President and Director

Bruce Covill
Vice President and Director

James H. Lundy
Secretary-Treasurer and Director

Barbara Barone
Director

Rosellen Papp
Director

Marian Yim
Director

CITY OF PHOENIX, ARIZONA
CITY COUNCIL

Kate Gallego, *Mayor*

Carlos Garcia, *Vice Mayor*
District 8

Ann O'Brien, *Member*
District 1

Jim Waring, *Member*
District 2

Debra Stark, *Member*
District 3

Laura Pastor, *Member*
District 4

Betty Guardado, *Member*
District 5

Sal DiCiccio, M*ember*
District 6

Yassamin Ansari, *Member*
District 7

ADMINISTRATIVE OFFICIALS

Ed Zuercher
City Manager

Jeff Barton
Assistant City Manager

Karen Peters
Deputy City Manager

Denise M. Olson
Chief Financial Officer

Troy Hayes
Water Services Director

Cris Meyer
City Attorney

Denise Archibald
City Clerk

SPECIAL SERVICES

MONTAGUE DEROSE & ASSOCIATES, LLC
Westlake Village, CA
Financial Advisor

U.S. BANK NATIONAL ASSOCIATION
Phoenix, Arizona
Trustee, Bond Registrar, Paying Agent
and Escrow Agent

GREENBERG TRAURIG, LLP
Phoenix, Arizona
Bond Counsel

SAMUEL KLEIN AND COMPANY
in conjunction with
PUBLIC FINANCE PARTNERS, LLC
Newark, New Jersey
Escrow Verification Agent

This Official Statement does not constitute an offering of any security other than the original offering of the Bonds of the Corporation identified on the cover page hereof. No person has been authorized by the Corporation, the City, the Financial Advisor (as defined herein) or the Underwriters (as defined herein) to give any information or to make any representation other than as contained in this Official Statement, and if given or made, such other information or representation not so authorized should not be relied upon as having been given or authorized by the Corporation, the City, the Financial Advisor or the Underwriters. This Official Statement does not constitute an offer to sell or the solicitation of any offer to buy, and there shall not be any sale of the Bonds by any person, in any jurisdiction in which it is unlawful to make such offer, solicitation or sale.

The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, give rise to any implication that there has been no change in the affairs of the Corporation or the City since the date hereof. There is no obligation on the part of the City or the Corporation to provide any continuing secondary market disclosure other than as described herein under the heading "CONTINUING DISCLOSURE."

Upon issuance, the Bonds will not be registered by the Corporation, the City or the Underwriters under the Securities Act of 1933, as amended, or any state securities law, and will not be listed on any stock or other securities exchange. Neither the Securities and Exchange Commission nor any other federal, state or other governmental entity or agency will have passed upon the accuracy or adequacy of this Official Statement or approved the Bonds for sale.

IN CONNECTION WITH THE OFFERING, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE BONDS OFFERED HEREBY AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

The City currently maintains an investor relations website. However, unless specifically incorporated by reference herein, the information presented on the website is not part of this Official Statement and should not be relied upon in making an investment decision with respect to the Bonds.

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OFFICIAL STATEMENT
RELATING TO

CITY OF PHOENIX CIVIC IMPROVEMENT CORPORATION

$200,000,000* Junior Lien Water System Revenue Bonds, Series 2021A	$69,050,000* Junior Lien Water System Revenue Refunding Bonds, Series 2021B	$78,170,000* Junior Lien Water System Revenue Refunding Bonds, Taxable Series 2021C

INTRODUCTION

The purpose of this Official Statement, which includes the cover page, the inside front cover page and the appendices attached hereto, is to set forth certain information concerning the City of Phoenix Civic Improvement Corporation (the *"Corporation"*), the City of Phoenix, Arizona (the *"City"*), and the captioned bonds (the *"Bonds"*). The offering of the Bonds is made only by way of this Official Statement, which supersedes any other information or materials used in connection with the offer or sale of the Bonds. Accordingly, prospective Bond purchasers should read this entire Official Statement before making their investment decision.

All financial and other information presented in this Official Statement has been provided by the City from its records, except for information expressly attributed to other sources. The Corporation and the City warrant that this Official Statement contains no untrue statements of material fact and does not omit any material fact necessary to make such statements, in light of the circumstances under which such statements were made, not misleading. The presentation of financial and other information, including tables of receipts from taxes and other sources, is intended to show recent historical information and, except as expressly stated otherwise, is not intended to indicate future or continuing trends in the financial position or other affairs of the City. No representation is made that past experience, as is shown by the financial and other information, will necessarily continue or be repeated in the future.

References to provisions of Arizona law, whether codified in the Arizona Revised Statutes (A.R.S.) or uncodified, or to the Arizona Constitution, are references to current provisions. Those provisions may be amended, repealed or supplemented.

For certain provisions of the City Purchase Agreement dated as of June 1, 2021 (the *"City Purchase Agreement"*), between the Corporation and the City and for the definitions of certain capitalized terms used in this Official Statement and for certain provisions of the Bond Indenture dated as of June 1, 2021 (the "*Indenture"*), between the Corporation and U.S. Bank National Association, as trustee (the *"Trustee"*, also referred herein as the *"Registrar"* and *"Paying Agent"*), pursuant to which the Bonds are being issued, see "APPENDIX G — Summary of Certain Provisions of Legal Documents."

PLAN OF FINANCE

2021A Bonds

A portion of the net proceeds of the 2021A Bonds remaining after deduction of issuance costs related to the 2021A Bonds will be deposited to the Project Fund established under the City Purchase Agreement and used to pay costs, or reimburse the City for costs, of various improvements to the Water System (as defined herein).

* Subject to change.

2021B Bonds

The net proceeds of the 2021B Bonds remaining after deduction of issuance costs, together with certain other legally available funds of the City, will be placed in a subaccount of an irrevocable escrow account (the *"2011 Escrow Subaccount"*) with U.S. Bank National Association, Phoenix, Arizona, as bond trustee and escrow agent (the *"Escrow Agent"*), to be applied to the payment or redemption of the bonds (collectively, the *"2011 Bonds Being Refunded"*) listed in the Schedule of Maturities and Call Dates of Series 2011 Bonds Being Refunded.

Schedule of Maturities and Call Dates of Series 2011 Bonds Being Refunded*

Issue Series	Maturity Date July 1	Principal Amount Outstanding	Principal Amount Being Refunded	Coupon	Expected Call Date	Call Premium as a Percentage of Principal	Refunded CUSIPs† (71883R)
2011	2022	$ 1,560,000	$ 1,560,000	4.00%	07/01/21	0.0%	LR2
	2022	12,470,000	12,470,000	5.00	07/01/21	0.0	MB6
	2023	14,715,000	14,715,000	5.00	07/01/21	0.0	LS0
	2024	15,450,000	15,450,000	5.00	07/01/21	0.0	LT8
	2025	16,225,000	16,225,000	5.00	07/01/21	0.0	LU5
	2026	705,000	705,000	4.00	07/01/21	0.0	LV3
	2026	16,330,000	16,330,000	5.00	07/01/21	0.0	MC4

The escrow funds held by the Escrow Agent in the 2011 Escrow Subaccount will be used to acquire obligations issued or guaranteed by the United States of America (*"Government Obligations"*) the principal of and interest on which, when due, are calculated to be sufficient, together with the initial cash balance in the 2011 Escrow Subaccount, to provide moneys to pay the principal, premium, if any, and interest to become due on the Bonds Being Refunded. (See "VERIFICATION OF MATHEMATICAL COMPUTATIONS" herein.)

Such Government Obligations will be held by the Escrow Agent irrevocably in trust for the payment of the 2011 Bonds Being Refunded pursuant to the terms of an Escrow Agent Agreement between the City and the Escrow Agent dated as of June 1, 2021 (the *"Escrow Agent Agreement"*). Upon issuance of the 2021B Bonds and the establishment of the 2011 Escrow Subaccount, the 2011 Bonds Being Refunded will no longer be outstanding under the bond indenture pursuant to which they were issued and will no longer be secured by Designated Revenues.

Taxable Bonds

The net proceeds of the Taxable Bonds remaining after deduction of issuance costs, together with certain other legally available funds of the City, will be placed in an irrevocable escrow account (the *"2014A Escrow Subaccount"*) with the Escrow Agent to be applied to the redemption of the bonds (collectively, the *"2014A Bonds Being Refunded"* and together with the 2011 Bonds Being Refunded, the *"Bonds Being Refunded"*) listed in the Schedule of Maturities and Call Dates of Series 2014A Bonds Being Refunded.

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* Subject to change.

Schedule of Maturities and Call Dates of Series 2014A Bonds Being Refunded*

Issue Series	Maturity Date July 1	Principal Amount Outstanding	Principal Amount Being Refunded	Coupon	Expected Call Date	Call Premium as a Percentage of Principal	Refunded CUSIPs† (71883R)
2014A	2029	$ 4,875,000	$ 4,875,000	5.00%	07/01/24	0.0%	MP5
	2030	5,120,000	5,120,000	5.00	07/01/24	0.0	MQ3
	2031	5,375,000	5,375,000	5.00	07/01/24	0.0	MR1
	2032	5,640,000	5,640,000	5.00	07/01/24	0.0	MS9
	2033	5,925,000	5,925,000	5.00	07/01/24	0.0	MT7
	2034	5,520,000	5,520,000	5.00	07/01/24	0.0	MY6
	2035(1)	6,520,000	6,520,000	5.00	07/01/24	0.0	MX8
	2036(1)	6,845,000	6,845,000	5.00	07/01/24	0.0	MX8
	2037(1)	7,185,000	7,185,000	5.00	07/01/24	0.0	MX8
	2038(1)	7,545,000	7,545,000	5.00	07/01/24	0.0	MX8
	2039(1)	7,480,000	7,480,000	5.00	07/01/24	0.0	MX8

The escrow funds held by the Escrow Agent in the 2014A Escrow Subaccount will be used to acquire Government Obligations by the principal of and interest on which, when due, are calculated to be sufficient, together with the initial cash balance in the 2014A Escrow Subaccount, to provide moneys to pay the principal, premium, if any, and interest to become due on the 2014A Bonds Being Refunded. (See "VERIFICATION OF MATHEMATICAL COMPUTATIONS" herein.)

Such Government Obligations will be held by the Escrow Agent irrevocably in trust for the payment of the 2014A Bonds Being Refunded pursuant to the terms of the Escrow Agent Agreement. Upon issuance of the Taxable Bonds and the establishment of the 2014A Escrow Subaccount, the 2014A Bonds Being Refunded will no longer be outstanding under the bond indenture pursuant to which they were issued and will no longer be secured by Designated Revenues.

THE BONDS

General Description

The Bonds will be issued as fully registered bonds, without coupons, in book-entry-only form and will be registered to Cede & Co. as described below under "Book-Entry-Only System." AS LONG AS CEDE & CO. IS THE REGISTERED OWNER OF THE BONDS, AS NOMINEE OF THE DEPOSITORY TRUST COMPANY ("*DTC*"), REFERENCES HEREIN TO THE OWNERS OF THE BONDS (OTHER THAN UNDER THE CAPTION "TAX EXEMPTION" AND "CERTAIN UNITED STATES FEDERAL TAX CONSIDERATIONS WITH RESPECT TO THE TAXABLE BONDS") WILL MEAN CEDE & CO. AND WILL NOT MEAN THE BENEFICIAL OWNERS OF THE BONDS. PRINCIPAL, PREMIUM, IF ANY, AND INTEREST PAYMENTS ON THE BONDS ARE TO BE MADE TO DTC AND ALL SUCH PAYMENTS WILL BE VALID AND EFFECTIVE TO SATISFY FULLY AND TO DISCHARGE THE OBLIGATIONS OF THE CORPORATION AND THE CITY WITH RESPECT TO, AND TO THE EXTENT OF, THE AMOUNTS SO PAID.

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(1) Represents mandatory sinking fund payment of term bond maturing in 2039 and bearing interest at 5.00%.

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* Subject to change.

The Bonds will be dated the date of initial authentication and delivery thereof, will bear interest payable semiannually on January 1 and July 1 of each year (each an *"Interest Payment Date"*), commencing July 1, 2021. The Bonds will bear interest at the rates and will mature on the dates and in the amounts set forth on the inside front cover of this Official Statement. The Bonds will be delivered in fully registered form in the denomination of $5,000 each or any whole multiple thereof (but no Bond may represent installments of principal maturing on more than one date).

Subject to the provisions contained under the heading "Book-Entry-Only System" below, the principal of and premium, if any, and interest at maturity or redemption on each Bond will be payable upon presentation and surrender of such Bond at the designated corporate trust office of the Registrar. Interest on each Bond, other than that due at maturity or redemption, will be paid on each Interest Payment Date by check of said Registrar, mailed to the person shown on the bond register of the Corporation maintained by the Registrar as being the registered owner of such Bond (the *"Owner"*) as of the fifteenth day of the month immediately preceding such Interest Payment Date (the *"Regular Record Date"*) at the address appearing on said bond register or at such other address as is furnished to the Trustee in writing by such Owner before the fifteenth day of the month prior to such Interest Payment Date.

The Indenture also provides that, with the approval of the Corporation, the Trustee may enter into an agreement with any Owner of $1,000,000 or more in aggregate principal amount of Bonds providing for making all payments to that Owner of principal of and interest and any premium on that Bond or any part thereof (other than any payment of the entire unpaid principal amount thereof) at a place and in a manner other than as described above, without presentation or surrender of the Bond, upon any conditions which shall be satisfactory to the Trustee and the Corporation; provided that without a special agreement or consent of the Corporation, payment of interest on the Bonds may be made by wire transfer to any Owner of $1,000,000 aggregate principal of Bonds upon two days prior written notice to the Trustee specifying a wire transfer address of a bank or trust company in the United States.

If the Corporation fails to pay the interest due on any Interest Payment Date, that interest shall cease to be payable to the person who was the Owner as of the Regular Record Date. When moneys become available for payment of the interest, the Registrar will establish a special record date (the *"Special Record Date"*) for such payment which will be not more than 15 nor fewer than 10 days prior to the date of the proposed payment and the interest will be payable to the persons who are Owners on the Special Record Date. The Registrar will mail notice of the proposed payment and of the Special Record Date to each Owner.

Book-Entry-Only System

The following information about the book-entry-only system applicable to the Bonds has been supplied by DTC. None of the Corporation, the City, the Trustee, the Underwriters or the Financial Advisor makes any representations, warranties or guarantees with respect to its accuracy or completeness.

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, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants *("Direct Participants")* deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation *("DTCC").* DTCC 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, *"Participants").* DTC has a rating from Standard & Poor's of "AA+". The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com and www.dtc.org.

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

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

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Bond documents. For example, Beneficial Owners of Bonds may wish to ascertain that the nominee holding the 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 Trustee and request that copies of notices be provided directly to them.

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

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

Redemption proceeds, principal and interest payments on the Bonds will be made to Cede & Co., or 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 Corporation or the Trustee, on payable date in accordance with their respective holdings shown on DTC's records. Payments by

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 Corporation or the Trustee, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, principal and interest payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Corporation or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct Participants and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the Bonds at any time by giving reasonable notice to the Corporation or the Trustee. Under such circumstances, in the event that a successor depository is not obtained, Bond certificates are required to be printed and delivered.

The Corporation may decide to discontinue the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, Bond certificates will be printed and delivered to DTC.

SO LONG AS CEDE & CO., AS NOMINEE FOR DTC, IS THE SOLE REGISTERED OWNER, THE CORPORATION AND THE TRUSTEE WILL TREAT CEDE & CO. AS THE ONLY OWNER OF THE BONDS FOR ALL PURPOSES UNDER THE INDENTURE, INCLUDING RECEIPT OF ALL PRINCIPAL OF, REDEMPTION PREMIUM, IF ANY, AND INTEREST ON THE BONDS, RECEIPT OF NOTICES, VOTING AND REQUESTING OR DIRECTING THE CORPORATION AND THE TRUSTEE TO TAKE OR NOT TO TAKE, OR CONSENTING TO, CERTAIN ACTIONS UNDER SUCH INDENTURE. THE CORPORATION AND THE TRUSTEE HAVE NO RESPONSIBILITY OR OBLIGATION TO THE PARTICIPANTS OR THE BENEFICIAL OWNERS WITH RESPECT TO (A) THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC OR ANY PARTICIPANT; (B) THE PAYMENT BY DTC OR ANY PARTICIPANT OF ANY AMOUNT DUE TO ANY BENEFICIAL OWNER WITH RESPECT TO THE PRINCIPAL OF AND INTEREST ON THE BONDS; (C) THE DELIVERY OR TIMELINESS OF DELIVERY BY DTC OR ANY PARTICIPANT OF ANY NOTICE TO ANY BENEFICIAL OWNER WHICH IS REQUIRED OR PERMITTED UNDER THE TERMS OF THE INDENTURE TO BE GIVEN TO BONDHOLDERS; (D) THE SELECTION BY DTC OR ANY PARTICIPANT OR INDIRECT PARTICIPANT OF ANY BENEFICIAL OWNER TO RECEIVE PAYMENT IN THE EVENT OF A PARTIAL REDEMPTION OF THE BONDS; (E) CONSENTS OR OTHER ACTION TAKEN BY DTC OR CEDE & CO., AS REGISTERED OWNER OR (F) ANY OTHER MATTER.

Redemption Provisions

Optional Redemption – 2021A Bonds. 2021A Bonds maturing on or prior to July 1, 20__ are not subject to optional redemption prior to maturity. 2021A Bonds maturing on and after July 1, 20__ are subject to redemption at the option of the Corporation, as directed by the City, on July 1, 20__ and thereafter, in whole or in part at any time, in increments of $5,000, in any order of maturity, as directed by the City, and subject to the provisions described under the heading "BOOK-ENTRY-ONLY SYSTEM" above, by lot within a maturity, by payment of the redemption price of each Bond called for redemption (expressed as a percentage of the principal amount thereof) plus accrued interest to the date fixed for redemption, but without premium.

No Optional Redemption – 2021B Bonds. The 2021B Bonds will not be subject to optional redemption prior to maturity.

Optional Redemption – Taxable Bonds. (i) Taxable Bonds maturing on and after July 1, 20__ are subject to redemption at the option of the Corporation, as directed by the City, on July 1, 20__ and thereafter, in whole or in part at any time, in increments of $5,000, in any order of maturity as directed by the City, and by lot within a maturity, by payment of a redemption price equal to the principal amount of each Taxable Bond called for redemption plus accrued interest to the date fixed for redemption, but without premium.

(ii) The Taxable Bonds are subject to redemption, in whole or in part, at the option of the Corporation, as directed by the City, in increments of $5,000, in any order of maturity, as directed by the City, at any time or from time to time prior to the Par Call Date upon notice as provided in the Indenture, on any date prior to their maturity at a redemption price equal to 100% of the principal amount of such Taxable Bonds plus the Make-Whole Premium, if any, as described below, plus the accrued interest, if any, thereon to the redemption date.

The amount of the Make-Whole Premium with respect to any Taxable Bond to be redeemed will be equal to the excess, if any, of:

(i) the sum of the present values, calculated as of the redemption date, of:

(A) each interest payment that, but for such redemption, would have been payable on the Taxable Bond or portion thereof being redeemed on each interest payment date occurring after the redemption date to the earlier of the Par Call Date or the maturity date of the Taxable Bond being redeemed, (excluding any accrued interest for the period prior to the redemption date); and

(B) the principal amounts that, but for such redemption, would have been payable upon mandatory sinking fund redemption and the final maturity of the Taxable Bond being redeemed; over

(ii) the principal amount of the Taxable Bond being redeemed.

The present values of interest and principal payments referred to in clause (i) above shall be determined in accordance with generally accepted principles of financial analysis. These present values will be calculated by discounting the amount of each payment of interest or principal from the date that each such payment would have been payable, but for the redemption, to the redemption date at a discount rate equal to the "comparable treasury yield" (as defined below) plus basis points. The Make-Whole Premium will be calculated by an independent investment banking institution of national standing appointed by the City (which may be Siebert Williams Shank & Co., LLC). If the City fails to appoint an independent investment banker at least 35 days prior to the redemption date, or if the independent investment banker appointed by the City is unwilling or unable to make the calculation, the calculation will be made by an independent investment banking institution of national standing appointed by the Trustee.

For purposes of determining the Make-Whole Premium, "comparable treasury yield" means a rate of interest per annum equal to the weekly average yield to maturity of United States Treasury Securities that have a constant maturity that corresponds to the remaining term to maturity or sinking fund payment date of the Taxable Bonds, calculated to the nearest 1/12th of a year. The comparable treasury yield will be determined no sooner than twenty Business Days before, and no later than the third Business Day immediately preceding, the applicable redemption date.

The weekly average yields of United States Treasury Securities will be determined by reference to the most recent statistical release published by the Federal Reserve Bank of New York and designated "H.15(519) Selected Interest Rates" or any successor release. If the H.15 statistical release sets forth a weekly average yield for United States Treasury Securities having a constant maturity that is the same as the remaining term calculated as set forth above, then the comparable treasury yield will be equal to such weekly average yield. In all other cases, the comparable treasury yield will be calculated by interpolation on a straight-line basis, between the weekly average yields on the United States Treasury Securities that have a constant maturity closest to and greater than the remaining term and the United States Treasury Securities that have a constant maturity closest to and less than the remaining term (in each case as set forth in the H.15 statistical release or any successor release). Any weekly average yields calculated by interpolation will be rounded to the nearest 1/100th of 1%, with any figure of 1/200th of 1% or above being rounded upward. If weekly average yields for United States Treasury Securities are not available in the H.15 statistical release or otherwise, then the comparable treasury yield will be calculated by interpolation of comparable rates selected by an independent investment banker selected in the manner described above.

Mandatory Sinking Fund Redemption. The Bonds maturing on July 1, 20__ and July 1, 20__ (the *"Term Bonds"*), are subject to mandatory redemption and shall be redeemed on July 1 in the respective years set forth below, in the amounts set forth below by payment of a redemption price of the principal amount of such Term Bonds called for redemption plus the interest accrued to the date fixed for redemption, but without premium.

Term Bonds Maturing July 1, 20__

Year	Sinking Fund Requirement

* Maturity

The aggregate of the Purchase Price (as defined in the City Purchase Agreement) payable under the City Purchase Agreement shall include amounts sufficient to redeem the principal amount Term Bonds set forth opposite the respective dates above (less the amount of any credit as provided below).

The Corporation at the direction of the City shall have the option to deliver to the Trustee for cancellation Term Bonds, in any aggregate principal amount and to receive a credit against the then current applicable mandatory sinking fund requirement and corresponding mandatory redemption obligation (or against any subsequent applicable mandatory sinking fund requirement and corresponding mandatory redemption obligation of the Corporation, as directed by the City) of the Corporation as set forth above for any Term Bonds of the same maturity. That option shall be exercised by the Corporation at the direction of the City, on or before the 60th day preceding the applicable mandatory redemption date, by furnishing the Trustee a certificate signed by the Corporation Representative and the City Representative, setting forth the extent of the credit to be applied with respect to the then current (or subsequent) mandatory sinking fund requirement. If the certificate is not timely furnished to the Trustee, the mandatory sinking fund requirement (and corresponding mandatory redemption obligation) shall not be reduced.

Selection of 2021A Bonds to be Redeemed. DTC's practice is to determine by lot the amount of each Direct Participant's (as defined above under "Book-Entry-Only System") proportionate share that is to be redeemed.

Selection of Taxable Bonds to be Redeemed. If less than all of the Taxable Bonds are to be redeemed, the particular maturities of Taxable Bonds to be redeemed at the option of the Corporation at the direction of the City will be determined by the City in its sole discretion.

If the Taxable Bonds are registered in book-entry-only form and so long as DTC or a successor securities depository is the sole registered owner of such Taxable Bonds, if less than all of the Taxable Bonds of a maturity are called for prior redemption, the particular Taxable Bonds or portions thereof to be redeemed shall be allocated on a pro rata pass-through distribution of principal basis in accordance with DTC procedures, provided that, so long as the Taxable Bonds are held in book-entry form, the selection for redemption of such Taxable Bonds shall be made in accordance with the operational arrangement of DTC then in effect, and, if the DTC operational arrangements do not allow for redemption on a pro rata pass-through distribution of principal basis, the Taxable Bonds will be selected for redemption, in accordance with DTC procedures, by lot.

The City intends that redemption allocations of Taxable Bonds made by DTC be made on a pro rata pass-through distribution of principal basis as described above. However, none of the Corporation, the City or the Underwriters can provide any assurance that DTC, DTC's direct and indirect participants or any other intermediary will allocate the redemption of Taxable Bonds on such basis.

For purposes of calculation of the "*pro rata pass-through distribution of principal*," "*pro rata*" means, for any amount of principal to be paid, the application of a fraction to each denomination of the respective Taxable Bonds where (a) the numerator of which is equal to the amount due to the respective holders on a payment date, and (b) the denominator of which is equal to the total original par amount of the respective Taxable Bonds.

If the Taxable Bonds are no longer registered in book-entry-only form, each owner will receive an amount of Taxable Bonds equal to the original face amount then beneficially held by that owner, registered in such investor's name. Thereafter, any redemption of less than all of the Taxable Bonds of any maturity will continue to be paid to the registered owners of such Taxable Bonds on a pro-rata basis, based on the portion of the original face amount of any such Taxable Bonds to be redeemed.

Notice of Redemption. When redemption is authorized or required, the Trustee will give the Owners of the Bonds to be redeemed notice of the redemption of the Bonds. Such notice will specify (a) that the whole or part of the Bonds are to be redeemed and, if in part, the part to be redeemed; (b) the date of redemption; (c) the place or places where the redemption will be made; and (d) the redemption price to be paid. Any redemption of Bonds in part will be from such maturities as directed by the City and by lot within a maturity in any manner the Trustee deems fair. Notwithstanding the foregoing, no notice of redemption shall be sent unless (i) the Trustee has on deposit sufficient funds to effect such redemption or (ii) the redemption notice states that redemption is contingent upon receipt of such funds prior to the redemption date.

Notice of such redemption will be given by mailing a copy of the redemption notice not more than 60 days nor less than 30 days prior to such redemption date, to the Owner of each Bond subject to redemption in whole or in part at the Owner's address shown on the bond register on the fifteenth day preceding that mailing. Neither failure to receive any such notice nor any defect therein will affect the sufficiency of the proceedings for the redemption of the Bonds with respect to which there is no such defect.

Notice having been given in the manner provided above, the Bonds or portions thereof called for redemption will become due and payable on the redemption date and if an amount of money sufficient to redeem all the Bonds and portions thereof called for redemption is held by the Trustee or any paying agent on the redemption date, then the Bonds or portions thereof to be redeemed will not be considered outstanding under the Indenture and will cease to bear interest from and after such redemption date.

Registration and Transfer if Book-Entry-Only System is Discontinued

If the Book-Entry-Only System is discontinued, the Bonds will be transferred only upon the bond register maintained by the Registrar and one or more new Bonds, registered in the name of the transferee, of the same series, principal amount, maturity and rate of interest as the surrendered Bond will be authenticated, upon surrender to the Registrar of the Bond or Bonds to be transferred, together with an appropriate instrument of transfer executed by the transferor if the Registrar's requirements for transfer have been met. The Corporation has chosen the fifteenth day of the month preceding an Interest Payment Date as the "Record Date" for the Bonds. The Registrar may, but is not required, to transfer or exchange any Bonds during the period from the Record Date to and including the respective Interest Payment Date or Bonds which have been selected for prior redemption. The transferor will be responsible for all transfer fees, taxes, fees and any other costs relating to the transfer of ownership of individual Bonds.

SOURCES AND APPLICATIONS OF FUNDS

	Junior Lien Water System Revenue Bonds, Series 2021A	Junior Lien Water System Revenue Refunding Bonds, Series 2021B	Junior Lien Water System Revenue Refunding Bonds, Taxable Series 2021C	Total
Sources:				
Par Amount of the Bonds	$	$	$	$
Net Original Issue Premium (Discount)				
Other Available Funds				
Total	$	$	$	$
Applications:				
Project Fund for System Improvements	$	$	$	$
2011 Escrow Subaccount				
2014A Escrow Subaccount				
Costs of Issuance				
Underwriters' Discount				
Total	$	$	$	$

THE CITY OF PHOENIX WATER SYSTEM

The City's system of water treatment plants and distribution facilities (the "*System" or the "Water System*") is operated as a financially self-supporting municipal utility service. The System's facilities currently supply drinking water to an approximately 543 square mile service area and bills more than 436,339 water accounts. Water production facilities include five surface water treatment plants and 22 active groundwater wells. The water treatment plants are supplied Salt and Verde River water through the Salt River Project ("*SRP*") Canals, and Colorado River water through the Central Arizona Project ("*CAP*") Hayden-Rhodes Aqueduct. The System's water treatment facilities' design capacity is currently 646 million gallons per day (mgd). For additional information about the System, see "APPENDIX A — Summary Information of the City of Phoenix Water System."

SECURITY AND SOURCE OF PAYMENT

General

The Bonds are special, limited obligations of the Corporation payable solely from payments received under the City Purchase Agreement. Under the terms of the City Purchase Agreement, the City is to make payments (the *"Purchase Payments"*) to the Trustee in amounts sufficient to pay when due the principal of and interest on the Bonds, fees of the Trustee and all other expenses enumerated in the City Purchase Agreement.

Purchase Payments by the City are to be made solely from designated revenues of the System (the *"Designated Revenues"*), which are described below. During the term of the City Purchase Agreement, payments are to be made regardless of damage to the System or commercial frustration of purpose, without right of set-off or counterclaim, regardless of any contingencies and whether or not the City possesses or uses the System. The City's obligation to make Purchase Payments will continue until all Purchase Payments and all other amounts due under the City Purchase Agreement have been paid.

The Purchase Payments required by the City under the City Purchase Agreement are secured by a pledge of the "*Designated Revenues*" of the System, which consist of the "*Operating Revenues*" of the System, after provision for payment of (a) all "*Expenses of Operation and Maintenance*" and (b) all payments required on any senior lien obligations payable from "*Net Operating Revenues*" (the *"Senior Lien Obligations"*) (the Operating Revenues, net of Expenses of Operation and Maintenance, are referred to as the *"Net Operating Revenues"*). The term Operating Revenues generally includes all income and revenue received by the City from the operation of the System and the term Expenses of Operation and Maintenance generally includes all expenses reasonably incurred in connection with the operation of the System. For a complete description of the definitions of Operating Revenues, Net Operating Revenues and Expenses of Operations and Maintenance, see "APPENDIX G — Summary of Certain Provisions of Legal Documents — Certain Definitions." The Purchase Payments to be made under the City Purchase Agreement will be on a parity with certain other outstanding obligations of the City and any other parity obligations issued in the future (collectively, *"Junior Lien Obligations"* or *"Junior Lien Parity Obligations"*), subject to any payments required to be made for the benefit of any Senior Lien Obligations issued or incurred in the future as described below under "*Issuance of Senior Lien Obligations and Additional Junior Lien Obligations*."

The obligation of the City under the City Purchase Agreement does not constitute a debt or a pledge of the full faith and credit of the City, the State of Arizona or any other political subdivision thereof. The City has not pledged any form of ad valorem taxes to the payment to the Bonds. The Bonds are special, limited obligations of the Corporation secured only by the Purchase Payments which are to be paid from a pledge of the Designated Revenues of the System. No security interest is held by the Trustee for the benefit of the Owners of the Bonds in any portion of the System. Remedies available to the Trustee upon a failure of the City to make Purchase Payments when due are generally limited to specific performance against the City to payment from Designated Revenues. For a description of events of default and remedies under the City Purchase Agreement, see "APPENDIX G — Summary of Certain Provisions of Legal Documents." The City may, but is not required to, pay amounts due under the City Purchase Agreement from any other monies legally available for such purposes. For a discussion of the System and certain financial information relating to the System, see "APPENDIX A — Summary Information of the City of Phoenix Water System." For a discussion of certain covenants which the City has entered into with respect to the System, see "APPENDIX G — Summary of Certain Provisions of Legal Documents."

Outstanding Senior Lien and Junior Lien Obligations

There are presently no Senior Lien Obligations outstanding, but the senior lien priority remains available for future use.

As of April 1, 2021, there were $1,391,864,884 outstanding principal amount of Junior Lien Parity Obligations, which were issued to finance or refinance numerous improvements to the System. Payments on the Bonds will be made on a parity with such Junior Lien Parity Obligations.

The following issues of Junior Lien Parity Obligations are outstanding:

Issue Date	Original Issuance	Purpose	Maturity Dates	Average Interest Rate	Bonds Outstanding As of 4-1-21
08-01-01	$ 99,980,000	Water System Refunding	7-1-02/24	5.24%	$ 26,215,000
04-12-11	2,093,435	Water System Improvements	7-1-16/24	2.97	1,003,147(1)
09-14-11	1,496,737	Water System Improvements	7-1-24/29	2.97	1,496,737(1)
11-22-11	167,510,000	Water System Refunding	7-1-14/26	4.81	90,815,000(2)
12-17-14	152,830,000	Water System Improvements	7-1-19/44	4.85	146,425,000(3)
12-17-14	445,085,000	Water System Refunding	7-1-16/29	4.67	367,390,000
01-10-17	375,780,000	Water System Refunding	7-1-17/39	4.99	365,390,000
04-09-20	165,115,000	Water System Improvements	7-1-30/44	5.00	165,115,000
04-09-20	228,015,000	Water System Improvements	7-1-30/44	5.00	228,015,000
Total Junior Lien Water System Revenue Bonded Debt					$1,391,864,884

(1) Represents a loan agreement between the City and the Water Infrastructure Finance Authority of Arizona (WIFA) pursuant to the American Recovery and Reinvestment Act of 2009.
(2) Represents bonds, a portion of which are to be refunded by the 2021B Bonds offered herein.
(3) Represents bonds, a portion of which are to be refunded by the Taxable Bonds offered herein.

Outstanding Junior Subordinate Lien Obligations

The City entered into the Revolving Credit Agreement with the Wells Fargo Bank, National Association (the "*Revolving Credit Agreement Provider*") in order to finance certain improvements to the Water System. The City obtained a loan described in the table below by a drawing under the revolving line of credit. The Revolving Credit Agreement provides for a three-year loan period, ending on June 27, 2022 (the "*Credit Commitment Period*"), during which the City may borrow, repay and re-borrow amounts, but not exceeding $200,000,000 outstanding in the aggregate at any one time (each a "*Loan*"). Loans made under the Revolving Credit Agreement (such loans, together with any obligations on a parity therewith, the "*Junior Subordinate Lien Obligations*") will be payable from Designated Revenues, junior and subordinate to the Junior Lien Obligations ("*Junior Subordinate Lien Revenues*"). There are currently no amounts outstanding under the Revolving Credit Agreement or any other Junior Subordinate Lien Obligations outstanding. If the City elects to borrow amounts under the Revolving Credit Agreement that are outstanding at the end of the Credit Commitment Period, the City can, subject to certain conditions, convert the borrowing to a three-year term loan payable in twelve equal quarterly principal installments ending on June 27, 2025.

City of Phoenix
Junior Subordinate Lien
Water Revolving Loan Outstanding

Issue Date	Original Issuance	Purpose	Loans Outstanding as of 4-1-21
6-28-2019	$200,000,000	Revolving Credit Agreement	$ — (1)

(1) As of April 1, 2021, there is no Water Revolving Loan outstanding.

Upon an event of default under the Revolving Credit Agreement, the Revolving Credit Agreement Provider may declare all amounts due (collectively, "*Payment Obligations*") immediately due and payable. Events of default include, but are not limited to, failure to pay amounts to the Credit Agreement Provider by the applicable grace period, failure to perform certain covenants such as issuance of obligations in violation of additional bonds tests, sale of System property in violation of the 1986 Ordinance, acceleration of other obligations payable from Designated Revenues on certain litigation, bankruptcy and insolvency events related to the System and certain downgrades of Junior Lien Obligations. If Payment Obligations were to be accelerated, Designated Revenues would continue to be transferred to the extent available to the Bond Fund on each due date prior to payment of Payment Obligations.

Issuance of Senior Lien Obligations and Additional Junior Lien Obligations

General. The City Purchase Agreement sets forth the tests for issuing Senior Lien Obligations and additional Junior Lien Parity Obligations (collectively, "*Revenue Obligations*").

Senior Lien Obligations. In order to issue Senior Lien Obligations, payments in support of which would be senior to payments to be made under the City Purchase Agreement, the City Purchase Agreement requires that the City file a statement by an Independent Certified Public Accountant or a Consultant to the effect that Net Operating Revenues of the System for the most recently completed Fiscal Year for which audited financial statements are available were equal to at least 110% of Junior Lien Parity Test Debt Service for all outstanding Revenue Obligations, including the Senior Lien Obligations proposed to be issued. The City Purchase Agreement permits and any Senior Lien Obligation Documents will permit, certain adjustments to Net Operating Revenues in the report of the Independent Certified Public Accountant or the Consultant as described below under "*Certain Adjustments; Refunding Bonds*."

Additional Junior Lien Parity Obligations. In order to issue additional Junior Lien Parity Obligations, the City Purchase Agreement sets forth the same requirements as for the issuance of Senior Lien Obligations as set forth above. Specifically, the City Purchase Agreement requires that the City file a statement by an Independent Certified Public Accountant or a Consultant to the effect that Net Operating Revenues of the System for the most recently completed Fiscal Year for which audited financial statements are available were equal to at least 110% of Junior Lien Parity Test Debt Service for all outstanding Revenue Obligations, including the Junior Lien Parity Obligations proposed to be issued. The City Purchase Agreement permits certain adjustments to Net Operating Revenues in the report of the Independent Certified Public Accountant or the Consultant as described below under "*Certain Adjustments; Refunding Bonds*."

Certain Adjustments; Refunding Bonds. For purposes of the tests described above, the City Purchase Agreement permits certain adjustments to Net Operating Revenues in the report of the Independent Certified Public Accountant or the Consultant, including adjustments to Net Operating Revenues attributable to or resulting from revisions in the schedule of rates and charges, new connections, additions, extensions and improvements to the System. In determining debt service on a series of Revenue Obligations to which a Derivative Product with a Qualified Counterparty relates, the net amount owed by the City (exclusive of any termination payment) is to be used for purposes of determining Junior Lien Parity Test Debt Service. See

"*Derivative Products*" below. The City Purchase Agreement also permits the issuance of Revenue Obligations for refunding purposes without compliance with the foregoing financial tests if certain other conditions are met. See "APPENDIX G — Summary of Certain Provisions of Legal Documents — City Purchase Agreement."

Derivative Products. The City reserves the right to enter into arrangements involving Derivative Products including swap agreements, forward agreements, interest rate agreements, and other similar agreements, to the extent permitted by law, and make payments on such agreements from Net Operating Revenues or Designated Revenues, provided that payments under such agreements may not be made on a basis which is senior to the payment of any Senior Lien Obligations and do not permit extraordinary payments such as termination payments to be made on a basis other than subordinate to payment of the Principal Requirement and the interest requirement on Revenue Obligations. Such agreements may only be entered into if the City satisfies the tests for additional Revenue Obligations set forth in the Senior Lien Obligation Documents and the Junior Lien Obligation Documents, as applicable, subject to the provisions set forth below. In determining whether the additional Revenue Obligations tests are satisfied in connection with any such agreements, the City is permitted to treat the amount or rate of interest on those agreements or on the Revenue Obligations to which the applicable agreement applies as the amount or rate of interest payable after giving effect to the agreements involving Derivative Products, provided that any agreement is with a Qualified Counterparty, thus the City is permitted to include the net payment due under such agreements in calculating the additional Revenue Obligations test. Further, the City is permitted to disregard the notional principal amount of any such agreement provided that such agreement is with a Qualified Counterparty. The City currently has no Derivative Products outstanding secured by Net Operating Revenues or Designated Revenues. See "APPENDIX G — Summary of Certain Provisions of Legal Documents — City Purchase Agreement."

Rate Covenant; Other Covenants

Pursuant to the City Purchase Agreement, the City has covenanted to continuously own, control, operate and maintain the System in an efficient and economical manner and on a revenue producing basis and will at all times, establish, fix, maintain and collect rates, fees and other charges for all water and services furnished by the System fully sufficient at all times:

(1) To provide for 100% of the Expenses of Operation and Maintenance;

(2) To produce Net Operating Revenues in each bond year which will equal at least 110% of the interest and principal requirement for the then current bond year on all Revenue Obligations then outstanding;

(3) To produce Designated Revenues sufficient to remedy any deficiencies in payments from prior years for the Bonds and other Junior Lien Parity Obligations; and

(4) To produce Junior Subordinate Lien Revenues sufficient to meet the principal and interest requirements on any obligations subordinate to the Bonds and other Junior Lien Parity Obligations.

In determining debt service on a series of Revenue Obligations to which a Derivative Product with a Qualified Counterparty relates, the net amount owed by the City (exclusive of any early termination payment) is to be used for purposes of the rate covenant.

Water System Revenues

The revenues and expenses of the System for fiscal years 2015-16 through 2019-20 are set forth in "APPENDIX A — Summary Information of the City of Phoenix Water System."

Recent Developments. The outbreak of COVID-19, a respiratory disease caused by a new strain of coronavirus, which was first detected in China and has since spread to other countries, including the United States, and to the City, has been declared a Public Health Emergency of International Concern by the World Health Organization. The outbreak of the disease has affected travel, commerce and financial markets globally and has affected economic growth worldwide. See "APPENDIX J – Covid-19".

SCHEDULE OF ESTIMATED PAYMENTS UNDER THE CITY PURCHASE AGREEMENT WITH RESPECT TO THE BONDS*

The City Purchase Agreement requires annual Purchase Payments by the City to the Corporation in an amount equal to the principal of and interest on the Bonds, which payments have been assigned to the Trustee. The Purchase Payments are due in immediately available funds on December 31 and June 30 commencing June 30, 2021 and ending June 30, 2045. The Indenture requires that the Trustee receive and apply Purchase Payments to pay the principal of and interest on the Bonds due on the following day. Set forth below is a schedule of the estimated annual Purchase Payments required under the City Purchase Agreement with respect to the Bonds:

	2021A Bonds			2021B Bonds			Taxable 2021C Bonds			Total Estimated Annual Debt Service on the Bonds		
Fiscal Year	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total
2020-21	$ —	$ 611,111	$ 611,111	$ —	$ 210,986	$ 210,986	$ —	$ 143,017	$ 143,017	$ —	$ 965,114	$ 965,114
2021-22	—	10,000,000	10,000,000	5,665,000	3,452,500	9,117,500	—	2,340,280	2,340,280	5,665,000	15,792,780	21,457,780
2022-23	—	10,000,000	10,000,000	14,705,000	3,169,250	17,874,250	—	2,340,280	2,340,280	14,705,000	15,509,530	30,214,530
2023-24	—	10,000,000	10,000,000	15,440,000	2,434,000	17,874,000	—	2,340,280	2,340,280	15,440,000	14,774,280	30,214,280
2024-25	—	10,000,000	10,000,000	16,215,000	1,662,000	17,877,000	—	2,340,280	2,340,280	16,215,000	14,002,280	30,217,280
2025-26	6,050,000	10,000,000	16,050,000	17,025,000	851,250	17,876,250	1,035,000	2,340,280	3,375,280	24,110,000	13,191,530	37,301,530
2026-27	6,350,000	9,697,500	16,047,500	—	—	—	1,075,000	2,323,099	3,398,099	7,425,000	12,020,599	19,445,599
2027-28	6,670,000	9,380,000	16,050,000	—	—	—	1,100,000	2,301,061	3,401,061	7,770,000	11,681,061	19,451,061
2028-29	7,000,000	9,046,500	16,046,500	—	—	—	6,000,000	2,276,311	8,276,311	13,000,000	11,322,811	24,322,811
2029-30	7,350,000	8,696,500	16,046,500	—	—	—	6,150,000	2,125,711	8,275,711	13,500,000	10,822,211	24,322,211
2030-31	7,720,000	8,329,000	16,049,000	—	—	—	6,310,000	1,965,196	8,275,196	14,030,000	10,294,196	24,324,196
2031-32	8,105,000	7,943,000	16,048,000	—	—	—	6,475,000	1,794,194	8,269,194	14,580,000	9,737,194	24,317,194
2032-33	8,510,000	7,537,750	16,047,750	—	—	—	6,660,000	1,612,247	8,272,247	15,170,000	9,149,997	24,319,997
2033-34	8,935,000	7,112,250	16,047,250	—	—	—	6,155,000	1,418,441	7,573,441	15,090,000	8,530,691	23,620,691
2034-35	9,385,000	6,665,500	16,050,500	—	—	—	7,065,000	1,233,175	8,298,175	16,450,000	7,898,675	24,348,675
2035-36	9,855,000	6,196,250	16,051,250	—	—	—	7,280,000	1,013,455	8,293,455	17,135,000	7,209,705	24,344,705
2036-37	10,345,000	5,703,500	16,048,500	—	—	—	7,515,000	779,767	8,294,767	17,860,000	6,483,267	24,343,267
2037-38	10,860,000	5,186,250	16,046,250	—	—	—	7,765,000	531,020	8,296,020	18,625,000	5,717,270	24,342,270
2038-39	11,405,000	4,643,250	16,048,250	—	—	—	7,585,000	266,233	7,851,233	18,990,000	4,909,483	23,899,483
2039-40	11,975,000	4,073,000	16,048,000	—	—	—	—	—	—	11,975,000	4,073,000	16,048,000
2040-41	12,575,000	3,474,250	16,049,250	—	—	—	—	—	—	12,575,000	3,474,250	16,049,250
2041-42	13,205,000	2,845,500	16,050,500	—	—	—	—	—	—	13,205,000	2,845,500	16,050,500
2042-43	13,865,000	2,185,250	16,050,250	—	—	—	—	—	—	13,865,000	2,185,250	16,050,250
2043-44	14,555,000	1,492,000	16,047,000	—	—	—	—	—	—	14,555,000	1,492,000	16,047,000
2044-45	15,285,000	764,250	16,049,250	—	—	—	—	—	—	15,285,000	764,250	16,049,250
	$200,000,000	$161,582,611	$361,582,611	$69,050,000	$11,779,986	$80,829,986	$78,170,000	$31,484,327	$109,654,327	$347,220,000	$204,846,924	$552,066,924

(1) Represents estimated debt service requirements on the Bonds offered herein. Average Coupon is estimated at 5.00% for the 2021A Bonds, 5.00% for the 2021B Bonds and 3.09% for the Taxable Bonds.

* Subject to change.

SCHEDULE OF FORECASTED DESIGNATED REVENUES, ESTIMATED JUNIOR LIEN DEBT SERVICE REQUIREMENTS AND FORECASTED JUNIOR LIEN DEBT SERVICE COVERAGE*

		Estimated Debt Service on Junior Lien Obligations			
Fiscal Year	Forecasted Designated Revenues Available for Junior Lien Debt Service Obligations(1)	Debt Service on Outstanding Junior Lien Obligations(2)	Estimated Debt Service on the Bonds(3)	Total Estimated Junior Lien Debt Service Obligations	Forecasted Junior Lien Debt Service Coverage(4)
2020-21	$ 262,455,000	$ 132,845,952	$ 965,114	$ 133,811,066	1.96
2021-22	250,386,000	112,019,380	21,457,780	133,477,160	1.88
2022-23	273,820,000	112,012,279	30,214,530	142,226,809	1.93
2023-24	284,415,000	112,022,679	30,214,280	142,236,959	2.00
2024-25	305,693,000	109,147,729	30,217,280	139,365,009	2.19
2025-26		109,151,729	37,301,530	146,453,259	
2026-27		109,151,729	19,445,599	128,597,328	
2027-28		109,154,479	19,451,061	128,605,540	
2028-29		104,188,973	24,322,811	128,511,784	
2029-30		63,804,250	24,322,211	88,126,461	
2030-31		63,808,000	24,324,196	88,132,196	
2031-32		63,807,500	24,317,194	88,124,694	
2032-33		63,809,250	24,319,997	88,129,247	
2033-34		64,509,250	23,620,691	88,129,941	
2034-35		63,785,750	24,348,675	88,134,425	
2035-36		63,785,000	24,344,705	88,129,705	
2036-37		63,789,750	24,343,267	88,133,017	
2037-38		63,785,000	24,342,270	88,127,270	
2038-39		64,226,250	23,899,483	88,125,733	
2039-40		72,080,450	16,048,000	88,128,450	
2040-41		72,082,487	16,049,250	88,131,737	
2041-42		72,085,013	16,050,500	88,135,513	
2042-43		72,081,075	16,050,250	88,131,325	
2043-44		72,083,725	16,047,000	88,130,725	
2044-45		—	16,049,250	16,049,250	
		$2,009,217,679	$552,066,924	$2,561,284,603	

(1) Forecasted Designated Revenues are set forth in the Forecast Schedule of Revenues, Expenditures, Debt Service, Debt Service Coverage, and Changes in Fund Balance which appears in "APPENDIX B — City of Phoenix Water System Financial Forecast."

(2) Net of Bonds Being Refunded.

(3) Represents debt service requirements on the Bonds offered herein. Average Coupon on the Bonds is estimated at 4.57%.

(4) Does not include estimated debt service on $600,000,000 principal amount of Junior Lien Obligations projected to be sold over the forecast period. This projected sale is included in the forecast provided in "APPENDIX B — City of Phoenix Water System Financial Forecast."

THE CITY

The City is a municipal corporation duly organized and validly existing under the laws of the State of Arizona. Pursuant to the City Purchase Agreement, the City will agree to make payments sufficient to pay amounts due on the Bonds. Detailed information on the City and the System is set forth in Appendices A through F and J.

* Subject to change.

THE CORPORATION

The Corporation is a nonprofit corporation organized under the laws of the State of Arizona for the purpose of assisting the City in the acquisition and financing of municipal property and equipment.

The Corporation will enter into the City Purchase Agreement and the Indenture to facilitate the funding of the System improvements and the refunding of the Bonds Being Refunded. The Corporation is not financially liable for the payment of the principal of or interest on the Bonds and the Owners will have no right to look to the Corporation for payment of the Bonds except to the extent of the payments received from the City under the City Purchase Agreement.

TAX EXEMPTION

General

The Code includes requirements which the Corporation and the City must continue to meet after the issuance of the Tax-Exempt Bonds in order that interest thereon be and remain excludable from gross income of the holders thereof for federal income tax purposes. The Corporation's or the City's failure to meet these requirements may cause the interest on the Tax-Exempt Bonds to be included in gross income for federal income tax purposes retroactively to the date of issuance of the Tax-Exempt Bonds. The Corporation and the City have covenanted in the City Purchase Agreement to take the actions required by the Code in order to maintain the excludability from gross income for federal income tax purposes of interest on the Tax-Exempt Bonds and not to take any actions that would adversely affect that excludability.

In the opinion of Bond Counsel, assuming continuing compliance by the Corporation and the City with the tax covenants referred to above and the accuracy of certain representations of the Corporation and the City, under existing statutes, regulations, rulings and court decisions, interest on the Tax-Exempt Bonds will be excludable from gross income for federal income tax purposes. Interest on the Tax-Exempt Bonds will not be an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals. Bond Counsel is further of the opinion that assuming interest on the Tax-Exempt Bonds is excludable from gross income for federal income tax purposes, interest on the Tax-Exempt Bonds will be exempt from income taxation under the laws of the State of Arizona.

Except as described above, Bond Counsel will express no opinion regarding the federal income tax consequences resulting from the receipt or accrual of interest on the Tax-Exempt Bonds or the ownership or disposition of the Tax-Exempt Bonds. Prospective purchasers of Tax-Exempt Bonds should be aware that the ownership of Tax-Exempt Bonds may result in other collateral federal tax consequences, including (i) the denial of a deduction for interest on indebtedness incurred or continued to purchase or carry Tax-Exempt Bonds or, in the case of a financial institution, that portion of the owner's interest expense allocable to interest on the Tax-Exempt Bonds, (ii) the reduction of the loss reserve deduction for property and casualty insurance companies by fifteen percent (15%) of certain items, including interest on the Tax-Exempt Bonds, (iii) the inclusion of interest on the Tax-Exempt Bonds in the earnings of certain foreign corporations doing business in the United States for purposes of a branch profits tax, (iv) the inclusion of interest on the Tax-Exempt 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 (v) recipients of certain Social Security and Railroad Retirement benefits being required to take into account receipts and accrual of interest on the Tax-Exempt Bonds in determining whether a portion of such benefits are included in gross income for federal income tax purposes.

From time to time, there are legislative proposals in Congress which, if enacted, could alter or amend one or more of the federal income tax matters referred to herein or adversely affect the market value of the Tax-Exempt Bonds. It cannot be predicted whether or in what form any such proposal might be enacted or whether, if enacted, it would apply to obligations (such as the Tax-Exempt Bonds), executed and delivered prior to enactment.

The discussion of tax matters in this Official Statement applies only in the case of purchasers of the Tax-Exempt Bonds at their original issuance and at the respective prices indicated on the inside front cover page of this Official Statement. It does not address any other tax consequences, such as, among others, the consequence of the existence of any market discount to subsequent purchasers of the Tax-Exempt Bonds. Purchasers of the Tax-Exempt Bonds should consult their own tax advisers regarding their particular tax status or other tax considerations resulting from ownership of the Tax-Exempt Bonds.

Information Reporting and Backup Withholding

Interest paid on tax-exempt obligations such as the Tax-Exempt 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 Tax-Exempt Bonds from gross income for federal income tax purposes. However, in conjunction with that information reporting requirement, the Code subjects certain non-corporate owners of Tax-Exempt Bonds, under certain circumstances, to "backup withholding" at the rates set forth in the Code, with respect to payments on the Tax-Exempt Bonds and proceeds from the sale of Tax-Exempt Bonds. Any amount so withheld would be refunded or allowed as a credit against the federal income tax of such owner of Tax-Exempt Bonds. This withholding generally applies if the owner of Tax-Exempt Bonds (i) fails to furnish the payor such owner's social security number or other taxpayer identification number ("*TIN*"), (ii) furnished the payor an incorrect TIN, (iii) fails to properly report interest, dividends, or other "reportable payments" as defined in the Code, or (iv) 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 TIN provided is correct and that such owner is not subject to backup withholding. Prospective purchasers of the Tax-Exempt 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.

Original Issue Discount and Original Issue Premium

Certain of the Tax-Exempt Bonds ("*Discount Bonds*") may be 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 Tax-Exempt 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.

Certain of the Tax-Exempt Bonds ("*Premium Bonds*") may be offered and sold to the public at a price in excess of their stated redemption price (the principal amount) at maturity (or earlier for certain Premium Bonds callable prior to maturity). That excess constitutes bond premium. For federal income tax purposes, bond premium is amortized over the period to maturity of a Premium Bond, based on the yield to maturity of that Premium Bond (or, in the case of a Premium Bond callable prior to its stated maturity, the amortization period and yield may be required to be determined on the basis of an earlier call date that results in the lowest yield on that Premium Bond), 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.

Owners of Discount and Premium Bonds should consult their own tax advisers as to the determination for federal income tax purposes of the amount of OID or bond premium properly accruable in any period with respect to the Discount or Premium Bonds and as to other federal tax consequences, and the treatment of OID and bond premium for purposes of state and local taxes on, or based on, income.

CERTAIN UNITED STATES FEDERAL TAX CONSIDERATIONS WITH RESPECT TO THE TAXABLE BONDS

General

Bond Counsel expresses no opinion regarding the excludability of interest on the Taxable Bonds from gross income for federal or State of Arizona income tax purposes.

The discussion below is generally limited to "*U.S. owners*," meaning beneficial owners of Taxable Bonds that for United States federal income tax purposes are individual citizens or residents of the United States, corporations or other entities taxable as corporations created or organized in or under the laws of the United States or any state thereof (including the District of Columbia), and certain estates or trusts with specific connections to the United States. The discussion below is based upon current provisions of the Code, current final, temporary and proposed Treasury regulations, judicial authority and current administrative rulings and pronouncements of the IRS. There can be no assurance that the IRS will not take a contrary view, and no ruling from the IRS has been, or is expected to be, sought on the issues discussed herein. Legislative, judicial, or administrative changes or interpretations may occur that could alter or modify the statements and conclusions set forth herein. Any such changes or interpretations may or may not be retroactive and could affect the tax consequences discussed below.

The summary is not a complete analysis or description of all potential U.S. federal tax considerations that may be relevant to, or of the actual tax effect that any of the matters described herein will have on, particular holders of Taxable Bonds and does not address U.S. federal gift or (for U.S. Holders) estate tax consequences or alternative minimum, foreign, state, local or other tax consequences. This summary does not purport to address special classes of taxpayers (such as S corporations, mutual funds, insurance companies, financial institutions, small business investment companies, regulated investment companies, real estate investment trusts, grantor trusts, former citizens of the United States, broker-dealers, traders in securities and tax-exempt organizations) that are subject to special treatment under the federal income tax laws, or persons that hold Taxable Bonds that are a hedge against, or that are hedged against, currency risk or that are part of a hedge, straddle, conversion or other integrated transaction, or persons whose functional currency is not the U.S. dollar. This summary also does not address the tax consequences to an owner of Taxable Bonds held through a partnership or other pass-through entity treated as a partnership for U.S. federal income tax purposes. In addition, this discussion is limited to persons purchasing the Taxable Bonds for cash in this offering at their "*issue price*" within the meaning of Section 1273 of the Code (i.e., the first price at which a substantial amount of Taxable Bonds are sold to the public for cash), and it does not address the tax consequences to holders that purchase the Taxable Bonds after their original execution and delivery. This discussion assumes that the Taxable Bonds will be held as capital assets within the meaning of Section 1221 of the Code.

As used herein, the term "*U.S. Holder*" means a beneficial owner of Taxable Bonds that is (i) an individual citizen or resident of the United States for U.S. federal income tax purposes, (ii) a corporation (or other entity classified as a corporation for U.S. federal tax purposes) created or organized in or under the laws of the United States or any state thereof or the District of Columbia, (iii) an estate, the income of which is includible in gross income for U.S. federal income tax purposes regardless of its source, or (iv) a trust if (a) a U.S. court can exercise primary supervision over the administration of such trust and one or more United States persons (within the meaning of the Code) has the authority to control all of the substantial decisions of such trust or (b) the trust has made a valid election under applicable Treasury regulations to be treated as a United States person (within the meaning of the Code). As used herein, the term "*Non-U.S. Holder*" means a beneficial owner of Taxable Bonds that is not a U.S. Holder.

BECAUSE INDIVIDUAL CIRCUMSTANCES MAY DIFFER, PROSPECTIVE HOLDERS OF THE TAXABLE BONDS ARE STRONGLY URGED TO CONSULT THEIR OWN TAX ADVISORS WITH RESPECT TO THEIR PARTICULAR TAX SITUATIONS AND AS TO ANY FEDERAL, FOREIGN, STATE, LOCAL OR OTHER TAX CONSIDERATIONS (INCLUDING ANY POSSIBLE CHANGES IN TAX LAW) AFFECTING THE PURCHASE, HOLDING AND DISPOSITION OF THE TAXABLE BONDS.

Certain U.S. Federal Income Tax Consequences to U.S. Holders

Interest. Interest on the Taxable Bonds will generally be taxable to a U.S. Holder as ordinary interest income at the time such amounts are accrued or received, in accordance with the U.S. Holder's method of accounting for U.S. federal income tax purposes.

It is expected that the Taxable Bonds will not be treated as issued with original issue discount *("OID")* for U.S. federal income tax purposes because the stated principal amount of the Taxable Bonds will not exceed their issue price, or because any such excess should only be a de minimis amount (as determined for tax purposes). De minimis OID is included in the income of a U.S. Holder as stated principal payments are made, and is treated as an amount received in retirement of a Taxable Bond. If, contrary to expectation, the Taxable Bonds are issued at a discount that gives rise to OID, a U.S. Holder may be required to include such OID in gross income (as interest) as it accrues, regardless of its regular method of accounting for U.S. federal income tax purposes, using a constant yield method, before such U.S. Holder receives any payment attributable to such income. The remainder of this discussion assumes that the notes are not issued with more than *de minimis* OID.

Disposition of the Taxable Bonds. Unless a nonrecognition provision of the Code applies, the sale, exchange, redemption (including pursuant to an offer by the City) or other disposition of a Taxable Bond, will be a taxable event for U.S. federal income tax purposes. In such event, in general, a U.S. Holder of Taxable Bonds will recognize gain or loss equal to the difference between (i) the amount of cash plus the fair market value of property received (except to the extent attributable to accrued but unpaid interest on the Taxable Bonds which will be taxed in the manner described above under "*Interest*") and (ii) the U.S. Holder's adjusted tax basis in the Taxable Bonds (which generally will equal the amount paid for the Taxable Bonds by such U.S. Holder). Any such gain or loss generally will be long-term capital gain or loss, provided the Taxable Bonds have been held for more than one year at the time of the disposition. Net long-term capital gain recognized by an individual U.S. Holder generally will be subject to tax at a lower rate than net short-term capital gain or ordinary income. The deductibility of capital losses is subject to limitations.

Additional Tax on Net Investment Income. For taxable years beginning after December 31, 2012, an additional 3.8% tax is imposed on the "*net investment income*" of certain U.S. citizens and residents, and on the undistributed "net investment income" of certain estates and trusts. Among other items, "*net investment income*" generally includes gross income from interest and certain net gain from the sale, exchange, redemption or other taxable disposition of a debt instrument that produces interest, less certain deductions. U.S. Holders should consult their own tax advisors with respect to this additional tax.

Information Reporting and Backup Withholding. The Registrar and Paying Agent (the "*payor*") must report annually to the IRS and to each U.S. Holder any interest that is payable to the U.S. Holder, subject to certain exceptions. Under Section 3406 of the Code and applicable Treasury Regulations, a non-corporate U.S. Holder of the Taxable Bonds may be subject to backup withholding at a rate of 28% with respect to "*reportable payments*," which include interest paid on the Taxable Bonds and the gross proceeds of a sale, exchange, redemption or retirement of the Taxable Bonds. The payor will be required to deduct and withhold the prescribed amounts if (i) the payee fails to furnish a taxpayer identification number ("*TIN*") to the payor in the manner required, (ii) the IRS notifies the payor that the TIN furnished by the payee is incorrect, (iii) there has been a "notified payee underreporting" described in Section 3406(c) of the Code or (iv) there has been a failure of the payee to certify under penalty of perjury that the payee is not subject to withholding under Section 3406(a)(l)(C) of the Code. Amounts withheld under the backup withholding rules do not constitute an additional tax and will be credited against the U.S. Holder's federal income tax liabilities (and possibly result in a refund), so long as the required information is timely provided to the IRS.

ERISA Considerations

The Employee Retirement Income Security Act of 1974, as amended ("*ERISA*"), imposes certain fiduciary obligations and prohibited transaction restrictions on employee pension and welfare benefit plans subject to Title I of ERISA ("*ERISA Plans*"). Section 4975 of the Code imposes essentially the same prohibited transaction restrictions on tax-qualified retirement plans described in Section 401(a) and 403(a) of the Code, which are exempt from tax under Section 501(a) of the Code, other than governmental and church plans as defined herein ("*Qualified Retirement Plans*"), and on Individual Retirement Accounts ("*IRAs*") described in Section 408(b) of the Code (collectively, "*Tax-Favored Plans*"). Certain employee benefit plans such as governmental plans (as defined in Section 3(32) of ERISA), and, if no election has been made under Section 410(d) of the Code, church plans (as defined in Section 3(33) of ERISA), are not subject to ERISA requirements. Additionally, such governmental and non-electing church plans are not subject to the requirements of Section 4975 of the Code. Accordingly, assets of such plans may be invested in the Taxable Bonds without regard to the ERISA and Code considerations described below, subject to the provisions of applicable federal and state law.

In addition to the imposition of general fiduciary obligations, including those of investment prudence and diversification and the requirement that a plan's investment be made in accordance with the documents governing the plan, Section 406 of ERISA and Section 4975 of the Code prohibit a broad range of transactions involving assets of ERISA Plans and Tax-Favored Plans and entities whose underlying assets include plan assets by reason of ERISA Plans or Tax-Favored Plans investing in such entities (collectively, "*Benefit Plans*") and persons who have certain specified relationships to the Benefit Plans ("*Parties In Interest*" or "*Disqualified Persons*"), unless a statutory or administrative exemption is available. The definitions of "Party in Interest" and "*Disqualified Person*" are expansive. While other entities may be encompassed by these definitions, they include, most notably: (1) fiduciary with respect to a plan; (2) a person providing services to a plan; and (3) an employer or employee organization any of whose employees or members are covered by the plan. Certain Parties in Interest (or Disqualified Persons) that participate in a prohibited transaction may be subject to a penalty (or an excise tax) imposed pursuant to Section 502(i) of ERISA (or Section 4975 of the Code) unless a statutory or administrative exemption is available.

LITIGATION

The City is contingently liable in respect to lawsuits and other claims incidental to the ordinary course of its operations. The City Attorney has advised City management of the nature and extent of pending and threatened claims against the City. In the opinion of City management, such matters will not have a materially adverse effect on the City's ability to comply with the requirements of the City Purchase Agreement.

To the knowledge of the City Attorney, no pending or threatened litigation or administrative action or proceeding has (i) restrained or enjoined the City from entering into the City Purchase Agreement or approving the issuance and delivery of the Bonds or the refunding of the Bonds Being Refunded or (ii) contested or questioned the validity of the Bonds or the proceedings and authority under which the Bonds have been authorized and are to be issued, secured, sold, executed or delivered. Certificates of the City to that effect will be delivered at the time of delivery of the Bonds.

To the knowledge of special counsel to the Corporation, no pending or threatened litigation or administrative action or proceeding has (i) restrained or enjoined the Corporation from entering into the Indenture or the City Purchase Agreement or approving the issuance and delivery of the Bonds or the refunding of the Bonds Being Refunded or (ii) contested or questioned the validity of the Bonds or the proceedings and authority under which the Bonds have been authorized and are to be issued, secured, sold, executed or delivered. Certificates of the Corporation to that effect will be delivered at the time of delivery of the Bonds.

VERIFICATION OF MATHEMATICAL COMPUTATIONS

Samuel Klein and Company, a firm of independent public accountants, will deliver to the City and the Trustee, on or before the settlement date of the Bonds, its verification report indicating that it has verified the mathematical accuracy of (i) the mathematical computations of the adequacy of the cash and the maturing principal of and interest on the Government Obligations, to pay, when due, the maturing principal of, interest on and related call premium requirements, if any, of the Bonds Being Refunded and (b) the mathematical computations of yield used by Bond Counsel to conclude the yield on the Government Obligations does not exceed that permitted under the Code with respect to the 2014A Bonds Being Refunded.

The verification performed by Samuel Klein and Company and Public Finance Partners LLC will be solely based upon data, information and documents provided to Samuel Klein and Company and Public Finance Partners LLC by the City and its representatives and it has not evaluated or examined the assumptions or information used in the computations.

LEGAL MATTERS

Legal matters incident to the issuance of the Bonds and with regard to the tax-exempt status of the interest on the Tax-Exempt Bonds (see "TAX EXEMPTIONS - General") are subject to the legal opinion of Greenberg Traurig, LLP, Phoenix, Arizona, Bond Counsel, who has been retained by, and is acting as Bond Counsel to the Corporation and the City. Signed copies of the opinion, dated and speaking only as of the date of delivery of the Bonds, will be delivered to the Underwriters.

The text of the proposed legal opinion is set forth as Appendix H. The actual legal opinion to be delivered may vary from that text 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 the Official Statement or otherwise shall create no implication that Bond Counsel has reviewed or expresses any opinion concerning any of the matters referred to in the opinion subsequent to its date.

Certain legal matters will be passed upon for the Underwriters by Squire Patton Boggs (US) LLP, Phoenix, Arizona, as Counsel to the Underwriters.

RATINGS

Moody's Investors Service, Inc. (*"Moody's"*) has assigned a rating of "Aa2" to the Bonds. S&P Global Ratings, a division of Standard & Poor's Financial Services LLC (*"S&P"*) has assigned a rating of "AAA" to the Bonds. No application has been made to any other rating service for the purpose of obtaining ratings on the Bonds. The City furnished these rating agencies with certain information and materials with respect to the Bonds. The ratings will reflect only the views of the rating services. An explanation of the significance of the ratings may be obtained from Moody's at 7 World Trade Center, 250 Greenwich Street, 23rd Floor, New York, New York 10007 and from S&P at 55 Water Street, New York, New York 10041. There is no assurance that such ratings will continue for any given period of time or that the ratings will not be revised downward or withdrawn entirely by Moody's or S&P if, in their judgment, circumstances so warrant. Any such downward revision or withdrawal of such ratings by Moody's or S&P may have an adverse effect on the market price or transferability of the Bonds.

FINANCIAL ADVISOR

Montague DeRose and Associates, LLC is employed as Financial Advisor to the City in connection with the issuance of the Bonds. The Financial Advisor's compensation for services rendered with respect to the sale of the Bonds is contingent upon the issuance and delivery of the Bonds. Montague DeRose and Associates, LLC, in its capacity as Financial Advisor, does not assume any responsibility for the information, covenants and representations contained in any of the legal documents with respect to the federal income tax status of the Bonds, or the possible impact of any present, pending or future actions taken by any legislative or judicial bodies.

The Financial Advisor to the City has provided the following sentence for inclusion in this Official Statement. The Financial Advisor has reviewed the information in this Official Statement in accordance with, and as part of, its responsibilities to the City and, as applicable, to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Financial Advisor does not guarantee the accuracy or completeness of such information.

UNDERWRITING

The Bonds are being purchased for reoffering by Siebert Williams Shank & Co., LLC and the other underwriters shown on the cover (the *"Underwriters"*). The Underwriters have agreed to purchase the Bonds, subject to certain conditions, at a price of $. If the Bonds are sold to produce the yields shown on the inside front cover hereof, the underwriters' compensation will be $.

The Underwriters are committed to purchase all of the Bonds if any are purchased. The Bonds are offered for sale initially at the approximate yields set forth on the inside front cover of this Official Statement, which yields may be changed, from time to time, by the Underwriters. The Bonds may be sold to certain dealers (including underwriters and dealers depositing the Bonds into investment trusts) at prices lower than the public offering price.

BofA Securities, Inc., an underwriter of the Bonds, has entered into a distribution agreement with its affiliate Merrill Lynch, Pierce, Fenner & Smith Incorporated ("*Merrill*"). As part of this arrangement, BofA Securities, Inc. may distribute securities to Merrill, which may in turn distribute such securities to investors through the financial advisor network of Merrill. As part of this arrangement, BofA Securities, Inc. may compensate Merrill as a dealer for their selling efforts with respect to the Bonds.

CONTINUING DISCLOSURE

The City will enter into a Continuing Disclosure Undertaking (the *"Undertaking"*) with respect to the Bonds for the benefit of the beneficial owners of such Bonds to send certain information annually and to provide notice of certain events to the Municipal Securities Rulemaking Board through the Electronic Municipal Market Access (EMMA) system pursuant to the requirements of Section (b)(5) of Rule 15c2-12 (the *"Rule"*) adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934. The specific nature of the information to be provided on an annual basis, the events which will be noticed on an occurrence basis and other terms of the Undertaking, are set forth in "APPENDIX I — Form of Continuing Disclosure Undertaking."

The City has represented that except as set forth below, it has complied with each and every undertaking previously entered into by it pursuant to the Rule. A failure by the City to comply with the Undertaking will not constitute a default under the City Purchase Agreement or the Indenture and Beneficial Owners of the Bonds are limited to the remedies described in the Undertaking. See "APPENDIX I — Form of Continuing Disclosure Undertaking." A failure by the City to comply with the Undertaking must be reported in accordance with the Rule and must be considered by any broker, dealer or municipal securities dealer before recommending the purchase or sale of the Bonds in the secondary market. Consequently, such a failure may adversely affect the transferability and liquidity of the Bonds and their market price.

The filing on January 28, 2020 of certain operating data for fiscal year ending June 30, 2019 was not associated with all of the related CUSIP numbers until February 24, 2020.

INDEPENDENT AUDITORS AND INCORPORATION BY REFERENCE OF CITY'S COMPREHENSIVE ANNUAL FINANCIAL REPORT

The financial statements of the City as of June 30, 2020 for its fiscal year then ended have been audited by BKD, LLP, independent auditors, as stated in their report. The financial statements and auditor's report are part of the City's comprehensive annual financial report, which may be obtained from EMMA, free of charge at http://emma.msrb.org or from the City, free of charge, at the following location: 251 West Washington Street, 9th Floor, Phoenix, Arizona 85003, Attention: Finance Department, Telephone: (602) 262-7166. The Comprehensive Annual Financial Report may also be downloaded from the City's website at www.phoenix.gov under Departments-Finance-Financial Information & Reports. The Comprehensive Annual Financial Report so filed with EMMA as part of the City's continuing disclosure undertakings pursuant to the Rule is hereby incorporated by reference.

MISCELLANEOUS

Any statements in this Official Statement involving matters of opinion, whether or not expressly so stated, are intended as such and not as representations of fact. This Official Statement is not to be construed as a contract or agreement between the Corporation, the City or the Underwriters and the purchasers or holders of any of the Bonds.

This Official Statement has been approved, executed and delivered by the Corporation and the City.

CITY OF PHOENIX CIVIC IMPROVEMENT CORPORATION

By ______________________________

President

CITY OF PHOENIX, ARIZONA

By ______________________________

Chief Financial Officer

APPENDIX A

Summary Information of the City of Phoenix Water System

ORGANIZATION AND ADMINISTRATION

The City's Water System (the *"System"*) is operated as a financially self-supporting municipal utility service. It is organized as a functional division of the City's Water Services Department (the "*Department"*). The Department also contains the Wastewater System as a separate functional division that also acts as a completely self-supporting utility service. The Department's authority and responsibility are derived from the Phoenix City Charter and City Council adopted ordinances and resolutions. The Department is required to prepare and submit an annual budget for the Water and Wastewater Systems to the City Council prior to the beginning of each fiscal year. The City Council is required to hold a public hearing on the proposed budget and a specified notice of this hearing must be given to any bondholder who requests such notice in writing. If for any reason a budget is not adopted, the budget of the preceding fiscal year shall apply. The City Council adopts both the water and wastewater budgets, establishes water and wastewater rate structures and sets overall policy for the Department.

The Water Services Director currently reports to a Deputy City Manager. The four Assistant Water Services Directors for Administration, Water, Wastewater and Technical Services report to the Water Services Director.

Karen L. Peters, Deputy City Manager, joined the City in 2005 after 18 years of practice as an attorney and former partner with Squire Sanders & Dempsey LLP (now Squire Patton Boggs (US) LLP). She received her J.D. from the Georgetown University Law Center in 1987 and B.S. summa cum laude from Arizona State University in 1984. Currently, Ms. Peters serves as a Trustee for The Nature Conservancy, Arizona Chapter. Ms. Peters has served as a member and Past President of the Arizona State University College of Liberal Arts and Science Alumni Board, the Board of Directors of Phoenix Day Child and Family Learning Center, the State Bar of Arizona Environmental and Natural Resources Law Section, and the Board of Directors of the Arizona League of Conservation Voters. She co- chaired the Arizona Groundwater Cleanup Task Force which made recommendations for reform in 1997 of Arizona's State Superfund laws. Ms. Peters is a member of Valley Leadership Class XXVI and Arizona Town Hall.

Troy Hayes, Water Services Director — Water, has over 25 years of civil engineering and management experience in the water and wastewater industry. Prior to becoming the Water Services Director, he served as Assistant Water Services Director and Deputy Water Services Director for the Water Production Division. He holds a bachelor's degree in Chemical Engineering from the University of Arizona, a master's degree in Business Administration from the University of Phoenix and is a licensed professional civil engineer in the states of Arizona and Colorado. He also holds Arizona Department of Environmental Quality Grade 4 Operator License in all disciplines of water and wastewater.

Assistant Water Services Director — Water Division — vacant.

Nazario Prieto, Assistant Water Services Director — Wastewater, has over 18 years of civil engineering and management experience in the water and wastewater industry. Prior to becoming an Assistant Water Services Director, he served as a Deputy Water Services Director for the Assets and Development Planning Division. He holds a bachelor's degree in Civil Engineering from the University of Texas at El Paso and is a licensed professional civil engineer in the State of Arizona.

Holly Rosenthal, Assistant Water Services Director **—** *Finance & Administration*, has over 20 years of private and public sector executive management experience, including operating and capital budget oversight, rate setting and finance. She served as Treasurer and Deputy Executive Director of the Onondaga County Water Authority and Executive Director of the Onondaga County Metropolitan Water Board through successful consolidation of the two regional water utilities. Ms. Rosenthal holds a bachelor's degree in Landscape Architecture/Environmental Studies and is completing a master's in public administration from Syracuse University's Maxwell School. She is an accredited professional in Leadership in Energy and Environmental Design and a licensed landscape architect.

Brandy Kelso, Assistant Water Services Director — Technical Services, has over 20 years of civil engineering and management experience in the water and wastewater industry. In her current role, Ms. Kelso oversees the Technical Services area which includes Environmental Services, Asset Management and Development Planning, Infrastructure Records, Security Management, Safety and Training, Process Control, and Technology Services. These divisions manage various aspects of water quality compliance, long-term planning, new development planning, master planning, safety, security, training, and IT technology at the City's water facilities. Prior to becoming the Assistant Water Services Director, she served as Deputy Water Services Director for Water Resources and Development Planning Division. She holds a bachelor's and master's degree in Civil Engineering from Arizona State University and is a licensed professional civil engineer in the state of Arizona.

FINANCIAL PLANNING AND WATER RATES DEVELOPMENT

Financial planning and water rates development are provided by the Finance Department in coordination with the Water Services Department. In addition, the Finance Department reviews the timeliness and accuracy of the billing services, provides all financial reporting and financial information, establishes financial policies and recommends water rates and fees. Water rates are set to recover the direct and indirect costs of service.

In addition, the Water/Wastewater Rate Advisory Committee acts in an advisory capacity to the City Manager and City Council on water rate and fee structure. The committee is charged with annually reviewing the Department's Capital Improvement Program, revenue requirements and operations and maintenance budget as they impact future water and wastewater rates.

BILLING AND COLLECTION RESPONSIBILITY

The Water Services Department is responsible for a combined municipal services bill for water, sanitary sewer, and solid waste services along with a jail tax and, storm water management program tax and other general applicable taxes. Water meters are read, and all accounts are billed monthly. Payment of a regular bill is due 21 days after the bill issuance date. If payment is not received within three days after the due date, a late payment charge is assessed to the outstanding account balance. All customers receive one notice of nonpayment indicating a pending turnoff if not paid. If the total amount due is not received within ten days from the date of notice of nonpayment, the process to discontinue water service to the premises begins and a turn-off fee of $55.00 plus tax is charged to the customer's account. The total amount of the bill, including all fees, is collected before water service is restored.

Prior to the pandemic, the City began piloting flow restriction devices to provide a minimum amount of water for basic needs and hygiene in lieu of full shut off. In response to the pandemic, full flow service was restored to all customers. Since COVID-19, Phoenix Water Customer Services deployed a Deferred Payment Arrangement Program for COVID-19 impacted customers. CARES Act and general fund assistance has also been offered to residential and commercial customers. The shut-off moratorium continues, but is periodically reevaluated. When the moratorium is lifted, Water System will return to flow restricted service during summer months in lieu of shut offs. For a discussion of the impact of COVID-19 on the City and the Water System, see "Appendix J – COVID-19"

The Department bills more than 436,339 water accounts in an approximately 543 square mile service area for a service population of approximately 1,635,879. The service area includes accounts both inside and outside the corporate limits of the City. Approximately 384,679 (88.2%) of the accounts are single-family residential, 16,639 (3.8%) are multi-family residential, and 35,021 (8.0%) are non-residential. For fiscal year 2019-20, the Department billed 116,879,520 hundred cubic feet ("*ccf*") of retail water sales of which 59,327,147 ccf (50.8%) was delivered to single-family residential accounts, 17,680,946 ccf (15.1%) to multi-family residential accounts, and 39,871,427 ccf (34.1%) to non-residential accounts. The largest single customer is the City which accounted for 3.7% of the total retail revenue. The top ten customers accounted for 6.4% of the total retail water revenue. Of the top ten customers, four are governmental entities and not one private entity accounted for more than 0.5% of total retail revenue.

WATER RATE STRUCTURE

Water rate schedules are adopted by the Mayor and City Council by ordinance, subject to certain statutory restrictions on rates charged to non-residents. Since 1974, water rates have been reviewed annually, in accordance with the Council's adopted policy. The City's principal consideration in adjusting water rates is to maintain the System's operations as a completely self-supporting enterprise. Within the last twenty years, the City has approved seventeen general rate adjustments, with the most recent approved increase of 3.0% effective October 1, 2021 and 3.5% effective March 2022.

The following table summarizes the effective dates of these adjustments and the corresponding annualized percentage change in water rate revenue:

Effective Date	Annualized % Change in Water Rate Revenues (1)(2)
April 1, 2001	4.0
March 4, 2002	5.0
March 3, 2003	3.0
March 3, 2004	4.0
March 2, 2005	7.0
March 2, 2006	8.5
March 2, 2007	9.5
March 3, 2008	12.0
March 3, 2009	11.0
March 1, 2010	9.0
April 1, 2011	7.0
July 1, 2012	4.5
March 1, 2016	3.0
March 1, 2017	2.0
March 4, 2019	6.0
February 1, 2020	6.0

(1) There were no rate revenue adjustments from 2013 through 2015 and 2018.
(2) On March 17, 2021, Phoenix City Council approved a 6.5% water rate increase over a two-year period with 3.0% effective October 2021, followed by an additional increase of 3.5% effective March 2022.

WATER SERVICES CHARGES

Metered Water Charges

The City's current water rate structure, implemented in June 1990, is a seasonal uniform rate structure with a fixed monthly service charge that varies by the size of the meter. Included in the service charge to all accounts is 6 ccf per month (4,488 gallons of water) for the months of October through May and 10 ccf per month (7,480 gallons of water) for June through September. The seasonal rates charged for usage above that are split into three distinct seasons; summer (June-September), winter (December-March) and spring/fall (April-May and October-November).

The summer months of June through September have the highest rate with the lowest rate charged in the winter months of December through March. The spring and fall months of April, May, October, and November have intermediate rates that transition customers between the high and low rate seasons. The high summer rates are designed to encourage water conservation in the peak demand period. Under this rate structure, excluding those customers with very low water consumption, customers will pay more during the summer months when rates are higher and less during the winter, spring and fall months when rates are lower. Of the twenty largest cities in the nation, the average single-family monthly water bill in the City is the third lowest in terms of cost.

Environmental Charge

An environmental charge, which is assessed to recover the annual cost of complying with new environmental standards, was implemented on December 1, 1992. The current fee is $0.62 per ccf effective February 1, 2020. The charge is indicated as a separate line item on the customer's bill. Revenues from this charge are used to cover all operation, maintenance, replacement, administrative and capital expense necessary for water treatment processes and facilities to meet federal, state and county environmental regulations.

Raw Water Charge

In June 1994, a raw water charge was implemented to recover the costs associated with obtaining untreated water resources. The current fee is $0.42 per ccf effective February 1, 2020. This charge is not indicated separately on the customer's bill.

DEVELOPMENT OCCUPATIONAL FEE

The Development Occupational Fee was established in May 1982 to be applied to new water and wastewater service connections and to existing customers when the water meter size is increased, or additional meters are installed. The fee is currently $600 for each single- family service connection and varies by meter size for other types of connections. The use of revenues from this fee is restricted to the funding of projects listed in the approved infrastructure financing plan adopted by City Council related to water and wastewater growth capital improvement projects or debt service on outstanding water and wastewater obligations issued for growth related purposes.

WATER RESOURCE ACQUISITION FEE

In November 1989, the City Council adopted a Water Resource Acquisition Fee to be applied to all new and existing service connections when the water meter size is increased, or additional meters are installed. The fee is based on the residential use, meter size and location of the development within the City. The fee ranges from $0 in the On-Project area (as defined under "SOURCES OF WATER SUPPLY") and $778 for a similar meter for Off-Project areas (as defined under "SOURCES OF WATER SUPPLY"). Revenue from this fee is restricted to recover costs for the acquisition of new water supplies to support growth and projects that reduce water demand. The fee had been capped at 70% of full recovery since January 1996.

DEVELOPMENT IMPACT FEE

Water Development Impact Fees began to be established at various times in growth areas beginning in the late 1980s and are applied to new and existing water service customers when the water meter size is increased, or additional meters are installed. The fee is charged in the northern and southern growth areas of the City where most of new development is occurring. There are separate charges for the northern area and the southern area. The fee currently being charged for a 3/4-inch residential meter in the northern growth areas is $5,935, and the fee currently being charged for the same meter in the southern growth area is $3,499. Fees for other meters vary according to size and maximum capacity. The fee is collected at the time the developer pays for building permits. Developers may be given Development Impact Fee credits or pay reduced fees if capital projects are constructed and contributed by the developer that typically are the responsibility of the City. The use of revenues from this fee is restricted to the funding of projects listed in the approved infrastructure financing plan adopted by City Council related to water and wastewater growth capital improvement projects or debt service on outstanding water and wastewater obligations issued for growth related purposes.

CONNECTION FEE

The City Code requires the City to assess a fee to new services to recover the cost of meter and service line installations. The fee charged varies depending upon meter size and the extent of installation work required.

UTILITY REPAYMENT AGREEMENTS

The City may enter into a utility repayment agreement with a developer in instances where a developer pays for major water facilities in order to expedite the completion of these facilities. The funding source for current repayment agreements is Development Occupational Fee previously described. These agreements typically have a limited number of years for repayment and are based upon the availability of Development Occupational Fee revenues.

WATER RESOURCES

The City's water supply is expected to be more than adequate to meet current and future demand. The City actively manages its water supply and demand with the use of a resource planning strategy, a water conservation program and a comprehensive Drought Management Plan.

In 1980, the Arizona Groundwater Management Act (the *"Act"*) was enacted by the State Legislature. The Act designates the Phoenix area as one of four Active Management Areas. Regulations under the Act required a 6% reduction in per capita water consumption from 1980 levels to 251 gallons per capita per day (gpcd) by 1987, and maintenance of that level through 1990 under what is termed the first management plan. The second management plan required by the Act mandated further reductions to 237 gpcd by 1995 and 224 gpcd by 2000. Additionally, the Act requires a gradual elimination of groundwater use in excess of that recharged, by 2025. The City is in compliance with the Act.

The Arizona Department of Water Resources ("*ADWR*") published a third management plan in 1999, which established a water use target of 218 gpcd for the City for the year 2010. The City's water usage remains below the target of 218 gpcd. In addition, the Act requires the ADWR to designate the adequacy of each municipality or water provider's water supply to support proposed development. The Water Services Department is currently engaged in the process of updating its 100 year Assured Water Supply, a process that is repeated by the ADWR every 15 years. It is anticipated that this will be submitted to the State of Arizona in 2023 with an expected re-designation by the ADWR by December 31, 2024.

In response to the Act's requirements, the City has maintained a Water Resources Plan, (the "*Plan*") that was first completed in 1985. The Plan provides guidance for water acquisition, water management and infrastructure actions necessary to ensure sustainable water availability for current customers and anticipated growth over the next 50 years. The Plan outlines the water conservation and water resource development actions necessary during both normal and drought conditions. The Plan was updated in 1987, 1990, 1995, 2000, 2005 and 2011. The Plan is under review and expected to be published in 2021.

The following table presents the water supply that was available in fiscal year 2019-20 along with the demand for that year. The table also provides forecasted water supply and demand in fiscal years 2020-21 through 2059-60 based upon the City's current water rights. Current and forecasted water supply exceeds forecasted demand throughout the forecast period. Figures are in acre-feet ("*AF*").

	2019-20	**2020-21**	**2029-30**	**2039-40**	**2049-50**	**2059-60**
On-Project Supply (1)	356,208	356,208	394,491	432,774	432,774	432,774
Off-Project Supply (2)	186,557	191,062	202,062	202,062	202,062	202,062
Groundwater Supply	16,250	16,250	29,710	29,710	29,710	29,710
Other Surface Water Supply (3)	57,300	57,300	57,300	57,300	57,300	57,300
Total Supply	615,315	620,820	683,563	717,846	721,846	721,846
Demand	315,011	299,121	340,000	340,000	340,000	340,000

(1) The On-Project supply reflects the total supply available to the City from the Salt River Project; however, the City can only use the amount required to meet demands within the boundaries of the Salt River Valley Users' Association ("On-Project").

(2) For planning purposes, Off-Project supply includes water rights from the Central Arizona Project.

(3) For forecast purposes, the Other Surface Water supply is capped at 57,300 AF even though this supply may be higher in any given year. Other Surface Water supply includes Verde River gate water, Roosevelt Dam new conservation space and water from the Roosevelt Irrigation District.

The City uses reclaimed wastewater in lieu of other water supplies whenever possible. In fiscal year 2019-20, the City produced approximately 126,727 AF of reclaimed wastewater at its wastewater treatment plants. The majority of the reclaimed wastewater was used by the Palo Verde Nuclear Generating Station for cooling reactors and by the Roosevelt Irrigation District and Buckeye Irrigation Company to irrigate crops.

The City has been proactive securing and managing other water sources. The City has participated in water rights settlements with the Salt River Pima Maricopa, Fort McDowell and Gila River Indian Communities from which it has leased or been assigned approximately 22,323 AF of Central Arizona Project Water annually. In addition to the groundwater supply listed above, the City has recharged excess supplies and as a result has accumulated long-term storage credits of 434,357 AF and groundwater allowance credits of 3,699,500 AF that can be accessed, if needed, by adding wells and additional distribution methods to the System. Also, the Arizona Water Banking Authority has stored 1,921,828 AF of water underground for drought protection in the Phoenix Active Management Area, of which the City would receive allocations if needed.

WATER CONSERVATION PROGRAM

In 1986, the City Council approved a comprehensive Water Conservation Plan, which identified conservation programs that are effective in saving water, cost beneficial, and publicly supported. The City Council approved an update of the plan in January 1999. Under the Water Conservation Plan, conservation activities are focused around five program areas: education and public awareness; technical assistance; regulation; planning and research; and interagency and intra-City coordination.

(1) Education and public awareness programs consist of school and general public education efforts. These efforts involve the distribution of classroom materials, water issue training, advertising and providing books for schools and public libraries. The City also distributes literature on conservation and conducts seminars regarding desert landscaping and irrigation practices.

(2) Technical assistance includes retrofitting houses and apartments with low flow plumbing, auditing of commercial property water use and conducting design review for new facilities.

(3) Regulation involves monitoring peak summer water demand on large turf facilities to assure compliance with water allotments. The conservation program also monitors compliance with the City plumbing code.

(4) Planning and research is an ongoing element of the program to determine more effective technologies and program elements to save water in a cost-effective way.

(5) Interagency and intra-City coordination involves working with national and local efforts to define how water is currently used, and the development of effective conservation measures for use in the City.

DROUGHT MANAGEMENT PLAN

The City first adopted a Drought Management Plan in January 1991 to provide measures that would be taken in the event of water supply shortages during a drought. The Drought Management Plan was most recently updated in 2015. The Drought Management Plan allows for the unrestricted use of recycled water during a water shortage, the implementation of the Drought Management Plan on a non-citywide basis to address localized shortages and appeals on water restrictions for best practices in commercial and industrial water use.

The Drought Management Plan also provides for four stages of voluntary and involuntary demand reduction activities in the event of a drought. The main focus of the Drought Management Plan is the use of a surcharge on water rates. The Water Services Director can institute this surcharge in a declared drought to cover costs for more expensive alternative water supplies, to provide demand reduction assistance to customers, and to offset revenue lost during periods when water consumption is declining.

A stage one alert requires the City to provide public information on the drought and requests voluntary demand reductions from water users. Stages two through four call for increased public information, mandatory water demand reductions, and an increasing drought surcharge to reduce water demands to meet supply levels and maintain the revenue base. Since the implementation of the Drought Management Plan, a stage one alert was required in 1991 and in 2003, when the Salt River Project reduced deliveries of raw water to the City by one-third. In January 2005, Salt River Project restored deliveries back to normal levels due to winter rains that filled the Salt and Verde Rivers' reservoirs. On April 15, 2005, the City lifted the stage one alert, and no alerts have been issued since.

WATER SYSTEM — FACILITIES

Raw water is presently treated at five facilities located adjacent to the Central Arizona Project Hayden-Rhodes Aqueduct and Salt River Project canals. The capacity in million gallons per day ("*mgd*") of the plants, including active well capacity, is indicated below:

Water System Facilities	Total Treatment Capacity (mgd)
Union Hills Plant	160
Lake Pleasant Plant	80
24th Street Plant	140
Deer Valley Plant	100
Val Vista Plant (1)	130
Groundwater (2)	36
Total	646

(1) The Val Vista Water Treatment Plant is jointly owned by the cities of Phoenix and Mesa with a treatment capacity of 220 mgd of which the City owns 130 mgd.
(2) There are 22 active wells that are in compliance with Federal standards, which became effective in 2006.

The System also includes the Cave Creek Water Reclamation Plant ("*WRP*") that became operational in December 2001 with an initial capacity of 8 mgd. The plant provided additional water resources through the use of recycled wastewater for irrigation of turf facilities larger than five acres in the service area and groundwater recharge in the northeast area of the City. Due to lower wastewater flows resulting from economic conditions, the plant was shut down in October 2009 until flows return to higher levels. The plant treatment process is not operationally efficient at these lower flows. Flows are bypassed to the 91st Avenue Wastewater Treatment Plant, where sufficient capacity exists to process the additional load. During the shutdown of the plant, turf facilities previously using reclaimed water from the Cave Creek WRP will be delivered potable water. This temporary change results in more efficient operation of the wastewater system.

In addition to the major treatment and reclamation facilities, the System maintains other supplemental facilities. Storage capacity for treated water in ground reservoirs and elevated tanks total over 500 million gallons to meet peak-day demand. Approximately 7,027 miles of water mains make up the transmission and distribution system. These mains range in size from 2 inches to 108 inches in diameter. Approximately 24.5% of the mains have been installed since 2000. To maintain static pressure range of 60 to 100 pounds per square inch throughout 76 pressure zones, there are 114 booster stations and 171 hydraulic control valves. Public fire protection inside the water utility service area is provided by approximately 55,000 fire hydrants. In addition, the system has over 9,400 active fire connections to commercial, governmental and industrial customers. Lost and unaccounted for water is 8.5%, which is below the industry standard of 10.0%.

REGULATORY REQUIREMENTS

The quality of treated water produced by the System meets all chemical, radiological and bacteriological standards set by the Federal Government and the State of Arizona. The Federal regulations are the responsibility of the U.S. Environmental Protection Agency and serve as guidelines for the State agencies to use as minimum drinking water quality standards. State water quality standards are promulgated by the Arizona Department of Environmental Quality and must be at least as stringent as the Federal regulations. The System is in compliance with all current regulations. Many future regulatory guidelines that are currently proposed but not finalized will require additional studies, design efforts and construction of new facilities. The Department has planned adequately to monitor and develop a means to comply with these future regulations.

SOURCES OF WATER SUPPLY

The City's sources of water supply include: surface water from the Salt River and Verde River watersheds and groundwater delivered through the Salt River Project ("*SRP*"), Colorado River water delivered through the Central Arizona Project ("*CAP*") and groundwater from City wells located within the System's service area. The City operates the System to maximize the use of the least expensive supply sources.

Surface Supply from the Salt River Project

The SRP was organized in 1903 to supply irrigation water to approximately 240,000 acres of farmland in and around the City. Water supply is obtained from the runoff of 13,000 square miles of mountain watershed, the collection and storage of which is provided for by six major reservoirs having a combined capacity of over 2.3 million AF (749 billion gallons). The reservoirs are contained behind the Theodore Roosevelt, Horse Mesa, Mormon Flat and Stewart Mountain Dams on the Salt River and the Bartlett and Horseshoe Dams on the Verde River.

Most of the water obtained from the SRP system can be delivered by Phoenix only to lands with legal rights to that water. Under the Kent Decree of 1910, lands located within the area of the SRP have rights to the surface flow water of the Salt and Verde Rivers ("On-Project"). Arizona water rights within the Salt River Project area are held to be appurtenant to such lands. As a result, landholders in the City and the surrounding areas that are located within the boundaries of the Salt River Project are provided with a stable water supply from this source. Lands outside the SRP area do not have access to SRP water rights and are referred to as ("Off-Project").

The City presently obtains approximately 60% of its water supply through agreements with the SRP. These agreements provide for delivery to the City of water rights for land converted from agricultural to urban uses. As land located in the System's service area of the SRP is converted to urban use, the water supply formerly used for agricultural irrigation of the converted land becomes available to the City to supply domestic and industrial uses. The City pays the SRP for water assessments of urbanized lands and takes delivery of the water at its water treatment plants. The Salt River Valley Water Users' Association determines rates for all types of water supplied to the City by the SRP. The original contract was signed in 1952 for a 25-year term and a second 25-year term was negotiated in 1977. A new 100-year contract that provides substantially the same provisions as the previous contract was approved by the City Council in 2001.

During periods when the dams cannot contain flows from the Salt and Verde Rivers, "spill water" results. Spill water is free to the City. Spillway gates installed on Horseshoe Dam and financed by the City, in accordance with an agreement with the SRP, resulted in additional storage water in the Horseshoe Reservoir.

The water stored behind these gates is known as "gate water" and provides an additional supply of water to the City at nominal cost. Both gate water and spill water can be used in the Off-Project areas resulting in significant cost savings over the more expensive supply alternatives. The City also participated in financing modifications to Roosevelt Dam as part of the 1986 Plan Six Funding Agreement (see "Plan Six Funding Agreement" on page A-15 for further details), which were completed in 1995. Because of these modifications, the City receives a supply of water known as New Conservation Space (*"NCS*") gate water that can also be used Off Project. Historically, the amount of gate water and spill water available to the City of Phoenix has varied considerably from year to year.

The following table shows AF and payments for Salt River Project water obtained for the ten-year period ending December 31, 2020:

Water Obtained From Salt River Project

Year	Total Water Obtained From Salt River Project (Acre-Feet)	Amount Paid	Paid Per Acre-Foot
2011	152,137	$3,356,654	$22.06
2012	152,458	3,621,872	23.76
2013	145,720	4,056,793	26.28
2014	144,610	3,800,941	22.28
2015	144,183	2,896,986	20.09
2016	148,100	3,064,910	20.69
2017	150,000	3,315,436	22.10
2018	148,741	3,356,709	22.57
2019	134,314	3,623,382	26.98
2020 (1)	145,405	4,309,882	29.62

(1) Preliminary and subject to change based on final reporting from SRP.

Agricultural Exchange for Reclaimed Wastewater

In 1995, the City began to take advantage of an additional water supply, which is the result of an agricultural exchange of treated wastewater for surface water. The 23rd Avenue Wastewater Treatment Plant treats wastewater to standards suitable for use on edible crops and delivers up to 30,000 AF per year ("*AF/Y*") to the Roosevelt Irrigation District ("*RID*"). In turn, RID delivers an equivalent amount of groundwater to the Salt River Project, which then provides surface water to the City for use anywhere within the System. Additional exchanges occur with the Salt River Pima Maricopa Indian Community ("*SRPMIC*") as part of a water rights settlement as described below. This additional water supply resulting from the agricultural exchange of treated wastewater for surface water is dependent on the annual SRP surface water allocated deliveries to the City. The net result of all the exchange agreements is an increase in the City's water supply of up to 30,000 AF/Y. From 2016 to 2020, Phoenix has received an average of 22,362 AF of exchange water at $50.78 per AF, reimbursing RID for their cost of operations, maintenance, and repair of leased SRP wells.

Surface Supply from Central Arizona Project

Beginning in fiscal year 1986-87, Colorado River water became available from the CAP. This was the result of construction of the Colorado River following the June 1963 United States Supreme Court decision which ended 11 years of litigation among the states of Arizona, California and Nevada over Colorado River water rights; and the passage of the Colorado River Basin Project Act of September 30, 1968, authorizing the construction of the CAP. In the late 1970s the City requested an allocation of Colorado River water from the

Secretary of Interior to provide a reliable water supply for Off Project lands that did not have SRP water rights other than gate water and spill water. This water is delivered from Lake Havasu through the Hayden-Rhodes Aqueduct section of the CAP, a distance of approximately 190 miles. The City's allocation of Colorado River water is used primarily for its Off-Project service area.

The City's current long-term subcontract for Colorado River Municipal and Industrial ("*M&I*") water is for 122,204 AF/Y. The City has access to additional Colorado River water through 100-year leases with several Indian Communities. Beginning in 2000, the SRPMIC Water Rights Settlement provides the City access to 3,023 AF/Y of leased Colorado River water. The Fort McDowell Indian Community Water Rights Settlement lease, effective in 2001, grants the City access to 4,300 AF/Y of Colorado River water, and the Gila River Indian Community ("*GRIC*") Water Rights Settlement Agreement provides access to an additional 15,000 AF/Y. The SRPMIC settlement also provides the City with 1,136 AF/Y of agricultural-priority Colorado River water and 4,751 AF/Y of high-priority mainstem Colorado River water delivered through the CAP system. Lastly, the City has access to an additional 36,144 AF/Y of agricultural priority Colorado River water which was transferred from the Hohokam Irrigation District in place of water the City would have received from the Cliff Dam storage, which was not constructed. Under the 2004 Arizona Water Rights Settlement Act, this water is converted to the higher M&I priority status in 2044 and beyond.

On February 11, 2009, the City Council authorized the City Manager to enter into the White Mountain Apache Tribe Water Quantification Agreement (the "*Quantification Agreement*"). Under the terms of the Quantification Agreement, the City will lease 3,505 AF/Y of the White Mountain Apache Tribe's Colorado River water for a 100-year term. The one-time cost to the City will be approximately $10.6 million from the Water Resource Acquisition Fund, part of the Water Capital Improvement Plan, and due within 30 days of the enforceability date of the lease, which is expected to be late 2023. The City will pay CAP the annual delivery rate at the time of delivery of the water.

Colorado River water is treated primarily at the Union Hills Water Treatment Plant, which was completed in June 1986. The initial maximum capacity of 80 mgd was expanded to 160 mgd in 1992. The City has since completed construction on the Lake Pleasant Water Treatment Plant. In April 2007, the facility started treating Colorado River water at an initial maximum capacity of 80 mgd. Colorado River water also can be treated at other water treatment plants through the Interconnect Facility. The Interconnect Facility connects the CAP canal with the SRP canals, which allows the City to use more Colorado River water during SRP shortages.

The Central Arizona Water Conservation District ("*CAWCD*"), the controlling agent for the CAP system in Arizona, sets the rates, collects the revenue from the users and pays the CAP expenses. All M&I users pay for operation and maintenance, and replacement costs based on the water ordered each year. In addition, users pay an energy component on all water received through CAP. The M&I rate for 2020 was $155/AF. The rate increases to $160/AF for 2021 and is forecasted to be $165/AF for 2021.

The CAWCD has an obligation to the United States, Department of the Interior for repayment of capital costs of construction of the CAP. The CAWCD repayment obligation is $1.65 billion and will take place over a period of 50 years with the final payment in 2046. The repayment amount was offset through 2019 by revenue collected from power generation before calculating the net capital charge rate to the users, such as the City. Beginning in 2020, there will be no offset. The charge to the City averaged $1.8 million per year for the years 2009 through 2014, $2.7 million in 2015, $2.8 million in 2016, $3.8 million in 2017, $5.5 million in 2018, $5 million in 2019, and $8.6 million in 2020. The charge is estimated to be $8.4 million in 2021.

On October 1, 2014, the City Council authorized the City Manager to enter into Intergovernmental Agreements ("*IGAs*") between the City, the City of Tucson ("*Tucson*") and the Metropolitan Domestic Water Improvement District ("*Metro Water*") to develop a pilot program for storage, recovery and exchange of Colorado River water.

Under the terms of the IGAs, the City, which relies heavily on surface water supplies, will store a portion of its unused Colorado River water in recharge facilities owned by Tucson and Metro Water located in the Tucson Active Management Area, which is primarily dependent on wells and groundwater. In the future, Tucson and Metro Water will recover the stored water on behalf of the City and use it in exchange for ordering a like amount of their Colorado River water for direct delivery to the City's water treatment plants adjacent to the CAP aqueduct. The IGAs provided for a short-term pilot program under which the City stored 1,000 AF in 2015 (850 AF in Tucson's Southern Avra Valley Storage and Recovery Project and 150 AF in Metro Water's Avra Valley Recharge Project) to determine the administrative and institutional feasibility of developing a large-scale program in the future. In early 2016, the two cities amended the agreement to increase the amount of storage allowed during the pilot. Following the pilot, the agreement was further amended in September 2016 to increase the amount of water stored in 2017 to 40,000 AF, with an additional 40,000 AF stored in 2018 and 34,970 AF in 2019. The amount of water stored in 2020 was 43,000 AF. The City expects to store 45,000 AF in 2021.

The agreement with the City of Avondale functions in a similar way. Phoenix will store a portion of its unused entitlement of Colorado River water in the Avondale Wetlands USF and obtain long-term storage credits. Avondale is entitled to a certain volume of Colorado River water through a Subcontract among the United States, the Central Arizona Water Conservation District and the City of Avondale. Under the IGA, Avondale will take delivery of recovered Phoenix water from the Avondale Wetlands USF in exchange for the delivery to Phoenix of a like amount of Avondale's Colorado River water. Phoenix stored approximately 4,428 AF in Avondale in 2020 and intends to store a similar amount in 2021.

On March 7, 2018 the City Council authorized the City Manager to enter into an intergovernmental agreement with the Salt River Valley Water Users' Association for the use of its wells during Colorado River shortage conditions. Through the agreement, Phoenix purchased a right-of-first-refusal to 20,000 AF of the Association's well pumping capacity. The Association's wells can be used to recover long-term storage credits that could then be delivered through the SRP canal system to Phoenix's surface water treatment plants.

The following table shows the AF and payments for CAP water obtained for the ten-year period ending December 31, 2020**:**

Water Obtained From Central Arizona Project

Year	Total Water Obtained From CAP (Acre-Feet)	Amount Paid	Paid Per Acre-Foot
2011	122,194	$14,842,927	$121.47
2012	132,227	17,964,128	135.86
2013	124,613	17,937,549	143.95
2014	122,069	20,418,710	167.27
2015	142,571	23,332,157	163.65
2016	137,300	24,915,992	181.47
2017	184,381	32,974,685	178.84
2018	186,924	33,698,113	180.63
2019	181,677	35,042,835	192.89
2020 (1)	184,914	34,269,112	185.32

(1) Preliminary and subject to change based on final reporting from CAP.

Colorado River Supply

Based on current hydrological conditions, there is a significant probability of an official declaration of shortage in the Colorado River water supply as early as 2022. A shortage declaration on the Colorado River will not affect Phoenix's ability to meet its customers' demands for many years to come due to substantial entitlements, Phoenix's high priority rights, alternative supply and banked water.

Arizona Entitlement. Under guidelines adopted by the Secretary of the Interior in 2007 and congressional action on the Drought Contingency Plan in 2019, the reservoir elevation at Lake Mead is the determining factor in the timing and magnitude of an official declaration of water supply shortage on the Colorado River system. There are multiple tiers of shortage that would be shared by Arizona, Nevada, California, and Mexico. Arizona's annual entitlement to Colorado River water in non-shortage years is 2.8 million AF. Of the 2.8 million AF, about 1.5 million AF is delivered through the CAP. Arizona's Colorado River entitlement under the eight tiers of shortage would be reduced by between 192,000 AF and 720,000 AF. Therefore, even under the strictest shortage declaration, approximately 780,000 AF of Colorado River water would be available for delivery to CAP contractors and subcontractors. These reductions are subject to change following multi-state negotiations to reach a Lower Basin Drought Contingency Plan that could be in effect through 2026.

City of Phoenix Supply and Demand. The City holds rights to an annual volume of 186,557 AF of Colorado River water delivered through the CAP. Of this volume, 149,277 AF is made up of high priority supply within the CAP. The City's entitlement to Colorado River water could be cut in the coming years under the Drought Contingency Plan; however, the City only uses approximately two-thirds of its Colorado River water entitlement to meet current demands, meaning that a generous buffer exists between supply and demand. City's annual use of Colorado River water to meet its customers' demands has not exceeded 132,000 AF in recent years, and water conservation efficiencies are expected to continue. Even under high-growth projections, City's need for Colorado River water to meet its customers' annual demands is not expected to exceed 150,000 AF until at least 2060. A shortage declaration on the Colorado River will not affect City's ability to meet its customers' demands for many years to come due to substantial entitlements, City's high priority rights, alternative supplies, banked water, and the development of infrastructure that allows the city to move alternative Salt and Verde River water into areas of northern portion of the City that are currently dependent on Colorado River supplies.

Alternative Supply and Banked Water. If shortages extend beyond 2023, the available Colorado River water, coupled with City's alternative supply (gate water, new conservation space water and recoverable long-term storage credits) are expected to be sufficient to meet all of its customers' needs through 2040, even under a high-growth scenario with a shortage declaration in every year. Should drought conditions worsen, causing the elevation at Lake Mead to fall below 1,025 feet, it may be necessary for the Secretary of the Interior to declare a shortage that exceeds the shortages described above. The City is preparing for this contingency by developing transmission mains and pump stations that allow the City to pump alternative water supplies from the Salt and Verde River system as well as recovered long-term storage credits to areas in the northern portion of the City that are currently dependent on Colorado River supplies. These improvements and other related infrastructure is expected to be in place and operational by the end of 2023. With this infrastructure in place, the City can withstand worst-case scenarios on the Colorado River.

Plan Six Funding Agreement

The 1986 Plan Six Funding Agreement provided for a cost-sharing arrangement for the Plan Six water storage facilities for surplus water from the CAP. The parties to the Plan Six Funding Agreement included the United States Government, the State of Arizona, the CAWCD, the Maricopa County Flood Control District, the SRP, the City and the cities of Chandler, Glendale, Mesa, Scottsdale, Tempe and Tucson. The main elements of Plan Six Funding Agreement included the construction of the new Waddell Dam on the Agua Fria River, modifications to Roosevelt Dam and Stewart Mountain Dam and construction of the Cliff Dam on the Salt River. In 1987, the Cliff Dam project was removed from the plan. In 1993, the Hohokam Irrigation District transferred to the City Colorado River water rights of 36,144 AF/Y to replace the loss associated with the Cliff Dam. The City contributed a total of $32 million for improvements to the facilities.

Groundwater Supply

The City has 22 active groundwater wells located throughout the service area. These wells meet federal Ground Water Rule standards that took effect in 2006.

The following table compares by source of the average calendar-year daily delivery to the distribution system and the daily production capacity of the System. The maximum daily peak demand made on the System each year is compared to total capacity available. All units are in million gallons per day (mgd).

Source of Supply	2014	2015	2016	2017	2018	2019	2020	Daily Treatment Capacity
Surface Water:								
Salt River Project:								
24th Street Plant	51.49	39.25	31.69	48.55	54.12	54.12	56.10	140
Deer Valley Plant	42.97	44.19	45.09	61.29	57.49	57.49	60.36	100
Val Vista Plant (1)	57.15	64.92	86.78	53.38	77.18	77.18	82.19	130
Central Arizona Project:								
Union Hills Plant	81.42	81.28	77.89	83.52	68.74	68.74	72.10	160
Lake Pleasant Plant	26.01	28.08	25.63	26.07	25.00	25.00	25.00	80
Total Surface Water	259.04	257.72	267.08	272.81	282.53	282.53	295.71	610
Groundwater (2)	3.72	3.66	4.71	4.01	4.00	4.00	4.00	36
Total Average Daily Deliveries	262.76	261.38	271.79	276.82	286.53	286.53	299.71	
Total Daily Capacity								646
Total Maximum Day Demand (3)	379.14	381.42	384.52	387.17	384.32	384.32	455.00	

(1) The Val Vista Water Treatment Plant is jointly owned by the cities of Phoenix and Mesa with a total treatment capacity of 220 mgd of which the City owns 130 mgd.
(2) There are 22 active wells that are in compliance with Federal standards that became effective in 2006.
(3) Maximum day demand is defined as the water delivered during the highest water demand day in a given year. Maximum day demand is a critical consideration in designing many water facilities.

OUTSTANDING WATER SYSTEM OBLIGATIONS

City of Phoenix Civic Improvement Corporation Junior Lien Water System Revenue Debt

The City entered into purchase agreements with the City of Phoenix Civic Improvement Corporation (the "*Corporation*") for certain modifications and expansion at various water treatment plants throughout the City. The Corporation issued bonds for the water treatment plant modifications and expansions, and the City made a junior lien pledge of net operating revenues of the System for the payment of principal and interest on the bonds. Amounts due on the bonds and pursuant to the purchase agreements are as follows:

City of Phoenix Civic Improvement Corporation
Junior Lien Water System Revenue Bonded Debt Outstanding

Issue Date	Original Issuance	Purpose	Maturity Dates	Average Interest Rate	Debt Outstanding as of 4-1-21
08-01-01	$ 99,980,000	Water System Refunding	7-1-02/24	5.24%	$ 26,215,000
11-22-11	167,510,000	Water System Refunding	7-1-14/26	4.81	90,815,000(1)
12-17-14	152,830,000	Water System Improvements	7-1-19/44	4.85	146,425,000(2)
12-17-14	445,085,000	Water System Refunding	7-1-16/29	4.67	367,390,000
01-10-17	375,780,000	Water System Refunding	7-1-17/39	4.99	365,390,000
04-09-20	165,115,000	Water System Improvements	7-1-30/44	5.00	165,115,000
04-09-20	228,015,000	Water System Improvements	7-1-30/44	5.00	228,015,000
Total Junior Lien Water Revenue Bonded Debt					$1,389,365,000

(1) Represents bonds, a portion of which are to be refunded by the 2021B Bonds offered herein.
(2) Represents bonds, a portion of which are to be refunded by the Taxable Bonds offered herein.

City of Phoenix Civic Improvement Corporation
Schedule of Annual Debt Service Requirements
Junior Lien Water System Revenue Bonded Debt Outstanding(1)

Fiscal Year	Principal	Interest	Total
2020-21	$ 64,725,000	$ 68,242,675	$ 132,967,675
2021-22	67,835,000	65,144,550	132,979,550
2022-23	71,235,000	61,736,550	132,971,550
2023-24	74,840,000	58,141,200	132,981,200
2024-25	75,745,000	54,363,750	130,108,750
2025-26	79,535,000	50,576,500	130,111,500
2026-27	65,545,000	46,686,800	112,231,800
2027-28	68,825,000	43,409,550	112,234,550
2028-29	71,720,000	40,432,550	112,152,550
2029-30	34,745,000	37,337,000	72,082,000
2030-31	36,485,000	35,599,750	72,084,750
2031-32	38,305,000	33,775,500	72,080,500
2032-33	40,225,000	31,860,250	72,085,250
2033-34	42,235,000	29,849,000	72,084,000
2034-35	44,335,000	27,749,500	72,084,500
2035-36	46,550,000	25,532,750	72,082,750
2036-37	48,880,000	23,205,250	72,085,250
2037-38	51,320,000	20,761,250	72,081,250
2038-39	53,885,000	18,195,250	72,080,250
2039-40	56,575,000	15,505,450	72,080,450
2040-41	59,385,000	12,697,487	72,082,487
2041-42	62,335,000	9,750,013	72,085,013
2042-43	65,425,000	6,656,075	72,081,075
2043-44	68,675,000	3,408,725	72,083,725
	$1,389,365,000	$820,617,375	$2,209,982,375

(1) Schedule does not include debt service on the Bonds offered herein, but does include debt service on the Bonds Being Refunded.

City of Phoenix Junior Lien Water System Revenue Debt

The City entered into a loan agreement with the Water Infrastructure Finance Authority of Arizona (*WIFA*) to finance certain improvements to the water distribution system and to install automated meters in certain areas of the City. WIFA loaned the City funds derived in whole or in part from the United States Environmental Protection Agency pursuant to the federal American Recovery and Reinvestment Act of 2009. The City made a junior lien pledge of the net operating revenues of the System for the payment of principal and interest on the loans. Amounts due on the loans pursuant to the loan agreement are as follows:

City of Phoenix
Junior Lien Water System Revenue Debt Outstanding

Issue Date	Original Issuance	Purpose	Maturity Dates	Average Interest Rate	Debt Outstanding as of 4-1-21
04-12-11	$2,093,435	Water System Improvements	7-1-16/24	2.97%	$1,003,147
09-14-11	1,496,737	Water System Improvements	7-1-24/29	2.97	1,496,737
Total City of Phoenix Junior Lien Water Revenue Debt					$2,499,884

City of Phoenix
Schedule of Annual Debt Service Requirements
Junior Lien Water System Revenue Debt Outstanding

Fiscal Year	Principal	Interest	Total
2020-21	$ 247,233	$ 74,197	$ 321,429
2021-22	254,571	66,859	321,430
2022-23	262,126	59,303	321,429
2023-24	269,906	51,523	321,429
2024-25	277,917	43,512	321,429
2025-26	286,165	35,264	321,429
2026-27	294,659	26,770	321,429
2027-28	303,404	18,025	321,429
2028-29	303,903	9,020	312,923
	$2,499,884	$384,473	$2,884,357

City of Phoenix Outstanding Junior Subordinate Lien Obligations

The City entered into a Revolving Credit Agreement dated June 28, 2019 (the "*Revolving Credit Agreement*") with Wells Fargo, N.A (the "*Revolving Credit Agreement Provider*") for a three-year loan period ending on June 27, 2022, during which the City may borrow, repay and re-borrow amounts, but not exceeding $200,000,000 outstanding in the aggregate at any one time (each a "*Loan*"). Loans made under the Water Revolving Credit Agreement (such loans, together with any obligations on a parity therewith, the "*Junior Subordinate Lien Obligations*") are payable from Designated Revenues pledged to the City of Phoenix Civic Improvement Corporation Junior Lien Water System Revenue Bonds ("*Junior Lien Obligations*") but are junior and subordinate to the Junior Lien Obligations. If any loans under the Water Revolving Credit Agreement are outstanding on June 27, 2022, the City can, subject to certain conditions, convert the borrowing to a three-year term loan payable in twelve equal quarterly principal installments ending on June 27, 2025.

City of Phoenix
Junior Subordinate Lien
Water Revolving Loan Outstanding

Issue Date	Original Issuance	Purpose	Notes Outstanding As of 4-1-21
06-28-2019	$200,000,000	Revolving Credit Agreement	$ — (1)

(1) As of April 1, 2021, there is no Water Revolving Loan outstanding.

Upon an event of default under the Water Revolving Credit Agreement, Water Credit Agreement Provider may declare all amounts due (collectively, "*Payment Obligations*") immediately due and payable. Events of default include, but are not limited to, failure to pay amounts to the Water Credit Agreement Provider by the applicable grace period, failure to perform certain covenants such as issuance of obligations in violation of additional bonds test, sale of the City Water System property in violation of applicable covenants, acceleration of other obligations payable from Water System revenues on any lien in an amount of at least $5,000,000, certain litigation, bankruptcy and insolvency events related to the Water System and certain downgrades of Junior Lien Obligations. If Payment Obligations were to be accelerated, Designated Revenues would continue to be transferred to the extent available from the Revenue Fund to the Junior Lien Bond Fund on a monthly basis prior to payment of Payment Obligations.

WATER FINANCIAL PLANNING PROCESS AND CAPITAL IMPROVEMENT PROGRAM

The City has a long-standing practice of updating the five-year Water Capital Improvement Program (the "*Water CIP*") and financial forecast each year for review by the City Council as part of the financial planning process. The Water CIP, financial forecast and associated proposed water rates are updated through a coordinated process between the Water Services Department and the Finance Department. The two departments recommend rates necessary to maintain water revenue bond debt service coverage of 2.0 times or greater, a minimum available fund balance equal to annual total revenue bond debt service and long-term sustainability of the System. The City Council most recently approved a 6.5% increase over a two-year period with 3.0% effective October 2021 and 3.5% effective March 2022.

The Water CIP for fiscal years 2021-22 through 2025-26 totals $1.73 billion. In addition, $564.80 million was programmed in fiscal year 2020-21 for a total Water CIP of $2.29 billion. In general, the Water CIP includes projects for improvements to the water treatment plants' processes; improvements to storage facilities; rehabilitation and replacement of water mains and other water infrastructure; modifications to meet regulatory mandates; and upgrades to automation and environmental systems. The total Water CIP for fiscal years 2020-21 through 2025-26 is shown on the following page.

City of Phoenix Water System
Capital Improvement Program Summary

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	6-Year Total
Uses of Funds							
Production:							
Deer Valley Treatment Plant	$ 4,082,740	$ 39,180,000	$ 24,730,000	$ 7,565,000	$ 2,855,000	$ 38,065,000	$ 116,477,740
Lake Pleasant Treatment Plant	1,584,316	—	—	—	—	—	1,584,316
24th Street Treatment Plant	3,202,228	20,015,000	20,080,000	35,975,000	3,935,000	10,355,000	93,562,228
Union Hills Treatment Plant	7,053,396	3,320,000	32,455,000	4,290,000	8,605,000	32,820,000	88,543,396
Val Vista Treatment Plant	7,137,692	7,980,440	11,260,000	3,323,000	5,073,200	74,669,000	109,443,332
Verde Treatment Plant	61,692	—	—	—	—	—	61,692
Wells	15,983,188	1,380,000	24,680,000	1,310,000	1,065,000	1,165,000	45,583,188
Production Replacement	10,990,794	8,035,000	15,390,000	9,884,650	10,995,000	14,355,000	69,650,444
Water Resource Acquisition	—	12,577,211	—	—	—	—	12,577,211
Subtotal Production	50,096,046	92,487,651	128,595,000	62,347,650	32,528,200	171,429,000	537,483,547
Distribution:							
East Phoenix Mains	17,426,553	15,985,588	12,143,636	4,771,686	6,281,526	29,814,021	86,423,010
West Phoenix Mains	593,441	6,753,424	19,582,842	8,336,199	1,059,729	36,938,971	73,264,606
North Phoenix Mains	4,988,097	21,510,000	3,940,000	10,000	—	20,661,700	51,109,797
South Phoenix Mains	216,603,830	9,794,099	40,127,980	16,869,789	2,180,012	32,183,903	317,759,613
Mains/Valves Replacement	51,644,652	32,796,055	35,905,677	23,869,677	33,531,277	45,918,317	223,665,655
Water Storage	5,475,788	20,985,000	19,165,000	16,645,000	6,020,000	9,525,000	77,815,788
Booster Stations and PRV	112,855,040	18,295,000	30,701,375	48,273,665	444,550	27,560,856	238,130,486
Fire Hydrants New/Replace	4,671,844	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	25,421,844
Service Connect/Replace	46,787,815	118,592,207	46,399,460	33,206,566	20,458,470	90,905,862	356,350,380
Subtotal Distribution	461,047,060	248,861,373	212,115,970	156,132,582	74,125,564	297,658,630	1,449,941,179
Other:							
Automation	13,049,519	24,654,993	11,990,433	7,242,433	7,847,233	20,426,433	85,211,044
Facilities	7,825,492	4,800,000	5,087,500	4,361,000	3,111,000	6,111,000	31,295,992
Percent for Arts	227,456	5,605,573	—	—	—	—	5,833,029
Security	282,516	280,000	280,000	280,000	280,000	280,000	1,682,516
System Studies	20,500	2,000,000	5,000,000	4,500,000	3,000,000	24,000,000	38,520,500
Water Resiliency Program	32,164,876	16,090,075	16,445,726	16,982,650	17,520,721	17,818,909	117,022,957
Power Redundancy	89,272	—	—	2,282,080	—	23,496,940	25,868,292
Subtotal Other	53,659,631	53,430,641	38,803,659	35,648,163	31,758,954	92,133,282	305,434,330
Total Uses	$564,802,737	$394,779,665	$379,514,629	$254,128,395	$138,412,718	$561,220,912	$2,292,859,056
Sources of Funds							
Operating Funds:							
Development Occupation Fees	$ 1,200,000	$ 2,300,000	$ 6,900,000	$ 1,650,000	$ 500,000	$ 500,000	$ 13,050,000
Water Revenue (1)	73,395,799	110,142,835	146,872,728	62,416,289	56,276,110	78,565,136	527,668,897
Water Resource Acquisition	20,000	12,597,211	6,460,000	20,000	—	—	19,097,211
Subtotal Operating Funds	74,615,799	125,040,046	160,232,728	64,086,289	56,776,110	79,065,136	559,816,108
Other Financing:							
Mesa Participation (2)	1,174,519	1,505,343	3,468,910	305,699	1,365,347	29,493,387	37,313,205
Developer Contributions	29,056,544	—	6,516,000	—	1,045,000	34,961,456	71,579,000
Bond Funds/Commercial Paper	459,955,875	265,034,276	206,096,991	189,736,407	79,226,261	417,700,933	1,617,750,743
Other Sources	—	3,200,000	3,200,000	—	—	—	6,400,000
Subtotal Other Financing	490,186,938	269,739,619	219,281,901	190,042,106	81,636,608	482,155,776	1,733,042,948
Total Sources	$564,802,737	$394,779,665	$379,514,629	$254,128,395	$138,412,718	$561,220,912	$2,292,859,056

(1) Includes revenue from Water Service charges as well as other miscellaneous fees and charges not included in other categories.

(2) Represents the city of Mesa's share of costs for capital projects related to the Val Vista Water Treatment Plant which is a joint venture between the City and Mesa.

City of Phoenix Water System
Comparative Statement of Revenues, Expenditures, Encumbrances, Debt Service, Debt Service Coverage and Changes in Fund Balance (Non-GAAP Budgetary Basis)

	2015-16	2016-17	2017-18	2018-19	2019-20
Revenues: (1)					
Metered Water Sales (2)	$299,766,787	$323,051,056	$337,063,478	$298,509,027	$310,092,051
Environmental Charge	40,104,961	33,357,793	34,426,690	42,845,845	68,718,520
Raw Water Charge	24,979,300	25,425,034	26,451,616	26,394,518	34,426,970
Wholesale Water Sales	3,595,734	3,920,015	3,505,977	3,278,051	3,569,175
Customer Service Fees	5,300,891	5,055,730	5,914,670	5,335,411	4,202,743
Development Occupational Fees	3,511,860	3,754,680	3,916,414	4,221,225	5,536,482
Water Resource Acquisition Fees	1,731,903	2,226,949	2,110,513	2,528,958	2,335,568
Connection Fees	4,225,349	4,809,501	5,242,333	5,231,687	5,438,372
Interest Income	2,489,499	2,804,075	3,622,943	3,828,398	5,166,869
Other	14,002,398	16,065,930	19,212,378	14,038,699	19,274,508
Total Revenues	399,708,682	420,470,763	441,467,012	406,211,819	458,761,258
Operation & Maintenance Expenditures and Encumbrances:					
Administration and Engineering	16,648,043	21,930,453	24,985,838	20,375,812	21,669,985
Customer Service	9,039,469	6,690,465	7,073,640	7,431,838	8,644,816
Production and Treatment (3)	82,413,165	97,364,327	111,300,487	111,825,420	121,451,302
Distribution and Centralized Functions (3)	60,203,677	42,132,567	49,657,847	65,647,912	59,760,498
Total O&M Expenditures and Encumbrances	168,304,354	168,117,812	193,017,812	205,280,982	211,526,601
Net Revenues Available for Junior Lien Revenue Bond Debt Service (Designated Revenues)	231,404,328	252,352,951	248,449,200	200,930,837	247,234,657
Junior Lien Revenue Bond Debt Service	96,401,205	107,028,754	109,837,329	113,002,767	120,761,467
Junior Lien Debt Service Coverage	2.40	2.36	2.26	1.78	2.05
Revenues Available After Junior Lien Revenue Bond Debt Service	135,003,123	145,324,197	138,611,871	87,928,070	126,473,190
Other Expenditures and Encumbrances and Transfers:					
Capital Outlay	2,265,641	3,786,412	2,978,430	3,382,312	6,777,319
Plant Additions and Improvements	88,686,645	152,429,954	106,954,588	63,135,916	65,435,348
G.O. Bond Debt Service	16,874,913	6,311,188	196,500	196,500	6,931,500
Transfer from Other Funds:					
Water Capital Project Fund	—	—	(25,000,000)	—	—
Other	(6,302)	(351,653)	—	—	—
Transfer to Other Funds:					
Staff and Administrative Charges	7,051,000	8,103,000	8,574,000	8,843,000	8,511,004
In-Lieu Property Tax Payments	12,122,866	14,484,772	14,729,891	14,950,550	15,584,651
Other	224,105	3,440,793	—	—	—
Total Other Expenditures, Encumbrances and Transfers	127,218,868	188,204,466	108,433,409	90,508,278	103,239,822
Net Increase (Decrease) in Fund Balance	7,784,255	(42,880,269)	30,178,462	(2,580,208)	23,233,368
Fund Balance, Beginning of Year	97,688,902	105,473,157	62,592,888	92,771,350	90,191,142
Fund Balance, End of Year	105,473,157	62,592,888	92,771,350	90,191,142	113,424,510
Reserved for:					
Water Resource Acquisition Fees	16,466,847	18,866,416	21,352,386	23,732,986	20,522,177
Development Occupational Fees	23,275,430	21,028,426	20,160,717	19,857,749	24,515,056
Reserved Fund Balance, End of Year	39,742,277	39,894,842	41,513,103	43,590,735	45,037,233
Unreserved Fund Balance, End of Year	65,730,880	22,698,046	51,258,247	46,600,407	68,387,277
Water Reserve Fund	100,005,440	100,007,614	100,007,614	100,009,180	100,009,180
Available Fund Balance, End of Year(4)	$165,736,320	$122,705,660	$151,265,861	$146,609,587	$168,396,457

(1) Revenues and related expenditures include the City of Mesa's share of the Val Vista Water Treatment Plant.
(2) In March 2016, 2017, and 2019 water rates increased. In FY 2018-19 water consumption sales decreased due to heavy rainfall.
(3) In 2016-17, remote facilities costs were re-allocated from distribution and centralized functions to production and treatment.
(4) FY 2019-20 includes COVID-19 related activity not included in Appendix B Forecast.

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APPENDIX B

City of Phoenix Water System Financial Forecast

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RAFTELIS

April 19, 2021

REPORT OF INDEPENDENT CONSULTANTS

Dear Mayor, City Council Members, and City Manager:

The City of Phoenix ("City") retained Raftelis as an Independent Rate Consultant ("Consultant") to review the projected near-term financial projections prepared by the City for the City's Water Department's ("Department") Junior lien Water System Revenue Bonds, 2021A, 2021B, and 2021C.

We have examined the accompanying "Forecasted Schedule of Revenues, Expenditures, Debt Service, Debt Service Coverage, and Changes in Fund Balance" of the City of Phoenix Water System for the five years ending June 30, 2025. This schedule presents the City of Phoenix management's estimates of the most probable results of revenues from operations and debt service coverage for the forecast period. Thus, the forecast reflects management's judgment, based upon present circumstances, as to the most likely set of conditions and management's most likely course of action.

The accompanying "Forecasted Schedule of Revenues, Expenditures, Debt Service, Debt Service Coverage, and Changes in Fund Balance" indicates that, based upon the assumptions presented herein, sufficient revenues would be generated to meet the operations and maintenance, debt service and anticipated capital cost requirements. Based upon our examination, it is our professional opinion that the underlying assumptions provide for a reasonable basis for the City of Phoenix management's forecast. However, there will usually be differences between the forecasted and actual results because events and circumstances frequently do not occur as expected, and those differences may be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

Sincerely,
RAFTELIS

Harold J. Smith
Vice President

5619 DTC Parkway, Suite 850
Greenwood Village, CO 80111
www.raftelis.com

City of Phoenix Water System
Forecast Schedule of Revenues, Expenditures, Debt Service, Debt Service Coverage and Changes in Fund Balance*

	2020-21 Forecast	2021-22 Forecast	2022-23 Forecast	2023-24 Forecast	2024-25 Forecast
Rate Revenues:					
Metered Water Sales	$328,784,000	$315,059,000	$337,717,000	$339,302,000	$341,173,000
Environmental Charges	74,461,000	71,998,000	72,898,000	73,810,000	74,732,000
Raw Water Charge	37,352,000	35,737,000	36,184,000	36,636,000	37,094,000
Total Rate Revenues	440,597,000	422,794,000	446,799,000	449,748,000	452,999,000
Forecast Revenue Adjustments:					
Annual Impact of 2022 Adjustment	—	13,573,000	29,511,000	29,706,000	29,921,000
Annual Impact of 2023 Adjustment	—	—	5,670,000	16,781,000	16,902,000
Annual Impact of 2024 Adjustment	—	—	—	5,907,000	17,494,000
Annual Impact of 2025 Adjustment	—	—	—		6,158,000
Total Forecast Revenue Adjustments	—	13,573,000	35,181,000	52,394,000	70,475,000
Total Metered Water Sales, Environmental and Raw Water Charge Revenues	**440,597,000**	**436,367,000**	**481,980,000**	**502,142,000**	**523,474,000**
Wholesale Water Sales	3,500,000	3,500,000	3,535,000	3,570,000	3,606,000
Customer Service Fees	5,000,000	5,000,000	5,075,000	5,151,000	5,228,000
Development Occupational Fees	4,700,000	4,700,000	4,700,000	4,700,000	4,700,000
Water Resource Acquisition Fees	2,100,000	2,100,000	2,100,000	2,100,000	2,100,000
Connection Fees	4,200,000	4,200,000	4,242,000	4,284,000	4,327,000
Interest Income	8,500,000	8,317,000	4,685,000	2,611,000	9,017,000
Other	10,985,000	12,548,000	12,182,000	12,250,000	12,694,000
Total Operating Revenues	**479,582,000**	**476,732,000**	**518,499,000**	**536,808,000**	**565,146,000**
Operation and Maintenance:					
Administration and Engineering	26,054,000	27,013,000	27,824,000	28,659,000	29,519,000
Customer Service	8,424,000	8,948,000	9,216,000	9,493,000	9,778,000
Production and Treatment	121,859,000	124,842,000	140,130,000	144,707,000	148,536,000
Distribution and Centralized Functions	60,790,000	65,543,000	67,509,000	69,534,000	71,620,000
Total Operation and Maintenance Expenditures	**217,127,000**	**226,346,000**	**244,679,000**	**252,393,000**	**259,453,000**
Net Operating Revenues Available for Junior Lien Revenue Bond Debt Service (Designated Revenues)	**262,455,000**	**250,386,000**	**273,820,000**	**284,415,000**	**305,693,000**
Junior Lien Revenue Bond Debt Service:					
Existing Bonds (1)	132,846,000	112,019,000	112,012,000	112,023,000	109,148,000
2021A Bonds (2)	611,000	10,000,000	10,000,000	10,000,000	10,000,000
2021B Bonds (2)	211,000	9,118,000	17,874,000	17,874,000	17,877,000
2021C Bonds (2)	143,000	2,340,000	2,340,000	2,340,000	2,340,000
Future Bonds (3)	—	—	—	—	30,000,000
Total Junior Lien Debt Service	**133,811,000**	**133,477,000**	**142,226,000**	**142,237,000**	**169,365,000**
Junior Lien Debt Service Coverage	1.96	1.88	1.93	2.00	1.80
Revenues Available after Revenue Bond Debt Service	128,644,000	116,909,000	131,594,000	142,178,000	136,328,000
Other Expenditures:					
Revolving Loan	—	—	3,000,000	3,000,000	—
Plant Additions, Improvements and Capital Outlay	68,870,000	124,444,000	160,716,000	64,679,000	57,481,000
Staff and Administrative Charges	8,786,000	9,138,000	9,356,000	9,581,000	9,811,000
In-Lieu Property Tax Payments	16,865,000	18,704,000	19,455,000	20,274,000	21,117,000
Transfers (to) from Operating Fund	237,000	236,000	236,000	236,000	236,000
Total Other Expenditures	94,758,000	152,522,000	192,763,000	97,770,000	88,645,000
Total Expenditures	**445,696,000**	**512,345,000**	**579,668,000**	**492,400,000**	**517,463,000**
Net Increase (Decrease) in Fund Balance	33,886,000	(35,613,000)	(61,169,000)	44,408,000	47,683,000
Fund Balance, Beginning of Year	113,434,000	147,320,000	111,707,000	50,538,000	94,946,000
Fund Balance, End of Year	147,320,000	111,707,000	50,538,000	94,946,000	142,629,000
Reserved Fund Balance, End of Year	51,647,000	44,504,000	38,718,000	44,623,000	51,820,000
Unreserved Fund Balance, End of Year	95,673,000	67,203,000	11,820,000	50,323,000	90,809,000
Water Reserve	100,009,000	100,009,000	100,009,000	100,009,000	100,009,000
Available Fund Balance, End of Year	**$195,682,000**	**$167,212,000**	**$111,829,000**	**$150,332,000**	**$190,818,000**
Forecast Annual (Fiscal) Adjustment in Rate Revenue	0.00%	3.00% & 3.50%	3.50%	3.50%	3.50%
Month of Adjustment	Mar	Oct & Mar	Mar	Mar	Mar

* Subject to Change.
(1) Net of the Bonds Being Refunded.
(2) Represents the Bonds offered herein.
(3) Represents estimated debt service on $600,000,000 of future bonds.

1. Basis of Presentation

The City of Phoenix (the "*City*") Water System (the "*System*"), a division of the City's Water Services Department (the "*Department*"), is operated as a financially self-supporting municipal utility. The Department derives its authority and responsibility from the Phoenix City Charter, ordinances and resolutions adopted by the City Council.

The accompanying financial forecast presents, to the best of the City's knowledge and belief based upon available information, the expected revenues, expenditures, debt service, debt service coverage and changes in fund balance of the System. Accordingly, the Forecasted Schedule of Revenues, Expenditures, Debt Service, Debt Service Coverage and Changes in Fund Balance reflect the City's judgment as of the date of this Official Statement. The forecast is for the period ending June 30, 2025. The forecast includes estimated debt service on the refunded Bonds offered herein, but does not include debt service on the Bonds Being Refunded, see "PLAN OF FINANCE" and the tables "Schedule of Maturities And Call Dates of Series 2011 Bonds Being Refunded" and "Schedule of Maturities and Call Dates of Series 2014A of Bonds Being Refunded" on pages 2 and 3. The forecast is prepared on the modified accrual basis to correspond to the City's budget practices and is not intended to present results of operation in accordance with generally accepted accounting principles. The assumptions disclosed herein are those that the City believes are significant to the forecast. There will usually be differences between the forecast and actual results, because events and circumstances frequently do not occur as expected, and those differences may be material.

2. City of Phoenix Civic Improvement Corporation Financings and Agreements

The City has entered into certain agreements (the "*City Purchase Agreements*") with the City of Phoenix Civic Improvement Corporation (the "*Corporation*"), a nonprofit corporation, for the construction and acquisition of certain facilities and equipment. Under the terms of the City Purchase Agreements, the Corporation issues bonds or certificates of participation ("*Water Revenue Bonds*") to finance the facilities, and the City makes lease and purchase payments to the Corporation, sufficient to pay the principal and interest on the outstanding obligations. The City also pays all operation and maintenance expenditures associated with these facilities and equipment. The Junior Lien Revenue Bond Debt Service amounts in the forecast represent the payments to be made to the Corporation to meet outstanding bond obligations.

The Water Revenue Bonds of the Corporation are and will be special revenue obligations payable solely from payments received under the City Purchase Agreements. Payments by the City are to be made solely from revenues of the System. During the term of the City Purchase Agreements, payments are to be made regardless of damage to the System or commercial frustration of purpose, without right of set-off or counterclaim, regardless of any contingencies and whether or not the City possesses or uses the System. The City's obligation to make payments will continue until all payments under the City Purchase Agreements have been paid.

The obligation of the City under the City Purchase Agreements does not and will not constitute a debt or a pledge of the full faith and credit of the City, the State of Arizona or any other political subdivision thereof. The City has not pledged and will not pledge any form of ad valorem taxes to the payments. The Water Revenue Bonds are and will be special revenue obligations of the Corporation secured by a pledge of the net operating revenues of the System after the payment of operation and maintenance expenditures from such revenues and less payment required on any senior lien obligations (the "*Designated Revenues*"). The City may, but is not required to, pay amounts due under the City Purchase Agreements from any other money legally available for such purposes.

3. Water Infrastructure Finance Authority of Arizona (WIFA)

The City entered into loan agreements with the Water Infrastructure Finance Authority of Arizona ("*WIFA*") to finance certain improvements to the water distribution system and to install automated meters in certain areas of the City. WIFA loaned funds derived in whole or in part from the United States Environmental

Protection Agency pursuant to the federal American Recovery and Reinvestment Act of 2009 (the "*Recovery Act*"). The City made a junior lien pledge of the net operating revenues of the water system for the payment of principal and interest on the loans.

4. Scope of Operation

The System is responsible for the delivery of water services to more than 436,339 customer accounts over a service territory encompassing 543 square miles. The System consists of over 7,027 miles of water mains, five treatment facilities and a water reclamation plant. Certain amounts of wholesale water are provided to the city of Tolleson and large turf areas. Estimated Total Average Daily Delivery of the System in 2020 was 299 mgd and the estimated Total Maximum Day Demand was 455 mgd.

5. Capital Improvements and Related Funding

As summarized in Appendix A of the Official Statement, the City has developed a five-year Water System Capital Improvement Program (the "*Water CIP*") which is an integral part of its plans to meet its commitment of providing quality water service to its customers. It is intended that the Water CIP will not be significantly altered and the program will be implemented substantially as scheduled. The planned capital improvements are intended to be funded using a combination of System revenues, development occupational fees, water resource acquisition fees, connection fees, federal funding and revolving loans. Estimated debt service payments on revolving loans forecasted to be issued to pay for capital improvements are included in the accompanying forecast.

6. Operating Revenues

Metered Water Sales, Environmental Charge and Raw Water Charge

The revenue from metered water sales includes the base and volume charges. The environmental charge recovers costs related to federal and state environmental mandates. The raw water charge recovers costs associated with obtaining untreated water resources. Total metered water sales, environmental charge and raw water charge revenues for fiscal year ended June 30, 2020 were $413,238,000. This was due to hotter than normal weather. The forecasted revenue from metered water sales, the environmental charge and raw water charge for fiscal year ending June 30, 2021 reflects more normal weather and average rain leading to more water usage. The forecast for fiscal year ending June 30, 2021 through June 30, 2022 assumes 0.8% and 1.00% account growth, respectively. Account growth is estimated at 1.25% for fiscal year ending June 30, 2023 through the remainder of the forecast period as water usage is expected to return to more normal levels.

It is assumed that the City Council will continue to have full control over establishment of rates for water service. Assumed adjustments in rate revenues for future years are presented below and reflect the overall adjustments to the total metered water sales, environmental charge and raw water charge revenues. The forecasted rate adjustments are subject to approval in each year by the City Council, and the forecast assumes such approval will be given.

Forecast Rate Adjustment Effective Dates	Forecast Rate Revenue Adjustment
October 1, 2021	3.0%
March 1, 2022	3.5
March 1, 2023	3.5
March 1, 2024	3.5
March 1, 2025	3.5

These overall rate adjustments reflect the amounts that the City believes will be necessary to cover operation and maintenance expenditures and to pay annual debt service on all outstanding bonds and revolving loans. The

City's intent in the forecast is to target Total Junior Lien Water Revenue Bond Debt Service Coverage of 2.0 times over the forecast period, and a Total Available Fund Balance at least equal to total junior and senior lien revenue bond debt service.

Bad debt expense for the fiscal year ended June 30, 2020 was 0.45% of revenues. The Water Department continues to make continuous efforts to recover on doubtful accounts resulting in projected expenses between 1.0% or less through the remainder of the forecast period.

Wholesale Water Sales

Wholesale water sales consist of sales to the city of Tolleson and large turf customers. Revenues for fiscal year ended June 30, 2020 were $3,569,000 and are forecasted to be $3,500,000 for fiscal year ending June 30, 2021 and June 30, 2022. Beginning in fiscal year ending June 30, 2023, revenues are forecasted to increase 1.0% annually throughout the remainder of the forecast period.

Customer Service Fees

Customer service fees represent miscellaneous and special charges such as new account activation, meter relocations, temporary shut-downs and turn-offs. Revenues from customer service fees for fiscal year ended June 30, 2020 were $4,203,000. The projected revenues are $5,000,000 for fiscal year ending June 30, 2021 and June 30, 2022. Beginning in fiscal year ending June 30, 2022, customer service fees are forecasted to increase 1.5% annually throughout the remainder of the forecast period.

Development Occupational Fees

The development occupational fee was established in May 1982 to be applied to new water and wastewater connections and to existing customers when the water meter size is increased or additional meters are installed. The fee is currently $600 for single family homes and varies by meter size for other types of connections. The use of revenues from this fee is restricted to the funding of growth related water capital improvement projects or debt service on outstanding water obligations issued for growth related purposes. Revenues from these fees for the fiscal year ended June 30, 2020 were $5,537,000. The forecasted revenues decrease slightly for fiscal year ending June 30, 2021 to $4,700,000 continuing throughout the remainder of the forecast period. The estimates reflect a gradual recovery towards the long-term average growth trends.

Water Resource Acquisition Fees

In November 1989, the City Council adopted a water resource acquisition fee to be applied to all new service connections and to existing customers when the water meter size is increased or additional meters are purchased. The fee is based on the residential use, meter size and location of the development within the City. Revenue from this fee is restricted to recover costs for the acquisition of new water supply to support growth and projects that reduce water demand. Fees for the fiscal year ended June 30, 2020 were $2,336,000. The forecasted revenues decrease to $2,100,000 in fiscal year ending June 30, 2021. The forecasted revenues remain $2,100,000 through the remainder of the forecast period reflecting a return to development activity more consistent with the long-term average for the service area.

Connection Fees

Connection fees recover the cost of meter and service line installation for new customers joining the System. Revenues from these fees for the fiscal year ended June 30, 2020 were $5,438,000. The projected revenues decrease to $4,200,000 ending June 30, 2021 and June 30, 2022. Beginning in fiscal year ending June 30, 2023, connection fees are forecasted to increase 1.0% annually throughout the remainder of the forecast period.

Interest Income

Interest income on available operating funds is estimated at 1.86% through fiscal year ending June 30, 2025. The yield on the temporary investment of bonds and revolving loan proceeds is also forecasted at 1.86%.

Other

Other income includes revenues from sources such as rental of property, sale of fixed assets, sale of excess land, water plan review fees, late payment fees, reimbursement by the city of Mesa for a portion of operation and maintenance costs for the jointly owned Val Vista water treatment plant and recovery of prior year expenditures. The revenue received from these various sources was $19,210,000 for fiscal year ended June 30, 2020. Other income is forecasted at $10,985,000 in fiscal year ending June 30, 2021. It decreases because recoveries of prior year expenditures are not projected and also because of lower late fees being assessed. Other revenues are forecasted to increase slightly to $12,548,000 in fiscal year ending June 30, 2022 due to increases in the reimbursement by the city of Mesa for a portion of the increase to operation and maintenance costs at Val Vista water treatment plant and more in the collection of late fees. Other revenue is forecast to increase minimally throughout the remainder of the forecast period, reflecting a return to long-term levels.

7. Operation and Maintenance Expenditures

The forecast of Operation and Maintenance (*O&M*) Expenditures are based on a combination of historical expenditure patterns and expected changes in operation. The city of Mesa's share of O&M costs of the jointly owned Val Vista water treatment plant is included. Total O&M expenditures were $211,452,000 for fiscal year ended June 30, 2020. O&M expenditures are forecasted at $217,127,000 for fiscal year ending June 30, 2021 and $226,346,000 for fiscal year ending June 30, 2022. These forecasted amounts are based on estimates provided by the Water Services Department. These forecasts include increases in chemicals, raw water and electricity costs.

Administration and Engineering costs are forecasted to increase from $21,595,000 for fiscal year ended June 30, 2020 to $26,054,000 in fiscal year ending June 30, 2021. There is a slight increase to $27,013,000 for fiscal year ending June 30, 2022. Cost increase due to increase to personal services, consultant fees, legal services and laboratory expenses. Forecasted costs increase slightly in fiscal year ending June 30, 2023 through the end of the forecast period.

Customer Services costs are forecasted to slightly decrease from $8,645,000 for fiscal year ended June 30, 2020 to $8,424,000 for fiscal year ending June 30, 2021 and increase to $8,948,000 for June 30, 2022. The increases are due to increases in bank service fees, postage fees, software and computer hardware maintenance costs.

Production and Treatment costs are forecasted to increase from $121,451,000 for fiscal year ended June 30, 2020 to $121,859,000 for fiscal year ending June 30, 2021 and $124,842,000 for fiscal year ending June 30, 2022. The increases in Production and Treatment through the end of the forecast period are largely due to increases to raw water costs, electricity costs and chemical costs.

Distribution and Centralized Functions costs are forecasted to decrease from $59,761,000 for fiscal year ended June 30, 2020 to $60,790,000 for fiscal year ending June 30, 2021 and increase slightly to $65,543,000 for fiscal year ending June 30, 2022. The increases are due to increases in meter operations and personal services.

For fiscal years ending June 30, 2023 through June 30, 2025, for functions other than Production and Treatment, O&M is forecasted to grow at a compounded annual rate of approximately 3.0%, reflecting increases due to inflation and minimal system growth. The forecast also reflects additional operating expenditures related to raw water, electricity and chemical costs.

8. Junior Lien Revenue Bond Debt Service

Existing Junior Lien Obligations

As of April 1, 2021, there were outstanding Junior Lien Water System Revenue Bonds as follows:

Issue Date	Original Issuance	Purpose	Maturity Dates	Average Interest Rate	Debt Outstanding as of 4-1-21
08-01-01	$ 99,980,000	Water System Refunding	7-1-02/24	5.24%	$ 26,215,000
04-12-11	2,093,435	Water System Improvements	7-1-16/24	2.97	1,003,147 (1)
09-14-11	1,496,737	Water System Improvements	7-1-24/29	2.97	1,496,737 (1)
11-22-11	167,510,000	Water System Refunding	7-1-14/26	4.81	13,360,000 (2)
12-17-14	152,830,000	Water System Improvements	7-1-19/44	4.85	78,395,000 (2)
12-17-14	445,085,000	Water System Refunding	7-1-16/29	4.67	367,390,000
01-10-17	375,780,000	Water System Refunding	7-1-17/39	4.99	365,390,000
04-09-20	165,115,000	Water System Improvements	7-1-30/44	5.00	165,115,000
04-09-20	228,015,000	Water System Improvements	7-1-30/44	5.00	228,015,000
Total Junior Lien Obligations					$1,246,379,884

(1) Represents a loan agreement between the City and the Water Infrastructure Finance Authority of Arizona (WIFA) pursuant to the American Recovery and Reinvestment Act of 2009 (the "*Recovery Act*").

(2) Net of Bonds Being Refunded. See table "Schedule of Maturities and Call Dates of Series 2011 Bonds Being Refunded" and "Schedule and Call Date of Series 2014A of Bonds Being Refunded".

The obligation of the Corporation to make payments on these Junior Lien Water Revenue Bonds is secured solely by payments to be made by the City pursuant to the City Purchase Agreements and are secured by a pledge of the Designated Revenues of the System. Under the City Purchase Agreements, the payment amounts to be made by the City to the Corporation from Designated Revenues of the System during the forecast period, not including debt service on certain bonds that are expected to be refunded by the Bonds offered herein, are summarized below:

Fiscal Year Ending June 30	Principal	Interest	Total
2021	$ 64,972,000	$ 67,874,000	$132,846,000
2022	54,060,000	57,959,000	112,019,000
2023	56,782,000	55,230,000	112,012,000
2024	59,660,000	52,363,000	112,023,000
2025	59,798,000	49,350,000	109,148,000
	$295,272,000	$282,776,000	$578,048,000

Junior Lien Water Revenue Bonds, Series 2021A

The $200,000,000* principal amount of Junior Lien Water System Revenue Bonds, Series 2021A (the "*2021A Bonds*") offered herein will be used to finance System improvements. The obligation of the Corporation to make payments on the 2021A Bonds are secured solely by payments to be made by the City pursuant to a City Purchase Agreement and are secured by a lien on Designated Revenues of the System. Interest on the 2021A Bonds is payable semiannually on January 1 and July 1 of each year, commencing July 1, 2021. Interest-only is scheduled for the first five years with principal amortization beginning in the fiscal year ending June 30, 2026 and concluding in the fiscal year ending June 30, 2045. The average coupon on the 2021 Bonds is 5.0%.

* Subject to Change.

Under the City Purchase Agreement, the payment amounts to be made the City to the Corporation from Designated Revenues during the forecast period are summarized below:

Fiscal Year Ending June 30	**Principal***	**Interest***	**Total***
2021	$ —	$ 611,000	$ 611,000
2022	—	10,000,000	10,000,000
2023	—	10,000,000	10,000,000
2024	—	10,000,000	10,000,000
2025	—	10,000,000	10,000,000
Total	$ —	$40,611,000	$40,611,000

Junior Lien Water Revenue Bonds, Series 2021B

The $69,050,000* principal amount of Junior Lien Water System Revenue Bonds, Series 2021B (the "*2021B Bonds*") offered herein will be used to refund a portion of currently outstanding Junior Lien Water System Revenue Bonds, Series 2011 previously issued to fund capital projects related to the System. See "PLAN OF FINANCE" and the table "Schedule of Maturities and Call Dates of Series 2011 Bonds Being Refunded". The refunding is expected to reduce overall debt service on the junior lien water revenue bonds payable from Designated Revenues. The obligation of the Corporation to make payments on the 2021B Bonds are secured solely by payments to be made by the City pursuant to a City Purchase Agreement and are secured by a lien on Designated Revenues of the System. Interest on the 2021B Bonds is payable semiannually on January 1 and July 1 of each year, commencing July 1, 2021. Principal amortization begins in the fiscal year ending June 30, 2022 and concludes in the fiscal year ending June 30, 2026. The average coupon on the 2021B Bonds is 5.0%. Under the City Purchase Agreement, the payment amounts to be made the City to the Corporation from Designated Revenues during the forecast period are summarized below:

Fiscal Year Ending June 30	**Principal***	**Interest***	**Total***
2021	$ —	$ 211,000	$ 211,000
2022	5,665,000	3,453,000	9,118,000
2023	14,705,000	3,169,000	17,874,000
2024	15,440,000	2,434,000	17,874,000
2025	16,215,000	1,662,000	17,877,000
	$52,025,000	$10,929,000	$62,954,000

Junior Lien Water Revenue Bonds, Taxable Series 2021C

The $78,170,000* principal amount of Junior Lien Water System Revenue Bonds, Taxable Series 2021C (the "*Taxable Bonds*") offered herein will be used to refund a portion of currently outstanding Junior Lien Water System Revenue Bonds, Series 2014A previously issued to fund capital projects related to the System. See "PLAN OF FINANCE" and the table "Schedule of Maturities and Call Dates of Series 2014A Bonds Being Refunded". The refunding is expected to reduce overall debt service on the junior lien water revenue bonds payable from Designated Revenues. The obligation of the Corporation to make payments on the Taxable Bonds are secured solely by payments to be made by the City pursuant to a City Purchase Agreement and are secured by a lien on Designated Revenues of the System. Interest on the Taxable Bonds is payable semiannually on January 1 and July 1 of each year, commencing July 1, 2021. Principal amortization begins in the fiscal year

* Subject to Change.

ending June 30, 2026 and concludes in the fiscal year ending June 30, 2039. The average coupon on the Taxable Bonds is 3.09%. Under the City Purchase Agreement, the payment amounts to be made the City to the Corporation from Designated Revenues during the forecast period are summarized below:

Fiscal Year Ending June 30	Principal*	Interest*	Total*
2021	$ —	$ 143,000	$ 143,000
2022	—	2,340,000	2,340,000
2023	—	2,340,000	2,340,000
2024	—	2,340,000	2,340,000
2025	—	2,340,000	2,340,000
	$ —	$9,503,000	$9,503,000

Future Bonds

The forecast assumes $600,000,000 principal amount of junior lien water system revenue bonds will be issued in fiscal year 2025. The obligation of the Corporation to make payments on the future bonds will be secured solely by payments to be make by the City pursuant to a City Purchase Agreement and will be secured by a lien on Designated Revenues of the System. Interest on the future bonds will be payable semiannually on January 1 and July 1 of each year, commencing January 1, 2025. The average coupon on the future bonds is projected to be at 5.00%. Under the City Purchase Agreement, the payment amounts forecasted to be made by the City to the Corporation from Designated Revenues during the forecast period are summarized below:

Fiscal Year Ending June 30	Principal*	Interest*	Total*
2021	$ —	$ —	$ —
2022	—	—	—
2023	—	—	—
2024	—	—	—
2025	—	30,000,000	30,000,000
	$ —	$30,000,000	$30,000,000

Junior Lien Water Revenue Bond Debt Service Coverage

The Junior Lien Revenue Bond Debt Service Coverage calculated in the forecast is Designated Revenues divided by the Junior Lien Revenue Bond Debt Service. The rate covenant pursuant to the City Purchase Agreement requires Net Operating Revenues to equal at least 110% of the current year's senior lien and junior lien debt service. There are presently no senior lien obligations outstanding. As part of the financial planning and rate setting process, the City targets long term Junior Lien Water Revenue Bond Debt Service Coverage at 2.0 times or greater throughout the forecast period, but is not legally obligated to do so. This is part of the long-range financial planning process, which includes the setting of water rates and determining the capacity of the Water CIP.

9. Other Expenditures

Existing Junior Subordinate Lien Obligations – Revolving Loan

The City entered into a Revolving Credit Agreement dated June 28, 2019 with Revolving Credit Agreement Provider for a three-year loan period ending on June 27, 2022, during which the City may borrow, repay and

* Subject to Change.

re-borrow amounts, but not exceeding $200,000,000 outstanding in the aggregate at any one time. Loans made under the Water Revolving Credit Agreement (such loans, together with any obligations on a parity therewith, the Junior Subordinate Lien Obligations are payable from Designated Revenues pledged to the City of Phoenix Civic Improvement Corporation Junior Lien Obligations but are junior and subordinate to the Junior Lien Obligations. If any loans under the Revolving Credit Agreement are outstanding on June 27, 2022, the City can, subject to certain conditions, convert the borrowing to a three-year term loan payable in twelve equal quarterly principal installments ending on June 27, 2025. The forecast also assumes debt service of $3 million for a Revolving Loan in fiscal year 2022-23 and $3 million in fiscal year 2023-24 at an average interest rate of 1.5%.

Issue Date	Original Issuance	Purpose	Notes Outstanding As of 4-1-21
06-28-2019	$200,000,000	Revolving Credit Agreement	$ — (1)

(1) As of April 1, 2021, there is no Water Revolving Loan outstanding.

Upon an event of default under the Revolving Credit Agreement, the Revolving Credit Agreement Provider may declare all amounts due (collectively, "*Payment Obligations*") immediately due and payable. Events of default include, but are not limited to, failure to pay amounts to the Revolving Credit Agreement Provider by the applicable grace period, failure to perform certain covenants such as issuance of obligations in violation of additional bonds test, sale of the City Water System property in violation of applicable covenants, acceleration of other obligations payable from Water System revenues on any lien in an amount of at least $5,000,000, certain litigation, bankruptcy and insolvency events related to the Water System and certain downgrades of Junior Lien Obligations. If Payment Obligations were to be accelerated, Designated Revenues would continue to be transferred to the extent available from the Revenue Fund to the Junior Lien Bond Fund on a monthly basis prior to payment of Payment Obligations.

Plant Additions, Improvements and Capital Outlay

Plant additions, improvements and capital outlay for the fiscal year ended June 30, 2020 were $72,213,000. Plant additions, improvements and capital outlay increase from $68,870,000 in fiscal year ending June 30, 2021 to $160,716,000 in fiscal year ending June 30, 2023. These additions and improvements include rehabilitation of aging infrastructure at Union Hills treatment plant, replacement and rehabilitation of aging water pipelines and replacement of aging booster pump stations along with construction of new wells and new lager water pipe lines for drought resiliency. The plant additions and improvements are funded on an annual basis from the combination of recurring revenues from metered water sales and fees for services performed.

Staff and Administrative Charges

Staff and administrative charges are the allocated costs for central services provided by various City departments or offices such as the City Clerk, City Manager, City Attorney, Human Resources, Information Technology and others. These intergovernmental charges are allocated to departments based upon various allocation methods. The staff and administrative charges were $8,511,000 for the fiscal year ended June 30, 2020. Staff and administrative charges are forecasted to be $8,786,000 and $9,138,000 for the fiscal years ending June 30, 2021 and June 30, 2022, respectively. These costs are forecasted to increase at a compounded annual rate of 2.4% for fiscal years ending June 30, 2023 through the remainder of the forecast period.

In-Lieu Property Tax Payments

In-lieu property tax payments are the annual assessments paid to the City's General Fund based on the value of the fixed assets owned by the System. In-lieu property tax payments were $15,585,000 for the fiscal year ended June 30, 2020 and are forecasted to increase to $21,117,000 through the fiscal year ending June 30, 2025. The payments are expected to increase based upon net changes in the value of the System's property, plant and equipment.

Transfer (to) from Other Funds

Transfers either to or from the operating fund for the forecast period reflect the transfers for the purpose of using funds to pay for the Water departments portion of the badging system upgrade. The costs are forecasted to be $237,000 for the fiscal year ending June 30, 2021 and $236,000 for fiscal year ending June 30, 2022 and through the remainder of the forecast period.

10. Available Fund Balance

The fund balance consists of a restricted use portion (reserved fund balance) and an unrestricted use portion (unreserved fund balance). The reserved fund balance includes development occupational fees and water resource acquisition fees. Development occupational fees are designated for future growth related capital improvement program projects, outstanding water obligations issued for growth related purposes and repayment agreements. Water resource acquisition fees are designated for new water acquisitions or water conservation. The unreserved fund balance is calculated by subtracting the reserved fund balance from the fund balance, end of year. The water reserve of $100,009,000 is used to meet the available fund balance requirement discussed below and is added to the unreserved fund balance to produce the available fund balance, end of year.

For the fiscal year ended June 30, 2020 the available fund balance was $168,406,000. Over the forecast period the available fund balance is expected to increase to $190,818,000 for fiscal year ending June 30, 2025. The increase in fund balance is managed through an annual financial planning process and includes minimal rate increases throughout the forecast. As a matter of policy, the long-term financial and rate planning process targets the available fund balance to be at least equal to the total Water Revenue Bond Debt Service required over the forecast period. In certain years of the financial plan, the financial targets may not be met; however, in years subsequent they trend back towards target. For instance, the available fund balance falls to 0.7 times total Water Revenue Bond Debt Service during the fiscal year ending June 30, 2023 but rebounds to 1.0 times in the following fiscal year.

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APPENDIX C

City of Phoenix, Arizona — Description

OVERVIEW

Phoenix is the fifth largest city in the United States, the state capital of Arizona and the center of the metropolitan area encompassed by Maricopa County (the "*County*"). This metropolitan area also includes the cities of Mesa, Chandler, Glendale, Scottsdale, Tempe, Peoria, Surprise, Avondale, Goodyear, Buckeye and El Mirage; the towns of Gilbert, Queen Creek, Fountain Hills, and Paradise Valley as well as several smaller cities and towns and all unincorporated areas of the County. It is situated 1,117 feet above sea level in the semi-arid Salt River Valley. The area is well known for its mild, sunny winters and hot summers and receives average rainfall of 7.70 inches annually.

Phoenix was founded in 1870 as an agricultural community. In 1881, it was incorporated as a city (the *"City"*). The City Charter under which it is presently governed was adopted in 1913 and has been amended from time to time. The City has grown steadily since its inception and has shown especially strong growth since 1950. The 1900 census recorded Phoenix's population at 5,544. In 1950, the City occupied 17 square miles with a population of almost 107,000 ranking it 99th among American cities. The 2010 census recorded Phoenix's population at 1,447,128. As of May 1, 2020, the City encompasses 519.80 square miles.

Population Statistics
Phoenix, Maricopa County and Arizona

Area	1950	1970	1990	2000	2010	2019 (1)	Percent Change 1950-19	Percent Change 1990-19
Phoenix	106,818	584,303	983,403	1,321,045	1,447,128	1,680,992	1,473.7%	70.9%
Maricopa County	331,770	971,228	2,122,101	3,072,149	3,817,117	4,485,414	1,252.0	111.4
State of Arizona	749,587	1,775,399	3,665,228	5,130,632	6,392,017	7,278,717	871.0	98.6

(1) Population figures for the State of Arizona, City of Phoenix and Maricopa County are as of July 1, 2019. The population estimates for July 1, 2020 are expected to be released by the U.S. Census Bureau on a rolling basis from February 2021 to June 2021.

Phoenix is served by main lines of the Union Pacific and Burlington Northern Santa Fe Railroads, a busline (Greyhound Trailways), and 10 transcontinental, 34 interstate and 39 intrastate truck lines. Phoenix Sky Harbor International Airport, located approximately 4 miles from downtown Phoenix, is served by the following scheduled airlines: Advanced Air, Air Canada, Alaska, American, Boutique Air, British Airways, Jazz Aviation (Air Canada Express), Compass (Delta Connection), Condor, Contour, Delta, Frontier, Hawaiian, JetBlue, Mesa (American Eagle, United Express), SkyWest (American Eagle, Delta Connection, and United Express), Southwest, Spirit, Sun Country, United, Volaris and WestJet. Interstate 10, Interstate 17, U.S. Highway 60, State Routes 51, 74, 85, 87, 88, 143 and Loops 101, 202, and 303 all traverse the metropolitan area.

The metropolitan area is presently served by 34 elementary school districts, 6 high school districts, 15 unified school districts and 2 technical institutes, operating almost 800 schools. Education is also provided by public charter schools and private and parochial schools located throughout the metropolitan area. Maricopa County Community College District serves the educational needs of the Phoenix area through 10 institutions. Arizona State University (*"ASU"*) houses 17 colleges and schools and has a total full-time equivalent enrollment of more than 128,788 undergraduate, graduate and professional students on four campuses in Metro Phoenix and online. ASU's main campus is located just east of Phoenix in the city of Tempe. The Arizona State University West campus opened in 1991, is located in northwest Phoenix, and has an enrollment of nearly 5,400 students. The Arizona State University Polytechnic campus opened in 1996, is located in southeast Metro Phoenix in the city of Mesa, and has an enrollment of more than 5,100 students. The Arizona State University Downtown Phoenix campus opened in 2006 and has an enrollment of more than 11,300 students. ASU Online has nearly 54,000 students. Grand Canyon University, a private university offering undergraduate and postsecondary degree programs, has a main campus located northwest of downtown Phoenix. In Fall 2020, enrollment at Grand Canyon University was approximately 108,000 including both on-campus and online students. The City also contains a private graduate school and a number of private universities, colleges, and technical institutions. The U.S. Census Bureau's 2019 American Community Survey, the most recently available, estimated that more than 66.0% of the adult residents of the Maricopa County attended college, compared to 61.7% nationally.

CYBERSECURITY INITIATIVES

Computer networks and data transmission and collection are vital to the efficient operation of the City. The City collects and stores sensitive data, including intellectual property, proprietary business information, information regarding customers, suppliers and business partners, and personally identifiable information of customers and employees. The secure processing, maintenance and transmission of this information is critical to the operation of each City department. The City is using the Department of Homeland Security best practices as well as cybersecurity initiatives to prevent or mitigate any disruption in service or risk to sensitive data.

The City has an insurance policy with AIG Specialty Insurance Company, AXIS, Ascot-APEX and Canopius, which insures against cyber extortion and network interruption. The Information Technology Services Department has dedicated staff specifically targeting cybersecurity initiatives such as security awareness programs, advanced email security, Endpoint Detection and Response, as well as event monitoring.

SIGNIFICANT DEVELOPMENTS

Downtown Development

In 1979, the City adopted the Downtown Redevelopment Area plan for a 1.5 square mile area of downtown to revitalize the urban center of the City. Redevelopment efforts to date have resulted in the construction of residential units as well as numerous public and private redevelopment projects that have produced several amenities and services for employers, residents and visitors.

In 1984, a group of downtown business leaders founded the Phoenix Community Alliance. The group's express purpose is to work with government and other development interests to accomplish the highest quality downtown revitalization possible. They have been involved in a program of cooperative planning between government and private interests and have been focusing their attention on bringing increased housing, especially ownership housing, to downtown. The Phoenix Community Alliance's 2011-2016 Action Plan provided three goals: facilitating quality land development in downtown Phoenix, attracting investment to downtown Phoenix, and sharpening downtown Phoenix's competitive advantage.

In 2004, the City Council adopted a ten-year plan for downtown entitled "Downtown Phoenix: A Strategic Vision and Blueprint for the Future" (the "*Downtown Strategic Plan*"). The Downtown Strategic Plan was developed by the combined efforts of the City, Phoenix Community Alliance, Downtown Phoenix Partnership, and Arizona State University. The Downtown Strategic Plan served as a framework for the City to pursue the comprehensive revitalization of downtown Phoenix and serves as a guide for decision-making as specific plans and projects are pursued.

The Downtown Phoenix Urban Form Project (the "*Urban Project*") was a collaborative planning process to revise downtown zoning, to shape future growth and to help realize the City's vision for a livelier, more integrated and sustainable downtown. The City embarked on this Urban Project due to heightened development interest in downtown Phoenix while acknowledging the unique development challenges of the infill urban environment. The Urban Project was completed in April 2010 when the City Council approved Chapter 12 of the Phoenix Zoning Ordinance (the "*Downtown Code*").

Downtown Phoenix Inc. ("*DPI*"), a nonprofit entity formed in 2013, was created for the purpose of enhancing the economic and cultural vitality of downtown Phoenix. It serves as an umbrella organization to "broaden the tent" of the downtown community and improve coordination amongst downtown focused organizations, resulting in greater efficiency and effectiveness among nonprofits, such as Downtown Phoenix Partnership, Phoenix Community Alliance and the Downtown Phoenix Community Development Corporation. DPI serves as a City liaison to downtown stakeholders, including neighborhood and business organizations, assisting the City in communicating with the community by providing guidance and advice as needed. DPI also collaborates with the City to expand and enhance special events downtown, in addition to working on assignments, such as studying the potential expansion of the Enhanced Municipal Services District boundaries.

General Plan

In 1985, the City Council adopted the General Plan, a long-range plan based on the Urban Village Concept. The overall goal of the Urban Village Concept (now referred to as the Urban Village Model) is to offer Phoenix residents a choice of lifestyles in which residents may live, work and enjoy leisure time activities within the same urban village. The Urban Village Model also gives residents the opportunity to play a major role in shaping these choices. It is a unique concept that has provided a high degree of citizen participation in local land use planning processes.

The General Plan guides future development in Phoenix through the establishment of fifteen urban villages, each with an approximate population of 125,000. Each village has its own village planning committee. The committees, guided by and responsible to the City Council, are comprised of 15-21 citizens, most of whom live in their respective villages. Planning activities include identifying the attitudes, problems, and issues impacting their village; formulating goals and policies that reflect the unique needs of their planning area; developing land use plans that will guide future growth in their village, and reviewing rezoning applications and development proposals.

In 1998, the State of Arizona passed the Growing Smarter legislation and in 2000 passed the Growing Smarter Plus legislation. The legislation required that the City update its General Plan, and amend or readopt the General Plan every ten years. It also requires that any changes to the General Plan be presented by public hearing to the citizens, be approved by at least two-thirds of the City Council and then be voted upon by the citizens. The City's General Plan was adopted by the City Council on December 5, 2001 and was approved by voters on March 12, 2002. In the opinion of management, the Growing Smarter and Growing Smarter Plus legislation provides processes and tools that can contribute to better planned, coordinated and balanced development. While the original legislation set a ten year deadline to readopt or amend the General Plan, in 2010 the State legislature extended the deadline to July 1, 2015.

On July 1, 2009, the City Council approved plans to implement a public participation process in developing the Phoenix General Plan Update. In August 2012, the Planning and Development Department, in partnership with the Mayor and City Council, launched PlanPHX in an effort to enhance community outreach. In order to facilitate public participation, the PlanPHX project included the debut of www.myplanphx.com. The website served as an interactive and innovative way for Phoenix residents to be involved in the Phoenix General Plan Update. In addition to the website, the Planning and Development Department conducted meetings throughout the community to obtain input and ideas from residents. The Phoenix General Plan Update focuses on five Core Values — Connecting People and Places, Building the Sustainable Desert City, Creating an Even More Vibrant Downtown, Celebrating our Diverse Communities and Neighborhoods, and Strengthening Our Local Economy. The General Plan Update was unanimously approved by the Phoenix Planning Commission on January 13, 2015. The General Plan Update was approved by the City Council on March 4, 2015 and was approved by voters in the August 25, 2015 Citywide election.

Phoenix Convention Center

Redevelopment of the downtown Phoenix area has accompanied the construction and expansion of the Phoenix Convention Center (previously Phoenix Civic Plaza). Opened in 1972, the original convention and cultural center facility encompassed eight city-blocks in downtown Phoenix, having a capacity of 10,000 persons and containing a variety of meeting and exhibition halls in addition to Symphony Hall.

In 1980, the City Council authorized the first expansion of the Phoenix Convention Center, adding a new structure connected directly to the existing facility. The additional space expanded the total convention space to 306,000 square feet. Construction of the $55 million addition commenced in late 1982 and was completed in June 1985, effectively doubling the size of the facility. In November 1995, the City completed a $31.5 million modernization and refurbishing program for the Phoenix Convention Center.

In 1998, construction began on the Civic Plaza East Garage, a 2,891-space parking facility to serve Phoenix Convention Center patrons and other downtown visitors. Included within the garage is approximately 25,000 square feet of commercial space. The garage was completed in the fall of 1999.

On June 22, 2001, the Arizona Legislature appointed the Ad Hoc Study Committee on Phoenix Civic Plaza/ Convention Facility Expansion (the "*Committee*") to make recommendations on several issues regarding Phoenix Convention Center expansion, including potential funding sources and State involvement. The membership included four State Senators, four State Representatives and nine public members. The Committee recognized the significant statewide benefit of convention business and unanimously recommended that the State develop a program to provide matching funds for major convention center improvements.

On November 6, 2001, City of Phoenix voters approved a ballot proposition authorizing the City to incur debt and expend public funds in an amount up to $300 million from City funding sources and in an amount up to $300 million in State or other non-City funding sources for the construction, expansion, modification and improvement of the Phoenix Convention Center. In June 2003, the Arizona Legislature approved spending up to $300 million in State money to match the City's contribution. Combined, the $600 million expansion project effectively tripled the size of the facility by adding approximately 600,000 square feet of meeting and exhibition space.

In 2001, City of Phoenix voters approved an additional $18.5 million in general obligation bonds for the renovation of the adjacent Symphony Hall. In order to minimize disruption to event activity, the construction schedule for Symphony Hall was aligned with the first phase of the Phoenix Convention Center expansion. In June 2003, the City Council approved the final development concept and selected the design team and the construction management team for the Phoenix Convention Center expansion and Symphony Hall renovation.

Construction of phase one of the Phoenix Convention Center expansion and the Symphony Hall renovation began in June 2004. Symphony Hall re-opened September 3, 2005 after renovations were completed during phase one. Significant improvements to Symphony Hall included a new entrance, plaza facing, wall paneling, carpeting, seating, roofing and an upgraded lobby. Phase one of the Phoenix Convention Center expansion, known as the West Building, was completed in July 2006. The four-level West Building includes a 45,000 square feet ballroom, an Executive Conference Center, 64,000 square feet of exhibition hall space and 27,000 square feet of meeting space.

Phase two construction on the new Phoenix Convention Center North Building was completed in December 2008. The four-level North Building features amenities such as a 46,000 square feet street-level ballroom, 56 meeting rooms, over 300,000 square feet of exhibition hall space on the lower level, 190,000 square feet of exhibition hall space on the upper level and a food court with six themed eateries. The North Building is connected to the West Building via a pedestrian bridge on the third level and below ground through the lower level exhibition hall. The fully expanded Phoenix Convention Center, which welcomed its first convention in January 2009, now offers approximately 900,000 square feet of rentable convention space and is one of the top 25 facilities in the country in terms of size.

The Phoenix Convention Center expansion had a significant impact on Arizona during the five-year construction period. From December 18, 2003 through November 30, 2008, 95 percent of the work was performed by Arizona residents, 11,684 people were employed on the project, $89.0 million was paid in wages and $26.9 million was paid in state construction taxes.

The expanded Phoenix Convention Center surpassed its projected goals for 2009, hosting 68 conventions with approximately 309,379 delegates, which equated to an economic impact of approximately $449 million in direct spending. Since its expansion in 2009, the Phoenix Convention Center has hosted 627 conventions, or an average of 62 conventions per year, with an estimated 2,298,000 delegates through 2020. In 2020, the Phoenix Convention Center hosted 19 conventions. The reduction in convention activity is attributed to the global COVID-19 pandemic. Approximately 13% of contracted conventions have been cancelled or postponed for future years.

Business Development

The City of Phoenix Community and Economic Development Department (*"CEDD"*) strategically positions Phoenix as a globally competitive and sustainable city. Developing a modern economy is rooted in aligning economic development initiatives around Phoenix's core strengths: focusing on targeted industry sectors with the highest impact and opportunity for sustained growth, expanding the pipeline of job-creating businesses, enhancing the Phoenix business climate and improving Phoenix's competitive position in the new economic environment.

CEDD works to attract and grow quality businesses that strengthen and diversify Phoenix's economy through job growth, private investment and creating a sense of place for our community. The Arizona Commerce Authority, Greater Phoenix Economic Council and the Greater Phoenix Chamber of Commerce are strong allies in these endeavors. With these partners, the City continues several initiatives aimed at workforce development, creating and maintaining high quality jobs and industry diversification. These partnerships also establish sound economic development programs that enhance regional and statewide competitiveness.

In 2019, the U.S. Bureau of Labor Statistics announced that Greater Phoenix led the nation in new jobs created from May 2018 to May 2019. The metropolitan area added 66,500 non-farms jobs, representing growth of 3.2%. From fiscal year 2008-09 through fiscal year 2018-19, CEDD and its partners have directly assisted in the attraction of 237 new employers to the City of Phoenix. These companies represent more than 39,772 new jobs and approximately $2.9 billion in new capital investment.

Arts, Cultural and Sports Facilities

The Orpheum Theatre was built in 1929 in downtown Phoenix for vaudeville performances and movie exhibitions. The City purchased the theatre in 1984 and it was listed on the National Register of Historic Places the following year. In 1988, citizens approved funding $7 million towards a renovation of the theatre, with the Orpheum Theatre Foundation providing additional funding of $7 million. The theatre, built in the Spanish Baroque Revival architectural style, reopened in early 1997 and is the last remaining example of theatre palace architecture in Phoenix. The 1,364-seat Orpheum Theatre is now an internationally recognized showcase for arts and entertainment and hosts a variety of productions which draw thousands of people to the vibrant downtown venue annually.

The Herberger Theater Center, a performing arts facility, opened in October 1989 adjacent to the Phoenix Convention Center. Located on a one-block site immediately north of the original Phoenix Convention Center, the Herberger Theater Center was financed with $18 million in public and private funds. Renovations to the Herberger Theater were performed during the summer of 2010 and included refurbishment of seating, platforms, lighting, carpet and paint on the 801-seat Center Stage and 343-seat Stage West. The renovations included the addition of exterior public space, upgraded outdoor signage and a new private second floor lounge and balcony for theater VIPs. The renovations were completed in October 2010 at a cost of approximately $16 million.

The Phoenix Art Museum, located at Central Avenue and McDowell Street began an expansion in December 2004. The $50 million project added nearly 30,000 square feet to the museum complex, most of which is utilized for exhibition space to benefit the museum's 290,000 annual visitors. $18.2 million of the total project cost was financed with bond funds approved by Phoenix voters in 2001. The remaining funds were raised from individuals and philanthropic organizations. The expansion was completed in November 2006.

The Arizona Science Center is located in Heritage and Science Park, a multi-block downtown cultural center, and received City funding from general obligation bonds approved by the voters in 1988. The Arizona Science Center, which cost $47 million, encompasses nearly 127,000 square feet including a 200-seat planetarium and a 285-seat IMAX Theater. The City contributed land and $20 million to the project, with the balance funded by private contributions. The Arizona Science Center opened in April 1997. In addition, an 800-space parking garage was developed. The parking garage was completed in November 1995.

In 2000, an agreement between the City and a private company was reached for development of a 4,800-seat entertainment facility on a City owned site at the northwest corner of Washington Street and Fourth Avenue. The Comerica Theatre (formerly Dodge Theatre) totals 165,000 square feet and cost approximately $39 million. Construction began in September 2000 and was completed in April 2002.

In 1988, the City entered into negotiations with the Phoenix Suns Limited Partnership (the "*Suns*") for the development and operation of a 20,000-seat downtown sports arena to be located immediately south of the Phoenix Convention Center. Final agreements between the City and the Suns were approved by the City Council in July 1989. The construction cost of the arena and adjacent garage was $100 million. The City acquired and cleared the land for the project at a cost of $12.8 million and contributed $35 million toward construction. The Suns contributed an additional $515,000 for land acquisition and were responsible for the balance of the construction costs (approximately $52 million). Construction began in November 1990 and America West Arena (currently Talking Stick Resort Arena) opened in June 1992.

A multi-phased renovation of City-owned multipurpose arena began in the spring of 2001 and was completed in early 2005. Exterior renovations included the addition of a 15,000 square feet climate controlled pavilion on the main entrance plaza, expansion of the north façade to accommodate street level restaurants along Jefferson Street and the construction of a pedestrian passageway from Jefferson Street to Jackson Street. The interior renovations consisted of concourse improvements, seating enhancements and additional restrooms. The second phase of renovations brought significant technology improvements including a new scoreboard and wraparound LED boards, as well as expansion of the Platinum Club, and other core building improvements, all of which ensure the Center's continued state of the art status. The renovations were completed at a total cost of approximately $57 million funded jointly by the City and the Suns.

In 2019, the Phoenix City Council authorized the City to amend its agreement with the Suns to facilitate the renovation of City-owned multipurpose arena. The arena renovation is being funded by the City and the Suns, with the City contributing $150 million and the Suns contributing $80 million plus any cost overruns. Major building systems including electrical, mechanical, plumbing and technology infrastructure are being updated or replaced. Additional upgrades underway include improvements to social spaces, suite renovations, retail space improvements, and modernization of locker rooms. The renovations commenced in 2019 and are expected to be completed in 2021. The new agreement will commit the Suns to stay in the arena until at least 2037.

Major League Baseball owners awarded a Phoenix-based ownership group a major league baseball franchise in March 1995. The team, the Arizona Diamondbacks, began play in March 1998. A $354 million, 48,500-seat, natural grass baseball stadium was constructed at the southwest corner of Jefferson Street and Seventh Street in downtown Phoenix through a public/private partnership. Public participation was authorized in early 1994, when the Maricopa County Stadium District approved the expenditure of $238 million for the development of the stadium. The balance of the construction costs were financed by the team ownership group.

In 2009, the City completed construction on the Civic Space Park. The 2.77-acre park in the heart of downtown Phoenix, bounded by First and Central Avenues and Van Buren and Fillmore Streets, offers residents, workers, students and visitors a unique urban design. The park contains sustainable features such as solar panel shade structures, which generate power for the park's lighting and electrical needs and pervious concrete and pavers to reduce heat reflection and allow rainfall to seep through to the ground. The park also includes interactive water and light features, green spaces and a 100-foot aerial art sculpture. The historic 1926 A.E. England Building is located inside Civic Space Park and hosts an auditorium as well as office, meeting and retail space.

In 2011 the Community and Economic Development and Phoenix Convention Center Department entered into a 20 year public private partnership with the Legends Entertainment District. The district, which utilizes digital signage to stimulate activity within downtown, is generally bounded on the north and south sides of Jefferson Street from First Avenue to Seventh Street and includes sites such as Chase Field, City-owned multipurpose arena, the Phoenix Convention Center South Building and the Phoenix Convention Center East Garage.

In 2011, the City's Community and Economic Development Department acquired a site on Central Avenue across from the Phoenix Art Museum for the construction of the Arizona Opera Center. In March 2013, the 28,000 square-foot performing arts facility opened that includes performance and rehearsal space, administrative offices, and educational and public meeting facilities. The City contributed $3.2 million of general obligation bonds towards the $5.2 million facility. The Arizona Opera Center building is owned by the City and operated by Arizona Opera.

In 2015, the City facilitated the creation of an entertainment district in downtown Phoenix (the "*Entertainment District*"). The Entertainment District encompasses about one-square mile of downtown Phoenix and is intended to foster economic development by bringing more businesses to the area. Previously, potential businesses were prohibited from applying for a liquor license if they were within 300 feet of a church or school, per Arizona State law. The Phoenix City Council now has the option to consider an exemption for liquor licenses within the district. The creation of the Entertainment District serves as a development tool that supports the growth of a vibrant downtown with a mix of businesses and nightlife.

Commercial Development

In the 1970s, Arizona's three major commercial banks (at that time The Valley National Bank of Arizona, First Interstate Bank, and The Arizona Bank) located their high-rise headquarters buildings in the downtown area. In addition, the Citibank building (now Compass Bancshares), consisting of 113,000 square feet of space situated on the northwest corner of Van Buren Street and First Avenue, was opened on August 1, 1989.

The 1970s also saw the development of two downtown high-rise hotels. The Hyatt and Renaissance (formerly the Wyndham) properties combine to provide 1,242 hotel rooms in downtown Phoenix. As an outgrowth of the many downtown development and redevelopment projects during the 1990s and 2000s, there was a rapid increase in hotel room demand from business, leisure and convention travelers visiting the area. To meet this demand, the City constructed a new 1,000-room hotel on the northwest corner of Third Street and Van Buren Street. Adjacent to the Arizona Center and several office and entertainment venues, the hotel contains approximately 10,000 square feet of retail space, including a coffee shop, lounge, restaurant, and fitness facilities; a 30,000 square-foot ballroom; and additional meeting space. Starwood Hotels and Resorts was selected as the hotel's operator under the company's Sheraton flag. Design of the hotel began in early 2005 and construction began in March 2006. The Sheraton Grand Phoenix Hotel opened September 2008 and supports the additional hotel demand generated by the expansion of the Phoenix Convention Center. The City sold the hotel to Marriott in 2018.

The Trammell Crow Company completed construction of an $80 million, 26-story, 450,000 square-foot high-rise office building (currently called One Renaissance), including 40,000 square feet of retail, in the center of downtown Phoenix in 1988. In conjunction with this project, the City constructed a 1,456 space underground public parking garage to support the parking needs generated by the Trammell Crow building and other downtown projects. This $15 million project was dedicated in December 1988. In response to a successful leasing effort, Trammell Crow Company constructed a second office building (called Two Renaissance) which opened in January 1990 on the half-block immediately north of their first building, consisting of 475,000 square feet including 15,000 square feet of retail.

Culminating an effort initiated by the Phoenix Community Alliance, the City entered into an agreement with The Rouse Company in September 1987 to develop a $515 million mixed-use development project to the north of the Phoenix Convention Center known as the Arizona Center. The development includes office and retail use as well as a three-acre public plaza. Arizona Public Service occupies a 450,000 square-foot office tower, which was completed in March 1989. In March 1998, a 5,000-seat 24-screen movie theater opened.

The Barron Collier Company and Opus West initiated a mixed-use downtown development project in 1998. The plans for Collier Center included three high-rise towers with 1.5 million square feet of office space, 200,000 square feet of retail shops and restaurants, and parking for 2,400 vehicles. The project is located on a 7.2-acre site bounded by Washington, Jefferson, First and Third Streets. Collier Center's Phase I, a $500 million, 23-story office tower, was completed in September 2000 and is the Arizona headquarters for Bank of America. The tower contains over 500,000 square feet of office space, 85,000 square feet of retail space and a 1,500-space underground parking garage.

Construction of the 20-story, 410,000 square-foot One North Central Building (formerly the Phelps Dodge Building), including 10,000 square feet of retail and 975 on-site parking spaces, began in February 2000. The building is located on the northeast corner of Washington Street and Central Avenue in downtown Phoenix. Construction was completed in November 2001.

In 2005, the City exchanged the City-owned historic Hanny's Building located at First and Adams Streets for the historic A.E. England Building located next to the ASU Downtown Phoenix campus at 424 North Central. The A.E. England Building, owned and operated by the City Parks and Recreation Department, was renovated for mixed retail and community use. The 30,000 square-foot Hanny's Building was renovated into a restaurant that opened in December 2008. The Historic Preservation Commission and the City assisted with approximately $400,000 of the estimated $4 million renovation costs.

In 2007, the City entered into an agreement with One Central Park East Associates LLC to develop a $185 million 26-story office tower at the northwest corner of First and Van Buren streets. The Freeport McMoRan Center houses the world headquarters for Freeport-McMoRan Copper & Gold Inc. (formerly Phelps Dodge Corporation) and the Westin Hotel. The City provided property tax assistance and abandonment of right-of-way for the 485,700 square-foot building of Class A office space, 8,500 square feet of ground level retail space and 590 parking spaces. Construction began in October 2007 and was completed in November 2009. The Westin, which opened in March 2011, occupies nine floors of the Freeport McMoRan Center and includes 242 over sized guest rooms averaging 550 square feet.

In 2007, RED Development commenced construction on an approximately 5-acre, mixed-use development that blends urban living with work, shopping and entertainment and includes restaurants, a hotel, offices and outdoor event space. The CityScape project encompasses two blocks in downtown Phoenix and is one block from the City-owned multipurpose arena and within two blocks of Chase Field. The first phase of CityScape opened in March 2010 and includes 660,000 square feet of Class A office space, 200,000 square feet of retail, 1,300 parking spaces and redevelopment of Patriot's Square Park. Construction of the second phase commenced in February 2011 and included construction of the 242 room Hotel Palomar which was completed in June 2012. The final phase of the project, The Residences at CityScape, is comprised of 224 high-rise apartment units, constructed above the Hotel Palomar. The Residences at CityScape opened in the spring of 2014.

In 2010, the City entered into a development agreement with Hansji Hotels to develop the Luhrs City Center Marriott at the Northwest corner of Central Avenue and Madison Street. Construction on the hotel, which houses two brands, Residence Inn by Marriott and Courtyard by Marriott, began in late 2014. The two hotels share a lobby and other amenities, such as the fourth-floor pool. The 19-story Luhrs City Center Marriott offers 320 guest rooms and ground-floor retail space, while retaining the existing historic buildings on the same city block. The project incorporated the 10-story Luhrs Building, built in 1924, the 14-story Luhrs Tower, built in 1929, along with the one-story Luhrs Post Office Station & Arcade that connects the two high-rises. Construction was completed in April 2017 and resulted in $85 million in capital investment.

In 2017, RED Development in partnership with Streetlights commenced construction of a dense, vibrant, urban development in the heart of downtown, with a capital investment of nearly $160 million. Full build-out of the project includes approximately 300 multi-family, for rent, high-rise residential units in one tower with 150,000 square feet of creative, open, office space attractive to technology and innovative tenants and 50,000 square feet of commercial space including an urban Fry's grocery store in the other tower, plus 1,000 above and below grade structured parking stalls and streetscape improvements. The Fry's Grocery store opened in October 2019, and the remainder of the project was completed in late 2020.

In 2018, a 210-room, 11-story Hampton Inn hotel opened in downtown Phoenix. This $44 million hotel is well positioned to serve both the Phoenix Convention Center and the Arizona State University downtown campus.

In 2018, True North Holdings entered into a development agreement to construct the $151 million Ro2 development featuring 305,000 square-foot of office space and 77,000 square-foot of commercial retail space on City-owned land on 2nd Street north of Roosevelt. In the fall of 2018, True North closed escrow on the first phase of the development, acquiring the historic Knipe House. The historic house has been renovated and will be adaptively reused for retail space in early 2021. In the fall of 2019, True North closed escrow on the second phase of the development, acquiring the Knipe House grounds. Completion of the full project is anticipated in 2023.

In 2019, the 147-room, 7-story Cambria Hotel opened in the Roosevelt Row Arts District. The $26 million hotel brings a new hotel and dining option to the area.

Biotechnology

In 2002, the City and the State of Arizona, in partnership with the County's three State universities, various foundations and the private sector, formalized two proposals to the International Genomics Consortium (*"IGC"*) and the Translational Genomics Research Institute (*"TGen"*) to locate their new headquarters in downtown Phoenix. The City agreed to construct a six-story, 170,000 square-foot research facility for IGC and TGen located at Fifth and Van Buren Streets. Construction began in late July 2003 with occupancy occurring in December 2004. In September 2017 TGen, now an affiliate of City of Hope, agreed to a 20-year Lease-to-Purchase transaction for the building that is home to its headquarters and several other long-term tenants.

In 2004, the Arizona Board of Regents, the University of Arizona ("*U of A*") and ASU (collectively, the Arizona Biomedical Collaborative) entered into a memorandum of understanding outlining a combined vision to expand the U of A's colleges of medicine and pharmacy in downtown Phoenix, perform complementary research and develop facilities at the Phoenix Biomedical Campus (*"PBC"*) located on Van Buren Street between Fifth and Seventh Streets. The U of A College of Medicine has renovated three historic former Phoenix Union High School buildings located on the PBC for the first phase of the medical school. The $27 million renovation project began in March 2005 and was completed in September 2006. The first Arizona Biomedical Collaborative building (*"ABC I"*) is a four-story, 85,000 square-foot building located just north of the historic Phoenix Union High School buildings along Fifth Street. Research within ABC I focuses on several areas including cancer, diabetes, neurological and cardiovascular diseases. The $30 million facility includes academic space for the ASU Department of Biomedical Informatics on floors one and two and wet lab space for the U of A College of Medicine on floors three and four. Construction began in September 2005 and was completed July 2007.

In 2012, the U of A Health Sciences Education Building (*"HSEB"*) opened and now houses the U of A College of Pharmacy and Northern Arizona University's Allied Healthcare Programs. This approximately $140 million, 260,000 square-foot six-story academic facility has provided space for the expansion of the U of A College of Medicine in downtown Phoenix. The U of A was also the recipient of a $15 million American Recovery and Reinvestment Act stimulus grant for the development of a below-grade research core. At build-out, the 30-acre PBC is expected to include more than six million square feet of research, academic and clinical development.

To help serve the growing PBC, construction began in the fall of 2014 on a 1,200-car parking structure at 5th and Fillmore Streets. The eight-level privately developed project will provide parking for the neighboring institutions in the Phoenix Biomedical Campus, as well as paid public parking. The $19.0 million facility opened in November 2015.

In 2015, the University of Arizona Cancer Center at Dignity Health St. Joseph's opened. The 220,000 square-foot, five-story, $100 million facility offers comprehensive cancer services, including infusion, radiation oncology, diagnostic imaging, endoscopic/interventional radiology, a women's center, specialized cancer clinics, patient wellness and support services, a prevention/executive health clinic, clinical lab space and other related support areas. The center is the only National Cancer Institute-designated Comprehensive Cancer Center located in Phoenix. This outpatient clinical facility hosts approximately 60,000 patient visits and 500,000 annual visitors.

In 2017, the U of A Biosciences Partnership Building (*"BSPB"*) opened. The 10-story, 245,000 square-foot building is connected to HSEB through a walkway. Research in BSPB will focus on flow cytometry, physics, materials science, nanotechnology, cancer drug therapies, molecular medicine, pediatric vaccines, building platforms for DNA and Biomarker Testing. At full occupancy, the facility will employ an estimated 360 healthcare professionals.

In 2019, construction began on the first phase of ASU's planned Health Solutions Campus at the PBC. ASU aims to develop its campus under a long-term agreement with the City for development rights for seven acres of land on the campus. The first phase of this development is the PBC Innovation Center, a $77 million, 225,000-square-foot building being constructed by Wexford Science and Technology. The PBC Innovation center celebrated it's ribbon cutting on March 30, 2021.

In order to meet the additional business needs of the growing biomedical sector, the City is looking beyond the 30-acre downtown PBC. The City is collaborating with the Arizona State Land Department, ASU and the Mayo Clinic to develop the 600-acre Arizona Biomedical Corridor in north Phoenix. The City is assisting ASU with infrastructure on their 24-acre Health Solutions Campus. Groundbreaking for the first building occurred in April 2019.

Education

In 2004, ASU and the City of Phoenix entered into a partnership to develop the ASU Downtown Phoenix campus. Phoenix voters committed $223 million to the ASU Downtown Phoenix campus in the 2006 bond election. The campus is located in downtown Phoenix between Van Buren and Fillmore Streets on the north and south and First Avenue and Seventh Street on the west and east, respectively. Over 11,300 students were enrolled in degree programs at the ASU Downtown Phoenix campus during the fall 2020 semester.

As part of the first phase of the ASU Downtown Phoenix campus, which opened in August 2006, ASU began to offer a wide range of undergraduate and graduate programs from the College of Public Programs and the University College. The second phase brought programs from the state-of-the-art Walter Cronkite School of Journalism and Mass Communications, KAET/Channel 8 and the College of Nursing & Healthcare Innovation to the ASU Downtown Phoenix campus.

As part of the second phase of the ASU Downtown Phoenix campus expansion, construction was completed on the 82,000 square-foot ASU College of Nursing and Healthcare Innovation II facility. The innovative design creates a sense of arrival for the northeast corner of the campus and downtown. With over a third of the materials utilized for this project containing recycled content, the new facility achieved the Leadership in Energy and Environmental Design (*"LEED"*) certified Gold status and has received 14 awards including Best Education Facility in America and the LEED Building of the Year. ASU invested $1.5 million in tenant improvements to finish the remaining fifth floor space of the ASU Nursing and Health Innovation II facility for executive offices, meeting space and staff workstations, which were completed in July 2013.

The second phase was completed with the addition of a student union and a student residence hall. The U.S. Post Office building at Central Avenue and Fillmore Street houses the student union for the ASU Downtown Phoenix campus. Retail postal services remain in the building, and a veranda was added along the south side of the building to be used for concerts, outdoor films and other activities. The conversion of the U.S. Post Office building was completed in March 2010. Taylor Place, a new student residence hall was constructed on the campus between First and Second Streets on Taylor Street. Taylor Place was completed in August 2009 and accommodates 1,294 beds. In early 2012, ASU began construction on the 18,870 square-foot Student Center at the Post Office located on the lower and first floors of the historic post office. Construction was completed in time for the 2013 spring semester.

In 2012, construction of the new ASU student recreation center began. The Sun Devil Fitness Complex is a five-story, 64,000 square-foot facility with state-of-the-art weight and fitness areas, three multi-purpose studios for group fitness and mind/body classes, a two-court gymnasium, a rooftop outdoor leisure pool and a multi-purpose area for student clubs to utilize. The $25 million facility is located on First Avenue north of Van Buren Street, next to the YMCA. With classroom space for the Exercise and Wellness academic program on the second floor, the new facility adds to the existing YMCA services and serves both ASU students and YMCA members. The Sun Devil Fitness Complex opened to students and members in August 2013.

The ASU Sandra Day O'Connor College of Law relocated to downtown Phoenix from the Tempe main campus with the completion of the Beus Center for Law and Society building. The City of Phoenix invested $12 million in the project, located on a square block bounded by First, Second, Taylor and Polk Streets. Construction on the $129 million, 280,000-square-foot facility began in June 2014 and completed in August 2016.

In 2018, ASU committed to relocate the ASU Thunderbird School of Global Management (*"Thunderbird"*) from Glendale, Arizona to a new building on the square block also containing the ASU Sandra Day O'Connor College of Law. Thunderbird was moved to a temporary space at the Arizona Center before moving the graduate school to a currently under construction $60 million, 100,000 square-foot, four-story building at the corner of Second and Polk Streets is scheduled to be completed in 2021. The City of Phoenix has agreed to invest $13.5 million into the project.

The anticipated economic impact of the ASU Downtown Phoenix campus is estimated to be $570 million, including the creation of 7,700 jobs. The City and ASU are working together to develop the State's workforce through education, generating academic and intellectual capital.

In 2019, Creighton University, based in Omaha, Nebraska, began construction on a new health sciences campus at Park Central in midtown Phoenix. Creighton has estimated the total development cost to be $99 million Expected to open in 2021, the 180,000-square-foot Phoenix campus will serve nearly 900 students. It will include a four-year medical school and schools for nursing, occupational and physical therapy, pharmacy, physician assistants and an emergency medical services program. In conjunction with the new Creighton campus and other development at Park Central, a $30 million parking garage is being constructed by the Park Central Community Facilities District, formed for this purpose. The new ten-story parking garage will have a capacity of 2,001 spaces and was opened to the public in September 2020.

In 2019, ASU began construction of a 17-story student housing building designed for upper classmen and graduate students. The building features three-stories of classroom space and exhibition space on the ground-floor. Construction is anticipated to be complete in time for the fall 2021 semester.

Neighborhood Revitalization and Downtown Housing

The City's downtown redevelopment efforts are complemented by Neighborhood Services Department (*"NSD"*) programs through which NSD works to preserve and improve the physical, social and economic health of Phoenix neighborhoods. NSD has created programs to assist neighborhoods citywide and aggressively works to revitalize targeted neighborhoods. City projects are complemented by neighborhood-based programs such as clean-ups, blight elimination and graffiti prevention that are often led by neighborhood stakeholders, including businesses, residents and schools.

Targeted neighborhood strategies are more comprehensive and concentrated in approach, involving redevelopment of blighted or under-used properties, proactive code enforcement, housing rehabilitation, infill housing development, infrastructure improvements, neighborhood capacity building and economic development. Targeted neighborhoods include Neighborhood Initiative Areas, Redevelopment Areas, and other City designated revitalization areas.

In order to make a meaningful impact towards the revitalization of distressed neighborhoods, NSD uses a strategic approach to address citywide needs and revitalization activities to enhance the physical environment and to improve neighborhoods. Federal programs that address blight elimination and neighborhood revitalization priorities including owner occupied housing rehabilitation and homeownership opportunities support the NSD strategies while enhancing the quality of life of Phoenix residents.

Beginning in the late 1990s, downtown Phoenix saw the development of several market rate projects for the first time in nearly a decade. From 1997 through 2003, nearly 1,300 housing units were built and available for occupancy in downtown. The units included apartments, lofts, condominiums and multi-family housing.

In 2003, Post Properties and Desert Viking Properties, LLC completed a rehabilitation project of a 12,300 square-foot retail structure located at Roosevelt Street and Third Avenue. The Gold Spot Market was reopened on July 17, 2003.

In 2003, Artisan Homes, Inc. began building 105 ownership housing units on a 5.5 acre site bounded by Fifth and Seventh Streets and Roosevelt and Portland Streets. Artisan Village is an urban, mixed-use row house and townhouse residential project featuring ownership and unique live/work units with 3,000 square feet of street level retail opportunities, streetscapes, green belts, open spaces and 1,200 square feet dedicated for cultural use. The total project cost approximately $18 million and was completed in March 2006.

In 2004, the City entered into an agreement with Portland Place Partners to develop vacant land on Portland Street between Third Avenue and Central Avenue. Portland Place is an urban residential development that consists of 54 units in a six-story condominium tower and brownstones. Construction of Portland Place was completed in July 2007. The next phase of development, Portland on the Park, began construction in the spring of 2015 and was completed in the spring of 2017. This luxury condominium project sits adjacent to the City's Hance Park on Portland Ave, between 1st and 2nd Ave. The $54 million Portland on the Park project has added 170 condos to the historic Roosevelt neighborhood.

Since 2004, residential housing projects have been developed in downtown Phoenix with several additional projects currently under construction. Over the past ten years, downtown has gained over 3,300 market rate units and 1,200 affordable units. These new units have been developed as urban infill and adaptive reuse as well as low, mid and high-rise development projects.

WP South Acquisitions, LLC began construction in the spring of 2005 of a mixed-use residential project on a City-owned parcel and adjacent privately-owned property at the northwest corner of Fourth and Fillmore Streets. Alta Phoenix Lofts, now known as Skyline Lofts consists of approximately 325 market-rate rental residential units in an eight-story building with up to 10,000 square feet of street level commercial space and live/work units and a six-story parking structure with 450 parking spaces. Occupancy began in March 2009.

The Summit at Copper Square, a $32 million project adjacent to Chase Field, was completed in late 2007. The 22-story residential project on the southwest corner of Fourth Street and Jackson Street, consists of 167 ownership loft, studio, and luxury condominium units.

Grace Communities completed demolition of an office building located at the northeast corner of First Avenue and Monroe Street in June 2005 and constructed the tallest residential tower in Arizona. 44 Monroe consists of a 34-story mixed-use high-rise with 196 ownership condominium units, a recreation area, fitness center, theater, parking and approximately 3,300 square feet of commercial development. The $140 million project was completed in August 2008. In June 2010, ST Residential purchased 44 Monroe and converted the condominiums into rental units.

The City of Phoenix obtained a HOPE VI Home Ownership Opportunities for People Everywhere (*"HOPE VI"*) grant from the U.S. Department of Housing and Urban Development (*"HUD"*) to fund the revitalization of the Matthew Henson public housing site and surrounding community. The overall goals of HOPE VI are to assist public housing authorities in replacing severely distressed housing, increasing resident self-sufficiency and home ownership opportunities, creating incentives to encourage investment, and lessening concentrations of poverty by promoting mixed-income communities. The HOPE VI Special Redevelopment Area encompasses the area between Seventh and Fifteenth Avenues and Grant and Pima Streets. The project is a concentrated, mixed-income development of 611 affordable housing units with a community resource center, youth activity center, public parks, community gardens and swimming pools. Demolition and reconstruction began in December 2003. Eligible residents began to return to the communities in December 2005 and final occupancy occurred in the fall of 2008.

Concord Eastridge began development of a major multi-family, mixed-use residential project in 2011. The $52 million project, Roosevelt Point, occupies a three acre site in downtown Phoenix located between Roosevelt and McKinley Streets and Third and Fourth Streets. The privately funded project consists of 327 units and a 5-level parking garage and several thousand square feet of street-level retail. The project is intended to serve the growing population of students attending classes at the ASU Downtown Phoenix campus and the Phoenix Biomedical Campus. Construction began in the spring of 2012 and was completed in September 2013.

In January 2013, the developer of the CityScape project began construction on a 242 luxury apartment complex, Residences at CityScape, situated atop the 10-story Hotel Palomar at the intersection of Jefferson Street and Central Avenue. Construction was completed in the spring of 2014. The Residences at CityScape extends 25 stories above street level and provides the apartment residents access to all of the hotel's amenities, including a private pool deck.

Art HAUS is a market rate residential project that completed construction in July 2016. The project includes twenty-five urban dwellings located in Midtown Phoenix consisting of simple yet bold forms organized around inter-connected semi-private resident courtyards. Dwellings consist of seven three-level townhomes, fifteen two-level lofts and three single-level flats ranging from 560 to 1,800 square feet. The project was constructed on the remnant parcel behind the Arizona Opera Center at Central Avenue and McDowell Road. The $5.5 million project is within walking distance of the Midtown Arts District.

Cloquet Metrowest, LLC completed a $17 million, five-story mixed-use development, named Union, in the summer of 2017. The Union includes 8,000 square feet of street-level restaurant/retail space, structured parking and 80 market-rate, multifamily residential units on a 0.9 acre site in the Historic Roosevelt neighborhood, at the southwest corner of Roosevelt Street and First Avenue.

In 2017, Alliance Residential completed the Broadstone Arts District project, a $49 million four-story, multi-family, rental residential infill project with 280 apartments. This development is on a 4.0 acre site at the northeast corner of McDowell Road and Alvarado Street.

In 2019, CA Ventures completed construction on phase one of The Link PHX. The Link PHX is a 30-story high-rise residential rental project with ground floor commercial space. This is the first phase of a three phase project that will ultimately generate $175 million of new investment in downtown Phoenix. Phase 1 contained 252 rental units at a capital cost of $67.6 million and was completed in late 2019. Phase 2 is currently under construction and will contain 204 rental units at a capital cost of $59.4 million. Phase 2 is expected to be completed in late 2021.

In 2018, Akara Partners broke ground on a $45-million, 20-story high rise residential project featuring 299 rental units with 17,000 square feet of ground floor retail. The project is currently preleasing and anticipated to be completed in May of 2021.

In 2019, PMG Properties Group began construction of X Phoenix, a $92 million, 20 story high rise residential project featuring 320 rental units with 39,000 square feet of ground floor commercial and retail space. This is the first phase of a two-phase project expected to total a $192 Million capital investment. Phase 1 is expected to complete construction in the fall of 2021.

In 2019, Trammel Crow broke ground on the first phase of High Street Fillmore, a $70 million, seven-story mid-rise residential project featuring 329 residential units and 10,000 square feet of ground floor commercial space. This is the first phase of a two-phase project that represents a total capital investment of $140 million. Phase 1 is expected to complete construction in fall of 2021.

In 2020, Ascentris broke ground on Derby Roosevelt Row, a $36 million, 21-story high rise residential project featuring 222 residential units and 4,500 square feet of commercial space. The project is anticipated to be completed in the fall of 2021.

In 2020, Aspirant Development began construction on Aspire Fillmore, a $58 million, 17-story high rise residential project featuring 249 residential units with 1,600 square feet of commercial space. The project is anticipated to completed in the fall of 2021.

In 2020, Hines Development began construction on The Adeline, a $135 million, 25-story high-rise residential project featuring 379 residential units and 4,500 square feet of ground floor commercial space. Construction completion is anticipated in the fall of 2021.

Government Facilities

A 601,000 square-foot Phoenix City Hall was built on Washington Street between Second and Third Avenues, immediately north of the existing Calvin C. Goode Municipal Building. The project, completed in 1994, includes a 1,500-space parking structure that contains 43,000 square feet of office and retail space and is located between Washington and Jefferson Streets and Third and Fourth Avenues.

The Burton Barr Central Library celebrated its grand opening in May 1995. The five-story, 284,000 square-foot library accommodates more than 1 million volumes and has seating for up to 800 patrons. The facility was designed to meet the needs of library patrons well into the 21st century.

Construction of the Phoenix Municipal Court Valdemar A. Cordova Building, a nine-story, 375,000 square-foot City criminal justice facility, was completed in the fall of 1999. The building is located on the northwest corner of Washington Street and Third Avenue, directly west of Phoenix City Hall. The project cost $79 million. It is estimated that between 3,000 and 4,000 customers per day visit this facility, making it the largest volume court in the State.

The Federal government completed construction of a 550,000 square-foot federal courthouse in September 2000. The Sandra Day O'Connor U.S. Courthouse is located on two blocks bounded by Jefferson and Washington Streets and Fourth and Sixth Avenues in downtown Phoenix. The project cost approximately $110 million and includes courtrooms and related office space.

The County constructed a new courthouse in downtown Phoenix at First Avenue and Madison Street. The new 16-story courthouse provides 683,000 square feet of space, including 32 criminal courtrooms. Construction of the $340 million courthouse was completed in February 2012.

Maricopa County began construction of a new Maricopa County Sheriff's Office (MCSO) Headquarters in June 2012. Completed in 2014, the five-story, $92.5 million facility is located on Fifth Avenue and Jefferson Street and houses MCSO administrative staff, and the 911 call center operations. The building contains approximately 128,000 square feet of space with 75 parking spaces below ground.

In 2017, Maricopa County began a $65-million remodel of the former Madison Street Jail located east of 3rd Avenue between Madison and Jackson Streets. The space will be the future home of the Maricopa County Attorney's Office, consolidating offices from around the county in downtown Phoenix. The construction was completed in December 2019.

Downtown Streetscape

Construction on an $8.9 million streetscape project in downtown Phoenix was completed in February 1995. The project added pedestrian lighting, landscaping and street furniture to pedestrian-oriented streets in the downtown area. The improvements are concentrated along Adams Street between Second Avenue and Second Street, Monroe Street between Third Avenue and Seventh Street, Second Street from Van Buren to Jefferson Streets, and Third Street between Van Buren and Monroe Streets. Project boundaries were chosen to create a pedestrian link between Phoenix City Hall, the Orpheum Theater, City-owned multipurpose arena, the Arizona Center and the Heritage and Science Park.

In 2000, the City and the County reached an agreement wherein the County would be responsible for funding the streetscape build out of Jackson Street from First Avenue to Ninth Avenue and the City would be responsible for its maintenance. The $3.2 million project included a three-month community input process to identify the parameters of the street layout, landscape, sidewalk, lighting and design elements. Construction began March 2004 and was completed in November 2004.

In 2006, the City began construction of two streetscape projects on the ASU Downtown Phoenix campus. The projects, which included Taylor Mall and First Street, were completed in January 2009. Taylor Mall is a tree-lined, pedestrian-friendly sidewalk and street between the Civic Space Park and Arizona Center that contains public art, inviting benches, and sustainable water features. A traffic signal and crosswalk allows pedestrians to cross Central Avenue and light rail tracks to enter the Civic Space Park safely from Taylor Mall. In addition, the west side of First Street from Polk Street to McKinley Street has been improved with lighting, shade and landscaping.

In 2012, the City completed construction of a 2006 voter approved bond project which improved downtown streetscapes on First Street from Fillmore to McKinley Streets. The City received an award from the Arizona Community Tree Council for the First Street streetscape project for the beautification of the urban environment through the use of trees.

In 2015, the City completed construction on a streetscape project improvement on Roosevelt Street between Central Avenue and Fourth Street. The project was funded through a $750,000 Federal Transportation Enhancement Grant. The improvements include new sidewalks, bike lanes, street lights, shade trees, benches, public art and other amenities. A second phase of this project on Roosevelt Street, from Fourth Street to Seventh Street was completed in August 2016. Roosevelt Street was repaved from 1st Avenue to 7th Avenue, a project which included the addition of bike lanes.

In 2017, the Renaissance Hotel, which fronts Adams Street from Central Ave to 1st Street, began a $9.5 million capital improvement program that took recommendations from the Adams Street Activation Study. The improvements included relocating the valet area from Adams St. to 1st Street, structured shade elements along the south façade, drought tolerant landscaping and decorative street pavers. This investment transformed Adams Street into a more pedestrian friendly space and set a high standard for future development along Adams Street.

In 2019, the Hyatt Hotel, which fronts Adams Street from 1st Street to 2nd Street, began a $40 million capital improvement project to renovate the hotel and enhance the streetscape consistent with recommendations from a study done for Adams Street. Work was completed in early 2020.

Transit/Light Rail

Central Station, the City's downtown transit center located on the northwest corner of Central Avenue and Van Buren Street was constructed in 1997. The 2.7-acre site includes a 4,000 square-foot passenger services building for ticket sales, security, and restrooms; a 16,000 square-foot passenger plaza that includes passenger information, seating and shade; and bus loading and circulation areas for 6 bus routes, Dial-a-Ride and DASH (Downtown Area Shuttle), as well as east and westbound light rail services. The total cost of the project was approximately $9.3 million, with the Federal Transit Administration funding 80% and the City funding 20% of the project. Central Station received a $3.7 million renovation, completed in July 2011, to modernize the facility, improve security, and incorporate sustainable elements. The transit center improvements were one of five major transit capital projects funded by the American Recovery and Reinvestment Act. The other four projects include a $1.4 million expansion of the 40th Street and Pecos Road park-and-ride that was completed in June 2010, the construction of a new $3.4 million park-and-ride at the southwest corner of Interstate 17 and Happy Valley Road that was completed in January 2011, the construction of a new $2.7 million park-and-ride at the southwest corner of 27th Avenue and Baseline Road that was completed in February 2012 and a $4.0 million project to make Americans with Disabilities Act related improvements to 400 bus stops in Phoenix that was completed in October 2012.

On March 14, 2000, City of Phoenix voters approved a 0.4% sales tax increase to be levied for a period of twenty years to provide funding for a light rail system as well as mass transit, including expanded bus service and other transportation improvements (the "*Transit Sales Tax*"). Construction of an approximately $1.4 billion, 20-mile light rail system connecting north central Phoenix (19th Avenue and Bethany Home Road) with Sky Harbor International Airport (via the PHX Sky Train®), Tempe and Mesa (Main Street and Sycamore Road) began in the fall of 2004 and opened for operations in December 2008. The total cost of the project was funded with Federal grant funds, Transit Sales Taxes and other local funding sources.

The City has also made major renovations to two of its bus transit centers. Renovations to the Sunnyslope Transit Center and the Paradise Valley Mall Transit Center were completed in June 2007 and June 2009, respectively. The renovations provided much needed improvements to the facilities, including security upgrades. The City recently developed a new park-and-ride facility along the Baseline Road corridor at 24th Street, which opened in April 2015. In addition, the City upgraded and expanded the Desert Sky Mall Transit Center to serve residents in West Phoenix. This much needed facility, which provides shade, security, covered parking and public art opened to the public in December 2015. The new Desert Sky Mall Transit Center cost $8.2 million for land, design and construction.

The City has also made substantial improvements to its bus operating and maintenance facilities. These facilities are the backbone of the transit system, as they provide fueling, cleaning, and maintenance for the City's bus fleet, as well as administrative space for the bus operations contract service providers. In November 2007, a new $50 million West Transit Facility was completed and opened for operations. This facility provides additional capacity to operate and maintain buses for the Phoenix transit system. The facility was designed to accommodate 250 buses and replace a rented facility, which could only accommodate 75 buses. The additional capacity will help address future expansion of the Phoenix bus system with the passage of Prop 104.

The city of Mesa received local and regional approval in August 2010 to move forward with the Central Mesa Extension, which extended the system 3.1 miles from Sycamore Drive and Main Street to Mesa Drive and Main Street. Construction on the Central Mesa Extension began in May 2012, with service beginning in August 2015. The Federal Transit Administration funded 64% of the Central Mesa Extension construction costs and the Maricopa County Transportation Excise Tax funded the remaining 36% of the construction costs. The Gilbert Road Extension was completed in late spring 2019 and extends the light rail on Main Street from Mesa Drive to Gilbert Road in Mesa. The city of Tempe began construction in 2017 on the Tempe Streetcar. Tempe Streetcar is the first modern streetcar line in the Valley and will connect riders to the light rail system, neighborhoods, major business centers, and regional events. Streetcar vehicles are smaller than light rail vehicles and operate individually, not linked together in trains. Streetcar stops are similar to bus stops and occur more frequently than light rail stations. The Tempe Streetcar is scheduled to be completed in 2021.

In May 2012, the Phoenix City Council approved the Capitol / I-10 West Locally Preferred Alignment (*"LPA"*). Following the passage of Transportation 2050, Phoenix City Council approved phasing the Capitol / I-10 West project. Phase I will extend between the current light rail line in downtown Phoenix to the State Capitol Complex and will open in 2024. Phase II will extend to the 79th Avenue Park-and-Ride and is expected to open in 2030. Subsequent to approval of the Capitol/I-10 West LPA, staff has continued to study options for the convergence of LRT corridors within downtown Phoenix. In conjunction with analysis for the South Central LRT Extension, a reconfiguration of the merging of the existing light rail system, the future Capitol / I-10 West LRT Extension, and South Central LRT Extension was recommended by staff to create a downtown transit hub to enhance the connectivity for transit passengers along with other multimodal improvements. These recommendations were approved by the City Council on September 26, 2017. The approval of the downtown LRT transit hub prompted a re-examination of the original Capitol / I-10 West Phase I LPA. Currently staff is engaging the public to determine what route, mode, and timing would better serve the transportation needs for the Governmental Mall and the west valley community. Staff is scheduled to provide a recommendation for the project to City Council in early 2021. The total cost of the project will be funded with Federal grant funds, Transit Sales Taxes and other local funding sources.

Improvement plans for the bus operating and maintenance facilities also includes renovations to the two existing facilities, the North Transit Facility and the South Transit Facility. Upgrades to these facilities include improvements to life safety, security, building code upgrades, roofing replacements, HVAC equipment replacement, and fueling system upgrades. The North Transit Facility renovation was completed in November 2013, while work at the South Transit Facility began in the summer of 2015 and was completed in the fall of 2019, with a total cost of $28 million for design and construction.

In August 2014, a 34-person group, the Citizens Committee on the Future of Phoenix Transportation, was created to address the 2020 expiration of the Transit Sales Tax and to review the public transit and street transportation needs of the City. After six months of meetings and over 100 public engagement events, the committee forwarded their recommendations to the City Council, whom approved the plan in March 2015 and placed Prop 104 on the ballot. On August 25, 2015, voters approved a new comprehensive transportation plan and funding tax proposal that increased the existing Transit Sales Tax rate dedicated for transportation. The dedicated Transit Sales Tax rate was increased from the previous 0.4% to 0.7% and became effective January 1, 2016, with a sunset date of December 31, 2050. The increased Transit Sales Tax will continue to fund expanded local bus and Dial-A-Ride service, bus rapid transit service, neighborhood circulators and the operation of the light rail system. The increased Transit Sales Tax funding will also provide for expanded bus and light rail service hours and routes, high capacity transit corridors, and infrastructure improvements to bus stops, maintenance facilities and transit centers. In addition, the increased Transit Sales Tax will provide for street improvements including pavement maintenance, new bicycle lanes, sidewalk installation and traffic signal enhancements.

In 2019, City Council authorized an agreement for the Northwest Light Rail Extension Phase II project with Valley Metro Rail (*"VMR"*). The Northwest Light Rail Extension Phase II is a 1.6-mile light rail project extending from the current end-of-line at 19th Avenue and Dunlap, west to 25th Avenue, then northward to Mountain View Road, to a terminus west of Interstate 17 adjacent to the Metrocenter Mall. The project will include three new stations, two park-and-ride lots (one end-of-line, one co-located with Rose Mofford Park), and a relocated and expanded Metrocenter transit center. The $173 million (City's share) project, scheduled to open in 2024, will include an elevated structure over Interstate 17 and will terminate just west of the freeway. The Northwest Extension Phase II design has advanced to 90%. Construction started the summer of 2020. The total cost of the project will be funded with Federal grant funds, Transit Sales Taxes and other local funding sources.

In 2019, City Council authorized an agreement for the South Central Extension/Downtown Hub project with VMR. The South Central Extension/Downtown Hub is a 5.5-mile light rail project extending south from Jefferson Street to Baseline Road along Central Avenue and includes the creation of a rail transfer hub in downtown Phoenix. The project will include nine new light rail stations and two park-and-rides — one located at the existing Ed Pastor Transit Center at Central Avenue and Broadway Road, and an end-of-line facility at the northwest corner of Central Avenue and Baseline Road. On April 15, 2019, the Federal Transit Administration (*"FTA"*) granted the project approval to enter the engineering phase of the Capital Investment Grant New Starts program. The U.S. Department of Transportation awarded $638 million to help fund the South Central/ Downtown Hub Light Rail expansion in January 2021. The Full Funding Grant Agreement from the FTA represents the federal government's role in funding and helping manage the project. The extension project will receive $530 million from the FTA's Capitol Investment Grants Program and $108 million from the Federal Highway Administration. The project includes track improvements along McKinley Street, 5th Street, and 3rd Avenue in downtown Phoenix, expansion of the existing Operations and Maintenance Center, purchase of 17 light rail vehicles, and construction of two park-and-ride lots. October 14, 2019 marked the official start of construction in the Downtown Hub of the project. The first order of construction being the relocation of underground utilities. Due to the limited right of way and close proximity of structures within the hub, this work is scheduled to take approximately 18 to 24 months. Work being done this year will take place along McKinley between 1st Avenue and Central Avenue, and 5th Street between Washington Street and Jefferson Street. The $428 million (City's share) project will be funded with Federal grant funds, Transit Sales Taxes and other local funding sources.

Phoenix Sky Harbor Center

The creation of Phoenix Sky Harbor Center was approved by the City Council in 1984, and in 1985, $19,150,000 in City bonds were issued for the development of 550 City-owned acres into a high quality business office, technological and industrial center. Located immediately west of Phoenix Sky Harbor International Airport, Phoenix Sky Harbor Center is generally bordered by I-17 to the south, 16th Street to the west, the Southern Pacific Railroad to the north and 24th Street to the east. Phoenix Sky Harbor Center is bisected by I-10, which provides convenient transportation access to the site and to Phoenix Sky Harbor International Airport.

The initial acquisition and infrastructure development phase of Phoenix Sky Harbor Center was completed in 1993. Among the earliest occupants were Honeywell, Sky Chefs Inc., Miller Brands of Phoenix and Arrow Electronics. These initial tenants built distribution space, office buildings, warehouses and manufacturing facilities totaling over 1.16 million square feet. The office park has since added Bank of America's credit card operations center, and Bank One (now JPMorgan Chase) regional processing center. Other sizeable tenants at Phoenix Sky Harbor Center include First Group America dba Greyhound Lines, Charlie Case dba Community Tire, Century Link, Grand Stable & Carriage Co. LLC, LTJ Skyline, the City of Phoenix, Horseheads Industrial Capital II, LLC, 801 S. 16th Industrial, LLC, Honeywell International Inc., and Watson Properties.

In 1993, the City received approval for the relocation and expansion of Foreign Trade Zone ("*FTZ*") No. 75 to a 375-acre site at Sky Harbor Center. The FTZ was established to allow companies who import large amounts of foreign products to defer paying duties on these products until they are shipped to retail outlets. The FTZ boundaries were modified to include air cargo operations at the Airport.

In 2001, the City Council approved the concept of a consolidated rental car center ("*RCC*") for Phoenix Sky Harbor International Airport. On June 1, 2002, the City initiated a daily Customer Facility Charge ("*CFC*") collected by the rental car companies on all rentals to be used to fund the construction, operation and maintenance of the RCC. The RCC is located on approximately 141 acres within Sky Harbor Center and opened on January 19, 2006. The development includes a customer service building, car service facility, a 5,651 space parking garage, bus fleet, bus maintenance facility, and associated site improvements, infrastructure, roadways, landscaping and signage. The project was funded with CFC revenues and bond funds, and cost approximately $285 million.

Phoenix Sky Harbor International Airport

In 1990, construction was completed on Terminal 4 at Phoenix Sky Harbor International Airport at a cost of $276 million. The original facility included 4 domestic concourses housing 44 gates, one international concourse with 4 gates, and a 3,400-space parking facility. In July 1994, the City Council approved expansion of Terminal 4 to add ten domestic gates to the international concourse. Construction of the new facilities was completed in February 1996. In September 1995, America West Airlines (now American Airlines) announced plans to expand its Phoenix operations over the next several years. In March 1998, the City Council approved an airport capital expansion program funded primarily by passenger facility charges and airport revenue bonds. Approved and completed projects included rebuilding runways in concrete, construction of two new airport fire stations, a new Terminal 4 concourse to provide more capacity for American Airlines and additional parking facilities at Terminal 4. The airport is currently constructing the final concourse at Terminal 4, which Southwest Airlines has already committed to utilize. The new concourse will add eight gates, and is expected to be completed in mid-2022.

Terminal 3, which opened in 1979, originally contained approximately 639,000 square feet and ten gates. The Terminal 3 Modernization Project, which began construction in 2014, with the purpose of removing Terminal 2 from service, providing for passenger growth in Terminal 3, increasing passenger flow efficiencies and increasing concession revenue. The $580 million modernization project was executed in three independent phases that allowed the project to be completed as demand required and finances allowed. Airlines in Terminal 2 were moved into the expanded Terminal 3 facilities. The Airport completed the final phase of the project in the spring of 2020. Terminal 3 now contains approximately 710,000 square feet and 25 gates.

PHX Sky Train® is an automated people mover designed to carry over 35 million riders annually through seven stations at Sky Harbor along an elevated guideway spanning approximately five miles. The PHX Sky Train® provides a new front door to the Airport, offering a seamless connection with the light rail transit station at 44th Street and Washington. Stage 1 of the PHX Sky Train® connects Phoenix's light rail system, Sky Harbor's east economy parking garages and Terminal 4 and began service on April 8, 2013. Stage 1a (the Terminal 3 Line Extension) began service on December 8, 2014 and runs from Terminal 4 to Terminal 3 with a walkway connection to Terminal 2. The two stages were completed more than $45 million under the combined budget of $884 million. Construction of the final extension of the PHX Sky Train®, which will extend service from Terminal 3 to the Rental Car Center, commenced construction in February 2018. The train extension project has a budget of $745 million and is scheduled to open for service in mid-2022.

On June 11, 2019, the Phoenix City Council approved the Airport's Comprehensive Asset Management Plan (the *"CAMP"*), which is a 20-year blueprint for Airport investments. The CAMP is projected to cost $5.7 billion during the 20-year period. Early in calendar year 2020, commercial airports across the United States, including Phoenix Sky Harbor International Airport, saw passenger traffic numbers reduced dramatically as the global economy began to face impacts of the COVID-19 pandemic. The Airport responded to the pandemic-driven reduction in revenue by deferring these CAMP projects until the pandemic ends and the projects become viable.

Property Tax Supported Bond Program

In order to help meet the City's future capital financing needs, a comprehensive property tax supported general obligation bond program was initiated in the summer of 2005. A citizens bond committee consisting of approximately 700 private citizens was appointed by the Mayor and City Council to review the City's capital requirements and recommend a total bond program to the voters. This is the traditional approach used by the City for bond elections since 1950. The program culminated in a special bond election on March 14, 2006 when the voters approved all seven propositions totaling $878.5 million in new general obligation bond authorizations. The propositions and the amount of bonds authorized are shown in the following table. There is currently $152.3 million of authorized bonds that have not yet been issued.

2006 Bond Program	Amount Authorized
Police, Fire and Homeland Security	$177,000,000
Education Facilities	198,700,000
Library and Youth, Senior and Cultural Facilities	133,800,000
Parks, Open Space and Recreational Facilities	120,500,000
Streets, Storm Sewers and Flood Protection	147,400,000
Affordable Housing and Neighborhood Revitalization	85,000,000
Computer Technology	16,100,000
Total	$878,500,000

PHOENIX CITY GOVERNMENT

Phoenix operates under a Council-Manager form of government as provided by its Charter which was adopted in 1913. The City Council consists of a Mayor and eight Council members, elected by the people on a non-partisan ballot. At a special election held on October 3, 1989, Phoenix voters passed Proposition 105 which amended the City Charter to provide for four year staggered terms and a limit of two such terms for the Mayor and Council members. On November 6, 2001, Phoenix voters passed Proposition 101 which amended the City Charter to allow Council members to serve up to three consecutive four-year terms, with no limit on the number of terms that could be served over a lifetime. On August 28, 2018, Phoenix voters passed Proposition 411 which amended the City Charter by changing City Council elections from the fall of odd-numbered years to November of even-numbered years to coincide with county and statewide elections. The initial implementation of Proposition 411 will extend current Council members' terms by a year, so the next elections can occur in even-numbered years. The Mayor is elected at-large, while Council members are elected by voters in each of eight separate districts they represent. The Mayor and each Council member have equal voting power.

The Council is responsible for policy making. It appoints advisory boards, commissions and committees and also appoints Municipal Court Judges and the City Manager.

The City Manager is responsible for executing Council policies and administering City operations. Reporting to the City Manager is an Assistant City Manager, a Special Assistant, the Budget and Research Director, the Chief Financial Officer, the City Auditor and the City Attorney.

The City government is responsible for furnishing basic municipal services. Primary services delivered by the City's 34 departments/functions, 19 initiatives/projects and 14,858 employees include police, Municipal Court, fire protection, parks, recreation, libraries, sanitation, water, sewer, transportation (including streets and public transit), airports, building safety, public works, neighborhood improvement and housing, community and economic development and convention and cultural services. These services were provided in fiscal year 2020-21 through an adopted operating budget of $5,020.4 million. Of this, the general purpose funds budget totaled $1,425.6 million, which was for general municipal services and excluded enterprise activities such as water, sewer, refuse and airports and special revenue funds such as grants, secondary property taxes, Arizona Highway User Revenues, impact fees and voter-approved dedicated sales taxes.

Elected Officials

KATE GALLEGO, MAYOR

Mayor Gallego began her first term as Mayor in March 2019. Prior to being elected Mayor, Ms. Gallego served on the City Council representing District 8 for nearly five years before resigning in August 2018 to run for Mayor. Ms. Gallego has been an active member of the community and held several volunteer positions including Chair of the Environmental Quality Commission, Chair of the Solar Energy Subcommittee, Vice Chair of MyPlanPHX.com, and as a member of the Central City Village Planning Commission. Additionally, Ms. Gallego is a member of the Board of Directors of the Arizona Latino Arts and Culture Center and serves on the Arizona Commission on Service and Volunteerism. Ms. Gallego has a bachelor's degree in environmental studies from Harvard University and holds a Master of Business Administration in Entrepreneurial Management from the Wharton School of Business at the University of Pennsylvania.

CARLOS GARCIA, VICE MAYOR, DISTRICT 8

Vice Mayor Carlos Garcia began his first term as Vice Mayor in April 2021. Prior to being elected to the Phoenix City Council, Mr. Garcia spent 16 years advocating social justice in Arizona and across the country. Mr. Garcia serves on the U.S. Human Rights Network Board and co-founded Puente Human Rights Movement, an immigrant rights organization, as well as One Arizona, a non-profit coalition focused on civic engagement. Mr. Garcia is also a co-founder and board member of Mijente, a national political home for Latinx and Chicanx.

ANN O'BRIEN, COUNCILMEMBER, DISTRICT 1

Councilmember Ann O'Brien began her first term in April 2021. Prior to being elected to the Phoenix City Council, Ms. O'Brien worked in project management for the Arizona Department of Child Support Enforcement and as a business broker for a local company. Ms. O'Brien is an Arizona native who has done extensive volunteer service work within the community. She currently serves as the President of the Deer Valley Unified School District Governing Board, President of the Arizona School Board Association and is the appointed chairperson of the 2020 Legislative Committee. Ms. Obrien holds a bachelor's degree from Arizona State University.

JIM WARING, COUNCILMEMBER, DISTRICT 2

Councilmember Waring began his second consecutive full term on the City Council in January 2018. Mr. Waring has been an active member of the community for many years and has volunteered on many City and charitable organizations, including the Paradise Valley Village Planning Committee, Phoenix Planning Commission and Neighborhood Block Watch Committee. For his contributions, he has earned awards from the Arizona Federation of Taxpayers (Champion of the Taxpayer), National Federation of Independent Business (Guardian of Small Business), and the Arizona Chamber of Commerce (Senator of the Year). In addition, he was recognized for his work fighting domestic violence by the Arizona Coalition Against Domestic Violence (Legislator of the Year twice) and the Men's Anti Violence Network (Man of the Year). Councilmember Waring was awarded the Arizona Veterans Hall of Fame Copper Shield Award and the National Guard Association of the United States Medal of Merit. Mr. Waring was an Arizona State Senator for seven years and has served on the staffs at Arizona State University, the Arizona Board of Regents and Northern Arizona University. Mr. Waring received his PhD in Public Administration from Arizona State University's School of Public Affairs and his undergraduate degree from Northern Illinois University.

DEBRA STARK, COUNCILMEMBER, DISTRICT 3

Councilmember Stark began her first term on the City Council in March 2017 to fill the District 3 position left vacant upon the resignation of Bill Gates. Ms. Stark has spent her entire career in local government working for the City of Phoenix, the County, and the City of Peoria. At the City of Phoenix, Ms. Stark was the Planning and Development Director from 2005 to 2012. She is currently the President of the Arizona Chapter of the American Planning Association and serves as a Board Member for the Arizona Council of the Urban Land Institute and Southwest Center for HIV/AIDS. Ms. Starks holds a bachelor's degree in sociology from Western Kentucky University and a master's degree in planning from Arizona State University.

LAURA PASTOR, COUNCILMEMBER, DISTRICT 4

Councilmember Pastor began her second consecutive term on the City Council in January 2018. Ms. Pastor is Director of Achieving a College Education Program at South Mountain Community College and was a classroom elementary teacher for four years. Previously, Ms. Pastor was with the Department of Employment and Rehabilitation Services at the Arizona Department of Economic Security and was Special Assistant to the Arizona Director of Insurance. Ms. Pastor is a member of the Phoenix Union High School District Board and serves on the O'Connor House Speak Out Against Domestic Violence and Mi Familia Vota advisory boards. She is a former member of the Hispanic Advisory Board of Maricopa Community Colleges, Maricopa Transportation Advisory Board, the Homeless Task Force, and Phoenix Day. Ms. Pastor has a bachelor's degree in education from Arizona State University and a Master of Public Administration from City University of New York.

BETTY GUARDADO, COUNCIL MEMBER, DISTRICT 5

Councilmember Betty Guardado began her first term on the City Council in June 2019. Ms. Guardado has been an active member of the community and has served as the director of union organizing in Phoenix for UNITE HERE Local 11, where she has conducted campaigns and negotiated contracts for thousands of hotel and food-service workers around Maricopa County. Currently, she is a vice president of Local 11. Ms. Guardado has been instrumental in leading successful independent voter turnout campaigns to elect several Phoenix City Council members to develop young leaders, and to empower working-class families.

SAL DICICCIO, COUNCILMEMBER, DISTRICT 6

Councilmember DiCiccio began his third consecutive full term on the City Council in January 2018. Mr. DiCiccio previously served on the City Council from 1994 to 2000. Mr. DiCiccio currently works with state, tribal, county and municipal governments as well as national business entities to develop business opportunities in Arizona. Mr. DiCiccio has served on several boards and committees including the Arizona Municipal Tax Code Commission, the State Land Conservation Task Force, the Arizona Growing Smarter Working Advisory Committee, the Maricopa County Planning Commission and the Arizona FARE Committee. Mr. DiCiccio was also a member of the Fiesta Bowl Committee and the Board of Directors for the Arizona Center for the Blind. Mr. DiCiccio is a member of the South East Valley Regional Association of Realtors and the National Association of Realtors. Mr. DiCiccio is a small business professional and holds a bachelor’s degree in business from Arizona State University.

YASSAMIN ANSARI, COUNCILMEMBER, DISTRICT 7

An Arizona native, Councilmember Ansari began her first term on the City Council in April 2021. Prior to being elected to the Phoenix City Council, Ms. Ansari served as a senior climate advisor to former United Nations Secretary and helped to deliver the historic Paris Climate Agreement. She has also worked on Mission 2020, a global climate campaign, and served as the Deputy Director of Policy for the Global Climate Action Summit. Ms. Ansari holds a bachelor’s degree from Stanford University and a master’s degree from the University of Cambridge.

Administrative Staff

ED ZUERCHER
City Manager

Ed Zuercher was appointed City Manager in February 2014, after serving as Acting City Manager since October 2013. Prior to his appointment as City Manager, Mr. Zuercher had been the Assistant City Manager since November 2009 and served as a Deputy City Manager since November 2007. Before working in the City Manager’s Office, Mr. Zuercher served as Co-Chief of Staff to the Mayor, Executive Assistant to the City Manager, Assistant to the City Manager, Public Transit Director and Management Assistant in the City Manager’s Office and Budget & Research Department. Originally from Kansas, he participated in the City of Phoenix Management Intern Program from 1993 to 1994. Mr. Zuercher served as chairperson of the Public Safety Pension Retirement System from 2005-2009 and currently serves on the Greater Phoenix Convention and Visitors Bureau board. He has a Master of Public Administration from the University of Kansas and an undergraduate degree from Goshen College.

JEFF BARTON
Assistant City Manager

Jeff Barton was appointed Assistant City Manager in February 2021. Mr. Barton’s 21 year career with the City of Phoenix started in 1999 as an Internal Auditor in the City Auditor Department. Over the years he held a variety of roles that focused on the City’s sound financial stewardship, including multiple auditing positions, Management Assistant, Deputy Budget and Research Director, Budget and Research Director, and most recently as Deputy City Manager. Mr. Barton holds a bachelor’s degree in Political Science from Morehouse College and a Master of Public Administration from Shippensburg University of Pennsylvania.

CRIS MEYER
City Attorney

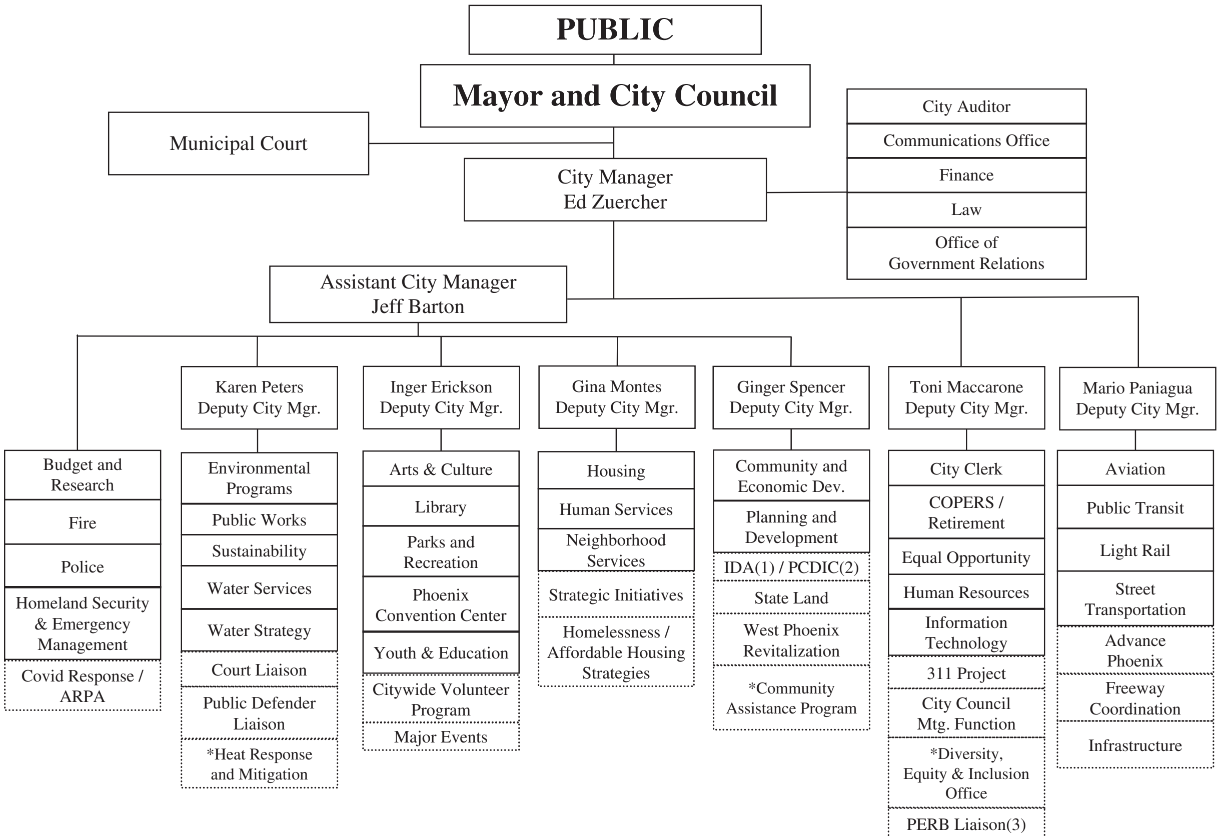
Mr. Meyer was named City Attorney in December 2018 after serving as Chief Assistant City Attorney. Mr. Meyer has more than 25 years of experience in City administration, management and municipal law in the areas of elections and initiative, referendum and recall petitions, campaign finance, public records, open meeting law and public meetings, ethics, conflicts of interest, annexation, regulatory licensing, and municipal administration. Mr. Meyer is a member of the State Bar of Arizona and the State Bar of Illinois. He received his bachelor’s degree in Psychology from Wheaton College in Illinois and his law degree from the University of Illinois College of Law.

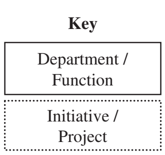
DENISE OLSON
Chief Financial Officer

Ms. Olson was appointed Chief Financial Officer in November 2015. She began her career with the City in 1994 in the Finance Department, working as an economist in the Utilities Accounting Division and the Financial Accounting and Reporting Division. She became Deputy Finance Director in 2006, and was promoted to Assistant Finance Director in 2012. Throughout her career she has managed financial planning, financial systems applications and support, procurement, city controller functions, financial accounting and reporting and has been involved in the planning and issuances of debt to fund capital expenditures. Ms. Olson has a bachelor's degree in Business Administration with majors in Human Resources and Economics from New Mexico State University, and a Master of Public Administration from Arizona State University. Ms. Olson was named CFO of the Year by the Phoenix Business Journal in November 2018. This award recognizes top executives for their contribution and commitment to the community.

TROY HAYES
Water Services Director

Mr. Hayes has over 25 years of civil engineering and management experience in the water and wastewater industry. Prior to becoming the Water Services Director, he served as Assistant Water Services Director and Deputy Water Services Director for the Water Production Division. He holds a bachelor's degree in Chemical Engineering from the University of Arizona, a master's degree in Business Administration from the University of Phoenix and is a licensed professional civil engineer in the states of Arizona and Colorado. He also holds Arizona Department of Environmental Quality Grade 4 Operator License in all disciplines of water and wastewater





1 - Phoenix Industrial Development Authority.

2 - Phoenix Community Development and Investment Corporation.

3 - Phoenix Employee Relations Board

*Subject to Council Adoption

Revised: April 30, 2021
Effective: May 10, 2021

Awards

The City of Phoenix and its employees have been recognized professionally for numerous awards including the following accomplishments:

- **Certificate of Achievement for Excellence in Financial Reporting**

This award (formerly the Certificate of Conformance in Financial Reporting) recognizes the completeness, accuracy and understandability of the City's Comprehensive Annual Financial Reports. Awarded to the City of Phoenix by the Government Finance Officers Association each year since 1976, and to the City of Phoenix Aviation Department each year since 2016, the first year of the Aviation Comprehensive Annual Financial Report.

- **Employees' Retirement Plan Certificate of Achievement for Excellence in Financial Reporting**

Awarded to the City of Phoenix by the Government Finance Officers Association for its component unit financial report each year since 1985. The Certificate of Achievement is the highest form of recognition in the area of public employee retirement system accounting and financial reporting.

- **Distinguished Budget Presentation Award**

Awarded to the City of Phoenix Budget and Research Department each year since 1990 by the Government Finance Officers Association for the completeness and understandability of its budget document.

- **2018 Illuminating Engineering Society Award of Excellence Winner**

The Illuminating Engineering Society (*"IES"*) and Smith Group recognized Phoenix Sky Harbor International Airport for its Terminal 3 Modernization Project. The 2018 Illuminating Engineering Society Awards celebrates design excellence worldwide and selected Phoenix Sky Harbor as an Award of Excellence Winner. This award was provided to the airport due to an exceptional contribution to the art and science of light.

- **2017 Arizona Forward — Governor's Award for Arizona's Future**

Arizona Forward awarded its prestigious Governor's Award for Arizona's Future to the City of Phoenix for its landmark 2017 agreement with the Gila River Indian Community to preserve endangered Colorado River water in Lake Mead. In all, Phoenix received nine awards at Arizona Forward's 37th Annual Environmental Excellence Awards, including four Crescordia Awards, the highest honor in each category. Mayor Greg Stanton and the Phoenix City Council unanimously approved the Colorado River Conservation Agreement in June 2017 in partnership with the Gila River Indian Community, the U.S. Bureau of Reclamation and the Walton Family Foundation. Under the agreement, Phoenix works with the Tribe to preserve 13 billion gallons of its annual portion of Colorado River water in Lake Mead, which helps preserve water levels in the dangerously over-allocated reservoir.

- **2017 Nations's Highest Performing City**

The City of Phoenix has been named the nation's highest performing city by Governing Magazine and Living Cities through the first-ever national "Equipt to Innovate" survey. Equipt to Innovate is a new initiative launched by Governing and Living Cities. It is an integrated, collaborative framework of seven essential elements that define high-performance government and empower innovation. It is also an invitation for cities to work together, learn from each other and help drive better outcomes for their communities. The seven Equipt elements are: Dynamically Planned; Broadly Partnered; Resident-Involved; Race-Informed; Smartly Resourced; Employee-Engaged; and Data-Driven. Cities from across the country participated in the inaugural 2016 Equipt survey, assessing their capacity and competence in these seven key areas.

- **ICMA Program Excellence Awards**

  – **2019 ICMA Certificate of Distinction in Performance Management**

The International City/County Management Association (*"ICMA"*) has recognized the City of Phoenix for its data-driven management and reporting efforts with a Certificate of Distinction for 2019. Certificates of Distinction are awarded to those who provide comparative and benchmarking information to the public, use performance data in strategic planning and operational decision-making, and share their knowledge with other local governments through presentations, site visits, and other networking activities. Phoenix is among 19 jurisdictions receiving the Certificate of Distinction and one of 63 recognized overall. This is the 18th year the City's performance management efforts have been recognized by ICMA.

– **2017 Community Partnership Award**

The City of Phoenix was awarded the Community Partnership Award for the Phoenix/Tucson water exchange program. This award recognizes innovative programs or processes between and/or among a local government and other governmental entities, private sector businesses, individuals, or nonprofit agencies to improve the quality of life for residents or provide more efficient and effective services. The exchange agreement between Phoenix and Tucson takes advantage of the unique infrastructure of each city's water system. Tucson's system relies on wells, Phoenix relies on surface water, and a canal connects the two cities.

• **2017 Water Resource Utility of the Future Today Award**

The City of Phoenix Water Services Department was honored as a 'Utility of the Future Today' for the department's forward-thinking initiatives. The recognition program is administered by four water sector organizations — the National Association of Clean Water Agencies *("NACWA")*, the Water Environment Federation *("WEF")*, the Water Environment & Reuse Foundation *("WE&RF")* and WateReuse — with input from the U.S. Environmental Protection Agency *("EPA")*. The Phoenix Water Department was one of just 25 water utilities in the country to receive this recognition. The Utility of the Future Today recognition celebrates the achievements of forward-thinking, innovative water utilities that are providing resilient value-added service to communities. The recognition focuses specifically on community engagement, watershed stewardship and recovery of resources such as water, energy and nutrients.

• **2017 AAAE Airport Innovation Award**

The Airport Innovation Accelerator – established by the American Association of Airport Executives *("AAAE")* as a hub for innovation to drive creative approaches and build airports of the future – has selected Phoenix Sky Harbor International Airport to receive the second annual Airport Innovation Award for its creative work to improve the passenger experience and deploy cutting-edge technologies. The Airport Innovation Award was established by the Airport Innovation Accelerator to honor Innovative developments that are a model for airports around the country. Phoenix secured the award for a portfolio of creative innovation to enhance the passenger experience and make airport operations more efficient. The award was presented to Phoenix officials at the third Annual Airport Innovation Forum in Seattle.

• **Outstanding Achievement in Innovation**

– **2017 Outstanding Achievement in Innovation**

The Alliance for Innovation awarded the City of Phoenix an Outstanding Achievement in Innovation Award for PHXteens Program. Developed to help teenagers better connect with the community and to realize their full potential, the PHXteens program launched in September 2016 and is facilitated out of eight community and recreation centers located throughout the city. During its inaugural year, 233 teens registered for the program. Additionally, teens participated in 31 cultural and 24 recreational field trips, 70 teen council meetings, 28 workshops, and 2,439 volunteer hours.

– **2016 Outstanding Achievement in Innovation**

FitPHX is the recipient of the Alliance for Innovation's Outstanding Achievement in Local Government Innovation Award. FitPHX is a citywide initiative with the goal of improving health and wellness in the region and making Phoenix area one of the healthiest in the nation. The initiative has created innovative collaboration between government, private sector, non-profits and universities to develop programming that gives citizens tools and education to be healthier. In 2015, FitPHX provided services to nearly 14,000 participants and raise $350,000 to support its programming.

– **2013 Outstanding Achievement in Innovation**

The Alliance for Innovation awarded the City of Phoenix an Outstanding Achievement in Innovation Award for its organizational review, which resulted in a leaner work force and more efficient delivery of services. The goals of the organizational review were to eliminate layers of supervision, broaden the span of control, streamline services, identify efficiencies and reduce the size of government. Through these goals, the City was able to improve services to residents by providing for faster decision making and enhanced organizational flexibility and communications, leading to the smallest City government in 40 years, as measured by employees per capita.

– **2012 Outstanding Achievement in Innovation**

The Alliance for Innovation awarded the City of Phoenix an Outstanding Achievement in Innovation Award for the Innovation and Efficiency Task Force. Created in January 2010, the task force is comprised of City staff and public members who explore, develop and implement innovative processes that result in a more efficient delivery of City services and maximize the use of limited taxpayer dollars.

– **2016 President's "E" Award for Export Service**

The City of Phoenix was a 2016 winner of the President's "E" Award for Export Service. The President's "E" Award was initiated in 1962 by President John F. Kennedy to recognize excellence by companies and municipalities for contributions to U.S. exporting. Phoenix is only the fifth city to earn the honor in 54 years. It is typically reserved for companies and private sector entities. The City earned the award by demonstrating a sustained commitment to export expansion with significant and broad-based support to grow exports from Phoenix, which is responsible for more than half of the exports from the State of Arizona. The support included the launch of the City's export boot camp initiative, which teaches local small- and medium-sized businesses how to trade abroad.

• **Association of Metropolitan Water Agencies Award (AMWA)**

– **2019 Sustainable Water Utility Management**

Phoenix Water was one of the fifteen systems that received the Sustainable Water Utility Management Award for achieving a balance of innovative and successful efforts in areas of economic, social and environmental endeavors. Some of the successes that separated Phoenix Water from other municipal utilities include the acquisition of water resources to meet demand 100 years into the future; reduced energy consumption through the adoption of electronic processes such as automated meter reading; and 140 million gallons of wastewater recycled, daily. In all, 19 utilities received awards for demonstrating excellence in various areas of utility management.

– **2016 Platinum Award for Utility Excellence**

The City of Phoenix Water Services Department was honored for utility excellence by the Association of Metropolitan Water Agencies *("AMWA")* at its 2016 Executive Management Conference. The City's Water Department was one of ten water utilities in the country to receive the Platinum Award for Utility Excellence. The Platinum Award recognizes outstanding achievement in implementing the nationally recognized Attributes of Effective Utility Management.

• **2015 Mayors' Climate Protection Awards**

Awarded to the City by the U.S. Conference of Mayors, the annual Mayors' Climate Protection award recognizes mayors for innovative programs that increase energy efficiency and reduce greenhouse gas emissions. The City earned the award for the Energize Phoenix Program, a large-scale, three-year building energy efficiency program, which catalyzed $56 million in energy upgrades along a ten-square-mile urban corridor of Phoenix surrounding the newly-constructed Metro light rail. Phoenix partnered with Arizona State University and APS, Arizona's largest electricity provider, to leverage $25 million in program funding from the U.S. Department of Energy and $31 million in utility funding to transform the downtown core into a green corridor. It focused on a diverse mix of single- and multi-family residential buildings and small commercial buildings offering significant rebates and financing for energy efficient upgrades.

- **2015 Sister Cities Best Overall Sister City Program Award**

In July 2015, the Phoenix Sister Cities Commission received the Sister Cities International Best Overall Sister City Program in the U.S. for cities with a population of 500,000 or more award, its highest honor. This is the eight time in the past 21 years that Phoenix has won this award. Phoenix Sister Cities highlights include a new and improved Youth Ambassador Exchange Program; a significant increase in arts and culture projects including the second annual WorldFEST celebration promoting its 10 sister cities; the Vincenzo Bellini Opera project with Catania, Italy; a police training program for Hermosillo, Mexico; and economic development projects with Chengdu, China; Catania, Italy; and Calgary, Canada as well as trade missions with Calgary and Catania.

- **National Association of Clean Water Agencies (NACWA) Awards**

  – **2020 NACWA Platinum and Silver Peak Performance Awards**

The NACWA recognized the City of Phoenix Water Services Department for continued environmental and operational excellence. The Peak Performance Award is presented to utilities for continuously providing outstanding clean water. Phoenix Water received both Platinum Award and Silver Awards. Platinum Awards recognize 100% compliance with permits over a consecutive five-year period. Silver Award are presented to facilities with less than 5 permit violations for the entire calendar year.

  – **2015 NACWA Platinum Peak Performance Award**

The National Association of Clean Water Agencies *("NACWA")* honored the City of Phoenix Water Services Department with the Platinum Award for seven consecutive years of perfect National Pollutant Discharge Elimination System permit compliance. NACWA is a nationally recognized leader in water quality, environmental policy and ecosystem protection issues. The City treats wastewater from 2.5 million people in Phoenix, Glendale, Mesa, Scottsdale and Tempe.

  – **2012 NACWA Gold Peak Performance Award**

The NACWA honored the City of Phoenix Water Services Department with the Gold Award for consistently meeting all National Pollutant Discharge Elimination System permit limits during the calendar year. The City's 23rd Avenue Wastewater Treatment Plant and 91st Avenue Multi-Cities Wastewater Treatment Plant were presented the award to recognize 100 percent compliance with regulatory discharge limits.

- **2014 World Airport Award (WAA)**

SkyTrax World Airport Awards *("WAA")* recognized Phoenix Sky Harbor International Airport as the 7th best airport in the world serving 40-50 million passengers. WAA is the leading global award for the world's best airports, as voted by travelers from over 160 countries and 410 airports worldwide, in the largest airport customer satisfaction survey. The ranking was determined by airline customers and evaluates traveler experiences across key performance indicators: check-in, arrivals, transfers, shopping, security, immigration processing and departure.

- **2014 Top Ten Digital Cities Award**

In November 2014, the City of Phoenix was named a Top Ten City in the Center for Digital Government's 2014 Digital Cities Survey. The award honors cities with best practices in public sector information and communications technology.

- **National Association of Housing and Redevelopment Officials (NAHRO) Award**

  – **2014 NAHRO Award**

In August 2014, the City's Neighborhood Services Department *("NSD")* received the Award of Merit for designing the Neighborhood Stabilization Program as an innovative, multi-faceted delivery approach to revitalize communities affected by the foreclosure crisis. With funding from the U.S. Department of Housing and Urban Development, accomplishments of the program include 395 homes rehabilitated to energy efficiency building standards, 191 homebuyers receiving down-payment assistance, 102 demolition projects completed using green methods and strategies, and a rescued subdivision featuring 14 newly constructed, solar-powered, single-family homes Gold certified to the National Green Building Standard.

– **2011 NAHRO Award**

In October 2011, NSD received three Awards of Merit. NSD was honored for a pilot program that allows residents to use mobile devices to report blight, a code violation resolution volunteer assistance program and the Isaac Neighborhood Initiative Area. Since 1993, the City has used the Neighborhood Initiative Area strategy in the Isaac community to do comprehensive and concentrated neighborhood revitalization which continues to make significant progress in improving the economic, physical and social health of the neighborhood.

– **2010 NAHRO Award**

In November 2010, the City received an Award of Excellence for the Housing Department's McCarty on Monroe senior housing development. McCarty on Monroe consists of 34 public housing units and 35 low-income housing tax credit units. All units are clustered around a central, landscaped courtyard, creating a sense of community and interaction among the residents. McCarty on Monroe combines quality affordable housing for seniors and immediate access to light-rail while preserving history and adding green design.

• **2014 NBC-LEO City Cultural Diversity Award**

In March 2014, the City of Phoenix was recognized by the National Black Caucus of Local Elected Officials *("NBC-LEO")* of the National League of Cities for its "Phoenix Against Domestic Violence - A Roadmap to Excellence" Program. The Roadmap to Excellence Program is a five-year strategic plan to end domestic violence in the City. More than 50 community partners, including private and nonprofit organizations, collaborated to create a plan that includes a community and media campaign focusing on five strategies: community awareness, coordinated service delivery, systems reform, "Phoenix as a Model," and community partnerships.

• **2013 Sunny Award**

Awarded to the City of Phoenix by Sunshine Review, a national nonprofit organization dedicated to government transparency. The award honors the most transparent government websites in the nation. This is the fourth time the City has won the award.

• **2013 NGWA Outstanding Groundwater Protection Award**

The National Ground Water Association *("NGWA")* annually awards the Groundwater Protection Award to the organization that exhibits outstanding science, engineering, or innovation in the area of protecting groundwater. The City of Phoenix Water Services Department received the award for incorporating innovative technologies in the aquifer restoration program. Phoenix was the first city in the country to use the technology, which has reduced annual operations and maintenance costs by over $110,000.

• **2013 Technology "Best of the Web" Award**

The City of Phoenix Information Technology Services Department received a "Best of the Web" award from the Multi-State Information Sharing and Analysis Center for the City's Information Security and Privacy website.

• **2013 National Institute of Senior Centers (NISC)**

A Program of Excellence Award was received by the City of Phoenix Human Services Department for its FitPHX Senior Champions Passport Program in the Nutrition, Fitness and Health Promotion category. The program is offered at the City's fifteen senior centers.

• **2012 NBC-LEO City Cultural Diversity Award**

In March 2012, the City of Phoenix was recognized by the National Black Caucus of Local Elected Officials *("NBC-LEO")* of the National League of Cities for the City Manager's Community Engagement and Outreach Task Force. The task force was established in 2010 as a community-based, long-term effort to enhance the relationship between the Phoenix Police Department and the community.

- **2010 Desert Peaks Award**

In June 2010, the City of Phoenix received an award from Maricopa Association of Governments for its Urban Education Initiatives, on which it collaborated with Arizona State University and the University of Arizona to create the ASU Downtown Phoenix Campus and the Phoenix Biomedical Campus. The award recognizes excellence in regionalism.

- **2010 LEED Platinum Certification Award**

In June 2010, the City of Phoenix Nina Mason Pulliam Rio Salado Audubon Center was the recipient of the U.S. Green Building Council's award for its use of the Leadership in Energy and Environmental Design *("LEED")* rating system. Located in the heart of the Rio Salado Habitat Restoration Area, the center received the award for the environmental friendliness and sustainability of the facility. The center is a gateway to a lush Sonoran riparian habitat used by more than 200 species of birds and other wildlife.

- **2009 All-America City Award**

The City of Phoenix was the recipient of the National Civic League's All-America City award, the fifth time the City has earned the recognition, for its collaborative projects that involve the community and address critical issues. The City highlighted the newly developed urban education campuses (Arizona State University Downtown Phoenix Campus and Phoenix Biomedical Campus), the Phoenix Parks and Preserve Initiative and the innovative library teen spaces.

- **Carl Bertelsmann Prize**

Awarded in 1993 to the City of Phoenix and Christchurch, New Zealand, recognizing each as being the best managed city governments in the world. The international competition for the most efficiently operated city was sponsored by the Bertelsmann Foundation, a research and philanthropic arm of Bertelsmann AG, the second largest media organization in the world. Cities were judged on several categories including customer service, decentralized management, planning and financial controls, employee empowerment and administrative innovation.

ECONOMY & DEMOGRAPHICS (1)

Overview

When Arizona earned statehood in 1912, it had a resident population of less than 300,000 people. In 2020, it is estimated the state is now home to 7.4 million residents. The majority of the population resides in urban areas. Over 4.9 million people lived within the Phoenix-Mesa-Scottsdale Metropolitan Statistical Area (the Phoenix MSA) in 2019, and 23.1% of the state's population was concentrated in the city of Phoenix. Nationally, Phoenix is ranked as the fifth most populous city, and the Phoenix MSA ranked the 10th most populous metro area. Approximately 68% of the state's total population resides in the Phoenix MSA.

In terms of land area, the Phoenix MSA is often described as a sprawling metropolitan area with a low-density population. The city of Phoenix, both the state capital and largest city in the Phoenix MSA, is generally flat and surrounded by scattered, low mountain ranges. The subtropical desert climate is conducive to a variety of outdoor recreation activities during all twelve months. Both the topography and climate attract many visitors and out-of-state tourists, further bolstering the economy.

At the beginning of the 20th century, the Arizona economy relied heavily on copper, cattle, cotton, climate, and citrus. Today, the local economy is far more diversified. It includes many high-tech industries such as aerospace and defense, financial services, and the semi-conductor industry.

The Phoenix MSA accounted for 74.4% of total state employment in 2020. Professional and business services was the largest source of employment in the MSA, with other major sources including education and health care, retail and wholesale trade, government, and financial activities.

The compound annual growth for total non-farm industries in the Phoenix MSA from 2011 to 2020 was higher than both the state's and the nation's. The global pandemic in 2020 has contributed to 1.9% annual decline in the number of jobs in the Phoenix MSA. However, this compares favorably to both the State of Arizona and the rest of the nation which showed higher levels of job losses.

In 2019, the Phoenix MSA was the 24th largest U.S. exporter by merchandise export value based on origin of movement zip code data collected by the International Trade Administration. In total, the Phoenix MSA exported more than $15.1 billion in goods that year—a 11.2% increase over 2018.

Local economists forecast the Greater Phoenix population to increase by 1.7% in 2021. They also forecast a 3.7% increase in wage and salary employment, and a 4.4% increase in personal income.

Key Phoenix MSA Statistics:

- 10th most populous MSA in the nation in 2019 with a population of 4,948,203
- Civilian labor force above 2.5 million in 2020.
- Unemployment rate of 7.3% in 2020.
- High compound annual growth rates in multiple industries including 5.0% in construction, 4.2% in transportation, warehousing, and utilities, 3.5% in financial activities, and 3.1% in education and health services, 2011 through 2020
- Accounted for 73.5% of annual statewide Gross Domestic Product (GDP) in 2019, and real GDP per capita of $47,992 (in 2012 chained dollars).

(1) The economic information contained herein has been prepared for the City of Phoenix by the L. William Seidman Research Institute, W.P Carey School of Business, Arizona State University, on March 12, 2021.

- 24th largest U.S. exporter by merchandise export value ($15.1 billion in 2019).
- Mexico ($3.2 billion), Canada ($1.2 billion), and China ($0.9 billion) were the top foreign markets for goods exports in 2019.
- Provisional total of 46,618 housing permits in 2020.
- Over 68% of housing permits in 2020 were for single residential units.
- 685,916 sq. ft of retail space is currently under construction in metro Phoenix.
- The central business district is currently experiencing the most office-leased construction since 2010.
- New industrial real estate market records were set for year-end net absorption (13,143,535 sq. ft.) and completions (13,303,097 sq. ft.) in 2020.

Key City of Phoenix Statistics:

- Population of 1,680,992 as of July 1, 2019, holding its title as the 5th most populous U.S. city.
- Accounts for 23.1% the state's population and 34.0% of the population of the Phoenix MSA.
- Gender balance, with most residents either Caucasian (42.5%) or Hispanic/Latino (42.6%).
- Approximately 30% of residents between the ages of 25 and 44 in 2019, with the median age of all residents being 33.8 years.
- 842,129 residents ages 16 and older were members of the civilian labor force in 2019.
- 34.5% of working residents held jobs in management, business, science and the arts in 2019.
- An additional 43.5 % of jobs held in service, sales and office occupations in 2019.
- Median household income of $57,459 in 2019 dollars.
- 91.1% of housing units occupied in 2019.
- On average, 2.93 people per unit in owner occupied hosing, and 2.76 people average household size in renter occupied housing.

Population

The Phoenix MSA encompasses 14,565 square miles, containing both Maricopa County (9,199 square miles) and Pinal County (5,365 square miles). Phoenix is the principal city of the Phoenix MSA, measuring 517.7 sq. miles and with 1.68 million residents in 2019, according to the Census Bureau. Within the Phoenix MSA, eight cities have populations in excess of 125,000 as of July 1, 2019. These are: Mesa (518,012), Chandler (261,165), Scottsdale (258,069), Gilbert (254,114), Glendale (252,381), Tempe (195,805), Peoria (175,961), and Surprise (141,664). Four other cities have populations in excess of 75,000 within the Phoenix MSA as of July 1, 2019. These are: Avondale (87,961), Goodyear (86,840) and Buckeye (79,620).

The following table compares the population of the Phoenix MSA with 21 peer MSAs. The peer MSAs consist of every western metro of more than one million people, plus other Sun Belt metros of more than 2 million people. The population continued to increase in metro Phoenix during 2019. The Phoenix MSA ranked 5th in population growth between 2010 and 2019 compared to the 22 MSAs listed in the table.

In recent years, the Phoenix MSA has been home to the majority of the Arizona population. Furthermore, population growth for the Phoenix MSA outpaces population growth for the state as a whole. In 1990 the Phoenix MSA accounted for 61.1% of the State of Arizona's total population. In 2000, it accounted for 63.4% of the State of Arizona's total population. In 2010, the Phoenix MSA accounted for 65.4% of the State of Arizona's total population. In 2019, it accounted for 68.0% of the State of Arizona's total population. The Tucson MSA (Pima County) was home to 14.4% of the state's residents in 2019. Five other metro areas combined (Flagstaff, Lake Havasu City-Kingman, Prescott, Sierra Vista-Douglas, and Yuma) accounted for 12.8% of the state's population, with the remaining 4.8% living in nonmetropolitan areas.

It is important to note that in 1994, the U.S. Office of Management and Budget (OMB) redefined the Phoenix MSA to include both Maricopa and Pinal counties. The rate of population growth in the Phoenix MSA has continued to outpace the rate of population growth in the State of Arizona.

Population
Metropolitan Statistical Areas
(In thousands)

	Population Estimates as of July 1						Percent Growth
	2010	2012	2014	2016	2018	2019	2010-19
Phoenix-Mesa-Scottsdale, AZ	4,204.2	4,329.8	4,489.0	4,673.3	4,849.2	4,948.2	17.7%
Atlanta-Sandy Springs-Roswell, GA	5,302.6	5,444.5	5,593.2	5,788.0	5,945.3	6,020.4	13.5
Austin-Round Rock, TX	1,727.5	1,834.6	1,942.5	2,062.0	2,165.5	2,227.1	28.9
Charlotte-Concord-Gastonia, NC-SC	2,250.1	2,318.7	2,400.5	2,499.7	2,593.0	2,636.9	17.2
Dallas-Fort Worth-Arlington, TX	6,392.1	6,644.6	6,889.8	7,194.8	7,455.8	7,573.1	18.5
Denver-Aurora-Lakewood, CO	2,554.5	2,650.3	2,754.0	2,856.8	2,931.7	2,967.2	16.2
Houston-The Woodlands-Sugar Land, TX	5,947.2	6,183.5	6,500.2	6,806.5	6,976.1	7,066.1	18.8
Las Vegas-Henderson-Paradise, NV	1,952.6	1,989.2	2,053.1	2,138.8	2,226.1	2,266.7	16.1
Los Angeles-Long Beach-Anaheim, CA	12,838.4	13,013.4	13,166.6	13,270.7	13,249.9	13,214.8	2.9
Miami-Fort Lauderdale-West Palm Beach, FL	5,583.4	5,745.7	5,893.9	6,055.7	6,143.8	6,166.5	10.4
Orlando-Kissimmee-Sanford, FL	2,139.2	2,225.6	2,324.4	2,455.6	2,574.8	2,608.1	21.9
Portland-Vancouver-Hillsboro, OR-WA	2,232.2	2,288.5	2,344.0	2,426.6	2,473.4	2,492.4	11.7
Riverside-San Bernardino-Ontario, CA	4,242.4	4,334.7	4,415.3	4,512.0	4,612.5	4,650.6	9.6
Sacramento-Roseville-Arden-Arcade, CA	2,153.6	2,190.3	2,235.6	2,291.5	2,341.9	2,363.7	9.8
Salt Lake City, UT	1,091.5	1,123.7	1,151.4	1,184.7	1,218.7	1,232.7	12.9
San Antonio-New Braunfels, TX	2,153.0	2,237.0	2,328.9	2,426.3	2,512.4	2,551.0	18.5
San Diego-Carlsbad, CA	3,103.2	3,174.3	3,248.9	3,306.1	3,333.9	3,338.3	7.6
San Francisco-Oakland-Hayward, CA	4,343.6	4,455.5	4,585.0	4,688.2	4,726.3	4,731.8	8.9
San Jose-Sunnyvale-Santa Clara, CA	1,841.6	1,894.5	1,949.6	1,987.6	1,993.8	1,990.7	8.1
Seattle-Tacoma-Bellevue, WA	3,449.2	3,558.8	3,675.2	3,816.4	3,935.2	3,979.8	15.4
Tampa-St. Petersburg-Clearwater, FL	2,788.4	2,843.6	2,927.4	3,049.0	3,154.6	3,194.8	14.6
Tucson, AZ	981.6	993.1	1,004.2	1,016.7	1,036.6	1,047.3	6.7

Source: U.S. Census Bureau

Based on July 1, 2019 estimates, the U.S. Census Bureau ranks the city of Phoenix as the 5th most populous city in the United States. Phoenix has held the same ranking since 2016.

Ten Most Populous U.S. Cities, July 1, 2019

Rank	City	State	Population
1	New York	New York	8,336,817
2	Los Angeles	California	3,979,576
3	Chicago	Illinois	2,693,976
4	Houston	Texas	2,320,268
5	Phoenix	Arizona	1,680,992
6	Philadelphia	Pennsylvania	1,584,064
7	San Antonio	Texas	1,547,253
8	San Diego	California	1,423,851
9	Dallas	Texas	1,343,573
10	San Jose	California	1,021,795

Source: U.S. Census Bureau

In 2019, the city of Phoenix accounted for 34.0% of total population of Phoenix MSA, and 23.1% of the total population of the State of Arizona.

City of Phoenix Population
As a percent of Phoenix MSA and the State (1)

Year	City of Phoenix	Maricopa and Pinal Population (Combined)	Percentage of State of Arizona Population
2019	1,680,992	34.0%	23.1%
2018	1,654,675	34.1	23.1
2017	1,633,560	34.3	23.2
2016	1,612,199	34.5	23.2
2015	1,583,690	34.6	23.2
2014	1,555,445	34.7	23.1
2013	1,526,491	34.7	23.0
2012	1,499,274	34.6	22.9
2011	1,469,796	34.6	22.7
2010	1,449,038	34.5	22.6

(1) The estimates are based on the 2010 Census and reflect changes to the April 1, 2010 population due to the Count Question Resolution program and geographic program revisions.

Source: U.S. Census Bureau

Employment

When Arizona was granted statehood in 1912, it primarily depended on extraction-based operations such as copper, cattle, cotton, climate, and citrus. However, rapid population growth post World War II attributed to a diversification of the state's economy into high-tech industries such as advanced manufacturing, aerospace and defense, bioscience, and financial services.

Between 1990 and 2008, Arizona's civilian labor force saw growth of more than 80%. On average, approximately 95.7% of Arizona's civilian labor force was employed each year between 1990 and 2008. Civilian labor force employment in Phoenix MSA increased from 2011 through 2019. In 2020, a total of 2,332,722 people in the civilian labor force in the Phoenix MSA were employed. This was a 2.6% decrease in Phoenix MSA employment compared to the previous year, and represented 71.1% of the state's total employment in 2020.

Civilian Labor Force Employment:
Phoenix MSA, State of Arizona, and the U.S.
(not seasonally adjusted)

Year	Phoenix MSA Employment	State of Arizona Employment (1)	U.S. Employment
2020	2,332,722	3,281,692	147,795,000
2019	2,395,965	3,384,504	157,538,000
2018	2,297,972	3,260,518	155,761,000
2017	2,214,974	3,160,248	153,337,000
2016	2,137,743	3,063,017	151,436,000
2015	2,064,061	2,972,014	148,834,000
2014	1,991,115	2,889,380	146,305,000
2013	1,918,061	2,794,697	143,929,000
2012	1,893,596	2,776,349	142,469,000
2011	1,867,553	2,748,470	139,869,000
2010	1,874,006	2,769,454	139,064,000

(1) The 2013-2017 data reflects revised population controls and model re-estimation.

Source: U.S. Bureau of Labor Statistics

The following table compares the labor force of the Phoenix MSA with 21 peer MSAs. The peer MSAs consist of every western metro of more than one million people, plus other Sun Belt metros of more than 2 million people. Five of the peer MSAs had a total labor force higher than the Phoenix MSA in 2020.

Comparison of the Phoenix MSA'S Labor Force
Status with 21 Peer MSAs
(not seasonally adjusted)

	Labour Force (in thousands)					
MSA	2011	2013	2015	2017	2019	2020
Phoenix-Mesa-Scottsdale, AZ	2,044.3	2,055.4	2,177.4	2,312.8	2,498.0	2,516.9
Atlanta-Sandy Springs-Roswell, GA	2,760.2	2,789.9	2,835.0	3,029.4	3,090.1	3,050.9
Austin-Round Rock, TX	960.8	1,019.5	1,073.3	1,158.9	1,237.4	1,236.4
Charlotte-Concord-Gastonia, NC-SC	1,153.9	1,185.4	1,241.3	1,312.3	1,369.5	1,339.4
Dallas-Fort Worth-Arlington, TX	3,374.4	3,474.2	3,582.9	3,806.7	3,971.6	3,976.7
Denver-Aurora-Lakewood, CO	1,431.2	1,463.9	1,505.5	1,589.4	1,677.3	1,687.0
Houston-The Woodlands-Sugar Land, TX	3,041.2	3,182.6	3,258.4	3,333.9	3,428.9	3,414.5
Las Vegas-Henderson-Paradise, NV	995.1	1,005.7	1,035.4	1,072.7	1,131.6	1,108.4
Los Angeles-Long Beach-Anaheim, CA	6,474.9	6,532.5	6,564.6	6,691.8	6,745.0	6,555.5
Miami-Fort Lauderdale-W. Palm Beach, FL	2,859.2	2,937.8	2,973.6	3,106.4	3,158.2	3,038.5
Orlando-Kissimmee-Sanford, FL	1,146.9	1,179.4	1,218.5	1,302.2	1,361.6	1,326.7
Portland-Vancouver-Hillsboro, OR-WA	1,214.8	1,180.6	1,228.9	1,302.4	1,326.4	1,329.5
Riverside-San Bernardino-Ontario, CA	1,867.0	1,893.1	1,952.5	2,015.3	2,071.8	2,057.5
Sacramento-Roseville-Arden-Arcade, CA	1,045.2	1,046.5	1,052.8	1,075.3	1,101.0	1,087.7
Salt Lake City, UT	573.6	598.1	614.7	646.8	668.7	677.6
San Antonio-New Braunfels, TX	1,039.1	1,072.8	1,106.1	1,168.7	1,204.8	1,200.4
San Diego-Carlsbad, CA	1,524.6	1,543.2	1,548.6	1,572.8	1,590.6	1,576.4
San Francisco-Oakland-Hayward, CA	2,345.5	2,413.6	2,477.9	2,547.0	2,589.3	2,377.8
San Jose-Sunnyvale-Santa Clara, CA	968.1	1,000.8	1,042.0	1,069.3	1,085.2	1,067.8
Seattle-Tacoma-Bellevue, WA	1,879.9	1,910.4	1,979.6	2,077.6	2,172.0	2,173.3
Tampa-St. Petersburg-Clearwater, FL	1,398.4	1,420.4	1,438.8	1,508.4	1,554.3	1,525.5
Tucson, AZ	466.9	457.0	464.8	475.9	498.7	498.3

Source: U.S. Bureau of Labor Statistics

In 2020, the top source of total non-farm employment, expressed as a percentage of total employment in the Phoenix MSA, was professional and business services (16.7%). Professional and business services include professional, scientific and technical services, the management of companies and enterprises, administrative, and waste management services. Other notable sources of employment were education and health services (15.9%), retail and wholesale trade (15.0%), government (11.4%), and financial activities (9.2%). The industries listed in the following table are referred to as "supersectors" by the U.S. Bureau of Labor Statistics.

2020 Wage & Salary Employment:
Phoenix MSA, Arizona, and U.S.

	Total Employed (in thousands)			Percent of Employed		
Industry	**Phoenix MSA**	**State of Arizona**	**U.S.**	**Phoenix MSA**	**State of Arizona**	**U.S.**
Mining & Logging	3.5	13.4	619	0.2%	0.5%	0.4%
Construction	135.0	171.3	7,269	6.3	6.0	5.2
Manufacturing	131.0	172.5	12,179	6.1	6.0	8.6
Total Goods Producing	269.5	357.2	20,067	12.6	12.5	14.2
Retail & Wholesale Trade	319.9	427.7	20,504	15.0	14.9	14.5
Transportation, Warehousing, Utilities	96.3	123.9	6,098	4.5	4.3	4.3
Information	38.5	45.9	2,694	1.8	1.6	1.9
Financial Activities	204.2	231.3	8,724	9.6	8.1	6.2
Professional & Business Services	355.5	427.0	20,245	16.7	14.9	14.4
Education & Health Services	340.1	460.9	23,235	15.9	16.1	16.5
Leisure and Hospitality	197.4	283.9	13,323	9.2	9.9	9.5
Other Services	70.4	94.2	5,394	3.3	3.3	3.0
Government	243.1	418.9	21,909	11.4	14.6	15.5
Total Services Providing	1,865.4	2,513.6	122,126	87.4	87.7	85.8
Total Non-farm	2,134.9	2,870.8	142,193	100.0%	100.0%	100.0%

Source: U.S. Bureau of Labor Statistics

Comparing industries, the Phoenix MSA's employment within goods-producing sectors (i.e. mining, manufacturing, and construction) was marginally higher than the State of Arizona as a share of total employment, but lower than the nation in 2020. This reflected an emphasis within the Phoenix MSA on services. Approximately 87.4% of the employment within the Phoenix MSA in 2020 was in service providing industries. Government accounted for more than 243,000 of the 1.87 million services employment in the Phoenix MSA.

The following table presents the number of annual employees by industry in the Phoenix MSA, 2011 through 2020. Also included is a table comparing the Phoenix MSA compound annual growth rate by industry to the State of Arizona and the U.S. The highest compound annual growth rates in the Phoenix MSA occurred in construction (5.0%), transportation, warehousing, and utilities (4.2%), and financial activities (3.5%). There were also compound annual growth rates of more than 3.0% in education and health services (3.1%).

Non-Farm Wage and Salary Employment
Phoenix MSA
(annual employees in thousands)

	2011	2013	2015	2017	2019	2020
Mining & Logging	3.2	3.6	3.3	3.3	3.6	3.5
Construction	83.0	93.4	99.0	113.8	134.0	135.0
Manufacturing	113.4	117.9	120.5	121.2	133.2	131.0
Retail & Wholesale Trade	283.7	287.0	300.8	311.0	317.5	319.9
Transportation, Warehousing, Utilities	63.8	67.2	74.4	81.8	91.8	96.3
Information	29.6	34.5	37.1	37.7	40.3	38.5
Financial Activities	145.1	158.2	167.6	186.8	202.5	204.2
Professional & Business Services	275.9	300.5	322.6	342.6	368.9	355.5
Education & Health Services	249.5	263.0	284.4	311.1	338.1	340.1
Leisure and Hospitality	177.7	191.6	208.2	223.4	232.6	197.4
Other Services	63.8	63.7	63.6	66.7	70.9	70.4
Government	228.7	231.2	233.6	238.0	244.0	243.1
Total Non-farm	1,717.4	1,811.8	1,915.1	2,040.0	2,177.4	2,134.9

Source: U.S. Bureau of Labor Statistics

Non-Farm Wage and Salary Employment
Phoenix MSA
(2011 to 2020 compound annual growth rate)

	Phoenix MSA	State of Arizona	U.S.
Mining & Logging	0.9%	1.4%	-2.4%
Construction	5.0	4.4	2.8
Manufacturing	1.5	1.3	0.4
Retail & Wholesale Trade	1.2	1.0	0.2
Transportation, Warehousing, Utilities	4.2	3.9	2.3
Information	2.7	1.8	0.1
Financial Activities	3.5	3.0	1.3
Professional & Business Services	2.6	2.2	1.5
Education & Health Services	3.1	2.6	1.4
Leisure and Hospitality	1.1	0.9	0.0
Other Services	1.0	0.7	0.1
Government	0.6	0.3	-0.1
Total Non-farm	2.2	1.8	0.7

Source: U.S. Bureau of Labor Statistics

The compound annual growth for total non-farm industries in the Phoenix MSA from 2011 to 2020 was higher than both the state's and the nation's compound annual growth for total non-farm industries. In fact, compound annual growth in the Phoenix MSA was higher than the state's compound annual growth in all categories examined except mining and logging. Compound annual growth in the Phoenix MSA was also higher than the nation's compound annual growth in all categories examined. Between 2011 and 2020, the compound annual growth rate for employment in goods producing industries was 3.0% in the Phoenix MSA, a higher growth rate than the state's 2.7% and the nation's 1.1%. For service providing industries, the compound annual growth rate in the Phoenix MSA was 2.1%—a higher growth rate than the state's 1.6%, and the nation's 0.7%.

The table below shows that the Phoenix MSA's total non-farm job growth in percent terms was higher than the growth rates for the State of Arizona and the nation from 2011 through 2019. The table also shows that the Phoenix MSA's total non-farm negative growth rate in percent terms in 2020 was lower than the equivalent losses for the State of Arizona and the nation.

Comparison of Total Annual Job Growth Rates

Year	Phoenix MSA	State of Arizona	U.S.
2020	-1.9%	-2.3%	-6.6%
2019	3.3	2.8	1.4
2018	3.4	2.9	1.6
2017	3.0	2.5	1.6
2016	3.4	2.7	1.8
2015	3.4	2.6	2.1
2014	2.3	2.0	1.9
2013	2.9	2.3	1.6
2012	2.5	2.1	1.7
2011	1.5	1.1	1.2

Source: U.S. Bureau of Labor Statistics

Unemployment

The following table summarizes the proportion of the civilian labor force unemployed each year in the Phoenix MSA since 2011. Unemployment declined steadily between 2011 and 2017 but increased slightly in 2018. In 2020, the Phoenix unemployment rate has increased due to the global pandemic, but remains below the unemployment rates for the State of Arizona, and the nation.

Civilian Labor Force Unemployment: Phoenix MSA, State of Arizona, and the U.S. (not seasonally adjusted)

Year	Phoenix MSA Unemployment Number	Phoenix MSA Unemployment Rate	State of Arizona Unemployment Rate	U.S. Unemployment Rate
2020	184,223	7.3%	7.8%	8.1%
2019	102,018	4.1	4.7	3.7
2018	98,992	4.1	4.7	3.9
2017	97,865	4.2	4.9	4.4
2016	103,851	4.6	5.4	4.9
2015	113,374	5.2	6.1	5.3
2014	124,630	5.9	6.8	6.2
2013	137,385	6.7	7.7	7.4
2012	150,728	7.4	8.3	8.1
2011	176,738	8.6	9.5	8.9

Source: U.S. Bureau of Labor Statistics

The following table compares the unemployment rate in the Phoenix MSA with 21 peer MSAs. The peer MSAs consist of every western metro of more than one million people, plus other Sun Belt metros of more than 2 million people. There are 12 MSAs with higher unemployment rates than Phoenix MSA in 2020 among the 22 examined.

Comparison of the Phoenix MSA's Labor Force
And Unemployment Status with 21peer MSAs
(not seasonally adjusted)

	Unemployment Rate (percent of labor force)					
MSA	**2011**	**2013**	**2015**	**2017**	**2019**	**2020**
Phoenix-Mesa-Scottsdale, AZ	8.6%	6.7%	5.2%	4.2%	4.1%	7.3%
Atlanta-Sandy Springs-Roswell, GA	9.9	7.8	5.7	4.5	3.2	6.6
Austin-Round Rock, TX	6.6	5.2	3.4	3.1	2.7	6.2
Charlotte-Concord-Gastonia, NC-SC	10.6	7.9	5.4	4.3	3.5	7.2
Dallas-Fort Worth-Arlington, TX	7.6	6.1	4.1	3.7	3.3	7.1
Denver-Aurora-Lakewood, CO	8.3	6.6	3.7	2.7	2.7	7.3
Houston-The Woodlands-Sugar Land, TX	7.8	6.0	4.6	5.0	3.8	8.6
Las Vegas-Henderson-Paradise, NV	13.2	9.7	6.8	5.2	4.0	14.9
Los Angeles-Long Beach-Anaheim, CA	11.4	9.0	6.1	4.5	4.0	12.2
Miami-Fort Lauderdale-West Palm Beach, FL	9.6	7.1	5.5	4.3	2.8	8.3
Orlando-Kissimmee-Sanford, FL	10.0	7.0	5.2	3.9	3.0	10.1
Portland-Vancouver-Hillsboro, OR-WA	9.0	7.1	5.2	3.9	3.5	8.1
Riverside-San Bernardino-Ontario, CA	13.0	9.8	6.6	5.1	4.0	9.8
Sacramento-Roseville-Arden-Arcade, CA	11.8	8.7	5.9	4.5	3.6	8.7
Salt Lake City, UT	6.6	4.4	3.4	3.1	2.5	5.3
San Antonio-New Braunfels, TX	7.1	5.8	3.8	3.5	3.1	7.3
San Diego-Carlsbad, CA	10.3	7.8	5.2	4.0	3.2	9.0
San Francisco-Oakland-Hayward, CA	9.1	6.5	4.3	3.3	2.6	8.3
San Jose-Sunnyvale-Santa Clara, CA	9.5	6.6	4.2	3.3	2.6	7.0
Seattle-Tacoma-Bellevue, WA	8.7	5.9	4.7	4.0	3.3	8.0
Tampa-St. Petersburg-Clearwater, FL	9.9	6.9	5.2	4.1	3.2	7.0
Tucson, AZ	8.5	6.8	5.5	4.5	4.4	7.6

Source: U.S. Bureau of Labor Statistics

Gross Domestic Product

Gross Domestic Product, or GDP, is the monetary value of all finished goods and services produced in the U.S. on an annual or quarterly basis. GDP includes all public and private sector purchases, government expenditures, investments, and the difference between exports and imports. This metric is often used by economists to describe the health of the U.S. economy. Between 2001 and 2008, the Phoenix MSA was a major contributor to the state's GDP, accounting for more than 75% of the value. In 2009 and 2010, the Phoenix MSA's annual contribution to state GDP fell to approximately 74%. Since 2011, the GDP of the Phoenix MSA (in current dollars) has increased steadily. In 2019, the GDP of the Phoenix MSA was 73.5% of the State of Arizona's GDP.

Phoenix MSA
Annual Contribution to GDP
In the State of Arizona

	GDP (millions of current dollars)		
Year	**Phoenix MSA**	**State of Arizona**	**Phoenix MSA Percent Contribution to State**
2019	272,114	370,119	73.5%
2018	257,293	350,718	73.4
2017	240,890	330,147	73.0
2016	229,281	313,057	73.2
2015	218,259	298,615	73.1
2014	206,225	284,851	72.4
2013	197,918	275,008	72.0
2012	192,596	268,068	71.8
2011	182,632	257,881	70.8

Source: U.S. Bureau of Economic Analysis

Between 2001 and 2007, private industries were the top contributor to total GDP. Private Industries contributed on average 90.3% of the Phoenix MSA's total GDP, while the average annual government contribution was 9.7%. When the recession began in 2008, the GDP contribution of the Phoenix MSA's private industries fell, hitting 88.8% in 2010. The following table estimates the percent contribution (in current or nominal dollars) of different Phoenix MSA industry sectors to GDP in the State of Arizona. In 2019, private industries in total contributed 90.3% of GDP in the Phoenix MSA. Finance, insurance, real estate, rental, and leasing accounted for 23.6% of the Phoenix MSA's total GDP in 2019. Professional and business services accounted for 13.0% of total GDP that same year. Education and health care accounted for 9.9% of total GDP in 2019—the third highest contribution in the Phoenix MSA.

Phoenix MSA
GDP Contribution by Industry Sector

Industry Sector	GDP Contribution (in million of dollars) 2011	2013	2015	2017	2019
Private Industries -					
Agriculture, Forestry, Fishing, and Hunting	$723.0	$878.2	$794.1	$887.3	$986.9
Mining, Quarrying, and Extraction	2,469.9	1,801.3	1,276.3	1,558.1	1,510.0
Utilities	3,429.5	3,562.8	3,887.5	4,312.1	4,763.9
Construction	6,976.4	8,105.5	9,208.7	11,856.7	15,163.8
Manufacturing	17,866.5	16,534.6	19,293.1	18,965.9	21,790.4
Wholesale Trade	13,267.6	14,380.3	14,893.3	16,331.2	17,580.6
Retail Trade	14,561.0	15,268.5	16,693.2	17,627.8	18,896.2
Transportation and Warehousing	5,612.0	5,981.5	7,138.1	7,818.6	9,450.2
Information	5,685.2	6,738.1	8,183.9	9,398.3	10,340.9
Finance, Insurance, Rental, Real Estate & Leasing	38,698.1	45,071.1	50,872.7	55,972.0	64,295.6
Professional & Business Services	22,886.5	25,220.7	28,105.9	31,338.3	35,426.7
Education & Health Care	18,197.5	19,281.2	21,087.5	23,980.7	26,905.0
Arts, Entertainment & Recreation, and Accommodation & Food Services	8,090.1	9,512.6	9,991.5	11,754.7	13,087.1
Other Services (excluding Government)	3,620.2	3,944.6	4,420.3	4,762.5	5,396.2
Total Private Industries	$162,083.5	$176,281.0	$195,846.1	$216,564.2	$245,593.5
Government	20,548.9	21,637.4	22,412.8	24,326.0	26,520.3
Total All Industries	$182,632.4	$197,918.4	$218,258.9	$240,890.2	$272,113.8

Source: U.S. Bureau of Economic Analysis

The following table compares the Phoenix MSA's real GDP with 21 peer MSAs, expressed in 2012 dollars.(1) The table suggests that the Phoenix MSA's average annual real GDP from 2011 through 2019 was $208.6 billion in chained 2012 dollars. In 2019, the Phoenix MSA ranked 9th among the 22 MSAs examined in this report, while the neighboring Tucson, AZ MSA ranked last in the group. However, the primary measure of economic performance internationally is per capita GDP. The second GDP table therefore compares the real GDP per capita contributions of the Phoenix MSA with the 21 peer MSAs.

The average annual real GDP per capita contribution in the Phoenix MSA from 2011 through 2019 was $45,407. For the most recent year available (2019), real GDP per capita in the Phoenix MSA was $47,992, expressed in chained 2012 dollars. The Phoenix MSA ranks 18th among the MSAs examined when considering real GDP per capita in 2019. The compound annual growth rate for real GDP per capita in the Phoenix MSA from 2011 through 2019 was 1.0%.

(1) These are chained dollars, which is a method of adjusting real dollar amounts for inflation over time, to enable comparisons from different years. The U.S. Department of Commerce introduced the chained-dollar measure in 1996. The chained dollars in this table reflect dollar figures computed with 2012 as the base year.

Regional price parities measure the differences in price levels across states and metropolitan areas for a given year and are expressed as a percentage of the overall national price level. They allow for comparisons of buying power across the 50 states and the District of Columbia, or from one metro area to another, for a given year. If an additional adjustment is made for regional price parity, the Phoenix MSA ranks 17th among the MSAs examined at $48,624 for real GDP per capita in 2019 (in chained 2012 dollars).

Real GDP
Phoenix MSA and 21 Peer MSAs

	Real GDP (millions of chained 2012 dollars)				
	2011	**2013**	**2015**	**2017**	**2019**
Phoenix-Mesa-Scottsdale, AZ	$186,581	$194,099	$205,614	$220,056	$237,473
Atlanta-Sandy Springs-Roswell, GA	283,394	293,252	321,771	351,449	371,827
Austin-Round Rock, TX	96,446	103,345	118,091	132,449	143,076
Charlotte-Concord-Gastonia, NC-SC	120,388	125,827	134,805	143,827	150,589
Dallas-Fort Worth-Arlington, TX	361,325	385,096	419,841	448,957	472,334
Denver-Aurora-Lakewood, CO	149,065	159,513	175,330	186,463	202,456
Houston-The Woodlands-Sugar Land, TX	388,117	421,244	453,758	451,899	472,104
Las Vegas-Henderson-Paradise, NV	90,428	90,295	96,158	101,129	110,103
Los Angeles-Long Beach-Anaheim, CA	771,891	804,143	869,758	922,011	960,250
Miami-Fort Lauderdale-West Palm Beach, FL	257,241	264,714	286,750	309,117	327,129
Orlando-Kissimmee-Sanford, FL	96,479	101,555	110,636	120,015	128,416
Portland-Vancouver-Hillsboro, OR-WA	117,600	120,190	131,444	144,514	156,663
Riverside-San Bernardino-Ontario, CA	131,792	137,406	151,136	160,344	171,884
Sacramento-Roseville-Arden-Arcade, CA	103,745	108,140	116,823	123,125	132,502
Salt Lake City, UT	67,667	70,426	75,299	80,548	88,155
San Antonio-New Braunfels, TX	89,447	95,257	106,396	108,684	115,621
San Diego-Carlsbad, CA	177,990	187,350	201,167	211,115	222,273
San Francisco-Oakland-Hayward, CA	339,659	381,122	431,327	491,152	531,247
San Jose-Sunnyvale-Santa Clara, CA	186,677	211,305	249,529	284,621	320,444
Seattle-Tacoma-Bellevue, WA	256,143	278,716	306,169	337,742	382,630
Tampa-St. Petersburg-Clearwater, FL	119,401	122,962	130,615	137,800	148,372
Tucson, AZ	36,127	36,237	36,443	39,683	42,169

Source: U.S. Bureau of Economic Analysis

Real GDP Per Capita:
Peer Metropolitan Statistical Areas

	Real GDP (millions of chained 2012 dollars)					Compound Annual Growth Rate
	2011	2013	2015	2017	2019	
Phoenix-Mesa-Scottsdale, AZ	$43,870	$ 44,082	$ 44,909	$ 46,242	$ 47,992	1.0%
Atlanta-Sandy Springs-Roswell, GA	52,808	53,217	56,590	59,847	61,761	1.8
Austin-Round Rock, TX	54,167	54,874	58,983	62,610	64,244	1.9
Charlotte-Concord-Gastonia, NC-SC	52,773	53,347	55,070	56,395	57,109	0.9
Dallas-Fort Worth-Arlington, TX	55,498	57,018	59,615	61,190	62,370	1.3
Denver-Aurora-Lakewood, CO	57,268	59,067	62,331	64,480	68,231	2.0
Houston-The Woodlands-Sugar Land, TX	64,086	66,566	68,011	65,492	66,812	0.5
Las Vegas-Henderson-Paradise, NV	46,092	44,763	45,861	46,355	48,574	0.6
Los Angeles-Long Beach-Anaheim, CA	59,717	61,397	65,718	69,439	72,665	2.2
Miami-Fort Lauderdale-West Palm Beach, FL	45,383	45,462	48,039	50,525	53,050	1.7
Orlando-Kissimmee-Sanford, FL	44,337	44,735	46,320	47,667	49,237	1.2
Portland-Vancouver-Hillsboro, OR-WA	51,970	52,007	55,190	58,870	62,856	2.1
Riverside-San Bernardino-Ontario, CA	30,686	31,447	33,878	35,118	36,959	2.1
Sacramento-Roseville-Arden-Arcade, CA	47,744	48,921	51,620	53,081	56,056	1.8
Salt Lake City, UT	61,137	61,776	64,639	66,889	71,514	1.8
San Antonio-New Braunfels, TX	40,771	41,779	44,719	43,964	45,325	1.2
San Diego-Carlsbad, CA	56,736	58,369	61,315	63,565	66,582	1.8
San Francisco-Oakland-Hayward, CA	77,270	84,326	92,800	104,225	112,272	4.2
San Jose-Sunnyvale-Santa Clara, CA	99,933	109,845	126,376	142,834	160,974	5.4
Seattle-Tacoma-Bellevue, WA	73,102	77,156	81,871	86,922	96,142	3.1
Tampa-St. Petersburg-Clearwater, FL	42,442	42,687	43,773	44,353	46,441	1.0
Tucson, AZ	36,552	36,342	36,114	38,663	40,266	1.1

Source: U.S. Bureau of Economic Analysis

Income

Exclusively focused on money, per capita income is derived by dividing the total aggregate income by the total population. In the table below, per capita income in 2019 dollars in the Phoenix MSA was $34,074. The Phoenix MSA ranked 15th out of the 22 peer MSAs on this measure.

Income Peer Metropolitan Statistical Areas

	Per Capita Income (2019 dollars)
Phoenix-Mesa-Scottsdale, AZ	$34,074
Atlanta-Sandy Springs-Roswell, GA	37,331
Austin-Round Rock, TX	41,957
Charlotte-Concord-Gastonia, NC-SC	36,374
Dallas-Fort Worth-Arlington, TX	36,274
Denver-Aurora-Lakewood, CO	44,806
Houston-The Woodlands-Sugar Land, TX	35,190
Las Vegas-Henderson-Paradise, NV	32,511
Los Angeles-Long Beach-Anaheim, CA	37,764
Miami-Fort Lauderdale-West Palm Beach, FL	33,917
Orlando-Kissimmee-Sanford, FL	31,186
Portland-Vancouver-Hillsboro, OR-WA	40,526
Riverside-San Bernardino-Ontario, CA	28,763
Sacramento-Roseville-Arden-Arcade, CA	37,974
Salt Lake City, UT	34,445
San Antonio-New Braunfels, TX	29,802
San Diego-Carlsbad, CA	40,389
San Francisco-Oakland-Hayward, CA	60,223
San Jose-Sunnyvale-Santa Clara, CA	61,400
Seattle-Tacoma-Bellevue, WA	49,184
Tampa-St. Petersburg-Clearwater, FL	33,116
Tucson, AZ	31,004

Source: American Community Survey 2019 (One-year Estimate)

The next table shows total personal income and per capita personal income in current dollars for the Phoenix MSA for 2011 through 2019. The Bureau of Economic Analysis defines personal income as "…the income received by, or on behalf of, all persons from all sources: from participation as laborers in production, from owning a home or unincorporated business, from the ownership of financial assets, and from government and business in the form of transfer receipts".

By including income from global, as well as domestic sources, personal income is a measurement far wider in scope than the American Community Survey's concept of per capita income shown in the previous table. Per capita personal income is derived by calculating the total personal income divided by total population. The 2019 per capita personal income estimate in the Phoenix MSA of $48,065 was $2,007 greater than the state per capita personal income of $46,048 for the same year. It was also $1,526 greater than the 2018 per capita personal income estimate for Phoenix MSA—that is, a 3.3% annual increase.

Phoenix MSA
Total Personal and per Capita Personal Income

Year	Total Personal Income (in millions of dollars)	Per Capita Personal Income (in current dollars)	Per Capita Personal Income Annual Percent Change
2019	$237,837	$48,065	3.3%
2018	225,677	46,539	5.0
2017	210,943	44,327	4.0
2016	199,247	42,635	2.6
2015	190,181	41,538	3.9
2014	179,399	39,964	4.5
2013	168,334	38,231	1.0
2012	163,955	37,867	3.9
2011	154,981	36,440	4.2

Source: U.S. Bureau of Economic Analysis

The Greater Phoenix Blue Chip Consensus Panel estimates that current personal income in the Greater Phoenix area (the Phoenix MSA, Maricopa County, and Pinal County) increased by 3.4% in 2020.

Phoenix MSA Exports

In 2019, the Phoenix MSA was the 24th largest U.S. exporter by merchandise export value based on origin of movement zip code data collected by the International Trade Administration. In total, the Phoenix MSA exported more than $15.1 billion in goods that year. This was a 11.2% increase over 2018.

The top export sectors by value of goods were computer and electronic products ($4.4 billion), transportation equipment ($3.3 billion), machinery ($1.2 billion) and electrical ($1.1 billion). Mexico was the top export partner, accounting for $3.2 billion of the Phoenix MSA's total goods exports in 2019. Canada was second, accounting for $1.2 billion of the Phoenix MSA's total goods exports. China was third, accounting for $0.9 billion of the Phoenix MSA's total goods exports.

Phoenix MSA
Annual Exports

Year	Value (millions of dollars)	Annual Growth Rate
2019	$15,136,633,149	11.2%
2018	13,614,869,197	3.0
2017	13,223,063,245	3.0
2016	12,838,188,632	-7.1
2015	13,821,528,121	8.3
2014	12,764,439,477	11.3
2013	11,473,532,187	5.9
2012	10,834,262,990	-0.7
2011	10,914,400,733	16.8
2010	9,342,732,987	17.6

Source: International Trade Administration

Real Estate Market

The Phoenix real estate market has significantly improved since the 2008-2009 recession, when an overabundance of single-family residential buildings followed by a high foreclosure rate and a decline in population growth up to 2011 negatively impacted the market. At the height of the recession in March 2010, the Phoenix MSA had over 60,000 properties that were in some stage of foreclosure. In December 2019, the number of distressed properties in the Phoenix MSA had fallen to 3,349 units. Within City of Phoenix itself, there were 34,795 more housing units in 2019 than 2010 - an increase of 5.9% for a population that grew 11.8% during the same time horizon.

The 2020 provisional total number of permits issued in the Phoenix MSA increased 30% compared to 2019. Permits issued in the state increased 24.8% between the two years. An estimated 68.1% of the provisional permitting total in the Phoenix MSA in 2020, and 71.7% of the provisional permitting total in the State of Arizona in 2020 was for single units. Permitting always occurs before housing starts. However, a stronger indicator of economic conditions is housing completions.

The City of Phoenix had an estimated total of 631,545 housing units in 2020, an increase of 6,138 housing units compared to 2019.

An estimated 91.1% of housing units were occupied in the city of Phoenix in 2019. 54.4% of the occupied housing units in the City of Phoenix in 2019 were owner occupied, and 45.6% renter occupied. The average household size was 2.93 for owner-occupied units, and 2.76 for renter-occupied units. The median dollar value of an owner-occupied home in the City of Phoenix was $235,400 in 2019. The gross median rent for an occupied unit in 2019 was $1,053 per month.*

* U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates. Occupancy and median dollar values data for 2020 are currently unavailable.

New Privately Owned Housing Units Authorized Phoenix MSA and Arizona

Year	1 Unit MSA	1 Unit AZ	2 Units MSA	2 Units AZ	3 or 4 Units MSA	3 or 4 Units AZ	5+ Units MSA	5+ Units AZ	Total MSA	Total AZ
2020	31,724	41,672	658	990	207	288	14,029	15,205	46,618	58,155
2019	25,026	33,981	664	876	174	202	10,009	11,521	35,873	46,580
2018	23,526	32,127	466	646	203	264	7,148	8,627	31,343	41,664
2017	20,471	28,072	302	432	212	273	8,327	10,695	29,312	39,472
2016	18,433	24,853	410	484	161	168	9,579	10,073	28,583	35,578
2015	16,621	22,311	168	222	186	225	5,427	6,152	22,402	28,910
2014	11,557	16,841	156	230	125	137	8,503	9,789	20,341	26,997
2013	12,959	18,386	128	214	201	213	5,449	6,396	18,737	25,209
2012	11,931	16,189	176	244	161	210	3,699	5,083	15,967	21,726
2011	7,297	10,306	18	54	80	115	1,686	2,532	9,081	13,007

Source: U.S. Census Bureau

Population and Housing Units (1)
City of Phoenix

Year	Population (2)	Change in Population	Housing	Change in Housing Units (3)
2020	1,634,061	16,717	631,545	6,138
2019	1,617,344	19,606	625,407	6,355
2018	1,597,738	18,485	619,052	5,589
2017	1,579,253	19,233	613,463	4,060
2016	1,560,020	24,005	609,403	6,070
2015	1,536,015	29,576	603,333	2,744
2014	1,506,439	20,688	600,589	3,913
2013	1,485,751	19,528	596,676	2,486
2012	1,466,223	14,257	594190	2,063
2011	1,451,966	6,334(4)	592,127	1,978(4)

(1) The population and housing unit figures reflect the change to the 2010 decennial census that resulted from the census count question resolution program, which added 463 housing units and 1,496 residents to the previously published figures.
(2) Maricopa Association of Governments uses a different methodology and different data to estimate population.
(3) The change in the number of housing units is equal to the number of housing completions plus the number of units annexed less the number of units demolished.
(4) Change over five quarters from the decennial census figure on April 1, 2010.

Source: Maricopa Association of Governments

New Housing Starts (1)

Year	City of Phoenix
2020 (P)	11,647
2019	9,898
2018	7,262
2017	6,832
2016	6,972
2015	4,611
2014	5,138
2013	3,131
2012	4,434
2011	1,628
2010	1,695

(1) Reflects housing permits authorized, by units, including single-family, multi-family and mobile homes.

Source: U.S. Census Bureau

According to CB Richard Ellis, the metro Phoenix retail market vacancy rate stood at 8.0% at the end of Q4 2020, on a par with the previous year. They state that the retail market continues to tighten, with 685,916 square feet of retail space currently under construction. Overall, metro Phoenix ended the year with 13,286 square feet of negative net absorption. Year-over-year, asking rents are up 0.2% at $16.49 per square foot.

Retail and Real Estate Market
Phoenix MSA

Year	Vacancy Rate	Year to Date Net Absorption (square feet)	Change in Inventory (square feet)
2020	8.00%	-13,286	n/a
2019	8.00	1,200,000	387,828
2018	8.40	1,181,675	997,933
2017	8.10	1,601,498	580,776
2016	8.90	1,321,833	1,204,766
2015	9.10	1,150,192	164,859
2014	9.60	1,487,313	-49,225
2013	10.20	1,579,202	-325,959
2012	11.00	1,879,005	184,392
2011	12.20	-152,647	24,353

Source: CB Richard Ellis

Office Real Estate Market
Phoenix MSA

The metro Phoenix office market had three consecutive quarters of negative absorption for the first time since 2009.* This resulted in a negative net absorption of 1,051,047 square feet for the year, the lowest on record. The current asking rate ($28.11 per square foot.) is the highest ever recorded. Nevertheless, with the recent completion of Block 23 and Wexford Science Center, CBRE reports that the central business district is experiencing the most office-leased construction since 2010. **

Year	Vacancy Rate	Year to Date Net Absorption (square feet)	Change in Inventory (square feet)
2020	17.45%	-1,051,047	2,014,465
2019	14.11	3,210,676	3,310,846
2018	15.20	2,473,034	803,403
2017	16.40	2,839,559	1,912,217
2016	17.40	3,219,853	1,045,155
2015	19.30	3,779,039	3,763,828
2014	21.10	1,969,716	1,107,906
2013	22.40	1,712,366	-35,566
2012	23.90	2,020,529	973,282
2011	25.50	1,857,433	3,370,694

Source: CB Richard Ellis

Industrial/Commercial Real Estate Market
Phoenix MSA

The metro Phoenix industrial market recorded its 43rd consecutive quarter of gains in Q4 2020. A new market record for year-end net absorption was set totaling 13,143,535 square feet. Completions for 2020 also set a new record for the Phoenix industrial market, totaling 13,303,097 square feet. Year-over-year, asking rents are up 2.9% at $0.70 per square foot. West Phoenix has 625 existing industrial buildings, totaling 14.5 million square feet. Southwest Phoenix has 695 existing industrial buildings, totaling 49.0 million square feet, plus a further 298,740 square feet. under construction. Central Phoenix has 89 existing industrial buildings, totaling 2.7 million square feet. Southcentral Phoenix has 499 existing industrial buildings, totaling 17.9 million sq. ft. Throughout the metro Phoenix area, an estimated 11.1 million square feet. is currently under construction, totaling 55 buildings.***

* CBRE's office inventory excludes medical or government-owned office real estate.

** CBRE Phoenix Office Market View, Phoenix Office, Q4 2020

*** CBRE Phoenix Industrial & Logistics Market View, Phoenix Office, Q4 2020

Year	Vacancy Rate	Year to Date Net Absorption (square feet)	Change in Inventory (square feet)
2020	6.00%	13,143,535	13,204,294
2019	6.30	10,677,269	9,164,152
2018	6.50	9,781,257	8,966,852
2017	6.84	9,898,893	6,988,240
2016	8.00	9,497,677	5,136,644
2015	10.10	7,046,663	3,966,434
2014	11.00	6,214,680	6,791,313
2013	11.40	8,783,982	8,902,571
2012	10.90	7,405,168	3,358,724
2011	12.40	7,753,111	1,954,037

Source: CB Richard Ellis

Looking to the future, CBRE expect retail real estate to recover as the rollout of the Covid-19 vaccine improves consumer sentiment and more people return to work at the office, counteracting national store closures. Tempe is expected to retain its position as one of the hottest office submarkets in the nation; and the industrial sector is projected to benefit from the increase in e-commerce.

Outlook/Summary

The Greater Phoenix Blue Chip Economic Forecast expects the local economy in 2021 to recover from at least some of the losses experienced during the 2020 global pandemic. Population is forecast to grow 1.7%, while current personal income is expected to increase 4.4%, and wage and salary employment is calculated to rise by 3.7%. Retail sales are also predicted to rise 4.8%.

The construction industry is often described as a measurement of economic health because it tends to gain strength during economic upswings. The Greater Phoenix Blue Chip Economic Forecast projects construction employment to increase 4.6% in 2021. Manufacturing employment is also expected to increase during 2021, with consensus suggesting a 2.0% increase in employment. *

* Source: First Quarter 2020 Forecasts, www.seidmaninstitute.com

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APPENDIX D

State Expenditure Limitation

Since fiscal year 1982-83, the City has been subject to an annual expenditure limitation imposed by the Arizona Constitution. This limitation is based upon the City's actual 1979-80 expenditures adjusted annually for subsequent growth in population and inflation. The 2020-21 expenditure limit supplied by the Economic Estimates Commission was $1,622,578,158. The City increased this limit to $9,833,074,000 to adjust for additional voter-approved modifications, as described below.

The Constitution exempts certain expenditures from the limitation. The principal exemptions for the City of Phoenix are payments for debt service and other long-term obligations, as well as expenditures of federal funds and certain State-Shared Revenues. Exemptions associated with revenues not expended in the year of receipt may be carried forward and used in later years. The 1979-80 expenditure base may also be adjusted for the transfer of functions between governmental jurisdictions.

The Constitution provides four processes, all requiring voter approval, to modify the expenditure limitation:

1. A four-year home rule option.
2. A permanent adjustment to the 1979-80 base.
3. A one-time override for the following fiscal year.
4. An accumulation for pay-as-you-go capital expenditures.

Phoenix voters have approved four-year home rule options on a regular basis since the implementation of the expenditure limitation. The current home rule option which was approved in 2015 allows the City Council, after hearings are held for each council district, to establish the annual budget as the limit. This four-year home rule option was in effect through 2019-20. In 2018, voters approved a proposition that moved regular City candidate elections from the fall of odd-numbered years to November of even-numbered years. State legislation allows the four-year home rule option to be extended in conjunction with the change of election dates. The new expiration date for the most recently approved home rule option will be at the end of 2020-21. An additional home rule option was approved on the November 3, 2020 that sets the City's annual budget after public meetings and hearings. The limit will be in effect for four fiscal years from 2021-22 through 2024-25 and will allow Phoenix residents to continue to control local expenditures.

On November 3, 1981, Phoenix voters approved four propositions that allow the City to accumulate and expend local revenues for "pay-as-you-go" capital improvements without being subject to the State spending limit. These capital improvement exclusions include annual amounts of up to $5,000,000 for Aviation, $6,000,000 for Sanitary Sewers, $2,000,000 for Streets and $6,000,000 for Water. These exclusions were approved on a permanent basis and do not require voter reapproval except to raise or lower the annual amounts.

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APPENDIX E

Retirement and Pension Plans

Substantially all full-time employees and elected officials of the City are covered by one of three contributory pension plans: the City of Phoenix Employees' Retirement System, the State of Arizona Public Safety Personnel Retirement System or the Elected Officials' Retirement Plan.

City of Phoenix Employees' Retirement System

The City of Phoenix Employees' Retirement System ("*COPERS*") is a single-employer defined benefit pension plan established by the Phoenix City Charter. COPERS covers all eligible full-time employees of the City, with the exception of elected officials and sworn City police and fire personnel. COPERS provides retirement, disability retirement and survivor benefits to its members. The plan can be amended or repealed by a vote of the people.

The general administration, management and operation of COPERS is vested in a nine-member Retirement Board consisting of three elected employee members, four statutory members, a citizen member and a retiree member. The Retirement Board appoints the Retirement Program Administrator and contracts investment counsel and other services necessary to properly administer the plan. Additional information regarding the City's financial statements, including reporting of the City's net position and the net pension liability, is available in the City's Comprehensive Annual Financial Report. The Comprehensive Annual Financial Report is available at http://emma.msrb.org or www.phoenix.gov under Departments-Finance-Financial Information & Reports or by calling the City at (602) 262-7166. The most recent report of the Actuary and the plan's annual financial reports are available online at https://phoenix.gov/copers/pension-plan-reports.

Employees participate in the plan upon beginning employment with the City. COPERS' membership data is as follows:

	June 30	
	2020	**2019**
Active Members		
Tier 1	4,855	5,197
Tier 2	626	657
Tier 3	2,546	2,087
Total	8,027	7,941
Deferred Vested Members	1,033	1,008
In Pay Members		
Service Retirees	6,109	6,013
Beneficiaries	1,160	1,110
Disabled Retirees	233	245
Total	7,502	7,368
Total Members	16,562	16,317

The City contributes an actuarially determined percentage of payroll to COPERS, as required by City Charter, to fully fund benefits for active members and to amortize any unfunded actuarial liability as a level percent of projected member payroll over a closed 18-year period. For the fiscal year ended June 30, 2020, the total contribution rate was 38.51% of compensation. Tier 1 employees contributed 5% of their compensation, Tier 2 and Tier 3 employees contributed 11.0% and the City contributed the remainder, which amounted to $175.9 million for the fiscal year.

The City's actuarially determined contribution, actual contribution and covered payroll for the last three fiscal years follows:

Schedule of Employer Contributions
(in thousands)

Fiscal Year Ended June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Percentage Contributed	Covered Payroll	Actual Contribution as a percentage of Covered Payroll
2020	$ 175,947	$ 175,947	—	100%	$ 568,089	30.97%
2019	165,796	165,796	—	100	561,938	29.50
2018	159,006	229,006	(70,000)	144	526,667	43.48

The actuarially determined recommended pension contribution rate is 31.60% for fiscal year 2020-21 and 30.34% for fiscal year 2021-22.

The following schedule shows the funding progress of the plan for the last three fiscal years. The total pension liability increased $175,779,000 from 2018 to 2019 and $12,288,000 from 2019 to 2020.

Schedule of Changes in Net Pension Liability and Related Ratios
(in thousands)

	Fiscal Year End 2020	Fiscal Year End 2019	Fiscal Year End 2018
Total Pension Liability			
Service cost	$ 81,119	$ 73,255	$ 73,072
Interest on the total pension liability	313,397	300,543	293,883
Changes of benefit terms	—	—	—
Differences between expected and actual experience of the total pension liability	(77,698)	39,370	(42,785)
Changes of assumptions	(62,386)	—	—
Benefit payments, including refunds of employee contributions	(242,143)	(237,389)	(227,576)
Net change in total pension liability	12,289	175,779	96,594
Total pension liability—beginning	4,401,825	4,226,046	4,129,452
Total pension liability—ending	$4,414,114	$4,401,825	$4,226,046
Plan Fiduciary Net Position			
Employer contributions	$ 175,947	$ 165,796	$ 229,006
Employee contributions	39,356	35,042	33,340
Pension plan net investment income	50,389	142,963	166,514
Benefit payments, including refunds of employee contributions	(242,143)	(237,389)	(227,576)
Pension plan administrative expense	(2,509)	(793)	(377)
Net change in plan fiduciary net position	21,040	105,619	200,907
Plan fiduciary net position—beginning	2,660,133	2,554,514	2,353,607
Plan fiduciary net position—ending	$2,681,173	$2,660,133	$2,554,514
Net pension liability	$1,732,941	$1,741,692	$1,671,532
Plan fiduciary net position as a percentage of the total pension liability	60.74%	60.43%	60.45%
Covered payroll	$ 568,089	$ 561,938	$ 526,667
Net pension liability as a percentage of covered payroll	305.05%	309.94%	317.38%

Actuarial assumptions used to determine the total pension liability in the June 30, 2020 valuation were based on the results of the actuarial experience study covering the period from July 1, 2014 through June 30, 2020. Those assumption, applied to all periods included in the measurement, are as follows:

Investment Rate of Return	7.00%
Inflation	2.30%
Salary Increase Rate	Individual salary increases are composed of a price inflation component, a real wage growth component, and a merit or longevity component that varies by age. Total salary increases range from 7.00% at 1-7 attained service to 2.80% for 15 and more attained service.
Cost of Living Adjustment	0.50% through 2024, 1.00% from 2025-2029 and then 1.25% thereafter.
Administrative Expenses	Assumed to be equal to the prior year's amount, increased by 2.50%.

Based on the assumption that employee and City contributions to COPERS will continue to follow the established contribution policy and the sufficiency of the Fiduciary Net Position, the long-term expected rate of return on the plan's investments, 7.00%, was applied as the single rate to all periods of projected benefit payments to determine the total pension liability.

City of Phoenix Pension Reform

In January 2011, the Mayor and City Council appointed members of a Pension Reform Task Force (the "*Task Force*") to work with management, outside consultants and other stakeholders to review and possibly recommend changes to COPERS. On September 25, 2012, after several revisions, the Task Force presented a final report to the Mayor and City Council, including recommended amendments to the City Charter. At the September 25, 2012 meeting, the Mayor and City Council directed staff to draft proposed revisions to City Charter language for referral to the March 2013 ballot based on the Task Force's recommendations.

At a special election held on March 12, 2013, voters approved changes to COPERS. The changes affected new employees hired on and after July 1, 2013 and are expected to save the City approximately $829 million over 25 years. The changes exclude public safety employees and elected officials, each covered under separate pension plans. The following is a summary of the voter-approved changes:

- The retirement eligibility age will increase an average of approximately 3.5 years
- The employer and employee contribution rates will be based on a 50/50 split of the actuarially determined rate necessary to fully fund the annual required contribution ("*ARC*")
- The benefit formula components will be changed to a graduated multiplier based on years of service, matching the State of Arizona retirement plan
- Prior to these changes, the City Charter required full funding of the ARC, but prohibited the City from contributing an amount greater than the ARC. The voter-approved changes allow the City to contribute an amount greater than the ARC
- The Investment Policy for COPERS will be updated to allow for investments that meet the Prudent Investor Rule

On July 1, 2013 as a result of the voter approved changes, a two-tier system was created for COPERS. A Tier 1 employee is any employee hired by the City before July 1, 2013, or any employee hired by the City on or after July 1, 2013 who participated in the Arizona State Retirement System prior to July 1, 2011. A Tier 2 employee is any employee hired by the City on or after July 1, 2013 who is not a Tier 1 employee. Effective July 1, 2013, Tier 1 employees continued to contribute 5.0% of their compensation to the plan, and Tier 2 employees contributed one-half of the total required actuarial percentage. The contribution rate for the City is the total projected percentage less the member contribution rates for each tier.

In November 2014, the Mayor created the Civilian Retirement Security Ad Hoc Committee (the "*Committee*") to address further pension reform. The Committee, which included members of the City Council along with community and business leaders, met over three months to consider several options for reform. In February 2015, the Committee unanimously recommended a stacked hybrid plan ("Prop 103") that was expected to save the City over $38 million over 20 years starting January 1, 2016. The most significant changes under this plan are for employees hired after January 1, 2016 to be classified as Tier 3 employees. Tier 3 employees would be subject to the following benefit changes:

- Final Average Salary calculation changed to a five-year average
- Pension multiplier reduced to 1.85% of salary per year of service through the first 10 years of employment, gradually increasing to 2.0% at 20 years of service
- Elimination of the sick leave service credit
- Eliminates the ability for employees previously employed by the state or other cities in Arizona to join the City of Phoenix as Tier 1 employees
- Makes compensation above $125,000 per year non-pensionable; the cap would increase each year to match inflation.

Prop 103 continues the 50/50 split in the contribution rate for new hires, but created a ceiling in the employee rate of 11.0% of their compensation. The ceiling applies to both Tier 2 and Tier 3 employees to help improve the recruitment and retention of employees. The City Council approved the plan on March 4, 2015, and on August 25, 2015 voters also approved Prop 103, which became effective on January 1, 2016.

Accrued Vacation or Sick-Leave on City of Phoenix's Pension Benefits

The benefit amount under COPERS depends, in part, on a retiring employee's highest average annual compensation paid over a multi-year period. As part of pension reform, the City restricted "pension spiking" by no longer allowing unused sick leave accrued after July 1, 2012, and unused vacation leave accrued after June 30, 2014, to be included when calculating a member's "final average compensation." This practice was upheld by the Arizona Supreme Court on July 10, 2020, in Piccioli v. City of Phoenix, CV-19-0116 and AFSCME v. Phoenix CV-19-0143.

On July 10, 2020 the Arizona Supreme Court issued rulings on "pension spiking" in Piccioli v. City of Phoenix, CV-19-0116 and AFSCME v. Phoenix CV-19-0143, where the former addressed the implication of sick leave and the latter vacation leave. The City of Phoenix pays pension benefits to eligible employees upon retirement. The amount of that benefit depends, in part, on a retiring employee's highest average annual compensation paid over a multi-year period. The primary issue in the cases was whether a one-time payout for accrued sick or vacation leave upon retirement was "compensation" under the COPERS' Plan that must be included when calculating a member's "final average compensation," which is used in determining the pension benefit amount. The Court held that the City did not need to include the one-time payments for unused sick or vacation leave at retirement as part of final average compensation. Thus, the City did not violate the Arizona Constitution by prospectively eliminating the payouts made at the time of retirement for sick leave accrued after July 1, 2012, and vacation leave accrued after June 30, 2014, from the calculation of final average compensation.

In 2012, when Piccioli v. City of Phoenix, CV2012-010330 was filed, the Board of Trustees of COPERS took action, upon advice from their consulting actuary, to not recognize any savings from the leave changes until after the court cases were adjudicated. At that time, the savings of the changes were estimated to equal about 9% of the total fund value. This 9% load has been built in to valuations since 2012. Following the opinions from the Arizona Supreme Court in July 2020, COPERS' consulting actuary had prepared a recommendation to remove 7.5% of that load, holding back 1.5% to account for future negative experience related to certain assumptions. On August 6, 2020, the COPERS Board approved the actuaries recommendation. Based on the June 30, 2019 valuation, this would result in a $63.7 million decrease to the unfunded actuarial accrued liability and a -3.7% ($7.7 million) reduction in the actuarially determined contribution for fiscal year 2021-2022. It is estimated that continuing the practices upheld by the Court will result in savings of $156.9 million over a 20-year period.

Citizen Pension Reform Initiative

On November 4, 2014, Phoenix voters considered and rejected an initiative known as Proposition 487 — The Phoenix Pension Reform Act of 2014 that if approved, would have amended the Phoenix City Charter and changed City retirement benefits for both current and future employees. The City is unable to predict whether and in what form, future initiatives may be proposed regarding COPERS and what the impact of such initiatives might be.

State of Arizona Public Safety Personnel Retirement System

The City of Phoenix also contributes to an agent multiple-employer defined benefit pension and health insurance premium subsidy plan, the Arizona Public Safety Personnel Retirement System ("*APSPRS*"), for sworn police officers and firefighters. The APSPRS functions as an investment and administrative agent for the City of Phoenix with respect to the plans for police officers and firefighters.

Periodic employer contributions to the pension and health insurance premium subsidy plans are determined on an actuarial basis using the entry age normal cost method. Normal cost is funded on a current basis. The City's unfunded actuarial accrued liability is funded over a closed period, and as of June 30, 2016, the City had 20 years remaining in the amortization period. Senate Bill 1442, passed by the State Legislature on April 17, 2017, authorized the governing body of an employer to make a one-time request to increase the amortization to a closed period not exceeding 30 years. On June 21, 2017, the City Council voted to submit a request to the APSPRS Board of Trustees to increase the City's amortization period from 20 years to 30 years. The change was reflected in the employer contribution rate beginning with the July 1, 2018 contribution, and represents the minimum required contribution percentage. Periodic contributions for both normal cost and the amortization of the unfunded actuarial accrued liability are based on the entry age normal cost method. The funding strategy for normal cost and the unfunded actuarial accrued liability should provide sufficient resources to pay employee pension benefits on a timely basis.

The System, for both police and fire personnel, is funded via member contributions of 7.65% of compensation for employees whose membership date was prior to July 20, 2011, and 11.65% of compensation for employees whose membership date began on or after July 20, 2011. Employees whose membership date was on or after January 1, 2012 have the option of participating in the hybrid plan for non-social security positions with contributions of 14.65%, of which 3.0% goes toward a defined contribution plan and is matched by the employer. Employer rates are set by an actuarial valuation and expressed as a percent of compensation. For fiscal year ended June 30, 2020, the required employer contribution rates were as follows:

	Police	Fire
Tier 1	64.64%	58.95%
Tier 2	64.64%	58.95%
Tier 3	10.39%	10.36%
Tier 3 Legacy	49.34%	43.09%

For Fiscal year ended June 30, 2020, the City chose to contribute $166.3 million and $89.8 million for Police and Fire, respectively and were based on the following contribution rates:

	Police	Fire
Tier 1	70.85%	64.37%
Tier 2	70.85%	64.37%
Tier 3	10.39%	10.36%
Tier 3 Legacy	55.55%	48.51%

The City's APSPRS membership data is as follows:

	June 30, 2019	
	Police	Fire
Retirees and Beneficiaries	2,473	1,127
Inactive and Non-Retired Members	773	252
Active Members	2,590	1,447
Total	5,836	2,826

Schedule of Changes in Net Pension Liability and Related Ratios
for Reporting Date ended June 30,
(thousands)

	POLICE		
	Fiscal Year 2020	**Fiscal Year 2019**	**Fiscal Year 2018**
Total Pension Liability			
Service cost	$ 52,681	$ 49,601	$ 58,148
Interest on the total pension liability	241,526	231,824	217,244
Changes of benefit terms	—	—	22,618
Difference between expected and actual experience of the total pension liability	21,415	(906)	1,601
Changes of assumptions	58,976	—	107,195
Benefit payments, including refunds of employee contributions	(185,901)	(168,682)	(164,031)
Net change in total pension liability	188,697	111,837	242,775
Total pension liability—beginning	3,304,137	3,192,300	2,949,525
Total pension liability—ending	$3,492,834	$3,304,137	$3,192,300
Plan Fiduciary Net Position			
Employer contributions	$ 149,442	$ 124,618	$ 113,645
Employee contributions	18,525	22,728	31,289
Pension plan net investment income	71,707	89,411	139,676
Hall/Parker Settlement	—	(42,201)	—
Benefit payments, including refunds of employee contributions	(185,901)	(168,682)	(164,031)
Pension plan administrative expense	(1,247)	(1,364)	(1,236)
Other(1)	88	(443)	652
Net change in plan fiduciary net position	52,614	24,067	119,995
Plan fiduciary net position—beginning	1,315,679	1,291,612	1,171,617
Adjustment to Beginning of Year	(5)	—	—
Plan fiduciary net position—ending	$1,368,288	$1,315,679	$1,291,612
Net pension liability	$2,124,546	$1,988,458	$1,900,688
Plan fiduciary net position as a percentage of the total pension liability	39.17%	39.82%	40.46%
Covered payroll	$ 228,846	$ 221,105	$ 231,023
Net pension liability as a percentage of covered valuation payroll	928.37%	899.33%	822.73%

(1) Other changes include adjustments for prior year GASB 68 and reserve transfer to/from employer and employee reserves.

Schedule of Changes in Net Pension Liability and Related Ratios
for Reporting Date ended June 30,
(in thousands)

	FIRE		
	Fiscal Year End 2020	Fiscal Year 2019	Fiscal Year 2018
Total Pension Liability			
Service cost	$ 32,749	$ 30,634	$ 31,155
Interest on the total pension liability	130,378	123,038	114,721
Changes of benefit terms	—	—	9,098
Difference between expected and actual experience of the total pension liability	(7,563)	21,387	5,985
Changes of assumptions	31,021	—	61,290
Benefit payments, including refunds of employee contributions	(96,862)	(89,735)	(88,133)
Net change in total pension liability	89,723	85,324	134,116
Total pension liability–beginning	1,777,548	1,692,224	1,558,108
Total pension liability–ending	$1,867,271	$1,777,548	$1,692,224
Plan Fiduciary Net Position			
Employer contributions	$ 77,142	$ 73,288	$ 56,671
Employee contributions	11,592	13,413	16,694
Pension plan net investment income	39,879	49,178	76,651
Hall/Parker Settlement	—	(21,840)	—
Benefit payments, including refunds of employee contributions	(96,862)	(89,735)	(88,133)
Pension plan administrative expense	(695)	(751)	(679)
Other(1)	—	251	11
Net change in plan fiduciary net position	31,056	23,804	61,215
Plan fiduciary net position–beginning	734,315	710,511	649,296
Adjustment to Beginning of Year	(1)	—	—
Plan fiduciary net position–ending	$ 765,370	$ 734,315	$ 710,511
Net pension liability	$1,101,901	$1,043,233	$ 981,713
Plan fiduciary net position as a percentage of the total pension liability	40.99%	41.31%	41.99%
Covered payroll	$ 135,273	$ 132,503	$ 127,530
Net pension liability as a percentage of covered valuation payroll	814.58%	787.33%	769.79%

(1) Other changes include adjustments for prior year GASB 68 and reserve transfer to/from employer and employee reserves.

Actuarial assumptions used to determine the total pension liability in the June 30, 2019 actuarial valuation were based on the results of the actuarial experience study covering the period from July 1, 2011 through June 30, 2016. Those assumptions, applied to all periods included in the measurement, are as follows:

Actuarial Cost Method	Entry Age Normal
Asset Valuation Method	Fair Value of Assets
Price Inflation	2.50%
Salary Increases	3.50% to 7.50% including inflation
Tier 1 and 2 Investment Rate of Return	7.30%, net of investment and administrative expense
Tier 3 Investment Rate of Return	7.00%, net of investment and administrative expense
Retirement Age	Experience-based table of rates that is specific to the type of eligibility condition. Last updated for the 2017 valuation pursuant to an experience study of the period July 1, 2011 – June 30, 2016.
Mortality	RP-2014 mortality tables projected backwards 1 year to 2013 with MP-2014 (110% of female healthy annuitant mortality table.) Future mortality improvements are assumed each year using 75.0% of scale MP-2016.

The cost-of-living adjustment will be based on the average annual percentage change in the Metropolitan Phoenix-Mesa Consumer Price Index published by the United States Department of Labor, Bureau of Statistics. The assumed future permanent benefit increase used for this valuation is 1.75%.

Schedule of Contributions for Measurement Date ended June 30,
(in thousands)

	Year Ended June 30,	Actuarially Determined Contribution	Actual Contribution(1)	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Valuation Payroll
POLICE	2020	$ —	$166,259	$ —	$ —	—%
	2019	149,442	149,442	—	228,846	65.30
	2018	124,618	124,618	—	221,105	56.36
	2017	113,645	113,645	—	231,023	49.19
	2016	92,298	92,298	—	225,236	40.98
FIRE	2020	$ —	$ 89,840	$ —	$ —	—%
	2019	77,142	77,142	—	135,273	57.03
	2018	73,288	73,288	—	132,503	55.31
	2017	56,671	56,671	—	127,530	44.44
	2016	49,932	49,932	—	124,322	40.16

(1) Actual contributions are based on covered payroll at the time of contribution. It is the actuary's understanding that the City's practice is to contribute the percent-of-payroll employer contribution rate (or flat dollar amount if there are no active employees) shown in the actuarial valuation report. Because of this understanding, the Actuarially Determined Contributions shown in the Schedule of Contributions are the actual contributions made by the City in the fiscal year. Fiscal year 2020 actual contributions represent contributions made subsequent to the measurement date.

The actuarially determined recommended pension contribution rates for Police was 59.76% for fiscal year 2018-19, 64.64% for fiscal year 2019-20 and is 70.85% for fiscal year 2020-21. The actuarially determined recommended pension contribution rates for Fire was 57.48% for fiscal year 2018-19, 58.95% for fiscal year 2019-20 and is 64.37% for fiscal year 2020-21.

APSPRS Pension Reform

On April 29, 2011, the Governor signed into law Senate Bill 1609 ("*SB 1609*"), which created significant pension reform to the APSPRS.

The following is a summary of changes to the APSPRS required by SB 1609:

- Revise the formula used to calculate cost of living adjustments (COLA)
- Increase member contribution rate from 7.65% to 11.65% by fiscal year 2015-16
- Eliminate the Deferred Retirement Option Plan (DROP) for employees hired after January 1, 2012
- Increase the number of years of service required to become retirement eligible from 20 to 25
- Increase the number of consecutive years of salary used to compute pension from three to five
- Calculated pension cannot exceed 80.0% of the five consecutive years' average

On February 20, 2014, the Arizona Supreme Court upheld a lower court ruling that provisions of SB 1609 revising the formula used to calculate cost of living adjustments of members of the Arizona Elected Officials Retirement Plan (EORP) violated the Arizona Constitution to the extent those provisions applied to elected officials hired prior to January 1, 2012. Because that Supreme Court ruling applies to invalidate the same language in similar provisions of SB 1609 which relate to APSPRS, COLA increases for members hired prior to January 1, 2012 and affected by SB 1609 will be restored retroactively, which required rate increases from employers, including the City. The APSPRS Board allowed employers to phase-in the pension contribution rate increase over 3 years beginning with the 2015-16 fiscal year. The City's contribution rate for fiscal year 2015-16 increased 7.96% for fire and 9.31% for police due the phase-in. In fiscal year 2016-17, the City's contribution rate increased 4.93% for fire and 6.05% for police. The City is unable to determine the rate increase for the last year of the phase-in or any potential savings due to other provisions of SB 1609.

On November 10, 2016, the Arizona Supreme Court upheld another lower court ruling that provisions of SB 1609 which increased employee contribution rates and curtailed certain benefit increases were also unconstitutional. The decision means that many current employees will receive refunds, while some retirees will receive retroactive benefit increases. The issuance of refunds by the City will have minimal effect on contribution rates. Neither of the Supreme Court decisions will impact the ability of the City to fulfill its obligations on its bonds. The City is not aware of any other pending lawsuits regarding SB 1609.

In February 2016, the Governor signed Senate Bills 1428 and 1429 to further reform the APSPRS. Most of the changes only affect new hires who start after June 30, 2017. Those changes include requiring new public safety employees to serve until age 55 before being eligible for full pension benefits, splitting the annual pension cost 50/50 between employers and new employees, and providing new hires the option of choosing a 100% defined contribution plan in place of a defined benefit (or pension) plan. The one change that could affect current retirees and those hired both before and after June 30, 2017, is a 2.0% annual cap on cost-of-living adjustments, which would be tied to the metropolitan Phoenix-Mesa Consumer Price Index. For the cost-of-living cap to apply to current members of APSPRS, it needed to be approved by voters. Proposition 124, which capped the cost of living adjustments for current and new members, was approved by voters on May 17, 2016.

Elected Officials' Retirement Plan

The Elected Officials' Retirement Plan ("*EORP*") is a cost sharing multiple-employer defined benefit pension plan of which the City of Phoenix is a contributing employer and covers the Mayor and City Council, effective January 4, 1988. As a condition of coverage, members are required to contribute a percentage of their compensation.

The City contributed an actuarially determined rate of 32.99% for fiscal year 2012 and 36.44% for fiscal year 2013, to fully fund benefits for active members. For the first six months of fiscal year 2014, the City contribution rate was 39.62%. Effective January 1, 2014, the State Legislature closed the EORP to new members and changed the contribution rate to 23.50% for both the EORP and for the newly created Elected Officials' Defined Contribution Retirement System ("*EODCRS*"). All elected officials, appointed or elected on or after January 1, 2014 and not previously a member of the EORP, become members of the EODCRS, a defined contribution plan.

In 2017, a trial court ruled that the 23.50% level per cent employer contribution rate for the defined benefit plan was unconstitutional without supplemental funding because it was insufficient to cover the actuarial computed unfunded liabilities.

In March 2018, the Arizona State Legislature introduced Senate Bill 1478 ("*SB 1478*"), which proposed to eliminate the 23.50% employer contribution rate and replace it with an actuarially determined employer contribution rate. SB 1478 requires the contribution rate to be sufficient to meet both the normal cost and the unfunded accrued liability amortized over a closed period of at least 20 years, but not more than 30 years, beginning July 1, 2018. The Governor signed SB 1478 into law on May 16, 2018. Effective July 1, 2018, the EORP employer contribution rate was 61.5% and 61.625% for EODCRS. Effective July 1, 2019, the EORP employer contribution rate was 61.43% and 61.555% for EODCRS.

Pension reform for EORP was approved by voters in November 2018. The reform requires a replacement of the permanent benefit increase, or PBI, with a cost-of-living-adjustment based on annual changes recognized by the U.S. Department of Labor, Bureau of Labor Statistics' Consumer Price Index for the Phoenix-Mesa-Scottsdale CBSA. The PBI could increase as much as 4.0% per year, while the new cost-of-living adjustment increase has a cap of 2.0% per year.

No additional disclosures regarding EORP are provided due to the immateriality to the City's finances as a whole. EORP financial statements are available online at www.psprs.com.

Additional Information

Additional information regarding the City's Retirement and Pension Plans, including trend information and detailed assumptions, is available in the City's Comprehensive Annual Financial Report under the headings "Pension Plans" and "Required Supplementary Information". The Comprehensive Annual Financial Report is available at http://emma.msrb.org or www.phoenix.gov under Departments-Finance-Financial Information & Reports or by calling the City at (602) 262-7166.

Additional information regarding the APSPRS and the EORP, including annual financial reports, actuary reports, trend information and detailed assumptions is available at www.psprs.com/investments--financials/annual-reports.

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APPENDIX F

Health Care Benefits for Retired Employees

The City provides certain postemployment health care benefits for its retirees. City retirees meeting certain qualifications are eligible to participate in the City's health insurance program along with the City's active employees. As of August 1, 2007, separate unblended rates have been established for active and retiree health insurance.

In June 2004, the Governmental Accounting Standards Board ("*GASB*") issued Statement 45 ("*GASB 45*") which addresses how state and local governments should account for and report costs and obligations related to post-employment health care and other post-employment non-pension benefits ("*OPEB*"). GASB 45 generally requires that the annual cost of OPEB and the outstanding obligations and commitments related to OPEB be accounted for and reported in essentially the same manner as pensions. The City implemented GASB Statement 45, Accounting and Financial Reporting by Employers for Post-employment Benefits Other Than Pensions, effective July 1, 2007.

GASB 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, replaces GASB 45 and establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures. The new GASB statement requires the presentation of liability for OPEB obligations in the employer's financial statements. The Statement identifies the methods and assumptions that are required to be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. Note disclosure and required supplementary information requirements about defined benefit OPEB also are addressed. The City implemented GASB 75 effective July 1, 2017.

Medical Expense Reimbursement Plan

Employees eligible to retire in 15 years or less from August 1, 2007, will receive a monthly subsidy from the City's Medical Expense Reimbursement Plan ("*MERP*") when they retire. The MERP is a single-employer, defined benefit OPEB plan.

The subsidy provides an offset to out of pocket healthcare expenses such as premiums, deductibles and co-pays, whether the retiree or survivor elects to purchase coverage through city sponsored retiree plans or other sources. City sponsored health plans are provided to eligible non-Medicare retirees and dependents. The subsidy varies with length of service or bargaining unit, from $117 to $202 per month. Retirees may be eligible for additional subsidies depending on their bargaining unit, retirement date, or enrollment in the City's medical insurance program. Current and future eligible retirees who purchase health insurance through the City's plan will receive an additional subsidy to minimize the impact of unblending health insurance rates for active and retired employees.

In December 2007, the City established the City of Phoenix MERP Trust to fund all or a portion of the City's share of liabilities incurred in providing the benefits as reflected in Administrative Regulation 2.42 — Medical Expense Reimbursement Plan for Retirees and Eligible Surviving Spouses or Qualified Domestic Partners. A five-member Board of Trustees was delegated fiduciary responsibility for the MERP Trust, subject to oversight of the City Council.

The employees covered by MERP at June 30, 2020 are:

	2020
Plan Members Currently Receiving Benefits	9,352
Active Plan Members	3,527
Total Plan Members	12,879

Contributions by the City (plus earnings thereon) are the sole source of funding for the MERP. The City's Board of Trustees, subject to oversight by the City Council has the authority to establish and amend the contribution requirements of the City and active employees. The Board of Trustees establishes the rates based on an actuarially determined rate recommended by an independent actuary. The actuarial determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. For the year ended June 30, 2020, the City contributed $27.0 million. Employees are not required to contribute to the MERP.

The MERP actuarially determined contribution, actual contribution and covered payroll for the last two fiscal years follows:

MERP
Schedule of Employer Contributions
(in thousands)

Fiscal Year Ended June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a percentage of Covered Payroll
2020	$21,713	$26,987	$(5,274)	$280,071	9.64%
2019	22,465	24,100	(1,635)	270,600	8.91

The City's net OPEB liability for MERP was measured as of June 30, 2019, and the total MERP OPEB liability used to calculate the net OPEB liability for MERP was determined by an actuarial valuation as of June 30, 2019. The net OPEB liability for MERP is measured as the total MERP OPEB liability, less the amount of the plan's fiduciary net position. In actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations based on the Board's adopted assumptions and methods).

A single discount rate of 6.75% was used to measure the total MERP OPEB liability as of June 30, 2020. This single discount rate was based on an expected rate of return on MERP OPEB plan investments of 6.75%. Based on the stated assumptions and the projection of cash flows, the MERP OPEB fiduciary net position and future contributions were projected to be sufficient to finance all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on MERP OPEB plan investments was applied to all periods of projected benefit payments to determine the total MERP OPEB liability.

The following schedule shows the funding progress of the plan for the last two fiscal years. The total MERP OPEB liability increased $11,102,000 from 2019 to 2020.

Schedule of Changes in Net OPEB Liability and Related Ratios
(in thousands)

	MERP	
	Fiscal Year End 2020	**Fiscal Year End 2019**
Total OPEB Liability		
Service cost	$ 4,432	$ 4,282
Interest on the total OPEB liability	25,439	25,141
Changes of benefit terms	—	19,835
Differences between expected and actual experience	—	(18,132)
Changes of assumptions	8,320	(637)
Benefit payments, including refunds of employee contributions	(27,089)	(25,520)
Net change in total OPEB liability	11,102	4,969
Total OPEB liability–beginning	374,743	369,774
Total OPEB liability–ending	$385,845	$374,743
Plan Fiduciary Net Position		
Employer contributions	$ 26,987	$ 24,100
OPEB plan net investment income	1,460	8,734
Benefit payments, including refunds of employee contributions	(27,089)	(25,520)
Other	13	(17)
Net change in plan fiduciary net position	1,371	7,297
Plan fiduciary net position–beginning	178,166	170,869
Plan fiduciary net position–ending	$179,537	$178,166
Net OPEB liability–ending	$206,308	$196,577
Plan fiduciary net position as a percentage of total OPEB liability	46.53%	47.54%
Covered payroll	$280,071	$270,600
Net OPEB liability as a percentage of covered payroll	73.66%	72.64%

Post Employment Health Plan

Benefit eligible employees with more than 15 years until retirement eligibility, as of August 1, 2007, receive $150 per month while employed by the City as a defined contribution to the Post Employment Health Plan ("*PEHP*"). This is a 100% employer-paid benefit. The program provides employees who have a payroll deduction for City medical insurance coverage (single or family) with a PEHP account. This account is to be used by the employee when he/she retires or separates employment with the City for qualified medical expenses (including health insurance premiums).

Long-Term Disability Program

In November 2008, the City established the City of Phoenix Long-Term Disability ("*LTD*") Trust to fund all or a portion of the City's liabilities incurred in providing the benefits as reflected in Administrative Regulation 2.323 — City of Phoenix Long-Term Disability Program. The LTD Trust is a single-employer, defined benefit plan. A five-member Board of Trustees was delegated fiduciary responsibility for the LTD Trust, subject to oversight by the City Council. The LTD Trust issues a separate report that can be obtained through the City of Phoenix, Finance Department, Financial Accounting and Reporting Division, 251 W. Washington Street, 9th Floor, Phoenix, Arizona, 85003.

Long-term disability benefits are available to regular, full-time, benefit-eligible employees who have been employed by the City for at least 12 consecutive months. The program provides income protection of 2/3 of an employee's monthly base salary following a continuous three-month waiting period from the last day worked and the use of all leave accruals. The benefit continues to age 80 for those disabled prior to July 1, 2013 and age 75 for those disabled on or after July 1, 2013. The City pays 100% of the cost of this benefit.

The number of participants as of June 30, 2019, the effective date of the biennial OPEB valuation, follows:

	Police	Fire	General City	Total
Active Employees	3,038	1,685	7,910	12,633
Disabled Employees	19	5	264	288
Total Covered Participants	3,057	1,690	8,174	12,921

Contributions by the City (plus earnings thereon) are the sole source of funding for the LTD program. The LTD Trust's Board of Trustees, subject to oversight by the City Council has the authority to establish and amend the contribution requirements of the City and active employees. The Board of Trustees establishes the rates based on an actuarially determined rate recommended by an independent actuary. The actuarial determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. For the years ended June 30, 2020, the City contributed $1.1 million. Employees are not required to contribute to the LTD program.

The LTD actuarially determined contribution, actual contribution and covered payroll for the last two fiscal years follows:

LTD
Schedule of Employer Contributions
(in thousands)

Fiscal Year Ended June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a percentage of Covered Payroll
2020	$1,163	$1,134	$29	$858,320	0.13%
2019	1,772	1,758	14	831,706	0.21

The City's net OPEB liability for LTD was measured as of June 30, 2020, and the total LTD OPEB liability used to calculate the net LTD OPEB liability was determined by an actuarial valuation as of June 30, 2019. The net LTD OPEB liability is measured as the total OPEB liability, less the amount of the plan's fiduciary net position. In actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations based on the LTD Trust's Board of Trustees adopted assumptions and methods).

A single discount rate of 6.75% was used to measure the total OPEB liability for LTD as of June 30, 2020. This single discount rate was based on an expected rate of return on LTD OPEB plan investments of 6.75%. Based on the stated assumptions and the projection of cash flows, the LTD OPEB plan's fiduciary net position and future contributions were projected to be available to finance all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on LTD OPEB plan investments was applied to all periods of projected benefit payments to determine the total LTD OPEB liability.

The following schedule shows the funding progress of the plan for the last two fiscal years. The total LTD OPEB liability increased $3,455,000 from 2019 to 2020.

Schedule of Changes in Net OPEB Liability and Related Ratios
(in thousands)

	LTD	
	Fiscal Year End 2020	**Fiscal Year End 2019**
Total OPEB liability/(asset)		
Service cost	$ 3,495	$ 3,679
Interest on the total OPEB liability/(asset)	3,087	3,614
Differences between expected and actual experience	—	(2,778)
Changes of assumptions	628	(8,013)
Benefit payments, including refunds of employee contributions	(3,755)	(4,126)
Net change in total OPEB liability/(asset)	3,455	(7,624)
Total OPEB liability/(asset)–beginning	44,230	51,854
Total OPEB liability/(asset)–ending	$ 47,685	$ 44,230
Plan Fiduciary Net Position		
Employer contributions	$ 1,134	$ 1,758
OPEB plan net investment income	662	3,983
Benefit payments, including refunds of employee contributions	(3,755)	(4,126)
OPEB plan administrative expense	(363)	(380)
Other	—	(86)
Net change in plan fiduciary net position	(2,322)	1,149
Plan fiduciary net position–beginning	80,079	78,930
Plan fiduciary net position–ending	$ 77,757	$ 80,079
Net OPEB liability/(asset)–ending	$ (30,072)	$ (35,849)
Plan fiduciary net position as a percentage of total OPEB liability/(asset)	163.06%	181.05%
Covered payroll	$858,320	$831,706
Net OPEB liability/(asset) as a percentage of covered payroll	(3.50)%	(4.31)%

APSPRS—OPEB

The Arizona Public Safety Personnel Retirement System (*"APSPRS"*) administers an agent multiple-employer defined benefit retirement system established by Title 38, Chapter 5, Article 4 of the Arizona Revised Statutes that provides retirement benefits, as well as death and disability benefits to public safety employees of certain state and local governments. Authority to make amendments to the plan rests with the Arizona State Legislature. The APSPRS acts as a common investment and administrative agent that is jointly administered by a Board of Trustees and participating local boards.

The City's APSPRS membership data is a follows:

	June 30, 2020	
	Police	**Fire**
Retirees and Beneficiaries	2,473	1,127
Inactive, Non-Retired Members	394	229
Active Members	2,590	1,447
Total	5,457	2,803

APSPRS has the authority to establish and amend the contribution requirements of the City and active employees. APSPRS establishes rates based on an actuarially determined rate recommended by an independent actuary. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance an unfunded accrued liability.

For the year ended June 30, 2020, there were no employer contributions. Employees are not required to contribute to the APSPRS OPEB Plan.

APSPRS
Schedule of Employer Contributions
(in thousands)

	Fiscal Year Ended June 30,	Actuarially Determined Contribution	Contribution in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a percentage of Covered Payroll
Police	2020	$31	$31	$ —	$228,846	0.01%
Fire	2020	8	8	—	135,273	0.01

The following schedule shows the funding progress of the APSPRS OPEB plan for the last fiscal year. The City's net OPEB liability for APSPRS was measured as of June 30, 2019, and the total APSPRS OPEB liability used to calculate the net OPEB liability for APSPRS was determined by an actuarial valuation as of the same date.

Schedule of Changes in Net OPEB Liability and Related Ratios for Reporting Date Ended June 30,
(in thousands)

	APSPRS	
	Police 2020	**Fire 2020**
Total OPEB Liability		
Service cost	$ 699	$ 341
Interest on the total OPEB liability	3,483	1,783
Changes of benefit terms	—	—
Differences between expected and actual experience of the Total OPEB Liability	(1,332)	461
Changes of assumptions	425	255
Benefit payments, including refunds of employee contributions	(3,257)	(1,763)
Net change in total OPEB liability	18	1,077
Total OPEB liability–beginning	47,993	24,641
Total OPEB liability–ending	$ 48,011	$ 25,718
Plan Fiduciary Net Position		
Contributions–employer	$ 31	$ 8
Contributions–employee	31	8
Net Investment Income	3,548	2004
Benefit payments, including refunds of employee contributions	(3,257)	(1763)
OPEB Plan administrative expense	(61)	(34)
Other	—	—
Net change in Plan fiduciary net position	292	223
Plan fiduciary net position–beginning	66,826	37,726
Adjustment to Beginning of Year	5	1
Plan fiduciary net position–ending	$ 67,123	$ 37,949
Net OPEB liability/(asset)	$ (19,112)	$ (12,231)
Plan fiduciary net position as a percentage of total OPEB liability	139.81%	147.56%
Covered payroll	$228,846	$135,273
Net OPEB liability as a percentage of covered payroll	(8.35)%	(9.04)%

Actuarial Valuations

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan 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 (the plan as understood by the City and plan members) and include the types of benefits provided at the time of each valuation. 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.

Additional Information

Additional information regarding the City's Health Care Benefits for Retired Employees, including the actuarial methods and detailed assumptions used to calculate the ARC, is available in the City's Comprehensive Annual Financial Report under the heading "Other Postemployment Benefits (OPEB)". The Comprehensive Annual Financial Report is available at http://emma.msrb.org or www.phoenix.gov under Departments-Finance-Financial Information & Reports or by calling the City at (602) 262-7166.

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APPENDIX G

Summary of Certain Provisions of Legal Documents

The following information summarizes or paraphrases certain provisions of The City Purchase Agreement and the Indenture. Such information is not a full statement of the terms of such documents and, accordingly, is qualified by reference to the full text thereof.

Certain Definitions

The following are definitions in summary form of certain terms used in the City Purchase Agreement and the Indenture:

"*Bond Counsel*" shall mean a firm of attorneys of national reputation experienced in the field of municipal bonds whose opinions are generally accepted by purchasers of municipal bonds and acceptable to the Trustee, and to the extent the Corporation is to act or refrain from acting in reliance thereon, acceptable to the Corporation.

"Bond Fund" means the fund of that name created pursuant to the Indenture.

"Bond Payment Date" means each date on which interest or both principal and interest shall be payable on any of the Bonds.

"Bond Year" means a twelve month period beginning July 2 of each calendar year and ending on the next succeeding July 1.

"City" means the City of Phoenix, Arizona.

"City Purchase Agreement" or *"Agreement"* means, the City Purchase Agreement dated as of June 1, 2021 between the City and the Corporation, as it may be supplemented or amended from time to time.

"Commercial Paper" means Revenue Obligations with a maturity of not more than 270 days from the date of issuance and which are issued and reissued from time to time with the consent of the Trustee, as provided in the Indenture.

"Consultant" means (a) when used in the City Purchase Agreement, a firm of utility consultants experienced in the financing and operation of water systems and having a nationally recognized reputation for such work, and (b) when used in the Indenture a professional consulting or banking firm selected by the City, having the skill and experience necessary to render the particular report required.

"Corporation Representative" means the Chief Financial Officer of the City or his/her designee, or such other Person as the Corporation may designate to act on its behalf by written certificate furnished to the City and the Trustee containing the specimen signature of such Person and signed on behalf of the Corporation by its president or any vice president.

"Credit Facility" means a bank, financial institution, insurance company or indemnity company which is employed by or on behalf of the City to perform one or more of the following tasks: (a) the enhancement of the City's credit by assuring holders of any Revenue Obligations that principal of and interest on said Revenue Obligations will be paid promptly when due (including the issuance of an insurance policy, surety bond or other form of security for a bond reserve), or (b) providing liquidity for the holders of Revenue Obligations through undertaking to cause Revenue Obligations to be bought from the holders thereof when submitted pursuant to an arrangement prescribed by Junior Lien Obligation Documents or Senior Lien Obligation Documents.

"Defeasance Obligations" means money and, to the extent permitted by applicable law, any of the following:

(1) U.S. Treasury Certificates, Notes and Bonds (including State and Local Government Series — "SLGs").

(2) Direct obligations of the Treasury which have been stripped by the Treasury itself, CATS, TIGRS and similar securities.

(3) Resolution Funding Corp. (REFCORP). Only the interest component of REFCORP strips which have been stripped by request to the Federal Reserve Bank of New York in book entry form are acceptable.

(4) Obligations issued by the following agencies which are backed by the full faith and credit of the U.S.

(a) U.S. Export-Import Bank (Eximbank)
Direct obligations or fully guaranteed certificates of beneficial ownership;

(b) Farmers Home Administration (FmHA)
Certificates of beneficial ownership;

(c) Federal Financing Bank;

(d) General Services Administration
Participation certificates;

(e) U.S. Maritime Administration
Guaranteed Title XI financing;

(f) U.S. Department of Housing and Urban Development (HUD)
Project Notes
Local Authority Bonds
New Communities Debentures — U.S. government guaranteed debentures
U.S. Public Housing Notes and Bonds — U.S. government guaranteed public housing notes and bonds.

"Derivative Product" means a swap, forward or other interest rate agreement of the City entered into in accordance with Section 4.6 of the City Purchase Agreement.

"Designated Revenues" means Net Operating Revenues of the System after provision for payment of all Expenses of Operation and Maintenance and after making all payments required by the Senior Lien Obligation Documents for the benefit of the Senior Lien Obligations.

"Event of Default" means one of the events defined as such in the City Purchase Agreement or the Indenture, as the case may be.

"Expenses of Operation and Maintenance" means:

(i) all expenses reasonably incurred in connection with the operation and maintenance of the System, including salaries, wages, the cost of materials and supplies, rentals of leased property, if any, payments to others for the purchase of water, if any (but excluding payments to others for the construction of facilities to provide additional capacity for the System, including payments to be made under the "Plan Six" program),

(ii) further includes the cost of audits, paying agent's fees, registrar's fees and payment of premiums for insurance required under the 1986 Ordinance and other insurance which the City deems prudent to carry on the System and its operations and personnel, and generally, all expenses, exclusive of depreciation and interest on the water system Revenue bonds authorized under the 1986 Ordinance and on all other obligations issued to improve or extend the System or to refund obligations issued for such purposes or such refunding purposes, which under accounting principles generally accepted for municipal utility purposes are properly allocable to operation and maintenance; however, only such expenses as are reasonably and properly necessary or desirable to the proper operation and maintenance of the System shall be included;

(iii) also includes the City's obligations under any contract relating to the System, with any other political subdivision or agency of one or more political subdivisions, pursuant to which the City undertakes to make payments measured by the expenses of operating and maintaining any facility which relates to the System owned or operated in part by the City and in part by others or wholly by others.

"Fiscal Year" means the 12-month period used by the City for its general accounting purposes as the same may be changed from time to time, said fiscal year currently extending from July 1 to June 30.

"Indenture" means the Bond Indenture dated as of June 1, 2021 between the Corporation and the Trustee, as the same may be amended from time to time.

"Independent Certified Public Accountant" means a firm of certified public accountants which is not in the regular employ of the City on a salary basis.

"Interest Account" means the account of the Bond Fund by that name created under the Indenture.

"Investment Earnings" means all interest received on and profits derived from investments made with any money in the Bond Fund under Junior Lien Obligation Documents or Senior Lien Obligation Documents.

"Junior Lien Obligation Documents" means any ordinance, indenture, contract or agreement of the City constituting Junior Lien Parity Obligations.

"Junior Lien Obligations" or *"Junior Lien Parity Obligations"* means obligations issued or the payment of which is on a parity with the Bonds.

"Junior Lien Parity Test Debt Service" or *"Parity Test Debt Service"* means with respect to the Bonds and Revenue Obligations, an amount of money equal to the highest aggregate Principal Requirement and interest requirement of all outstanding Bonds and other Revenue Obligations to fall due and payable in the current or any future Bond Year, as adjusted pursuant to any Derivative Product with a Qualified Counterparty in accordance with the City Purchase Agreement.

For purposes of determining Junior Lien Parity Test Debt Service for any Bond Year, the interest requirement on the Revenue Obligations shall be determined based on interest on all outstanding Revenue Obligations to their stated maturity dates unless the City shall have given the Corporation irrevocable instructions to redeem some or all outstanding Revenue Obligations pursuant to the Indenture, in which case the interest requirement on the applicable Revenue Obligations shall be determined based on interest on all outstanding Revenue Obligations to their stated maturity or, with respect to Revenue Obligations for which such irrevocable redemption instructions have been given, the dates selected for redemption prior to maturity.

In case any Revenue Obligations outstanding or proposed to be issued shall bear interest at a variable rate, the interest requirement for such Revenue Obligations in each Bond Year during which such variable rate applies shall be computed at the lesser of:

(i) the maximum rate which such Revenue Obligations may bear under the terms of their issuance or;

(ii) the rate of interest established for long-term bonds by the 20-year bond index most recently published by THE BOND BUYER of New York, New York, prior to the date of computation (or in the absence of such published index, some other index selected in good faith by the Finance Director of the City after consultation with one or more reputable, experienced investment bankers as being equivalent thereto) (the *"Variable Rate Assumption").*

With respect to any Commercial Paper issued or proposed to be issued, the Principal Requirement shall be calculated as if the entire amount of Commercial Paper authorized to be issued were to be amortized over a term of 30 years commencing in the year in which such Commercial Paper is issued or proposed to be issued and with substantially level annual debt service payments and the interest requirement shall be computed using the Variable Rate Assumption.

"Junior Subordinate Lien Revenues" means Designated Revenues, after making all payments required by the Junior Lien Obligation Documents for the benefit of the Junior Lien Obligations.

"Net Operating Revenues" means Operating Revenues of the System, after provision for payment of all Expenses of Operation and Maintenance.

"Other Monies" means monies of the City other than Designated Revenues which are, at the time any payment is required under this City Purchase Agreement, legally available to make such payment.

"1986 Ordinance" means Ordinance No. S-16438, adopted by the Mayor and Council of the City on May 7, 1986, as supplemented and amended.

"Operating Revenues" means all income and revenue of any nature derived from the ownership, use or operation of the System including monthly water billings, service charges, connection fees (including development occupational fees), other charges for water service and the availability thereof, hydrant rentals and Investment Earnings, but excluding proceeds of special assessments, local, state or federal grants, capital improvement contract payments or other money received for capital improvements to the System.

"Permitted Investments" shall mean and include:

(1) Direct obligations of the United States of America (including obligations issued or held in book-entry form on the books of the Department of the Treasury, and CATS and TIGRS) or obligations the principal of and interest on which are unconditionally guaranteed by the United States of America;

(2) Bonds, debentures, notes or other evidence of indebtedness issued or guaranteed by any of the following federal agencies and provided such obligations are backed by the full faith and credit of the United States of America (stripped securities are only permitted if they have been stripped by the agency itself):

(a) U.S. Export-Import Bank (Eximbank)
Direct obligations or fully guaranteed certificates of beneficial ownership;

(b) Farmers Home Administration (FmHA)
Certificates of beneficial ownership;

(c) Federal Financing Bank;

(d) Federal Housing Administration Debentures (FHA);

(e) General Services Administration
Participation certificates;

(f) Government National Mortgage Association (GNMA or "Ginnie Mae")
GNMA — guaranteed mortgage-backed bonds
GNMA — guaranteed pass-through obligations (participating certificates) (not acceptable for certain cash-flow sensitive issues);

(g) U.S. Maritime Administration
Guaranteed Title XI financing; and

(h) U.S. Department of Housing and Urban Development (HUD)
Project Notes
Local Authority Bonds
New Communities Debentures — U.S. government guaranteed debentures
U.S. Public Housing Notes and Bonds — U.S. government guaranteed public housing notes and bonds;

(3) Bonds, debentures, notes or other evidence of indebtedness issued or guaranteed by any of the following non-full faith and credit U.S. government agencies (stripped securities are only permitted if they have been stripped by the agency itself):

(a) Federal Home Loan Bank System
Senior debt obligations;

(b) Federal Home Loan Mortgage Corporation (FHLMC or "Freddie Mac")
Participation Certificates (Mortgaged-backed securities)
Senior debt obligations;

(c) Federal National Mortgage Association (FNMA or "Fannie Mae")
Mortgage-backed securities
Senior debt obligations;

(d) Student Loan Marketing Association (SLMA or "Sallie Mae")
Senior debt obligations;

(e) Resolution Funding Corp. (REFCORP) obligations;

(f) Farm Credit System
Consolidated system-wide bonds and notes;

(4) Money market funds registered under the Federal Investment Company Act of 1940, whose shares are registered under the Federal Securities Act of 1933, and having a rating by S&P of "AAAm-G"; "AAA-m"; or "AA-m" or have a rating by Moody's of "Aaa", "Aal" or "Aa2";

(5) Certificates of deposit secured at all times by collateral described in (1) and/or (2) above. Such certificates must be issued by commercial banks, savings and loan associations or mutual savings banks. The collateral must be held by a third party and the bondholders must have a perfected first security interest in the collateral;

(6) Certificates of deposit, savings accounts, deposit accounts or money market deposits which are fully insured by FDIC, including BIF and SAIF;

(7) Investment Agreements, including guaranteed investment contracts, Forward Purchase Agreements and Reserve Fund Put Agreements;

(8) Commercial paper rated, at the time of purchase, "Prime-1" by Moody's and "A-1" or better by S&P;

(9) Bonds or notes issued by any state or municipality which are rated by Moody's and S&P in one of the two highest rating categories assigned by such agencies;

(10) Federal funds or bankers acceptances with a maximum term of one year of any bank which has an unsecured, uninsured and unguaranteed obligation rating of "Prime-1" or "A3" or better by Moody's and "A-1" or "A" or better by S&P;

(11) Repurchase agreements that provide for the transfer of securities from a dealer bank or securities firm (seller/borrower) to a municipal entity (buyer/lender), and the transfer of cash from a municipal entity to the dealer bank or securities firm with an agreement that the dealer bank or securities firm will repay the cash plus a yield to the municipal entity in exchange for the securities at a specified date and which satisfy the following criteria:

(a) Repos must be between the municipal entity and a dealer bank or securities firm;

(i) Primary dealers on the Federal Reserve reporting dealer list which are rated "A" or better by S&P and Moody's, or

(ii) Banks rated "A" or above by S&P and Moody's;

(b) The written repo contract must include the following:

(i) Securities which are acceptable for transfer are:

(A) Direct U.S. governments, or

(B) Federal agencies backed by the full faith and credit of the U.S. government (and FNMA & FHLMC);

(ii) The term of the repo may be up to 180 days;

(iii) The collateral must be delivered to the municipal entity, trustee (if trustee is not supplying the collateral) or third party acting as agent for the trustee (if the trustee is supplying the collateral) before/ simultaneous with payment (perfection by possession of certificated securities);

(iv) The trustee has a perfected first priority security interest in the collateral;

(v) Collateral is free and clear of third-party liens and in the case of SIPC broker was not acquired pursuant to a repurchase agreement or reverse repurchase agreement;

(vi) Failure to maintain the requisite collateral percentage, after a two-day restoration period, will require the trustee to liquidate collateral; and

(vii) Valuation of Collateral;

(A) The securities must be valued at least weekly, marked-to-market at current market price plus accrued interest; and

(B) The value of collateral must be equal to 102% of the amount of cash transferred by the municipal entity to the dealer bank or security firm under the repurchase agreement plus accrued interest; if the value of securities held as collateral slips below 102% of the value of the cash transferred by the municipality, then additional cash and/or acceptable securities must be transferred; and

(12) Pre-refunded municipal bonds rated "Aaa" by Moody's and "AAA" by S&P; if however, the issue is only rated by S&P (i.e., there is no Moody's rating), then the pre-refunded bonds must have been pre-refunded with cash, direct U.S. or U.S. guaranteed obligations, or "AAA" rated pre-refunded municipals to satisfy this condition; provided that any investment or deposit described above is permitted by applicable law.

"Principal Requirement" means (a) with respect to the Bonds, as of any date of calculation, the principal amount of the Bonds maturing or subject to mandatory sinking fund redemption, pursuant to the Indenture during the then current Bond Year, and (b) with respect to any other Revenue Obligations, as of any date of calculation, the amount required to be paid by the City during the then current Bond Year with respect to principal of Revenue Obligations. In computing the Principal Requirement for Revenue Obligations, an amount of Revenue Obligations required to be redeemed pursuant to mandatory redemption in each year shall be deemed to fall due in that year and (except in case of default in observing a mandatory redemption requirement) shall be deducted from the amount of Revenue Obligations maturing on the scheduled maturity date. In the case of Revenue Obligations supported by a Credit Facility, the Principal Requirements for such Revenue Obligations shall be determined in accordance with the principal retirement schedule specified in the Parity Obligation Documents or Senior Lien Obligation Documents authorizing the issuance of such Revenue Obligations, rather than any amortization schedule set forth in such Credit Facility unless payments under such Revenue Obligations shall be in default at the time of the determination, in which case the Principal Requirements for such Revenue Obligations shall be determined in accordance with the amortization schedule set forth in such Credit Facility.

"Property" means, collectively, the 2021A Financed Property and the Refinanced Property, as described on Exhibit A to the City Purchase Agreement.

"Purchase Price" means the sum of the payments required by the City Purchase Agreement to be paid by the City to the Corporation.

"Qualified Counterparty" means a counterparty to a Derivative Product which at the time such agreement is executed, (i) is a bank, insurance company, indemnity company, financial institution or any similar or related company with a credit rating in one of the two highest Rating Categories of the Rating Agency, (ii) the obligations of such counterparty are guaranteed by an entity described in clause (i), or (iii) the obligations of which are fully secured by obligations described in items (a) or (b) of the definition of Permitted Investment which are (A) valued not less frequently than monthly and have a fair market value, exclusive of accrued interest, at all times at least equal to 105% of the principal amount of the investment, together with the interest accrued and unpaid thereon, (B) held by a custodian, or the Trustee, if acceptable to the Trustee (who shall not be the provider of the collateral) or by any Federal Reserve Bank or a depository acceptable to the City, (C) subject to a perfected first lien on behalf of the Trustee, and (D) free and clear from all third-party liens.

"Refinanced Property" means the property actually financed or refinanced with proceeds of the Bonds Being Refunded as described on Exhibit A to the City Purchase Agreement.

"Revenue Obligations" means, collectively, Junior Lien Parity Obligations and the Senior Lien Obligations.

"Senior Lien Obligation Documents" means any ordinance, indenture, contract or agreement of the City constituting or authorizing Senior Lien Obligations.

"Senior Lien Obligations" means any obligations of the City which are issued under Senior Lien Obligation Documents which are payable from Net Operating Revenues.

"System" or *"Water System"* means the complete waterworks plants and distribution system of the City, including such system as it now exists and as it may be improved and extended, comprising all treatment, transmission and distribution facilities and all real and personal property of every nature owned or operated by the City and used or to be used or useful in the operation thereof, including, but not limited to, the Property, whether within or without the boundaries of the City and including all licenses, franchises, easements, leases, rights of way, choses in action and other tangible and intangible property and rights therein. The City may own a partial interest in any water facility, the remaining interest in which may be owned by Maricopa County or any other political subdivision of the State of Arizona for any agency of any of them. In case of such ownership, the rights and interests possessed by the City in such facility shall be part of the System.

"2021A Financed Property" means the System improvements financed with proceeds of the 2021A Bonds.

"Tax Exemption Certificate" means the Tax Exemption Certificate of the Corporation and the City executed in connection with the issuance and delivery of the Bonds.

"Trustee" means U.S. Bank National Association in its capacity as trustee under the Indenture or any successor thereto.

THE CITY PURCHASE AGREEMENT

Section 2.1. Agreement to Issue Bonds; Application of Bond Proceeds. In order to provide a deposit into the Project Fund to finance the acquisition of the 2021A Financed Property and to pay for costs of issuance of the 2021A Bonds, the Corporation will cause to be issued under the Indenture $ aggregate principal amount of 2021A Bonds, maturing and bearing interest as provided in the Indenture, as executed and delivered on the date of issuance of the 2021A Bonds. The Corporation will also cause to be issued under the Indenture $ principal amount of 2021B Bonds to refund the 2011 Bonds Being Refunded and $ principal amount of Taxable Bonds to refund the 2014A Bonds Being Refunded and respective costs of issuance.

The City will pay the reasonable expenses of the Corporation and the Trustee, if any, including, but not limited to, out-of-pocket expenses and charges, fees and disbursements of counsel, including Bond Counsel, if any, all printing expenses, and all other expenses reasonably incurred by the Corporation and the Trustee, if any, by reason of the execution of the City Purchase Agreement.

Section 2.3. *Project Fund*. The City, or the Corporation on behalf of the City, shall establish and maintain a separate fund known as the "Series 2021A Junior Lien Water System Project Fund" (the "Project Fund"). A portion of the net proceeds of the Bonds shall be deposited in the Project Fund pursuant to Section 5.2(b) of the Indenture. In addition, the City may, but shall not be required to deposit additional funds in the respective accounts of the Project Fund. Moneys in the respective accounts of the Project Fund shall be disbursed by the City, for the following purposes and for no other purposes:

(i) costs and expenses relating to the issuance, sale and delivery of the 2021A Bonds;

(ii) payment for labor, services and materials used or furnished in the improvement and construction of the 2021A Financed Property, and all real and personal property deemed necessary in connection with the 2021A Financed Property and for the miscellaneous expenses incidental to any of the foregoing including the premium on each performance and payment bond;

(iii) reimbursement of capital expenditures relating to the 2021A Financed Property, advanced prior to the issuance of the 2021A Bonds; and

(iv) payment of the portion of the Purchase Price representing interest on the 2021A Bonds during the construction and acquisition of the 2021A Financed Property.

The City covenants and agrees that, to the extent no other funds are available, it will apply amounts on deposit in the applicable account of the Project Fund to payment of the interest portion of the Purchase Payments related to the 2021A Bonds and the principal portion of the Purchase Payments relating to the 2021A Bonds as they come due.

Before any of the foregoing payments may be made, the City shall maintain a record with respect to each such payment to the effect that: (i) none of the items for which the payment is proposed to be made has formed the basis for any payment previously made from the Project Fund, (ii) each item for which payment is proposed to be made is or was necessary in connection with the 2021A Financed Property and (iii) each item for which payment is proposed is for a purpose permitted by this Section 2.3. Notwithstanding the foregoing, withdrawals from the Project Fund for transfers to the Rebate Fund may be made by the City provided that all withdrawals and payments shall be in compliance with applicable law.

In the case of any contract providing for the retention of a portion of the contract price, there shall be paid from the Project Fund only the net amount remaining after deduction of any such portion.

Any moneys held in the Project Fund upon completion of the improvements to be financed which are not needed to pay costs of the 2021A Financed Property shall be transferred by the City for deposit to the Interest Account under the Indenture and applied to payment of interest of the 2021A Bonds.

Amounts on deposit in the Project Fund shall be invested by the City or the Corporation, at the direction of the City in Permitted Investments. In the absence of such direction, such amounts shall be invested in an investment described in Paragraph (n) of such definition (a money market fund rated in one of the two highest rating categories) and may be a fund maintained by the Trustee or an affiliate. Interest income and gain received, or loss realized, from investments or moneys in the Project Fund shall be credited or charged, as the case may be, to the Project Fund. The City and the Corporation shall not knowingly make any investment at a "yield" in excess of the maximum yield, if any, stated with respect to the source of moneys therefor in the Tax Exemption Certificate or any other similar certificate executed and delivered pursuant to Section 148 of the 1986 Code or any successor section of the 1986 Code, issued by the Corporation in connection with the issuance of the Tax-Exempt Bonds except during any "temporary period" stated in the Tax Exception Certificate or any other certificate, and the City shall make and keep appropriate records of such investments, yields and temporary periods as required by Section 148 of the 1986 Code or any successor section thereof. Notwithstanding the foregoing, investments may be made at a higher "yield" or for a different "temporary period" or both in accordance with written instructions of Bond Counsel filed with and addressed to the City.

Neither the City nor the Corporation shall knowingly use or direct or permit the use of any moneys in its possession or control in any manner which would cause any Tax-Exempt Bond to be an "arbitrage bond" within the meaning ascribed to such term in Section 148 of the 1986 Code, or any successor section of the 1986 Code. Additionally, each will not take any other action or permit any other action to be taken which would adversely affect the exclusion of interest on the Tax-Exempt Bonds from gross income for federal income tax purposes; and each shall take, or cause to be taken, all actions that may be required of them for the interest on the Tax-Exempt Bonds to be and remain excluded from gross income for federal income tax purposes and the appropriate officers of each are hereby authorized and directed to take any and all actions and give such certifications as may be appropriate to assure such exclusion of that interest.

All moneys and investments held by the City under this City Purchase Agreement shall comply with the requirements of the Tax Exemption Certificate and shall remain subject to those provisions notwithstanding any satisfaction or discharge of the Indenture or this City Purchase Agreement.

* * *

Section 3.1. Agreement of Sale. The Corporation hereby sells and conveys to the City, and the City hereby purchases from the Corporation, the Property. In consideration for the sale of the Property and the refunding of the Bonds Being Refunded, the City hereby agrees that it will pay to the account of the Corporation at the designated office of the Trustee, as the Purchase Price of the Property, but only from the Designated Revenues as hereinafter prescribed, an amount equal to the aggregate of the sums prescribed by Section 3.3 hereof and elsewhere in this City Purchase Agreement, to be paid at or before the respective dates called for in said Section 3.3 or elsewhere in this City Purchase Agreement.

* * *

Section 3.3. Amounts of Purchase Price Payable Upon Issuance of Bonds. The City agrees that it will pay as the Purchase Price of the Property, the aggregate of the amounts for which provision is made in the City Purchase Agreement. The payments under the City Purchase Agreement shall be payable solely from Designated Revenues. The payments under the City Purchase Agreement include the following amounts:

(a) A sum equal to the interest on the Bonds falling due on the next succeeding interest payment date.

(b) A sum equal to the principal payments due for the then current Bond Year.

(c) A sum equal to the Trustee's fees and expenses under the Indenture.

* * *

Section 3.5. Limitation on Source of City Payments. Except to the extent the City determines to make payments from Monies other than Designated Revenues which are legally available, all amounts to be paid by the City under any section of the City Purchase Agreement shall be payable solely from the Designated Revenues as provided in Article IV thereof. Under no circumstances shall amounts paid under the City Purchase Agreement from Other Monies constitute a pledge of such Other Monies and amounts payable by the City hereunder shall never constitute a general obligation of the City or a pledge of ad valorem taxes by the City.

Section 3.6. Obligations of City Unconditional. The obligations of the City to make the payments required in Section 3.3 and to perform and observe the other agreements on its part contained in the City Purchase Agreement shall be absolute and unconditional, regardless of the continued existence of the Property in physical condition satisfactory to the City.

* * *

Section 4.2. Rate Covenant. The City shall continuously own, control, operate and maintain the System in an efficient and economical manner and on a revenue producing basis and shall at all times establish, fix, maintain and collect rates, fees and other charges for all water and services furnished by the System fully sufficient at all times:

(a) To provide for 100% of the Expenses of Operation and Maintenance;

(b) To produce Net Operating Revenues in each Bond Year which will equal at least 110% of the interest and Principal Requirement for the then current Bond Year on all Revenue Obligations then outstanding; and

(c) To produce Designated Revenues in each Bond Year which will remedy all deficiencies in payments into any of the funds and accounts required from prior Bond Years for the payment of principal of and interest on the Bonds and other Junior Lien Parity Obligations and meet all requirements for principal of and interest on any subordinated obligations payable from such Designated Revenues.

(d) To produce Junior Subordinate Lien Revenues sufficient to meet all requirements on any subordinated obligations payable from the Junior Subordinate Lien Revenues.

For purposes of this Section, the Principal Requirement and interest requirement for a series of Revenue Obligations to which a Derivative Product with a Qualified Counterparty applies may be determined after giving effect to the netting provisions of the City Purchase Agreement, exclusive of any payment which may be owed by the City upon termination prior to maturity of such Derivative Product.

The City shall cause an amount of Operating Revenues to be included in the annual budget and appropriation for every Fiscal Year commencing with the Fiscal Year immediately following the issuance of the Bonds sufficient to meet all requirements of the City Purchase Agreement.

Section 4.3. Prior Lien Obligations; Additional Junior Lien Parity Obligations. The City shall not incur any obligations payable from the Designated Revenues ranking prior to the obligations of the City under the City Purchase Agreement except for (a) additional Revenue Obligations issued for the purpose of refunding other Revenue Obligations upon meeting the conditions specified in the Senior Lien Obligation Documents and (b) additional Senior Lien Obligations issued for other than refunding purposes upon meeting the conditions specified in the Senior Lien Obligation Documents and upon meeting the conditions specified in Section 4.5 of the City Purchase Agreement.

The City shall not incur Junior Lien Parity Obligations payable from the Designated Revenues except for (i) additional Junior Lien Parity Obligations issued for the purpose of refunding the Bonds or Junior Lien Parity Obligations if the conditions specified in Section 4.4 of the City Purchase Agreement are met, or (ii) additional Junior Lien Parity Obligations issued for purposes other than refunding the Bonds or other Junior Lien Parity Obligations if the conditions specified in Section 4.5 of the City Purchase Agreement are met.

Section 4.4. Junior Lien Parity Obligations for Refunding Purposes. Any or all of the Bonds or other Revenue Obligations may be refunded at maturity, upon redemption in accordance with their terms or with the consent of the holders thereof, and the refunding Junior Lien Parity Obligations so entered into or issued shall constitute Junior Lien Parity Obligations; provided, however, that:

(a) The City Clerk shall have received the certificate of an Independent Certified Public Accountant (i) setting forth the aggregate amount of interest and Principal Requirement becoming due and payable from the date of such determination to maturity or earlier redemption (A) with respect to the Bonds or other Revenue Obligations of all series outstanding immediately prior to the date of authentication and delivery of such refunding bonds or Junior Lien Parity Obligations, and (B) with respect to the Bonds or other Revenue Obligations of all series to be outstanding immediately thereafter, and (ii) demonstrating that the amount set forth pursuant to (B) above is not greater than 105% of the amount set forth pursuant to (A) above; or

(b) All outstanding Bonds and other Revenue Obligations are being refunded under arrangements which immediately result in making provision for the payment of the refunded Bonds and other Revenue Obligations.

Section 4.5. Additional Senior Lien Obligations and Junior Lien Parity Obligations Generally. Additional Revenue Obligations may also be issued for other than refunding purposes as described above in Sections 4.3 and 4.4 if, prior to the issuance thereof, there shall have been procured and filed with the City Clerk and the Trustee a statement by an Independent Certified Public Accountant or a report of a Consultant to the effect that the Net Operating Revenues of the System for the most recently completed Fiscal Year for which audited financial statements are available were equal to at least 110% of Junior Lien Parity Test Debt Service for all outstanding Bonds and other Revenue Obligations, including the obligations proposed to be issued.

Any statement of an Independent Certified Public Accountant or Consultant's report required pursuant to this Section 4.5 may contain the following adjustments to Net Operating Revenues for such most recently completed Fiscal Year:

(a) An adjustment equal to 100% of the increased annual amount attributable to any revision in the schedule of rates and charges imposed not less than 3 months prior to the date of delivery of such additional Revenue Obligations and not fully reflected in the audited Net Operating Revenues actually received during said Fiscal Year. Such adjustment shall be based upon certification by the Consultant as to the amount of Net Operating Revenues which would have been received during said Fiscal Year had the new rates been in effect throughout said Fiscal Year.

(b) An adjustment equal to 100% of additional new Net Operating Revenues estimated to be received in the first Fiscal Year after delivery of said additional Revenue Obligations or the assumption of such additional obligations from connections to the System estimated in writing by the Consultant to be made during and after such 12-month period to the extent that such new Net Operating Revenues are not taken into account under subsection (a) above.

(c) If (1) the additional Revenue Obligations are issued for the purpose of paying the cost of acquiring other existing water utilities or (2) additional obligations payable from the Net Operating Revenues are being assumed by the City in connection with the acquisition of other existing water utilities, said statement or report may also contain an adjustment of said Net Operating Revenues to reflect 80% of the additional estimated Net Operating Revenues which in the written opinion of the Consultant will be derived from the acquired utility during the first complete Fiscal Year after the issuance of such additional Revenue Obligations or the assumption of such obligations payable from Net Operating Revenues. The Consultant's report shall be based on the actual operating revenues of the acquired utility for a recent 12-month period adjusted to reflect the City's ownership and the City's rate structure in effect with respect to the System at the time of the issuance of the additional Revenue Obligations or the assumption of such obligations payable from Net Operating Revenues.

(d) If the additional Revenue Obligations are issued for the purpose of paying the cost of construction of additions, extensions or improvements to the System, and if money to pay interest on said additional Revenue Obligations has been provided from proceeds of Revenue Obligations or funds on hand in an amount sufficient to pay interest falling due on such Revenue Obligations for the period from the date of issuance thereof until the anticipated completion of the construction of such extensions and improvements, said statement may also contain an adjustment of said Net Operating Revenues to reflect 80% of the additional estimated annual Net Operating Revenues which in the written opinion of the Consultant will be derived during the first complete Fiscal Year after the completion of such construction from connections to the proposed additions, extensions or improvements.

For purposes of determining Junior Lien Parity Test Debt Service for this Section, the Principal Requirement and interest requirement for a series of Revenue Obligations to which a Derivative Product with a Qualified Counterparty applies may be determined after giving effect to the netting provisions of the City Purchase Agreement, exclusive of any payment which may be owed by the City upon termination prior to maturity of such Derivative Product.

Section 4.6. Derivative Products. The City reserves the right to enter into arrangements involving Derivative Products including swap agreements, forward agreements, interest rate agreements, and other similar agreements, to the extent permitted by law, and make payments on such agreements from Net Operating Revenues or Designated Revenues, provided that payments under such agreements may not be made on a basis which is senior to the payment of any Senior Lien Obligations and do not permit extraordinary payments such as termination payments to be made on a basis other than subordinate to payment of the Principal Requirement and the interest requirement on Revenue Obligations.

To the extent the City enters into such agreements and pledges Net Operating Revenues or Designated Revenues to the payments due under such agreements, City may only do so if the City satisfies the tests for additional Revenue Obligations set forth in the Senior Lien Obligation Documents and the Junior Lien Obligation Documents, as applicable, subject to the provisions set forth below.

In determining whether the additional Revenue Obligations tests are satisfied in connection with any such agreements, the City is permitted to treat the amount or rate of interest on those agreements, or on the Revenue Obligations to which the applicable agreement applies, as the amount or rate of interest payable after giving effect to the agreements. So long as the agreement is with a Qualified Counterparty, (i) the City is permitted to include the net payment due under such agreements in calculating the additional Revenue Obligations test and (ii) the City is permitted to disregard the notional principal amount of any such agreement. The City agrees to give written notice to the Rating Agency not less than thirty (30) days prior to entering into a Derivative Product payable from Net Operating Revenues or Designated Revenues.

* * *

Section 5.1. Covenants Regarding the System. The City agrees that, so long as any of the Bonds remain outstanding under the Indenture, it will observe all covenants regarding the System contained in Article VI of the 1986 Ordinance as in effect on the date of execution of the City Purchase Agreement, notwithstanding any termination, amendment, supplement or modification of the 1986 Ordinance. Under Article VI of the 1986 Ordinance, the City covenants to maintain the System in good condition, to maintain insurance on the System, to sell, lease, encumber or dispose of property comprising a part of the System only after satisfying certain requirements, to keep proper books, records and accounts of the System, to adopt a budget for the System for each Fiscal Year, and not to grant a franchise or permit the operation of any competing water system in the City.

Section 5.2. Maintenance and Utilities. All maintenance and repair of the Property and utilities therefor shall be the responsibility of the City. In exchange for the payment of the Purchase Price hereunder, the Corporation agrees to provide nothing more than Property.

* * *

Section 7.1. Events of Default. Any one or more of the following events shall constitute a default under the City Purchase Agreement:

(a) The City shall fail to make any payment of the Purchase Price sufficient to pay amounts due on the Bonds when due; or

(b) The City shall fail to make any other payment of the Purchase Price for a period of 30 days after notice of such failure shall have been given in writing to the City by the Corporation or by the Trustee; or

(c) The City shall fail to perform any other covenant in the City Purchase Agreement for a period of 30 days after written notice specifying such default, provided that if such failure cannot be remedied within such 30 day period, it shall not be deemed an Event of Default so long as the City diligently tries to remedy the same; or

(d) The filing by the City of a voluntary petition in bankruptcy, or failure by the City promptly to lift any execution, garnishment or attachment, or assignment by the City for the benefit of creditors, or the entry by the City into an agreement of composition with creditors, or the approval by a court of competent jurisdiction of a petition applicable to the City in any proceedings instituted under the provisions of the Federal Bankruptcy statutes, as amended, or under any similar acts which may hereafter be enacted.

Section 7.2. Remedies on Default by City. Upon the occurrence of an Event of Default as above defined, the Corporation shall, but only if requested to do so by the Trustee, without further demand or notice, exercise any of the available remedies at law or in equity, including, but not limited to, specific performance. The obligations of the City under the City Purchase Agreement may not be accelerated. The Corporation may assign any or all of its rights and privileges under this section to the Trustee, and upon furnishing evidence of such assignment to the City, the Trustee may exercise any or all of such rights or privileges as it may deem advisable.

* * *

Section 9.3. Amendments. The City Purchase Agreement may only be amended with the express written consent of the Trustee and in accordance with the provisions of the Indenture.

INDENTURE

The information set forth below summarizes or paraphrases certain substantially similar provisions of the Indenture.

Section 1.3. Bonds Not General Obligations of the Corporation. The Bonds authorized and the payments to be made by the Corporation thereon and into the various funds established under the Indenture are not general obligations of the Corporation but are limited obligations payable solely from payments under the City Purchase Agreement.

* * *

Section 5.3. Flow of Funds. So long as any Bonds are Outstanding, in each Bond Year, payments received by the Trustee shall be applied in the following manner and order of priority:

(a) *Interest Account*. The Trustee shall deposit to the Interest Account, on or before the last Business Day of each December and June an amount equal to the amount of interest to be paid on Outstanding Bonds on the next Bond Payment Date. Monies in the Interest Account shall be used to pay interest on the Bonds as it becomes due.

(b) *Principal Account*. The Trustee shall deposit to the Principal Account on or before the last Business Day of each June (in each Bond Year ending on a date on which Bonds mature), an amount equal to the principal amount at maturity or scheduled mandatory sinking fund redemption plus an amount equal to any principal amounts coming due which have been called for optional redemption. Monies in the Principal Account shall be used to retire Bonds by payment at their scheduled maturity or redemption date as directed by the City.

* * *

Section 7.1. Events of Default. Each of the following is hereby declared an "Event of Default" under the Indenture:

(a) If payment of any installment of interest on any Bond shall not be made in full when the same becomes due and payable;

(b) If payment of the principal or redemption premium, if any, on any Bond shall not be made in full when the same becomes due and payable;

(c) If, under the provisions of any law for the relief or aid of debtors, any court of competent jurisdiction shall assume custody or control of all or any part of the interests pledged hereunder and such custody or control shall continue for more than 60 days;

(d) If the Corporation shall default in the due and punctual performance of any other of the covenants, conditions, agreements and provisions on its part to be performed as provided herein or in the Bonds and such default shall continue for 30 days after written notice specifying such default and requiring the same to be remedied shall have been given to the Corporation and the City by the Trustee, unless within such 30 days the Corporation shall have commenced and be diligently pursuing in good faith appropriate corrective action to the satisfaction of the Trustee; the Trustee may give such notice in its discretion and shall give such notice at the written request of the Holders of not less than 25% in principal amount of the Bonds then Outstanding;

(e) Any "Event of Default" under the City Purchase Agreement; or

(f) The City fails to comply with any applicable provision of the Tax Exemption Certificate with the result that interest on any of the Bonds becomes includible in gross income for purposes of federal income taxes.

Section 7.2. Remedies and Enforcement of Remedies.

(a) Upon the occurrence and continuance of any Event of Default and in accordance with Article VII of the Indenture and Article VII of the City Purchase Agreement, the Trustee may, and upon the written request of the Holders of not less than a majority in principal amount of the Bonds Outstanding, together with indemnification of the Trustee to its satisfaction therefor, shall, proceed forthwith to protect and enforce its rights and the rights of the Bondholders hereunder and the Bonds by such suits, actions or proceedings as the Trustee, being advised by counsel, shall deem expedient, including but not limited to, an action for the recovery of any amounts due hereunder or for damages for the breach of the Indenture, and the Trustee may pursue any other remedy which the law affords, including the remedy of specific performance. The Trustee shall also have those remedies which the Corporation is provided pursuant to Article VII of the City Purchase Agreement, subject to any limitations on such remedies set forth therein.

(b) Regardless of the happening of an Event of Default and subject to Section 7.7 of the Indenture, the Trustee, if requested in writing by the Holders of not less than a majority in principal amount of the Bonds then Outstanding shall, upon being indemnified to its satisfaction therefor, institute and maintain such suits and proceedings as it may be advised shall be necessary or expedient (i) to prevent any impairment of the security hereunder by any acts which may be unlawful or in violation hereof, or (ii) to preserve or protect the interests of the Holders, provided that such request is in accordance with law and the provisions hereof and, in the sole judgment of the Trustee, is not unduly prejudicial to the interest of the Holders of Bonds not making such request.

Section 7.3. No Acceleration. In no event shall the Trustee have the right to accelerate or cause to become immediately due and payable or payable in advance of their scheduled maturity dates, other than an optional redemption pursuant to the Indenture and then only to the extent of the amount to be so redeemed and only pursuant to Article III of the Indenture, amounts due under the Indenture.

Section 7.4. Application of Revenues and Other Monies After Default. During the continuance of an Event of Default all Monies received by the Trustee pursuant to any right given or action taken under the provisions of this Article, shall, after payment of the costs and expenses of the proceedings resulting in the collection of such Monies and of the fees, expenses and advances incurred or made by the Trustee with respect thereto, and the creation of a reasonable reserve for anticipated costs, fees and expenses be deposited in the Bond Fund, and all amounts held by the Trustee hereunder shall be applied as follows:

First: To the payment of amounts, if any, payable pursuant to the Tax Exemption Certificate;

Second: To the payment to the Persons entitled thereto of all installments of interest (including interest on amounts unpaid when due on the Bonds) then due, and, if the amount available shall not be sufficient to pay in full any installment or installments then due, then to the payment thereof ratably in a manner consistent with the second sentence of Section 5.3(a) of the Indenture, according to the amounts due thereon to the Persons entitled thereto, without any discrimination or preference; and

Third: To the payment to the Persons entitled thereto of the unpaid Principal Installments or redemption price of any Bonds which shall have become due, whether at maturity or by call for redemption, in the order of their due dates, and of the amounts available shall not be sufficient to pay in full all the Bonds due on any date, then to the payment thereof ratably in a manner consistent with the second sentence of Section 5.3(b) of the Indenture, according to the amounts of Principal Installments or redemption price due on such date, to the Persons entitled thereto, without any discrimination or preference.

Whenever Monies are to be applied by the Trustee pursuant to the provisions of this Section, such Monies shall be applied by it at such times, and from time to time, as the Trustee shall determine, having due regard for the amount of such Monies available for application and the likelihood of additional Monies becoming available for such application in the future. Whenever the Trustee shall apply such Monies, it shall fix the date upon which such application is to be made and upon such date interest on the amounts of principal of the Bonds to be paid on such dates shall cease to accrue. The Trustee shall give such notice as it may deem appropriate of the deposit with it of any such monies and 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 presented to the Trustee for appropriate endorsement of any partial payment or for cancellation if fully paid.

Whenever all principal of and interest on the Bonds which has become due has been paid under the provisions of this Section and all expenses and charges of the Trustee have been paid and the Bond Fund contains the amounts then required to be credited thereto, any balance remaining shall be paid to the City.

* * *

Section 7.7. Individual Bondholder Action Restricted.

(a) No Holder of any Bond shall have any right to institute any suit, action or proceeding in equity or at law for the enforcement hereof or for the execution of any trust hereunder or for any remedy hereunder except for the right to institute any suit, action or proceeding in equity or at law for the enforcement of the Trustee's duties and powers hereunder upon the occurrence of all of the following events:

(i) The Holders of at least a majority in principal amount Bonds Outstanding, shall have made written request to the Trustee to proceed to exercise the powers granted herein; and

(ii) Such Bondholders shall have offered the Trustee indemnity as provided in Section 8.2(e) of the Indenture; and

(iii) The Trustee shall have failed or refused to exercise the duties or powers herein granted for a period of 60 days after receipt by it of such request and offer of indemnity; and

(iv) During such 60 day period no direction inconsistent with such written request has been delivered to the Trustee by the Holders of a greater majority in principal amount of Bonds then Outstanding.

(b) No one or more Holders of Bonds shall have any right in any manner whatsoever to affect, disturb or prejudice the security hereof or to enforce any right hereunder except in the manner herein provided and for the equal benefit of the Holders of all Bonds Outstanding.

(c) Nothing contained in the Indenture shall affect or impair, or be construed to affect or impair, the right of the Holder of any Bond (i) to receive payment of the principal of or interest on such Bond, as the case may be, on or after the due date thereof or (ii) to institute suit for the enforcement of any such payment on or after such due date; provided, however, no Holder of any Bond may institute or prosecute any such suit or enter judgment therein if, and to the extent that, the institution or prosecution of such suit or the entry of judgment therein would, under applicable law, result in the surrender, impairment, waiver or loss of the lien hereof on the Monies, funds and properties pledged hereunder for the equal and ratable benefit of all Holders of Bonds.

* * *

Section 7.9. Waiver of Event of Default.

(a) No delay or omission of the Trustee or of any Holder of the Bonds to exercise any right or power accruing upon any Event of Default shall impair any such right or power or shall be construed to be a waiver of any such Event of Default or an acquiescence therein. Every power and remedy given by this Article may be exercised from time to time and as often as may be deemed expedient.

(b) The Trustee may waive any Event of Default which in its opinion shall have been remedied before the entry of final judgment or decree in any suit, action or proceeding instituted by it under, the provisions of the Indenture, or before the completion of the enforcement of any other remedy under the Indenture.

(c) In case of any waiver by the Trustee of an Event of Default under the Indenture, the Corporation, the Trustee and the Bondholders shall be restored to their former positions and rights under the Indenture, respectively, but no such waiver shall extend to any subsequent or other Event of Default or impair any right consequent thereon. The Trustee shall not be responsible to anyone for waiving or refraining from waiving any Event of Default in accordance with this Section.

* * *

Section 9.1. Supplements not Requiring Consent of Bondholders. The Corporation acting through the Corporation Representative and the Trustee may, without the consent of or notice to any of the Holders, enter into one or more supplements to the Indenture for one or more of the following purposes:

(a) To cure any ambiguity or formal defect or omission herein or to correct or supplement any provision herein which may be inconsistent with any other provision herein, or, to make any other provisions with respect to matters or questions arising hereunder provided such action shall, not materially adversely affect the interests of the Holders;

(b) To grant or confer upon the Holders any additional rights, remedies, powers or authority that may lawfully be granted or conferred upon them;

(c) To secure additional revenues or provide additional security or reserves for payment of the Bonds;

(d) To comply with the requirements of any state or federal securities laws or the Trust Indenture Act of 1939, as from time to time amended, if required by law or regulation lawfully issued thereunder;

(e) To provide for the appointment of a successor trustee or co-trustee pursuant to the terms of Section 8.6 and Section 8.11 of the Indenture;

(f) To permit Bonds in bearer form if, in the opinion of Bond Counsel received by the Corporation and the Trustee, applicable such action will not cause the interest on any Tax-Exempt Bonds to become includible in gross income for purposes of federal income taxes;

(g) To preserve the exclusion of the interest on the Bonds from gross income for purposes of federal or State income taxes and to preserve the power of the Corporation to continue to issue bonds or other obligations (specifically not limited to the Bonds authorized hereby) the interest on which is likewise exempt from federal and State income taxes; and

(h) To adopt procedures for the disclosure of information to Bondholders and to others in accordance with any guidelines for such purpose promulgated by the American Bankers Association or some other similar national organization, as such guidelines may be made applicable to the Indenture by agreement of the Trustee, the Corporation and the City.

Section 9.2. Supplements Requiring Consent of Bondholders.

(a) Other than supplements to the Indenture referred to in Section 9.1 of the Indenture and subject to the terms and provisions and limitations contained in this Article and not otherwise, the Holders of not less than a majority in principal amount of the Bonds then Outstanding, shall have the right, from time to time, anything contained herein to the contrary notwithstanding, to consent to and approve the execution by the Corporation acting through the Corporation Representative and the Trustee of such Supplement as shall be deemed necessary and desirable by the Corporation and the Trustee for the purpose of modifying, altering, amending, adding to or rescinding, in any particular, any of the terms or provisions contained herein; provided, however, nothing in this Section or Section 9.1 of the Indenture shall permit or be construed as permitting a supplement to the Indenture which would:

(i) extend the stated maturity of or time for paying interest on any Bond or reduce the principal amount of or the redemption premium or rate of interest payable on any Bond without the consent of the Holder of such Bond;

(ii) prefer or give a priority to any Bond over any other Bond without the consent of the Holder of each Bond then Outstanding not receiving such preference or priority;

(iii) without the consent of the Holders of 100% of the aggregate principal amount of all Bonds then Outstanding, reduce the aggregate principal amount of Bonds the Holders of which are required to consent to such Supplement;

(iv) increase the principal amount of Bonds then Outstanding, the request of the Holders of which is required by Section 7.1(d) of the Indenture, without the consent of the Holders of all Bonds then Outstanding; or

(v) reduce the redemption price of any Bond upon optional redemption or reduce any period of time prior to commencement of any optional redemption period set forth in Section 3.2 without the consent of the Holder of such Bond.

(b) If at any time the Corporation shall request the Trustee to enter into a Supplement pursuant to this Section, the Trustee shall, upon being satisfactorily and specifically indemnified by the City with respect to expenses with respect to such Supplement, cause notice of the proposed execution of such Supplement to be mailed by first class mail, postage pre-paid, to all registered Holders of Bonds then Outstanding at their addresses as they appear on the registration books herein provided for. The Trustee shall not, however, be subject to any liability to any Bondholder by reason of its failure to mail, or the failure of such Bondholder to receive, the notice required by this Section, and any such failure shall not affect the validity of such Supplement when consented to and approved as provided in this Section. Such notice shall briefly set forth the nature of the proposed Supplement and shall state that copies thereof are on file at the office of the Trustee for inspection by all Bondholders.

* * *

Section 9.4. Amendments to City Purchase Agreement Not Requiring Consent of Bondholders. The Corporation and the Trustee may, without the consent of or notice to any of the holders consent to and join with the City in the execution and delivery of any amendment, change or modification of the City Purchase Agreement as may be required (a) by the provisions thereof; (b) to cure any ambiguity or formal defect or omission therein or to correct or supplement any provision therein which may be inconsistent with any other provision therein, or to make any other provisions with respect to matters or questions arising thereunder provided such action shall not materially adversely affect the interests of the holders; (c) to preserve the exclusion of the interest on the Tax-Exempt Bonds from gross income for purposes of federal or State income taxes and to preserve the power of the Corporation to continue to issue bonds or other obligations (specifically not limited to the Tax-Exempt Bonds authorized hereby) the interest on which is likewise exempt from federal and State income taxes and (d) in connection with any other change therein which in the opinion of the Trustee will not materially adversely affect the interests of the Trustee and will not materially adversely affect the interests of the Holders. In addition, the Corporation and the City may amend Exhibit A to the City Purchase Agreement at any time without notice to or consent of the Trustee or the Holders.

Section 9.5. Amendments to City Purchase Agreement Requiring Consent of Bondholders.

(a) Except for amendments, changes or modification to the City Purchase Agreement referred to in Section 9.4 above and subject to the terms and provisions and limitations contained in Article IX of the Indenture and not otherwise, the Trustee may consent to and join with the City in the execution and delivery of any amendment, change or modification to the City Purchase Agreement only upon the consent of not less than a majority in principal amount of Bonds then outstanding, given as provided in this Section, provided, however, no such amendment, change or modification may affect the obligation of the City to make payments under the City Purchase Agreement or reduce the amount of or extend the time for making such payments without the consent of the Holders of all Bonds then Outstanding.

(b) If at any time the Corporation and the City shall request the consent of the Trustee to any such amendment, change or modification to the City Purchase Agreement the Trustee shall, upon being satisfactorily indemnified by the City with respect to expenses, cause notice of the proposed amendment, change or modification to be given in the same manner as provided in Section 9.2 hereof with respect to Supplements hereto. Such notice shall be prepared by the Corporation, shall briefly set forth the nature of the proposed amendment, change or modification and shall state that copies thereof are on file at the office of the Trustee for inspection by all Bondholders.

(c) If the consent to and approval of the execution of such amendment, change or modification is given by the Holders of not less than the aggregate principal amount or number of Bonds specified in subsection (a) within the time and in the manner provided by Section 9.2 of the Indenture with respect to Supplements hereto, then such amendment, change or modification may be consented to, executed and delivered upon the terms and conditions and with like binding effect upon the Holders as provided in Sections 9.2 and 9.3 of the Indenture with respect to Supplements to the Indenture.

* * *

Section 10.1. Discharge. If payment of all principal of, premium, if any, and interest on all of the Bonds in accordance with their terms and as provided in the Indenture is made, or is provided for in accordance with this Article, and if all other sums, if any, payable by the Corporation shall be paid, then the liens, estates and security interests granted by the Indenture shall cease. Thereupon, upon the request of the Corporation, and upon receipt by the Trustee of an opinion of Bond Counsel addressed to the Corporation and Trustee stating that all conditions precedent to the satisfaction and discharge of the lien of the Indenture have been satisfied, the Trustee shall execute and deliver proper instruments acknowledging such satisfaction and discharging the lien of the Indenture and the Trustee shall transfer all property held by it under the Indenture, other than Monies or obligations held by the Trustee for payment of amounts due or to become due on the Bonds, to the Corporation, the City or such other Person as may be entitled thereto as their respective interests may appear. Such satisfaction and discharge shall be without prejudice to the rights of the Trustee thereafter to charge and be compensated or reimbursed for services rendered and expenditures incurred in connection with the Indenture.

The Corporation or the City may at any time surrender to the Trustee for cancellation any Bonds previously authenticated and delivered which the Corporation or the City may have acquired in any manner whatsoever and such Bonds upon such surrender and cancellation shall be deemed to be paid and retired.

Section 10.2. Providing for Payment of Bonds. Payment of all or any part of the Bonds in authorized denominations may be provided for by the deposit with the Trustee or any financial institution meeting the requirements as a successor Trustee under Section 8.6 of the Indenture which may be designated by the City to serve as the Trustee's agent (the *"Depository Trustee")* of Monies or Defeasance Obligations which are not redeemable in advance of their maturity dates. The Monies and the maturing principal and interest income on such Defeasance Obligations, if any, shall be sufficient, as evidenced by a certificate of an independent nationally recognized certified public accountant or firm of such accountants or public finance consulting firm of national reputation acceptable to the City, to pay when due the principal of and interest on such Bonds (a *"Verification Report").* The Monies and Defeasance Obligations shall be held by the Trustee or the Depository Trustee irrevocably in trust for the Holders of such Bonds solely for the purpose of paying the principal and interest on such Bonds as the same shall mature or come due.

If payment of Bonds is so provided for, the Trustee or the Depository Trustee shall mail a notice so stating to each Holder of a Bond so provided for.

Bonds, the payment of which has been provided for in accordance with this Section, shall no longer be deemed Outstanding under the applicable Indenture. The obligation of the Corporation in respect of such Bonds shall nevertheless continue but the Holders thereof shall thereafter be entitled to payment only from the Monies or Defeasance Obligations deposited with the Trustee or the Depository Trustee to provide for the payment of such Bonds.

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APPENDIX H

Proposed Form of Legal Opinion of Bond Counsel

[LETTERHEAD OF GREENBERG TRAURIG, LLP]

[Closing Date]

We hereby certify that we have examined a certified copy of the proceedings of the City of Phoenix Civic Improvement Corporation (the *"Corporation"*) passed preliminary to the issue of its $ Junior Lien Water System Revenue Bonds, Series 2021A (the *"2021A Bonds"*), $ Junior Lien Water System Revenue Refunding Bonds, Series 2021B (the *"2021B Bonds"* and together with the 2021A Bonds, the *"Tax-Exempt Bonds"*) and $ Junior Lien Water System Revenue Refunding Bonds, Taxable Series 2021C (the *"Taxable Bonds"* and together with the Tax-Exempt Bonds, the *"Bonds"*) in fully registered form, dated the date of initial authentication and delivery thereof. The 2021A Bonds are being issued to finance improvements to the water system (the *"System"*) of the City of Phoenix, Arizona (the *"City"*). The 2021B and the Taxable Bonds are being issued to refund certain obligations (the *"Bonds Being Refunded"*) previously issued to finance improvements to the System.

We have examined the law and such documents and matters as we have deemed necessary to render this opinion, including, without limitation, the original or a copy identified to our satisfaction as being a true copy of the Indenture (as defined herein).

As to questions of fact material to the opinions expressed herein, we have relied upon, and have assumed due compliance with the provisions of, the proceedings and other documents, and have relied upon certifications and representations furnished to us without undertaking to verify the same by independent investigation, including, without limitation, the use to be made of the proceeds of the Bonds. Reference is made to certifications of and opinions of counsel to parties other than the Corporation with respect to the existence and powers of such parties to enter into and perform the instruments referred to, the authorization, execution and delivery of such instruments by such parties and such instruments being binding upon and enforceable against such parties; we express no opinion as to such matters.

The Bonds are being issued pursuant to a Bond Indenture, dated as of June 1, 2021 (the *"Indenture"*) between the Corporation and U.S. Bank National Association, as trustee (the *"Trustee"*). The Bonds are payable solely, as to both principal and interest, from payments made by the City under the City Purchase Agreement, dated as of June 1, 2021 (the *"City Purchase Agreement"*) between the Corporation and the City.

Based upon the foregoing, we are of the opinion as of this date, which is the date of initial delivery of the Bonds against payment therefor, that:

1. The Indenture, the City Purchase Agreement and the Bonds have been duly authorized, executed and delivered by the Corporation and are valid and binding upon and enforceable against the Corporation.

2. The Bonds constitute special obligations of the Corporation, and the principal of and interest and any premium on the Bonds (collectively, *"debt service"*), unless paid from other sources, are payable solely from the revenues and other Monies pledged and assigned by the Indenture to secure that payment. Those revenues and other Monies include payments required to be made by the City under the City Purchase Agreement, and the City's obligation to make those payments is secured by a pledge of Designated Revenues (as defined in the City Purchase Agreement) received from the System. The Indenture creates the pledge which it purports to create in the pledged revenues and of other Monies in the funds and accounts created by the Indenture (other than the Rebate Fund), which pledge will be perfected only as to the revenue and other Monies on deposit in the funds and accounts created by the Indenture and held by the Trustee. The Bonds and the payment of debt service are not secured by an obligation or pledge of any Monies raised by taxation; the Bonds do not represent or constitute a debt or pledge of the general credit of the Corporation, the City or the State of Arizona; and the City Purchase Agreement, including the City's obligation to make the payments required thereunder, does not represent or constitute a debt or pledge of the general credit of the City.

3. The Internal Revenue Code of 1986, as amended (the *"Code"*), includes requirements which the City and the Corporation must continue to meet after the issuance of the Tax-Exempt Bonds in order that interest on the Tax-Exempt Bonds be excludible from gross income for federal income tax purposes. The failure of the City and the Corporation to meet these requirements may cause interest on the Tax-Exempt Bonds to be included in gross income for federal income tax purposes retroactive to their date of issuance. The City and the Corporation have covenanted to take the actions required by the Code in order to maintain the excludability from gross income for federal income tax purposes of interest on the Tax-Exempt Bonds. (Subject to the limitations in the next to last paragraph hereof, the City and the Corporation have 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 last sentence of this paragraph, interest on the Tax-Exempt Bonds is excludable from the gross income of the owners thereof for federal income tax purposes, and, if the foregoing is the case, the interest on the Tax-Exempt Bonds is exempt from income taxation under the laws of the State of Arizona. Furthermore, interest on the Tax-Exempt Bonds is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals. We express no opinion regarding other federal tax consequences resulting from the ownership, receipt or accrual of interest on, or disposition of, the Tax-Exempt 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 Tax-Exempt Bonds in order that interest on the Tax-Exempt Bonds not be included in gross income for federal tax purposes.

We express no opinion as to the exclusion of interest on the Taxable Bonds from gross income for federal or Arizona income tax purposes. Ownership of the Taxable Bonds may result in other federal or State of Arizona income tax consequences to certain taxpayers and we express no opinion regarding any such collateral consequences arising with respect to the Taxable Bonds.

In rendering the foregoing opinions, we have assumed and relied upon compliance with the City's and the Corporation's covenants and the accuracy, including with respect to the application of the proceeds of the Bonds Being Refunded and the Bonds, respectively, which we have not independently verified, of the City's and the Corporation's representations and certifications contained in the transcript. The accuracy of those representations and certifications, and the City's and the Corporation's compliance with those covenants, may be necessary for the interest on the Tax-Exempt Bonds to be and remain excluded from gross income for federal and State income tax purposes and for certain of the other tax effects stated above. Failure to comply with certain requirements subsequent to issuance of the Tax-Exempt Bonds could cause interest on the Tax-Exempt Bonds to be included in gross income for federal and State income tax purposes retroactively to the date of issuance of the Tax-Exempt Bonds. We have also relied upon (i) the report of Raftelis Financial Consultants, Inc. as to the ratio of net operating revenues of the System for the fiscal year ended June 30, 2020 to maximum annual debt service on the Bonds and outstanding obligations on a parity therewith and (ii) the Verification Report of Samuel Klein and Company, certified public accountants, and Public Finance Partners LLC as to the adequacy of the obligations issued or guaranteed by the United States Government in which proceeds of the 2021B Bonds and the Taxable Bonds have been invested to provide for retirement of the 2014A Bonds Being Refunded, as to the yield on such investments and the yield on the Bonds Being Refunded.

The rights of the owners of the Bonds and the enforceability of those rights under the Bonds and the documents referred to above may be subject to bankruptcy, insolvency, reorganization, moratorium and similar laws affecting creditors' rights and the enforcement of those rights may be subject to the exercise of judicial discretion in accordance with general principles of equity.

Our opinion represents our legal judgment based upon our review of the law and the facts we deem relevant to render such opinion and is not a guarantee of a result. This opinion is given as of the date hereof and we assume no obligation to review or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur.

Respectfully submitted,

APPENDIX I

Form of Continuing Disclosure Undertaking

This Continuing Disclosure Undertaking, dated June , 2021 (the *"Undertaking"* or the *"Agreement"*), is executed and delivered by the City of Phoenix, Arizona (the *"City"*), in connection with the issuance of its $ Junior Lien Water System Revenue Bonds, Series 2021A (the *"2021A Bonds"*), $ Junior Lien Water System Revenue Refunding Bonds, Series 2021B (the *"2021B Bonds"* and together with the 2021A Bonds, the *"Tax-Exempt Bonds"*) and $ Junior Lien Water System Revenue Refunding Bonds, Taxable Series 2021C (the *"Taxable Bonds"* and together with the Tax-Exempt Bonds, the *"Bonds"*). The Bonds are being issued pursuant to a Bond Indenture, dated as of June 1, 2021 (the "*Indenture*"), between the City of Phoenix Civic Improvement Corporation (the "*Corporation*") and U.S. Bank National Association, as trustee (the "*Trustee*"). The City covenants and agrees as follows:

1. *Purpose of this Undertaking*. This Undertaking is executed and delivered by the City as of the date set forth above, for the benefit of the beneficial owners of the Bonds and in order to assist the Participating Underwriters in complying with the requirements of the Rule (as defined below). The City represents that it will be the only obligated person with respect to the Bonds at the time the Bonds are delivered to the Participating Underwriters and that no other person is expected to become so committed at any time after issuance of the Bonds.

2. *Definitions*. The terms set forth below shall have the following meanings in this Undertaking, unless the context clearly otherwise requires.

"*Annual Financial Information*" means the financial information and operating data set forth in Exhibit I.

"*Annual Financial Information Disclosure*" means the dissemination of disclosure concerning Annual Financial Information and the dissemination of the Audited Financial Statements as set forth in Section 4.

"*Audited Financial Statements*" means the audited financial statements of the City prepared pursuant to the standards and as described in Exhibit I.

"City Purchase Agreement" means the City Purchase Agreement dated as of June 1, 2021, between the City and the Corporation.

"*Commission*" means the Securities and Exchange Commission.

"*Dissemination Agent*" means any agent designated as such in writing by the City and which has filed with the City a written acceptance of such designation, and such agent's successors and assigns.

"*EMMA*" means the Electronic Municipal Market Access system of the MSRB. As of the date of this Disclosure Undertaking, information regarding submissions to EMMA is available at http://emma.msrb.org.

"*Event*" means the occurrence of any of the events set forth in Exhibit II.

"*Exchange Act*" means the Securities Exchange Act of 1934, as amended.

"*Financial Obligations*" means a debt obligation, a derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation, or a guarantee of a debt obligation or a derivative. The term Financial Obligation shall not include municipal securities as to which a final official statement has been provided to the MSRB consistent with the Rule.

"*Listed Event*" means the occurrence of events set forth in Exhibit II provided that with respect to any Event qualified by the phrase "if material," materially shall be interpreted under the Exchange Act. If an Event is not qualified by the phrase "if material," such Event shall in all cases be material.

"*Listed Events Disclosure*" means dissemination of disclosure concerning a Listed Event as set forth in Section 5.

"*MSRB*" means the Municipal Securities Rulemaking Board.

"*Participating Underwriters*" means each broker, dealer or municipal securities dealer acting as an underwriter in the primary offering of the Bonds.

"*Rule*" means Rule 15c2-12 adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

"*State*" means the State of Arizona.

"*Undertaking*" means the obligations of the City pursuant to Sections 4 and 5 hereof.

3. *CUSIP Number/Final Official Statement*. The CUSIP Numbers of the Bonds are as follows:

2021A Bonds

Maturity Date	CUSIP No.*	Coupon
		%

2021B Bonds

Maturity Date	CUSIP No.*	Coupon
		%

Taxable Bonds

Maturity Date	CUSIP No.*	Coupon
		%

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* CUSIP® is a registered trademark of the American Bankers Association. CUSIP Global Services ("*CGS*") is managed on behalf of the American Bankers Association by S&P Capital IQ. Copyright© 2021 CUSIP Global Services. All rights reserved. CUSIP® numbers are provided for convenience of reference only. None of the City, the Financial Advisor of the City, the Participating Underwriters or their respective counsel or agents takes responsibility for the accuracy of such numbers.

The Final Official Statement relating to the Bonds is dated May , 2021 (the "*Final Official Statement*").

4. *Annual Financial Information Disclosure*. Subject to Section 9 of this Undertaking, the City shall disseminate its Annual Financial Information and its Audited Financial Statements, if any, (in the form and by the dates set forth in Exhibit I) to the MSRB through EMMA in an electronic format as prescribed by the MSRB. The City is required to deliver such information in such manner and by such time so that such entities receive the information by the dates specified.

If any part of the Annual Financial Information can no longer be generated because the operations to which it is related have been materially changed or discontinued, the City will disseminate a statement to such effect as part of its Annual Financial Information for the year in which such event first occurs.

If any amendment is made to this Agreement, the Annual Financial Information for the year in which such amendment is made shall contain a narrative description of the reasons for such amendment and its impact on the type of information being provided.

5. *Listed Events Disclosure*. Subject to Section 9 of this Undertaking, the City hereby covenants that it will disseminate in a timely manner not in excess of ten business days after the occurrence of the event, Listed Events Disclosure to the MSRB through EMMA in an electronic format as prescribed by the MSRB. Notwithstanding the foregoing, notice of optional or unscheduled redemption of any of the Bonds or defeasance of any Bonds need not be given under this Agreement any earlier than the notice (if any) of such redemption or defeasance is given to the Bondholders pursuant to the Indenture.

6. *Duty to Update*. The City shall determine, in the manner it deems appropriate, the address of EMMA or such alternate repository specified by the MSRB each time it is required to file information with such entities.

7. *Consequences of Failure of the City to Provide Information*. The City shall give notice in a timely manner and within ten business days after the occurrence of such failure to the MSRB through EMMA, of any failure to provide Annual Financial Information Disclosure in the manner and at the time required.

In the event of a failure of the City to comply with any provision of this Undertaking, the beneficial owner of any Bond may seek mandamus or specific performance by court order, to cause the City to comply with its obligations under this Undertaking. A default under this Undertaking shall not be deemed an Event of Default under the City Purchase Agreement or the Indenture, and the sole remedy available to Bondholders under this Undertaking in the event of any failure of the City to comply with this Undertaking shall be an action to compel performance.

8. *Amendments; Waiver*. Notwithstanding any other provision of this Agreement, the City by certified resolution or ordinance authorizing such amendment or waiver, may amend this Undertaking, and any provision of this Undertaking may be waived only if:

(a) The amendment or waiver is 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 the City, or type of business conducted;

(b) This Undertaking, as amended or affected by such waiver, would have complied with the requirements of the Rule at the time of the primary offering, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(c) The amendment or waiver does not materially impair the interests of the beneficial owners of the Bonds, as determined by parties unaffiliated with the City (such as the Trustee) or by approving vote of the Bondholders pursuant to the terms of the Indenture at the time of the amendment.

The Annual Financial Information containing amended operating data or financial information resulting from such amendment or waiver, if any, shall explain, in narrative form, the reasons for the amendment or waiver and the impact of the change in the type of operating data or financial information being provided. If an amendment or waiver is made specifying the generally accepted accounting principles ("*GAAP*") to be followed in preparing financial statements and such changes are material, the Annual Financial Information for the year in which the change is made shall present a comparison between the financial statements or information prepared on the basis of the new accounting principles. Such comparison shall include a qualitative discussion of the differences in the accounting principles and the impact of the change in the accounting principles in the presentation of the financial information in order to provide information to investors to enable them to evaluate the ability of the City to meet its obligations. To the extent reasonably feasible, such comparison also shall be quantitative. If the accounting principles of the City change or the Fiscal Year of the City changes, the City shall file a notice of such change in the same manner as for a notice of Listed Event.

9. *Termination of Undertaking*. The Undertaking of the City shall be terminated hereunder if the City shall no longer have liability for any obligation on or relating to repayment of the Bonds under the City Purchase Agreement. The City shall give notice in a timely manner if such event occurs to the MSRB through EMMA in an electronic format as prescribed by the MSRB.

10. *Dissemination Agent*. The City may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Undertaking, and may discharge any such Agent, with or without appointing a successor Dissemination Agent.

11. *Additional Information*. Nothing in this Undertaking shall be deemed to prevent the City from disseminating any other information, using the means of dissemination set forth in this Undertaking or any other means of communication, or including any other information in any Annual Financial Information Disclosure or a Listed Event Disclosure, in addition to that which is required by this Undertaking. If the City chooses to include any information from any document or notice of occurrence of a Listed Event in addition to that which is specifically required by this Undertaking, the City shall have no obligation under this Undertaking to update such information or include it in any future Annual Financial Information Disclosure or Listed Events Disclosure.

12. *Beneficiaries*. This Undertaking has been executed in order to assist the Participating Underwriters in complying with the Rule; however, this Undertaking shall inure solely to the benefit of the City, the Dissemination Agent, if any, and the beneficial owners of the Bonds, and shall create no rights in any other person or entity.

13. *Recordkeeping*. The City shall maintain records of all Annual Financial Information Disclosure and Listed Events Disclosure including the content of such disclosure, the names of the entities with whom such disclosure was filed and the date of filing such disclosure.

14. *Assignment*. The City shall not transfer obligations under the City Purchase Agreement unless the transferee agrees to assume all obligations of the City under this Agreement or to execute an Undertaking meeting the requirements of the Rule.

15. *Governing Law*. This Undertaking shall be governed by the laws of the State.

CITY OF PHOENIX, ARIZONA

By: Ed Zuercher
Its City Manager

By: ______________________________
Denise M. Olson
Chief Financial Officer

ATTEST:

By: ______________________________
City Clerk

APPROVED AS TO FORM:

By: ______________________________
City Attorney

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EXHIBIT I

ANNUAL FINANCIAL INFORMATION AND AUDITED FINANCIAL STATEMENTS

"Annual Financial Information" means financial information and operating data of the type contained in the Final Official Statement under the following captions or tables:

> "SCHEDULE OF FORECASTED DESIGNATED REVENUES, ESTIMATED JUNIOR LIEN DEBT SERVICE REQUIREMENTS AND FORECASTED JUNIOR LIEN DEBT SERVICE COVERAGE" (actual results for most recently completed fiscal year only) and "APPENDIX A — "Summary Information of the City of Phoenix Water System".

All or a portion of the Annual Financial Information and the Audited Financial Statements as set forth below may be included by reference to other documents which have been submitted to the MSRB through EMMA or filed with the Commission. If the information included by reference is contained in a Final Official Statement, the Final Official Statement must be available from the MSRB or the Commission. The City shall clearly identify each such item of information included by reference.

Annual Financial Information exclusive of Audited Financial Statements will be provided to the MSRB through EMMA, if any, by February 1 of each year, commencing February 1, 2022. Audited Financial Statements as described below should be filed at the same time as the Annual Financial Information. If Audited Financial Statements are not available when the Annual Financial Information is filed, unaudited financial statements shall be included, to be followed up by Audited Financial Statements when available.

Audited Financial Statements will be prepared according to GAAP, as applied to governmental units as modified by State law.

If any change is made to the Annual Financial Information as permitted by Section 4 of the Undertaking, the City will disseminate a notice of such change as required by Section 4, including changes in Fiscal Year or GAAP.

EXHIBIT II

EVENTS FOR WHICH LISTED EVENTS DISCLOSURE IS REQUIRED

1. Principal and interest payment delinquencies
2. Non-payment related defaults, if material
3. Unscheduled draws on debt service reserves reflecting financial difficulties
4. Unscheduled draws on credit enhancements reflecting financial difficulties
5. Substitution of credit or liquidity providers, or their failure to perform
6. Adverse tax opinions, the issuance by the Tax-Exempt 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 Bonds, or other material events affecting the tax status of the Tax-Exempt Bonds
7. Modifications to the 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 Bonds, if material
11. Rating changes
12. Bankruptcy, insolvency, receivership or similar event 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
14. Appointment of a successor or additional trustee or the change of name of a trustee, if material
15. Incurrence of a Financial Obligation of the City, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a financial obligation of the City, any of which affect security holders, if material
16. Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of the Financial Obligation of the City, any of which reflect financial difficulties

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* 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 governing 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.

APPENDIX J
COVID-19

General

The outbreak and spread of the novel strain of coronavirus and spread of Coronavirus Disease 2019 (“COVID-19”), which has been designated a global pandemic by the World Health Organization, is negatively affecting local, state and global economies. While economic activity is adversely impacted as governments, businesses and citizens react to, plan for, and try to prevent or slow further transmission of the virus, this adverse economic impact is somewhat mitigated by federal stimulus packages and state and local laws and programs to support business activity. Financial markets, including the stock markets in the United States and globally, have seen significant volatility and declines attributed to COVID-19 concerns. On March 11, 2020, as part of the State’s response to address the outbreak, Arizona Governor, Doug Ducey (the “Governor”), declared a state of emergency. On March 13, 2020, President Donald Trump declared a national emergency, freeing up funding for federal assistance to state and local governments. An initial State of Arizona stay home Executive Order expired after six weeks on May 15, 2020. Subsequently, the Governor has since issued executive orders including physical distancing, virus testing and reporting, contact tracing, face coverings, closing and reopening of business operation, large gatherings and the reopening of schools.

Vaccine distribution is underway in the State. The State began vaccinating Arizonians the 3rd week of December 2020. Additional information regarding State Executive Orders can be found on the State’s website.

The CARES Act

In response to COVID-19 and the President’s declaration of a national emergency, the federal government enacted the Coronavirus Aid, Relief and Economic Security Act (the *“CARES Act”)*. The CARES Act provides many types of funding for which local governments could apply to offset COVID-19 related expenses. There were several categories of funding available to the City. Some of the funding categories were intended to supplement existing grants while other funding categories were intended to be used to pay for a variety of services including operating costs for specific activities such as human services, transit and airport.

The City received $293 million from the Coronavirus Relief Fund. The City Council voted and agreed to allocate approximately half of the monies from the Coronavirus Relief Fund to community investments and city-specific needs, while using the rest of the funds for public safety payroll. CARES Act monies helped fund the City’s response to COVID-19 and relieved pressure on the City’s budget from COVID-19 related costs.

American Rescue Plan

In response to COVID-19 and the President’s declaration of a national emergency, the federal government enacted the American Rescue Plan Act of 2021 (the “*Plan*”). Eligible uses of funds include COVID-19 related expenses, providing increased pay for essential workers, replacing reduction in revenues in the most recent fiscal year, or to make necessary investments in water, sewer, or broadband infrastructure. The funding is available through, and must be spent by, the end of the calendar year 2024.

The Plan provides $416 million for the City of Phoenix to be allocated in 2 phases. The first phase and second phase each consist of $208 million. The second phase will be given to the City one year after the first phase is received. Allocation of funds will be determined by the City Council.

Impact on System Revenues

The System continues to perform as expected. At the end of fiscal year 2019-20, available fund balance was $168,693,458, an increase of 15% from fiscal year 2018-19. While financial data remains positive, the full impact of COVID-19 on the City cannot be predicted at this time and no assurance can be provided that these results will continue.