

PRELIMINARY OFFICIAL STATEMENT DATED APRIL 16, 2019

**NEW ISSUE
BOOK-ENTRY ONLY**

**RATINGS: Fitch: [To come]
Moody's: [To come]
S&P: [To come]
See "RATINGS"**

In the opinion of Butler Snow LLP and The Holt Group LLC, Co-Bond Counsel, assuming continuous compliance with certain covenants described herein, interest on the Series 2019A-B Bonds is excludable from gross income under federal income tax laws pursuant to Section 103 of the Internal Revenue Code of 1986, as amended to the date of delivery of the Series 2019A-B Bonds (the "Tax Code"), interest on the Series 2019A-B Bonds is excludable from alternative minimum taxable income as defined in Section 55(b)(2) of the Tax Code, and interest on the Series 2019A-B Bonds is excludable from Colorado taxable income and Colorado alternative minimum taxable income under Colorado income tax laws in effect on the date of delivery of the Series 2019A-B Bonds as described herein. See "TAX MATTERS."

CITY AND COUNTY OF DENVER, COLORADO

\$81,910,000*
**GENERAL OBLIGATION
ELEVATE DENVER BONDS
SERIES 2019A**

\$53,315,000*
**GENERAL OBLIGATION
BETTER DENVER AND ZOO REFUNDING
BONDS, SERIES 2019B**

Dated: Date of Delivery

Due: August 1, as shown herein

The Series 2019A and Series 2019B Bonds (together, the "Series 2019A-B Bonds") are issued as fully registered bonds in denominations of \$5,000 or integral multiples thereof. The Series 2019A-B Bonds initially will be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"), which is acting as the securities depository for the Series 2019A-B Bonds. Purchases of the Series 2019A-B Bonds are to be made in book-entry form only. Purchasers will not receive certificates representing their beneficial ownership interest in the Series 2019A-B Bonds. See "THE SERIES 2019A-B BONDS--Book-Entry Only System." The Series 2019A-B Bonds bear interest at the rates set forth herein, payable on August 1, 2019, and semiannually thereafter on February 1 and August 1, to and including the maturity dates shown on the inside cover page, by check or draft mailed to the registered owner of the Series 2019A-B Bonds, initially Cede & Co. The principal of the Series 2019A-B Bonds will be payable upon presentation and surrender at Zions Bancorporation, National Association, Denver, Colorado, or its successor as the Paying Agent for the Series 2019A-B Bonds. See "THE SERIES 2019A-B BONDS."

The maturity schedules for the Series 2019A-B Bonds appear on the inside cover page of this Official Statement.

The Series 2019A Bonds are subject to redemption prior to maturity at the option of the City and County of Denver, Colorado (the "City") as described in "THE SERIES 2019A-B BONDS--Redemption Provisions." The Series 2019B Bonds are not subject to redemption prior to maturity. At the option of the winning bidders, the Series 2019A-B Bonds of either series may also be subject to mandatory sinking fund redemption.

The Series 2019A-B Bonds are being issued for the purposes of: (1) financing various civic facilities for the City with the net proceeds of the Series 2019A Bonds; (2) refunding the callable portion of the City's outstanding General Obligation Better Denver and Zoo Bonds, Series 2009A, with the net proceeds of the Series 2019B Bonds; and (3) paying the costs of issuing the Series 2019A-B Bonds.

* Subject to change.

The Series 2019A-B Bonds are general obligations of the City secured by a pledge of the full faith and credit of the City and are payable from general ad valorem taxes required to be levied on all the taxable property within the City without limitation as to rate and in an amount sufficient to pay the principal of and interest on the Series 2019A-B Bonds when due, except to the extent other legally available funds are applied for such purpose.

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

The Series 2019A-B Bonds are offered when, as, and if issued by the City and accepted by the Initial Purchasers, subject to the approval of legality of the Series 2019A-B Bonds by Butler Snow LLP, Denver, Colorado, and The Holt Group LLP, Denver, Colorado, as Co-Bond Counsel, and the satisfaction of certain other conditions. Butler Snow LLP and The Holt Group LLC, have also acted as Co-Special Counsel to the City in connection with the Official Statement. Certain legal matters will be passed upon for the City by the City Attorney. Hilltop Securities Inc., Denver, Colorado, is acting as financial advisor to the City. It is expected that the Series 2019A-B Bonds will be available for delivery through the facilities of DTC on or about May 6, 2019.*

* Subject to change.

MATURITY SCHEDULES*
(CUSIP® 6-digit issuer number: _____)

\$81,910,000*

City and County of Denver, Colorado
General Obligation Elevate Denver Bonds
Series 2019A

<u>Maturing (August 1)</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Price or Yield</u>	<u>CUSIP® Issue Number</u>	<u>Maturing (August 1)</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Price or Yield</u>	<u>CUSIP® Issue Number</u>
2019	\$ 3,895,000				2025	\$ 9,120,000			
2020	1,960,000				2026	9,575,000			
2021	2,050,000				2027	9,860,000			
2022	7,875,000				2028	10,160,000			
2023	8,270,000				2029	10,460,000			
2024	8,685,000								

\$53,315,000*

City and County of Denver, Colorado
General Obligation Better Denver and Zoo Refunding Bonds
Series 2019B

<u>Maturing (August 1)</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Price or Yield</u>	<u>CUSIP® Issue Number</u>
2020	\$ 7,865,000			
2021	8,260,000			
2022	8,670,000			
2023	9,105,000			
2024	9,565,000			
2025	9,850,000			

* Subject to change.

CITY AND COUNTY OF DENVER, COLORADO

CITY OFFICIALS

Mayor

Michael B. Hancock

City Council

Jolon Clark, President

Kendra Black	Paul Kashmann
Albus Brooks	Robin Kneich
Rafael Espinoza	Paul D. López
Kevin Flynn	Wayne New
Stacie Gilmore	Deborah Ortega
Christopher Herndon	Mary Beth Susman

Auditor

Timothy M. O'Brien, CPA

Clerk and Recorder

Debra Johnson

CABINET OFFICIALS

Murphy Robinson	Deputy Mayor, Executive Director of the Department of General Services
Brendan J. Hanlon	Chief Financial Officer as Manager of Finance/ <i>ex officio</i> Treasurer
Kristin M. Bronson, Esq.	City Attorney
Eulois Cleckley	Executive Director of the Department of Public Works
Kim Day	Executive Director of the Department of Aviation
Allegra "Happy" Haynes	Executive Director of the Department of Parks and Recreation
Jill Jennings Golich	Executive Director of the Department of Community Planning and Development
Donald J. Mares	Executive Director of the Department of Human Services
Robert M. McDonald	Executive Director of the Department of Public Health and Environment
Troy Riggs	Executive Director of the Department of Safety

CO-BOND COUNSEL/SPECIAL COUNSEL

Butler Snow LLP
Denver, Colorado

The Holt Group LLC
Denver, Colorado

REGISTRAR, PAYING AGENT AND ESCROW BANK

Zions Bancorporation, National Association
Denver, Colorado

FINANCIAL ADVISOR

Hilltop Securities Inc.
Denver, Colorado

USE OF INFORMATION IN THIS OFFICIAL STATEMENT

This Official Statement, which includes the cover page, the inside cover page and the appendices, does not constitute an offer to sell or the solicitation of an offer to buy any of the Series 2019A-B Bonds in any jurisdiction in which it is unlawful to make such offer, solicitation, or sale. No dealer, salesperson, or other person has been authorized to give any information or to make any representations other than those contained in this Official Statement in connection with the offering of the Series 2019A-B Bonds, and if given or made, such information or representations must not be relied upon as having been authorized by the City. The City maintains an internet website; however, the information presented there is not a part of this Official Statement and should not be relied upon in making an investment decision with respect to the Series 2019A-B Bonds.

The information set forth in this Official Statement has been obtained from the City, from the sources referenced throughout this Official Statement and from other sources believed to be reliable. No representation or warranty is made by the City, however, as to the accuracy or completeness of information received from parties other than the City. This Official Statement contains, in part, estimates and matters of opinion which are not intended as statements of fact, and no representation or warranty is made as to the correctness of such estimates and opinions, or that they will be realized.

The information, estimates, and expressions of opinion contained in this Official Statement are subject to change without notice, and neither the delivery of this Official Statement nor any sale of the Series 2019A-B Bonds shall, under any circumstances, create any implication that there has been no change in the affairs of the City, or in the information, estimates, or opinions set forth herein, since the date of this Official Statement.

This Official Statement has been prepared only in connection with the original offering of the Series 2019A-B Bonds and may not be reproduced or used in whole or in part for any other purpose.

The Series 2019A-B Bonds have not been registered with the Securities and Exchange Commission due to certain exemptions contained in the Securities Act of 1933, as amended. The Series 2019A-B Bonds have not been recommended by any federal or state securities commission or regulatory authority, and the foregoing authorities have neither reviewed nor confirmed the accuracy of this document.

THE PRICES AT WHICH THE SERIES 2019A-B BONDS ARE OFFERED TO THE PUBLIC BY THE INITIAL PURCHASERS (AND THE YIELDS RESULTING THEREFROM) MAY VARY FROM THE INITIAL PUBLIC OFFERING PRICES OR YIELDS APPEARING ON THE INSIDE COVER PAGE HEREOF. IN ADDITION, THE INITIAL PURCHASERS MAY ALLOW CONCESSIONS OR DISCOUNTS FROM SUCH INITIAL PUBLIC OFFERING PRICES TO DEALERS AND OTHERS. IN ORDER TO FACILITATE DISTRIBUTION OF THE SERIES 2019A-B BONDS, THE INITIAL PURCHASERS MAY ENGAGE IN TRANSACTIONS INTENDED TO STABILIZE THE PRICE OF THE SERIES 2019A-B BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
General	1
The Issuer	1
Purpose	1
Authority for Issuance	2
The Series 2019A-B Bonds; Prior Redemption	2
Security	2
Continuing Disclosure	3
Forward-Looking Statements	3
Additional Information	3
SOURCES AND USES OF FUNDS	4
Sources and Uses of Funds	4
Elevate Denver Projects	4
The Refunding Project	5
Debt Service Requirements	5
THE SERIES 2019A-B BONDS	7
General Description	7
Payment Provisions	7
Redemption Provisions	7
Tax Covenant	8
Book-Entry Only System	8
SECURITY FOR THE SERIES 2019A-B BONDS	9
General	9
Ordinance Irrepealable	9
Limitations on Remedies Available to Owners of Series 2019A-B Bonds	9
CITY GOVERNMENT ORGANIZATION	11
General Information	11
Organization	11
Government	11
FINANCIAL INFORMATION CONCERNING THE CITY	13
Budget Policy	13
Bond Fund	13
General Fund	13
Management Discussion of Recent Financial Results	14
Management Discussion of 2019 Budget	15
General Fund Financials	15
Collection of Taxes	18
Sales and Use Taxes	19
Financial Statements	20
Property Taxation	20
Property Tax Data	25
Assessed Valuation of Major Taxpayers	27
Revenue, Spending and Debt Limitations	27
Pension Plans	28
Other Post-Employment Benefits	29
DEBT STRUCTURE OF THE CITY	31
General Obligation Bonds	31
General Obligation Bonded Debt	31
Overlapping Debt and Taxing Entities	33
Denver Convention Center Hotel Authority Discretionary Economic Development Payments	35
Denver Urban Renewal Authority Contingent and Discretionary Payments	36
Lease Purchase Agreements	36
Revenue Bonds	37

	<u>Page</u>
ECONOMIC AND DEMOGRAPHIC OVERVIEW	38
LEGAL MATTERS	38
Litigation.....	38
Governmental Immunity	38
Approval of Certain Legal Proceedings.....	39
TAX MATTERS	39
RATINGS.....	41
CONTINUING DISCLOSURE.....	41
PUBLIC SALE.....	42
OFFICIAL STATEMENT CERTIFICATION.....	42
APPENDIX A - AUDITED BASIC FINANCIAL STATEMENTS OF THE CITY FOR THE FISCAL YEAR ENDED DECEMBER 31, 2017.....	A-1
APPENDIX B - AN ECONOMIC AND DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN REGION.....	B-1
APPENDIX C - DTC BOOK-ENTRY SYSTEM.....	C-1
APPENDIX D - FORM OF CONTINUING DISCLOSURE UNDERTAKING.....	D-1
APPENDIX E - FORM OF OPINIONS OF CO-BOND COUNSEL	E-1

OFFICIAL STATEMENT

CITY AND COUNTY OF DENVER, COLORADO

\$81,910,000*
GENERAL OBLIGATION
ELEVATE DENVER BONDS
SERIES 2019A

\$53,315,000*
GENERAL OBLIGATION
BETTER DENVER AND ZOO REFUNDING
BONDS, SERIES 2019B

INTRODUCTION

General

This Official Statement, which includes the cover page, the inside cover page, and the appendices, provides certain information in connection with the issuance by the City and County of Denver, Colorado (the “City”), a municipal corporation and political subdivision of the State of Colorado (the “State”), organized and existing as a home rule city under the provisions of Article XX of the State Constitution and the home rule charter of the City (the “Charter”), of its General Obligation Elevate Denver Bonds, Series 2019A, in the aggregate principal amount of \$81,910,000* (the “Series 2019A Bonds”), and General Obligation Better Denver and Zoo Refunding Bonds, Series 2019B, in the aggregate principal amount of \$53,315,000* (the “Series 2019B Bonds,” and together with the Series 2019A Bonds, the “Series 2019A-B Bonds”). The Series 2019A-B Bonds are being issued pursuant to Ordinance No. 19-0283, Series of 2019 (the “Bond Ordinance”), which was adopted by the Denver City Council (the “Council”) on [April 15], 2019.

The offering of the Series 2019A-B 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 Series 2019A-B Bonds. The following introductory material is only a brief description of and is qualified by the more complete information contained throughout this Official Statement. A full review should be made of the entire Official Statement and the documents summarized or described herein. Detachment or other use of this “INTRODUCTION” without the entire Official Statement, including the cover page, the inside cover page and the appendices, is unauthorized.

The Issuer

The City is located on the front range of the Rocky Mountains in the north-central part of the State of Colorado. The City is the capital of the State and is the service, retail, financial, transportation and distribution center of the Rocky Mountain region. Over 3.2 million people, representing more than half of the population of the State, currently reside in the Denver metropolitan area, of which more than 718,000 reside in the City limits. See “CITY GOVERNMENT ORGANIZATION.”

Purpose

The Series 2019A Bonds are issued for the purpose of: (1) financing various civic facilities; and (2) paying the costs of issuance of the Series 2019A Bonds. See “THE 2019A-B BONDS--Sources and Uses of Funds - Elevate Denver Projects.”

The Series 2019B Bonds are issued for the purpose of: (1) refunding the callable portion (\$54,840,000* aggregate principal amount) of the City’s outstanding General Obligation Better Denver

* Subject to change.

and Zoo Bonds, Series 2009A (the “Series 2009A Bonds”), which are currently outstanding in the aggregate principal amount of \$62,540,000; and (2) paying the costs of issuance of the Series 2019B Bonds (the “Refunding Project”). See “THE 2019A-B BONDS--Sources and Uses of Funds - The Refunding Project.”

The Series 2009A Bonds to be refunded consist of the Series 2009A Bonds maturing on and after August 1, 2020 (the “Refunded Bonds”). After completion of the Refunding Project, \$7,700,000* aggregate principal amount of the Series 2009A Bonds will remain outstanding. The Series 2009A Bonds remaining unrefunded will be paid on August 1, 2019.

Authority for Issuance

The Series 2019A-B Bonds are issued pursuant to: the Charter; the Denver Revised Municipal Code (the “City Code”); portions of the Supplemental Public Securities Act (Title 11, Article 57, Part 2, Colorado Revised Statutes (“C.R.S.”)); voter authorization received at an election held on November 7, 2017 (the “2017 Election”), with respect to the Series 2019A Bonds; the Public Securities Refunding Act (Title 11, Article 56, Part 1, C.R.S.) with respect to the Series 2019B Bonds; and pursuant to the Bond Ordinance.

The Series 2019A-B Bonds; Prior Redemption

General. Each series of the Series 2019A-B Bonds is issued in the aggregate principal amount, bears interest at the rates and matures on the dates and in the amounts set forth on the cover page and inside cover page of this Official Statement.

Interest on the Series 2019A-B Bonds is payable beginning on August 1, 2019, and semiannually on each February 1 and August 1 thereafter. Zions Bancorporation, National Association, Denver, Colorado, will initially serve as the paying agent and registrar (the “Paying Agent”) for the Series 2019A-B Bonds. The Series 2019A-B Bonds are to be issued in fully registered form and registered initially in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York (“DTC”), which will serve as securities depository for the Series 2019A-B Bonds. See “THE SERIES 2019A-B BONDS.”

Redemption Provisions. The Series 2019A Bonds are subject to redemption prior to maturity at the option of the City as described in “THE SERIES 2019A-B BONDS--Redemption Provisions.” The Series 2019B Bonds are not subject to redemption prior to maturity.

At the option of the winning bidders, the Series 2019A-B of either series may also be subject to mandatory sinking fund redemption. See the Notice of Bond Sale applicable to each series of Series 2019A-B Bonds for further information.

Security

The Series 2019A-B Bonds are general obligations of the City and are payable from general ad valorem taxes required to be levied on all the taxable property within the City without limitation as to rate and in an amount sufficient to pay the principal of, interest on and premium, if any, on the Series 2019A-B Bonds, except to the extent that other legally available funds are applied for such purpose. In the Bond Ordinance, the City irrevocably covenants to budget and appropriate sufficient funds to pay the principal of, interest on and premium, if any, on the Series 2019A-B Bonds when due and to levy and collect ad valorem taxes for this purpose. The City pledges its full faith and credit for the payment of the Series 2019A-B Bonds. See “SECURITY FOR THE SERIES 2019A-B BONDS.”

* Subject to change.

Continuing Disclosure

The City has delivered to the Underwriters an undertaking to provide continuing disclosure (the “Continuing Disclosure Undertaking”) relating to certain information contained in this Official Statement. See “CONTINUING DISCLOSURE” and “APPENDIX D - Form of Continuing Disclosure Undertaking.”

Forward-Looking Statements

This Official Statement contains statements relating to future results that are “forward-looking statements” as defined in the Private Securities Litigation Reform Act of 1995. When used in this Official Statement, the words “estimate,” “forecast,” “intend,” “expect” and similar expressions identify forward-looking statements. Any forward-looking statement is subject to uncertainty. Accordingly, such statements are subject to risks that could cause actual results to differ, possibly materially, from those contemplated in such forward-looking statements. Inevitably, some assumptions used to develop forward-looking statements will not be realized or unanticipated events and circumstances may occur. Therefore, investors should be aware that there are likely to be differences between forward looking statements and actual results. Those differences could be material.

Additional Information

This introduction is only a brief summary of the Series 2019A-B Bonds and the Bond Ordinance. A full review of the entire Official Statement should be made by potential investors. Brief descriptions of the Series 2019A-B Bonds, the Bond Ordinance, the Elevate Denver Projects, the Refunding Project and the City are included in this Official Statement. All references herein to the Series 2019A-B Bonds, the Bond Ordinance and other documents are qualified in their entirety by reference to such documents. This Official Statement speaks only as of its date and the information contained herein is subject to change.

This Official Statement contains economic and demographic information as of March 2019 about the City and its metropolitan area prepared by Development Research Partners for use by the City. See APPENDIX B - An Economic and Demographic Overview of the Denver Metropolitan Region.

Additional information and copies of the documents referred to herein are available from the City at the following address:

City and County of Denver
Wellington E. Webb Building, Department 1010
201 W. Colfax Ave.
Denver, Colorado 80202
Attention: Director of Capital Funding
Telephone: (720) 913-5500.

SOURCES AND USES OF FUNDS

Sources and Uses of Funds

The City expects to apply the proceeds of the Series 2019A-B Bonds in the following manner.

Table 1
Sources and Uses of Funds

<u>Sources</u>	<u>Series</u> <u>2019A Bonds</u>	<u>Series</u> <u>2019B Bonds</u>	<u>Total</u>
Original principal amount			
Plus: net reoffering premium.....			
Total			
<u>Uses</u>			
The Elevate Denver Project			
The Refunding Project.....			
Costs of issuance (including underwriting discount)			
Total.....			

Source: Hilltop Securities Inc. (the “Financial Advisor”).

Elevate Denver Projects

General. At the 2017 Election, the City’s voters approved seven separate ballot questions (the “2017 Election Ballot Questions”) authorizing debt in the aggregate principal amount of \$937,418,500 to fund capital infrastructure projects (collectively, the “Elevate Denver Projects”) throughout the City. The Elevate Denver Projects are discussed in more detail below.

Portions of the Elevate Denver Projects are being financed with the net proceeds of the City’s General Obligation Elevate Denver Bonds, Series 2018A (the “Series 2018A Bonds”), which were issued in the aggregate principal amount of \$193,000,000.

Projects Financed with Series 2019A Bond Proceeds. The City expects to use the net proceeds of the Series 2019A Bonds to fund certain improvements for Cultural Facilities and the Denver Health and Hospital Authority as approved in the 2017 Election Ballot Questions.

Cultural Facilities. This 2017 Election Ballot Question authorized \$116,907,000 in aggregate principal amount to fund repairs and improvements to the City’s various cultural facilities, including but not limited to renovation, upgrade and expansion projects, improvements to security and safety systems and accessibility improvements. The City is using net proceeds of the Series 2018A Bonds and the Series 2019A Bonds for Cultural Facilities purposes. After the issuance of the Series 2019A Bonds, the City will have no remaining voter authorization for Cultural Facilities projects.

Denver Health and Hospital Authority. This 2017 Election Ballot Question authorized \$75,000,000 in aggregate principal amount to provide funding for a portion of the cost of the construction of a new Denver Health and Hospital Authority outpatient medical center building. The City is using net proceeds of the Series 2018A Bonds and the Series 2019A Bonds for Denver Health and Hospital Authority projects. After the issuance of the Series 2019A Bonds, the City will have no remaining voter authorization for Denver Health and Hospital Authority projects.

Other Elevate Denver Projects. The paragraphs below describe the remaining Elevate Denver projects approved by the 2017 Election Ballot Questions. The City is currently using the net proceeds of the Series 2018A Bonds to finance a portion of the improvements described below.

Transportation and Mobility System. This 2017 Election Ballot Question authorized \$431,042,500 in aggregate principal amount to fund repairs and improvements to the City's transportation infrastructure to improve safety and traffic flow, increase street capacity and improve bicycle and pedestrian safety and mobility throughout Denver. Projects include but are not limited to the construction and reconstruction of roadways, streetscapes and bike lanes, the repair and replacement of road and pedestrian bridges and walkways, the construction and improvement of sidewalks, the provision and improvement of access to public transit services and the installation of safety improvements.

Public Safety System. This 2017 Election Ballot Question authorized \$77,011,000 in aggregate principal amount to fund projects including but not limited to construction of new police and fire stations and renovations, repairs and improvements to various existing police, fire and public safety system buildings.

Library System. This 2017 Election Ballot Question authorized \$69,343,000 in aggregate principal amount to fund repairs, renovations and improvements to the City's various library facilities, including but not limited to the Central Public Library.

Parks and Recreation System. This 2017 Election Ballot Question authorized \$151,615,000 in aggregate principal amount to fund repairs and improvements to the City's various parks and recreation centers, including but not limited to energy savings and water conservation improvements such as the repair and replacement of outdated irrigation systems, and the construction and renovation of City swimming pools, parks and recreation centers.

Public Facilities System. This 2017 Election Ballot Question authorized \$16,500,000 in principal amount to fund repairs and improvements to various existing City public office buildings, including but not limited to structural and exterior repairs and upgrades of the heating, ventilation and cooling systems and accessibility improvements.

Authorization Remaining from 2017 Election Ballot Questions. After the issuance of the Series 2019A Bonds, \$662,508,500* of total electoral authorization under the 2017 Election Ballot Questions will remain. See "DEBT STRUCTURE OF THE CITY--General Obligation Bonds."

The Refunding Project

The Series 2019B Bonds are being issued for the purpose of current refunding, paying and discharging the Refunded Bonds.

Debt Service Requirements

Tables 2 and 3 set forth the estimated annual debt service requirements to maturity of the Series 2019A-B Bonds and the debt service requirements of the City's other general obligation bonds outstanding as of the date of issuance of the Series 2019A-B Bonds, assuming completion of the Refunding Project.

* Subject to change.

Table 2
Debt Service Requirements - Series 2019A-B Bonds^{1*}

<u>Year</u>	<u>Series 2019A Bonds</u>		<u>Series 2019B Bonds</u>		<u>Combined Debt Service</u>
	<u>Principal</u>	<u>Interest</u>	<u>Principal</u>	<u>Interest</u>	
2019	\$ 3,895,000		--		
2020	1,960,000		\$ 7,865,000		
2021	2,050,000		8,260,000		
2022	7,875,000		8,670,000		
2023	8,270,000		9,105,000		
2024	8,685,000		9,565,000		
2025	9,120,000		9,850,000		
2026	9,575,000		--		
2027	9,860,000		--		
2028	10,160,000		--		
2029	<u>10,460,000</u>		<u>--</u>		
Total	\$81,910,000		\$53,315,000		

1 Totals may not sum to totals due to rounding.

Source: The Financial Advisor.

Table 3
Total General Obligation Bond Debt Service^{1*}

<u>Year</u>	<u>Series 2019A-B Bonds*</u>		<u>Other G.O. Bonds²</u>		<u>Combined Total</u>
	<u>Principal</u>	<u>Interest</u>	<u>Principal</u>	<u>Interest</u>	
2019	\$ 3,895,000		\$ 85,905,000	\$ 32,075,910	
2020	9,825,000		56,655,000	26,862,350	
2021	10,310,000		50,475,000	24,457,317	
2022	16,545,000		30,400,500	31,210,977	
2023	17,375,000		39,195,000	24,669,533	
2024	18,250,000		40,050,000	20,424,022	
2025	18,970,000		41,540,000	18,959,432	
2026	9,575,000		51,225,000	17,376,296	
2027	9,860,000		53,055,000	14,521,601	
2028	10,160,000		58,315,000	17,565,491	
2029	10,460,000		56,790,000	8,609,694	
2030	--		73,125,000	5,444,619	
2031	--		15,010,000	1,451,794	
2032	--		15,465,000	1,001,494	
2033	<u>--</u>		<u>15,945,000</u>	<u>518,213</u>	
Total	\$135,225,000		\$683,150,500	\$245,148,741	

1 Totals may not sum to totals due to rounding.

2 Assumes completion of the Refunding Project; includes the Series 2009A Bonds maturing on August 1, 2019. Also includes the general obligation bonds listed in Table 13 in this Official Statement. Interest on the 2010B Build America Bonds (BAB) is included as the gross amount without regard to the BAB Credit. See "DEBT STRUCTURE OF THE CITY--General Obligation Bonds."

Source: The Financial Advisor.

* Subject to change.

THE SERIES 2019A-B BONDS

General Description

The Series 2019A-B Bonds will be dated as of their date of delivery and will mature and bear interest as shown on the inside cover page of this Official Statement. The Series 2019A-B Bonds will be issued in fully registered form and initially will be registered in the name of “Cede & Co.,” as nominee for DTC. Purchases by beneficial owners of the Series 2019A-B Bonds (“Beneficial Owners”) are to be made in book-entry only form in denominations of \$5,000 or any integral multiple thereof. Payments to Beneficial Owners are to be made as described below in “Book-Entry Only System” and Appendix E hereto.

For a complete statement of the details and conditions of the Series 2019A-B Bonds, reference is made to the Bond Ordinance and the Sale Certificate that will be executed with respect to the Series 2019A-B Bonds, copies of which are available from the sources listed in “INTRODUCTION--Additional Information.”

Payment Provisions

The Bond Ordinance sets forth provisions regarding the payment of the principal and interest on the Series 2019A-B Bonds, record and special record dates and transfer and exchange procedures that are not applicable so long as DTC is serving as the securities depository for the Series 2019A-B Bonds, and are, therefore, not set forth in this Official Statement.

Neither the City nor the Paying Agent has any responsibility or obligation to any Beneficial Owner with respect to (1) the accuracy of any records maintained by DTC or any DTC Participant, (2) any notice that is permitted or required to be given to the Owners of the Series 2019A-B Bonds under the Bond Ordinance, (3) the selection by DTC or any DTC Participant of the recipient of payment in the event of a partial redemption of the Series 2019A-B Bonds, (4) the payment by DTC or any DTC Participant of any amount with respect to the principal or interest due with respect to the Owners of the Series 2019A-B Bonds, (5) any consent given or other action taken by DTC or its nominee as the Owner of Series 2019A-B Bonds or (6) any other related matter.

Redemption Provisions

Optional Redemption - Series 2019A Bonds. The Series 2019A Bonds maturing on and after August 1, 20__ are subject to optional redemption, in whole or part, in integral multiples of \$5,000 on August 1, 20__, and on any date thereafter, at a redemption price equal to 100% of the principal thereof, plus accrued interest to the applicable Optional Redemption Date as further described in the Preliminary Official Statement under “THE SERIES 2019A-B BONDS--Redemption Provisions.”

No Optional Redemption - Series 2019B Bonds. The Series 2019B Bonds are not subject to optional redemption prior to their respective maturity dates.

Notice of Redemption. Notice of redemption is to be given by the Paying Agent in the name of the City by sending a copy thereof by first-class postage prepaid mail, or by using such other method required by DTC, not less than thirty (30) days or more than sixty (60) days prior to the redemption date to the Owner of each of the Series 2019A-B Bonds being redeemed determined as of the close of business on the day preceding the first mailing of such notice at the address appearing on the registration books of the City. Failure to mail any notice as aforesaid or any defect in any notice so sent with respect to any Series 2019A-B Bond does not affect the validity of the redemption proceedings with respect to any other Series 2019A-B Bond. Any notice of redemption may contain a statement that the redemption is conditioned upon the receipt by the Paying Agent of funds on or before the date fixed for redemption sufficient to pay the redemption price of the Series 2019A-B Bonds called for redemption.

Tax Covenant

In the Bond Ordinance, the City covenants for the benefit of the registered owners of the Series 2019A-B Bonds that it will not take any action or omit to take any action with respect to the Series 2019A-B Bonds, the proceeds thereof, any other funds of the City or any facilities financed or refinanced with the proceeds of the Series 2019A-B Bonds if such action or omission (i) would cause the interest on the Series 2019A-B Bonds to lose its exclusion from gross income for federal income tax purposes under Section 103 of the Tax Code, (ii) would cause interest on the Series 2019A-B Bonds to lose its exclusion from alternative minimum taxable income as defined in Section 55(b)(2) of the Tax Code, or (iii) would cause interest on the Series 2019A-B Bonds to lose its exclusion from Colorado taxable income or Colorado alternative minimum taxable income under present Colorado law. The foregoing covenant shall remain in full force and effect notwithstanding the payment in full or defeasance of the Series 2019A-B Bonds until the date on which all obligations of the City in fulfilling the above covenant under the Tax Code and Colorado law have been met.

Book-Entry Only System

The Series 2019A-B Bonds will be available only in book-entry form in the principal amount of \$5,000 or any integral multiples thereof. DTC will act as the initial securities depository for the Series 2019A-B Bonds. The ownership of one fully registered Series 2019A-B Bond for each maturity in each series as set forth on the inside cover page of this Official Statement, each in the aggregate principal amount of such maturity, will be registered in the name of Cede & Co., as nominee for DTC. See Appendix E - Book-Entry Only System.

SO LONG AS CEDE & CO., AS NOMINEE OF DTC, IS THE REGISTERED OWNER OF THE SERIES 2019A-B BONDS, REFERENCES IN THIS OFFICIAL STATEMENT TO THE REGISTERED OWNERS OF THE SERIES 2019A-B BONDS WILL MEAN CEDE & CO. AND WILL NOT MEAN THE BENEFICIAL OWNERS.

None of the City, the Paying Agent or the Registrar will have any responsibility or obligation to DTC's Participants or Indirect Participants (defined herein), or the persons for whom they act as nominees, with respect to the payments to or the providing of notice for the Direct Participants, the Indirect Participants or the Beneficial Owners of the Series 2019A-B Bonds as further described in Appendix C to this Official Statement.

SECURITY FOR THE SERIES 2019A-B BONDS

General

The Series 2019A-B Bonds are general obligations of the City and are payable from general ad valorem taxes required to be levied on all the taxable property within the City without limitation as to rate and in an amount sufficient to pay the principal of, interest on and premium, if any, on the Series 2019A-B Bonds, except to the extent that other legally available funds are applied for such purpose.

In the Bond Ordinance, the City irrevocably covenants to budget and appropriate sufficient funds to pay the principal of, interest on and premium, if any, on the Series 2019A-B Bonds when due and to levy and collect ad valorem taxes for this purpose. The City pledges its full faith and credit for the payment of the Series 2019A-B Bonds. See generally “FINANCIAL INFORMATION CONCERNING THE CITY--Property Taxation.”

The City Code establishes a bonded indebtedness principal fund and a bonded indebtedness interest fund (together, the “Bond Fund”) for the purpose of paying the principal of and interest on the City’s general obligation bonds. Separate tax levies are made for each distinct segregated fund, and tax receipts are apportioned to each such fund as received. These tax levies are specifically dedicated and are therefore only available for the purpose of paying the principal of and interest on the City’s general obligation bonds. See “FINANCIAL INFORMATION CONCERNING THE CITY--The Bond Fund” and Table 9 - City and County of Denver - City-Wide Mill Levies - Direct and Overlapping Governments.

The payment of property taxes does not constitute a personal obligation of the property owners within the City. Instead, these obligations are tied to the properties taxed, and if timely payment is not made the obligations constitute a lien against the specific properties. The City will not have recourse to any assets of any property owners for the payment of property taxes. To enforce the liens, the Treasurer has the power to cause the sale of the property that is subject to the delinquent taxes, as provided by law. However, selling property at a tax sale is a time-consuming remedy and proceeds realized from the sale, if any, may not be sufficient to cover the delinquent taxes. Because property taxes do not constitute personal obligations of the owners of land in the City, in the event of a tax sale in which less than the amount of the delinquent taxes is realized, no deficiency judgment could be taken against the property owner who failed to pay taxes.

Various State laws and constitutional provisions apply to the assessment and collection of ad valorem property taxes. There is no assurance that there will not be any change in, interpretation of, or addition to the applicable laws, provisions and regulations, which would have a material effect, directly or indirectly, on the affairs of the City. See “FINANCIAL INFORMATION CONCERNING THE CITY--Property Taxation” and “FINANCIAL INFORMATION CONCERNING THE CITY--Revenue, Spending and Debt Limitations.”

Ordinance Irrepealable

The Bond Ordinance provides that after any of the Series 2019A-B Bonds are issued, the Bond Ordinance will constitute an irrevocable contract between the City and the owners of the Series 2019A-B Bonds and will be and remain irrepealable until the Series 2019A-B Bonds and the interest accrued thereon shall have been fully paid, canceled or discharged.

Limitations on Remedies Available to Owners of Series 2019A-B Bonds

No Acceleration. There is no provision for acceleration of maturity of the principal of the Series 2019A-B Bonds in the event of a default in the payment of principal or interest on the Series 2019A-B Bonds. Consequently, remedies available to the Owners of the Series 2019A-B Bonds may have to be enforced from year to year.

Bankruptcy, Federal Lien Power and Police Power. The enforceability of the rights and remedies of the Owners of the Series 2019A-B Bonds and the obligations incurred by the City in issuing the Series 2019A-B Bonds are subject to the federal bankruptcy code and applicable bankruptcy, insolvency, reorganization, moratorium, or similar laws relating to or affecting the enforcement of creditors' rights generally, now or hereafter in effect; usual equity principles which may limit the specific enforcement under State law of certain remedies; the exercise by the United States of America of the powers delegated to it by the federal Constitution; the power of the federal government to impose liens in certain situations; and the reasonable and necessary exercise, in certain exceptional situations, of the police power inherent in the sovereignty of the State and its governmental bodies in the interest of serving a significant and legitimate public purpose. Bankruptcy proceedings or the exercise of powers by the federal or State government (including the imposition of tax liens by the federal government), if initiated, could subject the owners of the Series 2019A-B Bonds to judicial discretion and interpretation of their rights in bankruptcy or otherwise, and consequently may entail risks of delay, limitation or modification of their rights.

CITY GOVERNMENT ORGANIZATION

General Information

The City is located on the front range of the Rocky Mountains in the north-central part of the State of Colorado. The City is the capital of the State and is the service, retail, financial, transportation and distribution center of the Rocky Mountain region. Over 3.2 million people, representing more than half of the population of the State, currently reside in the Denver metropolitan area, of which more than 718,000 currently reside in the City limits. See “Appendix B - An Economic and Demographic Overview of the Denver Metropolitan Region.”

Organization

The City was originally incorporated by a special act passed at the first session of the Legislative Assembly of the Territory of Colorado, adopted and approved on November 7, 1861. The State Constitution was adopted by the people of the State on March 14, 1876, and the Territory was admitted into the Union as a state by proclamation of President Grant on August 1, 1876. Article XX was added to the State Constitution at the State’s general election in November 1902. The City was reorganized thereunder as the consolidated municipal government known as the City and County of Denver and exists as a “home-rule” city under the City Charter adopted by the qualified electors of the City on March 29, 1904, as amended from time to time. The City is a single governmental entity performing both municipal and county functions.

Government

The City Charter establishes a “strong-mayor” form of government. The Mayor of the City is the chief executive, exercising all administrative and executive powers granted to the City, except as otherwise delegated by the City Charter. The Mayor is elected every four years and is limited to three consecutive terms. The legislative powers of the City are vested in the City Council, except as otherwise provided in the City Charter. The City Council consists of 13 members, two of whom are elected on an at-large basis and 11 of whom are elected by districts, all for four-year terms with a three-consecutive-term limit. Seven members constitute a meeting quorum, and the vote of seven members is necessary to adopt any ordinance or resolution. Ordinances passed by the City Council are subject to a qualified veto by the Mayor (except certain ordinances concerning charter amendments or conventions). The Mayor’s veto may be overridden by the vote of nine Council members.

Michael B. Hancock	Mayor
Timothy M. O’Brien, CPA	Auditor
Debra Johnson	Clerk and Recorder
Jolon Clark	Councilmember and President - District 7
Stacie Gilmore	Councilmember and <i>Pro Tem</i> - District 11
Kendra Black	Councilmember - District 4
Albus Brooks	Councilmember - District 9
Rafael Espinoza	Councilmember - District 1
Kevin Flynn	Councilmember - District 2
Christopher Herndon	Councilmember - District 8
Paul Kashmann	Councilmember - District 6
Robin Kneich	Councilmember - At-Large
Paul D. López	Councilmember - District 3
Wayne New	Councilmember - District 10
Deborah Ortega	Councilmember - At-Large
Mary Beth Susman	Councilmember - District 5

The City Auditor is responsible for internal audits of the City and, with the Audit Committee, oversees the audit of the City's comprehensive annual financial report ("CAFR"). The Auditor is elected every four years and is limited to three consecutive terms. Powers to conduct financial and performance audits are carried out by the City Auditor in that office's audit capacity. The current City Auditor is Timothy M. O'Brien.

The Clerk and Recorder is responsible for performing all the duties of the City Clerk as provided for in the City Charter and City ordinances, as well as the duties of the Public Trustee and the County Clerk and Recorder provided by the State Constitution and statutes, with the exception of those relating to the registration of motor vehicles. The Clerk and Recorder also has oversight of the Election Division. The Clerk and Recorder is elected every four years and is limited to three consecutive terms. The current Clerk and Recorder is Debra Johnson.

The Chief Financial Officer, as the Manager of Finance and *ex officio* Treasurer serves on the Mayor's cabinet and is responsible for the management of the City's debt and financial obligations and the appointment of the Manager of Cash, Risk & Capital Funding, Controller, Treasurer, Budget Manager, Assessor and Director of Real Estate. Responsibilities for issuance of payments, payroll and other general accounting functions are performed by the Department of Finance. The current Manager of Finance is Brendan J. Hanlon.

As of the date of this Official Statement, the appointed members of the Mayor's cabinet were the following individuals:

Murphy Robinson	Deputy Mayor, Executive Director of the Department of General Services
Brendan J. Hanlon	Chief Financial Officer, as the Manager of Finance/ <i>ex-officio</i> Treasurer
Kristin M. Bronson, Esq.	City Attorney
Eulois Cleckley	Executive Director of the Department of Public Works
Kim Day	Executive Director of the Department of Aviation
Allegra "Happy" Haynes	Executive Director of the Department of Parks and Recreation
Jill Jennings Golich	Executive Director of the Department of Community Planning and Development
Donald J. Mares	Executive Officer of the Department of Human Services
Robert M. McDonald	Executive Director of the Department of Public Health and Environment
Troy Riggs	Executive Director of the Department of Safety

In addition to the members of the cabinet, other advisors include Chief of Staff Alan Salazar, Deputy Chiefs of Staff Erin Brown and Evan Dreyer, and Stephanie O'Malley, Senior Special Advisor to the Mayor, who have significant advisory roles in formulating policy.

FINANCIAL INFORMATION CONCERNING THE CITY

Budget Policy

The Charter establishes a fiscal year for the City that begins on January 1 and ends on December 31 (the “Fiscal Year”). Before the third Monday in October of each Fiscal Year, the Mayor submits an operating and capital budget for the ensuing Fiscal Year to the Council for its approval. The Council may accept the budget with a majority vote or may vote to override all or any part of the Mayor’s budget with a two-thirds majority vote. After the budget is approved (no later than the second Monday in November), the Mayor is empowered to administer the operating and capital budget for the next Fiscal Year. If the Council fails to adopt a budget by the required date, the proposed budget, together with any amendments approved by the Council, becomes the official budget.

The budget proposed by the Mayor may not include expenditures in excess of estimated opening balances and anticipated revenues. In addition, the General Fund budget is required by the Charter to include a year-end closing balance, which can only be expended upon a two-thirds majority vote of the Council during that Fiscal Year but may be considered income for the ensuing Fiscal Year. The annual budget includes a Contingency Reserve of no less than 2% of total estimated expenditures. In addition, an Emergency Reserve equal to 3% of fiscal year spending excluding debt service is required by State constitutional provisions (TABOR Reserve) to be included in the budget. In March 2014, the Council approved fulfilling a portion of the TABOR Reserve requirement by pledging real property in lieu of cash. This reserve may only be applied for emergency purposes as specified in the Colorado Constitution. By Department of Finance policy, the General Fund targeted reserve is 15%, and should not be drawn below 10%.

The City administration utilizes multi-year planning and forecasting methods for General Fund budgeting and for capital projects planning.

Bond Fund

The City Code establishes a bonded indebtedness principal fund and a bonded indebtedness interest fund within the Bond Fund for the purpose of paying the principal of and interest on the City’s general obligation bonds. Separate tax levies are made for each distinct segregated fund, and tax receipts are apportioned to each such fund as received. These tax levies are specifically dedicated and are therefore only available for the purpose of paying the principal of and interest on the City’s general obligation bonds. See “SECURITY FOR THE SERIES 2019A-B BONDS” and Table 9 -City and County of Denver - City-Wide Mill Levies - Direct and Overlapping Governments.

General Fund

The General Fund is the principal operating fund of the City. Information contained in this section has been derived from the annual financial reports of the City, the General Fund budget for the years 2018 and 2019, and information prepared by the Department of Finance.

Major Revenue Sources. Two major revenue sources for the City’s General Fund are sales and use taxes and the City’s property tax. Additional revenue sources include intergovernmental revenues, licenses and permits, fines and forfeitures, charges for services, investment income and other miscellaneous taxes and revenues.

The general sales tax, at the end of December 31, 2018, was a fixed-rate (4.31%) tax imposed on the sale of all tangible personal property not specifically exempted and on certain services. The general use tax, at the end of December 31, 2018, was a fixed-rate (4.31%) tax imposed on the storage, use and consumption of tangible personal property not specifically exempted. In practice, sales and use taxes are accounted for on a combined basis. See also “Sales and Use Taxes” below.

Property taxes are levied on all real property, personal property and public utilities within the City, except for certain property that has been specifically exempted in whole or in part. General categories of exempt property include property used for religious or charitable purposes and property owned by governmental entities.

Additional amounts collected by the City and accounted for in the General Fund include the City's lodger's tax ("Lodger's Tax"), short-term auto rental tax ("Auto Rental Tax"), prepared food and beverage tax ("Food and Beverage Tax"), occupational privilege taxes ("OPT" or "Head Tax"), automobile ownership tax, telecommunications business tax, and franchise fees. A portion of the Lodger's Tax, Auto Rental Tax, and Food and Beverage Tax are pledged to debt service on Dedicated Tax Revenue bonds of the City.

The automobile ownership tax is levied on all motor vehicles registered with the City's Division of Motor Vehicles and is based on the age and value of the vehicle. The telecommunications business tax is imposed on providers of local exchange telecommunication service based upon the number of local service lines. Franchise fees include the utility franchise fees imposed upon Xcel Energy for its franchise to serve customers in the City and the franchise fee imposed on Comcast for operation of its cable television franchise within the City.

Charges for services are another major revenue source for the City's General Fund. General Fund agencies bill individuals, businesses and other City funds for various services, supplies and materials. Charges vary depending upon cost and are assessed to the individual or entity benefiting from the provision of a specific service, supply or material.

Intergovernmental revenues received by the City include State grants and other revenues. Various highway taxes and fees collected by the State are shared with local governments including the City. Currently, a portion of the State-imposed cigarette tax and wholesale marijuana tax is also shared with the City and included in intergovernmental revenues.

Major Expenditure Categories. The General Fund accounts for all expenditures normally associated with basic municipal functions. Expenditures under the General Fund include: General Government; Public Safety; Public Works; Health; Parks and Recreation; and Cultural Activities. The largest portion of the 2019 expenditure budget (39.2%) was allocated to Public Safety, which is primarily responsible for administering police, fire and sheriff's departments' services.

Management Discussion of Recent Financial Results

Rather than relying on tax increases, the City maintains a policy of managing General Fund resources to the level of funds available by reallocating resources selectively to initiate new services, eliminating cash deficits in other funds and targeting year-end unrestricted General Fund balances equal to 15% of estimated expenditures.

2014. 2014 core revenue collections of sales and use tax, which do not include audit revenues, were 11.7% higher than 2013 primarily as a result of the continued robust recovery of the economy. Including audit revenues, total sales and use tax revenue collections for the General Fund were 12.7% higher than 2013. Total 2014 revenues performed 8.6% over 2013. With respect to budget basis expenditures, City departments saved \$43.6 million from the revised 2014 budget due to achieving expected unspent appropriations, due in large part to compensation savings. Total General Fund expenditures, including transfers out, increased by 9.8% from 2013, primarily driven by personnel cost increases.

2015. 2015 core revenue collections of sales and use tax, which do not include audit revenues, were 3.9% higher than 2014. Including audit revenues, total sales and use tax revenue collections for the General Fund were 4.8% higher than 2014. Total 2015 revenues performed 7.1% over 2014. With respect

to budget basis expenditures, City departments saved \$54.6 million from the revised 2015 budget due to achieving expected unspent appropriations and return of contingency funds in 2015. Total General Fund expenditures, including transfers out, increased by 10.3% from 2014, primarily driven by personnel cost increases and transfers between City funds.

2016. 2016 core revenue collections of sales and use tax, which do not include audit revenues, were 6.5% higher than 2015 core revenue collections of sales and use tax. Audit revenues decreased year-over-year in 2016. For the General Fund, total sales and use tax revenue collections including audit revenues were 5.4% higher than 2015 total sales and use tax revenue collections including audit revenues. Total 2016 revenues performed 2.8% over 2015. With respect to budget basis expenditures, City departments saved \$72.7 million from the revised 2016 budget due to achieving expected unspent appropriations and return of contingency funds in 2016. Total General Fund expenditures, including transfers out, increased by 10.3% from 2015, primarily driven by personnel cost increases and transfers between City funds.

2017. 2017 core revenue collections of sales and use tax, which do not include audit revenues, were 6.3% higher than 2016 core revenue collections of sales and use tax. Audit revenues increased year-over-year in 2017. For the General Fund, total sales and use tax revenue collections including audit revenues were 7.0% higher than 2016 total sales and use tax revenue collections including audit revenues. Total 2017 revenues performed 5.7% over 2016. Excluding a one-time legal settlement related to online travel companies, total 2017 revenues performed 4.9% over 2016. With respect to budget basis expenditures, City departments saved \$34.0 million from the revised 2017 budget as a result of achieving unspent appropriations, due in large part to compensation savings and not fully expending contingency funds in 2017. Total General Fund expenditures, including transfers out, increased by 5.8% from 2016, primarily driven by personnel cost increases and transfers between City funds.

2018 (Unaudited). The City has begun the audit process for fiscal year 2018 and has prepared the following information regarding its preliminary (unaudited) year-end results. The City continues to work on the process of preparing its audited financial statements and its preliminary year-end results remain subject to change and adjustment as part of the audit process.

[To come]

Management Discussion of 2019 Budget

[To come]

General Fund Financials

The following pages include Table 4, General Fund Balance Sheet; Table 5, Statement of Revenues, Expenditures and Changes in Fund Balance; and Table 6, General Fund Budget Summary - 2017 Actual Results, 2018 Revised Budget and 2019 Adopted Budget.

Table 4
General Fund Balance Sheet
For the years ending December 31, 2013-2017
(\$ in thousands)

ASSETS	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Cash and cash equivalents	\$ 195,214	\$ 270,048	\$ 273,039	\$ 274,060	\$ 286,222
Cash on hand	143	140	117	1,156	921
Receivables (net of allowances for uncollectibles):					
Taxes	170,018	180,913	185,474	189,709	203,890
Notes	2,804	2,785	430	2,589	2,822
Accounts	20,109	19,541	21,999	24,642	19,877
Accrued interest	1,440	1,876	1,973	1,902	2,025
Interfund receivable	12,528	9,077	12,436	11,608	13,530
Prepaid items and other assets	268	425	2,890	7,215	2,983
Restricted assets:					
Cash and cash equivalents	48,203	51,218	65,283	68,115	71,295
Assets held for disposition	<u>11,436</u>	<u>11,436</u>	<u>-</u>	<u>-</u>	<u>-</u>
TOTAL ASSETS	<u>\$ 462,163</u>	<u>\$ 547,459</u>	<u>\$ 563,641</u>	<u>\$ 580,996</u>	<u>\$ 603,565</u>
LIABILITIES					
Vouchers payable	\$ 17,037	\$ 19,921	\$ 19,240	\$ 27,539	\$ 42,799
Accrued liabilities	32,423	35,582	15,882	19,620	19,609
Due to other funds	274	266	556	528	501
Interfund Payable	2,122	3,548	36	24	1,763
Deferred revenue	122,972	124,126	133,702	134,787	144,616
Advances	<u>-</u>	<u>-</u>	<u>25</u>	<u>1,075</u>	<u>218</u>
TOTAL LIABILITIES	<u>\$ 174,828</u>	<u>\$ 183,443</u>	<u>\$ 169,441</u>	<u>\$ 183,573</u>	<u>\$ 209,506</u>
FUND BALANCE					
Nonspendable	\$ 268	\$ 425	\$ 2,890	\$ 7,215	\$ 2,979
Restricted	62,443	65,439	65,713	68,114	71,295
Committed	23,594	30,388	32,121	50,964	55,661
Unassigned	<u>201,030</u>	<u>267,764</u>	<u>293,476</u>	<u>271,130</u>	<u>264,124</u>
TOTAL FUND BALANCE	<u>\$ 287,335</u>	<u>\$ 364,016</u>	<u>\$ 394,200</u>	<u>\$ 397,423</u>	<u>\$ 394,059</u>
TOTAL LIABILITIES AND FUND BALANCE	<u>\$ 462,163</u>	<u>\$ 547,459</u>	<u>\$ 563,641</u>	<u>\$ 580,996</u>	<u>\$ 603,565</u>

Sources: City and County of Denver Comprehensive Annual Financial Reports, 2013-2017.

Table 5
General Fund Statement of Revenues, Expenditures and Changes in Fund Balance
For the years ending December 31, 2013-2017
(\$ in thousands)

REVENUES	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Taxes:					
Property	\$ 108,522	\$ 112,120	\$ 107,198	\$ 116,009	\$ 120,328
Sales and Use	493,002	555,428	581,922	613,617	656,531
Other	85,816	94,124	100,704	104,291	116,347
Licenses and Permits	42,916	48,425	59,909	59,593	64,601
Intergovernmental Revenues	27,669	31,647	33,240	34,414	35,500
Charges for Services	167,864	169,047	189,573	193,659	194,569
Investment and Interest Income	1,890	7,499	7,388	8,308	9,185
Fines and Forfeitures	54,818	51,954	52,989	48,893	49,710
Other Revenues	<u>10,314</u>	<u>8,233</u>	<u>16,443</u>	<u>10,666</u>	<u>14,393</u>
TOTAL REVENUES	<u>\$ 992,811</u>	<u>\$ 1,078,477</u>	<u>\$ 1,149,366</u>	<u>\$ 1,189,450</u>	<u>\$ 1,261,164</u>
EXPENDITURES					
Current:					
General Government	\$ 181,635	\$ 211,460	\$ 230,258	\$ 259,959	\$ 276,941
Public Safety	475,654	500,627	518,800	539,428	561,995
Public Works	98,178	129,111	121,516	135,073	151,959
Health and Human Services	44,636	48,957	49,301	53,051	54,045
Parks and Recreation	55,279	57,476	57,914	64,534	68,087
Cultural Activities	39,192	41,064	44,213	45,416	48,444
Community Development	15,998	18,152	21,515	29,464	32,463
Economic Opportunity	574	527	601	558	187
Obligation Retirement	<u>4,785</u>	<u>7,506</u>	<u>5,995</u>	<u>5,904</u>	<u>4,950</u>
TOTAL EXPENDITURES	<u>\$ 915,931</u>	<u>\$ 1,014,880</u>	<u>\$ 1,050,113</u>	<u>\$ 1,133,387</u>	<u>\$ 1,199,071</u>
Excess of Revenues Over Expenditures	\$ 76,880	\$ 63,597	\$ 99,253	\$ 56,063	\$ 62,093
OTHER FINANCING SOURCES (USES)					
Other	\$ 305	\$ 19,039 ¹	\$ 772	\$ 564	\$ 4,160
Operating Transfers In	38,589	46,045	56,366	51,333	43,125
Operating Transfers Out	<u>(55,287)</u>	<u>(52,000)</u>	<u>(126,207)</u>	<u>(104,737)</u>	<u>(112,742)</u>
TOTAL OTHER FINANCING SOURCES (USES)	<u>\$ (16,393)</u>	<u>\$ 13,084</u>	<u>\$ (69,069)</u>	<u>\$ (52,840)</u>	<u>\$ (65,457)</u>
Net Change in Fund Balance	60,487	76,681	30,184	3,223	(3,364)
Fund Balance – January 1	<u>226,848</u>	<u>287,335</u>	<u>364,016</u>	<u>394,200</u>	<u>397,423</u>
Fund Balance – December 31	<u>\$ 287,335</u>	<u>\$ 364,016</u>	<u>\$ 394,200</u>	<u>\$ 397,423</u>	<u>\$ 394,059</u>

1 Amount includes \$18,763,065 of Other Financing Sources related to the execution of non-certificated capital equipment leases for the lease purchase of public works fleet in 2014.

Sources: City and County of Denver Comprehensive Annual Financial Reports, 2013-2017.

Table 6
General Fund Budget Summary-2017 Actual Results,
2018 Revised Budget and 2019 Adopted Budget

Prepared in Budgetary Format

(\$ in thousands – columns may not sum to totals due to rounding)

	<u>2017 Actual</u>	<u>2018 Revised Budget</u>	<u>2019 Adopted Budget</u>
REVENUES			
Taxes			
Property	\$ 120,328	\$ 128,787	\$ 131,095
Sales and Use	656,531	692,304	730,450
Other	116,347	115,729	118,810
Intergovernmental Revenues	35,500	39,075	39,970
Licenses and Permits	64,601	59,560	60,294
Fines and Forfeitures	49,710	49,633	50,320
Charges for Services	194,569	208,831	217,092
Investment Income	9,185	10,679	12,644
Transfers In	43,125	40,581	41,826
Other Revenues and Financing Sources	<u>18,553</u>	<u>8,347</u>	<u>7,743</u>
TOTAL FINANCIAL SOURCES	<u>1,308,449</u>	<u>1,353,526</u>	<u>1,410,245</u>
EXPENDITURES			
General Government	309,591	405,724	432,619
Public Safety	561,995	540,483	572,793
Public Works	151,959	139,446	146,005
Health	54,045	47,833	50,973
Parks and Recreation	68,087	73,705	77,683
Cultural Activities	48,444	49,398	52,648
Debt Service	4,950		
Transfers Out	112,742	132,043	115,460
General Fund Contingency	-	29,349	28,684
Estimated Unspent Appropriation	<u>-</u>	<u>(15,000)</u>	<u>(14,000)</u>
TOTAL EXPENDITURES BUDGET	<u>1,311,813</u>	<u>1,402,980</u>	<u>1,462,864</u>
FUND BALANCES ²			
Net Change in Fund Balance	(3,364)	<u>(49,453)</u>	<u>(52,619)</u>
Fund Balance Jan 1	<u>397,423</u>		
Fund Balance Dec 31	<u>394,059</u>		
Undesignated Fund Balance Jan 1	271,130	323,006	273,553
Undesignated Fund Balance Dec 31	<u>\$ 264,124</u>	<u>\$ 273,553</u>	<u>\$ 220,934</u>

1 The City's Comprehensive Annual Financial Reports and Budgets use slightly different reporting codes for specific revenue and expenditure categories. Accordingly, there may be differences in some line item descriptions and totals.

2 The City's Comprehensive Annual Financial Report follows GASB 54, which clarifies existing fund type definitions. The Comprehensive Annual Financial Report lists Fund Balance as a change in all fund balances, which includes the General Fund and other Governmental Funds. The City's Budget Division does not use this methodology for the budget, therefore fund balances should only be compared within the budget columns.

Sources: City and County of Denver 2017 Comprehensive Annual Financial Report and 2019 Budget Book.

Collection of Taxes

The City Charter provides that the Manager of Finance shall collect taxes in the same manner and at the same time as State taxes are collected. All laws of the State for the assessment and collection of general taxes, including laws for the sale of property for taxes and the redemption of the same apply except as modified by the City Charter.

Sales and Use Taxes

The City's sales and use tax collections historically account for approximately 50% of the General Fund revenues. As of January 1, 2019, a fixed-rate general sales tax of 4.31% was imposed on the sale of all tangible personal property not specifically exempted and on certain services. A fixed-rate general use tax of 4.31% was also imposed on the storage, use and consumption of tangible personal property not specifically exempted. The City's practice is to account for sales and use taxes on a combined basis.

The sales and use tax rate includes a 0.15% portion authorized by voters to fund increased access to and quality of preschool programs for City residents (the "preschool tax"). The revenue from this portion of the sales and use tax, which is in effect through December 31, 2026, is only available for the described purposes and cannot be used for General Fund purposes.

In addition to other applicable taxes, a 3.5% special tax is imposed on all retail recreational marijuana sales, proceeds of which are deposited in the General Fund for expenditures authorized in the Denver Revised Municipal Code. Effective October 1, 2018, an additional 2% special sales tax is required to be deposited in the Affordable Housing Property Tax and Other Local Revenue Fund for affordable housing purposes, resulting in a total 5.5% special sales tax on retail recreational marijuana sales.

The City imposes specific tax rates for the following goods or services:

General Fund Sales and Use Tax Rates

<u>Taxation of Certain Goods or Services</u>	<u>City Tax Rate</u>
Non-exempt retail sales, lease or rentals of tangible personal property and on certain services	4.31% ^{1,2}
Retail marijuana special sales tax	5.5% ³
Prepared food and drink	4.0%
Aviation fuel	\$0.04 per gallon
Automobile rental for thirty (30) days or less	7.25%
Lodging for thirty (30) days or less	10.75% ⁴

- 1 Includes 0.15% City sales tax dedicated to increasing access to and quality of preschool programs for City residents. The revenue from this portion of the sales tax is only available for such purpose and cannot be used for General Fund revenue.
- 2 Denver voters approved the following total of 0.66% of sales tax increases in November 2018: 0.25% sales and use tax to fund Denver parks, trails, and open space, 0.25% sales and use tax for mental health services and substance abuse prevention; a 0.08% sales and use tax for college scholarships; and a 0.08% sales and use tax to improve availability of healthy food for children. The revenue from these portions of the sales tax are only available for such respective purposes and cannot be used for General Fund revenue.
- 3 A maximum tax of 15% was approved by voters to be imposed as a tax on the sale of retail marijuana and marijuana products. As of October 1, 2018, a retail marijuana tax rate of 5.5% was imposed.
- 4 In addition to the 10.75% Lodger's Tax imposed by the City, at an election held in 2017, certain hoteliers in Denver approved the creation of the Denver Tourism Improvement District (the "TID"), which imposes an additional hotel and lodger's tax of 1.0% on every hotel within the City limits with 50 or more rooms. The purpose of the additional lodger's tax is to contribute to an increase in marketing services provided by Visit Denver and to contribute to tourism-related capital improvements, including improvements at the Colorado Convention Center. Collection of this tax started January 1, 2018.

The above general fund sales and use tax rates effective for 2019 reflects the City's total tax rate for goods and services as set forth; however, portions of the prepared food and beverage tax, automobile rental tax and lodgers' taxes are reflected in the general fund's sales and use tax category while the remainder is either contractually pledged to the Denver Metropolitan Convention and Visitors Bureau or to certain Dedicated Tax Revenue Bonds and recorded in other Funds.

Table 7 reflects the City’s General Fund sales and use tax collections for the past ten years.

Table 7
City and County Of Denver - General Fund Sales And Use Tax Revenues
 2008-2017 (\$ In Thousands)

<u>Year</u>	<u>Revenues</u> ¹	<u>Percent Change</u> ¹
2008	\$430,928	3.05%
2009	387,838	(10.00)
2010	409,817	5.67
2011	441,187	7.65
2012	451,352	2.30
2013	493,002	9.23
2014	555,428	12.66
2015	581,922	4.77
2016	613,617	5.45
2017	656,531	6.99

1 Revenues include amounts received from audit revenues.

Source: Department of Finance.

Financial Statements

The City’s audited basic financial statements, derived from the City’s 2017 CAFR, are attached to this Official Statement as Appendix A. Those financial statements are the most current audited financial information available for the City. Such financial statements should be read in their entirety. Financial statements of the City for fiscal years ending prior to December 31, 2017, are available for inspection at the Department of Finance, 201 West Colfax Avenue, 10th Floor, Denver, Colorado 80202. The City’s financial statements are also available by navigating to the Department of Finance page on the City’s website: www.denvergov.org. The information presented on the City’s website is not a part of this Official Statement and should not be relied upon in making an investment decision with respect to the Series 2019A-B Bonds.

The basic financial statements of the City for the year ending December 31, 2017, included in Appendix A to this Official Statement have been audited by BKD LLP (“BKD”), independent public accountants, as stated in their report appearing herein. The agreement between the City and BKD relating to provision of audit services provides that the City is not required to obtain BKD’s consent for the inclusion of financial statements in the City’s offering documents. Accordingly, the consent of BKD to the inclusion of Appendix A was not sought or obtained. BKD, the City’s independent external auditor, has not been engaged to perform and has not performed, since the date of its report included herein, any procedures on any financial statements addressed in that report. BKD also has not performed any procedures related to this Official Statement.

Property Taxation

Property Subject to Taxation. Subject to the limitations imposed by the Taxpayers Bill of Rights (“TABOR,” as described in “Revenue, Spending and Debt Limitations” below), the Council has the power to certify a levy for collection of ad valorem taxes against all taxable property within the City.

Property taxes are uniformly levied against the assessed valuation of all property subject to taxation by the City. Both real and personal property are subject to taxation, but there are certain classes of property which are exempt. Exempt property includes, but is not limited to: property of the United States of America; property of the State and its political subdivisions; public libraries; public school

property; property used for charitable or religious purposes; nonprofit cemeteries; irrigation ditches, canals, and flumes used exclusively to irrigate the owner’s land; household furnishings and personal effects not used to produce income; intangible personal property; inventories of merchandise and materials and supplies which are held for consumption by a business or are held primarily for sale; livestock; agricultural and livestock products; and works of art, literary materials and artifacts on loan to a political subdivision, gallery or museum operated by a charitable organization. The State Board of Equalization supervises the administration of all laws concerning the valuation and assessment of taxable property and the levying of property taxes.

Assessment of Property. Taxable property is first appraised by the Assessor to determine its statutory “actual” value. This amount is then multiplied by the appropriate assessment percentage to determine each property’s assessed value. The mill levy of each taxing entity is then multiplied by this assessed value to determine the amount of property tax levied upon such property by such taxing entity. Each of these steps in the taxation process is explained in more detail below.

Determination of Statutory Actual Value. The Assessor annually conducts appraisals in order to determine, on the basis of statutorily specified approaches, the statutory “actual” value of all taxable property within the City as of January 1. Most property is valued using a market approach, a cost approach or an income approach. Residential property is valued using the market approach, and agricultural property, exclusive of building improvements thereon, is valued by considering the earning or productive capacity of such lands during a reasonable period of time, capitalized at a statutory rate. The statutory actual value of a property is not intended to represent its current market value.

Statutory actual values are determined from manuals published by the Administrator of the State Division of Property Taxation and from data developed by the Assessor, based on evidence collected from the marketplace. Table 8 sets forth the State property appraisal method for property tax assessment (levy) years 2010 through 2019.

Table 8
State Property Appraisal Method

<u>Collection Year</u>	<u>Assessment/Levy Year</u>	<u>Value Calculated As Of</u>	<u>Based on the Market Period</u>
2011	2010	June 30, 2008	January 1, 2007 to June 30, 2008
2012 ⁽¹⁾	2011	June 30, 2010	July 1, 2008 to June 30, 2010
2013	2012	June 30, 2010	July 1, 2008 to June 30, 2010
2014	2013	June 30, 2012	July 1, 2010 to June 30, 2012
2015	2014	June 30, 2012	July 1, 2010 to June 30, 2012
2016	2015	June 30, 2014	July 1, 2012 to June 30, 2014
2017	2016	June 30, 2014	July 1, 2012 to June 30, 2014
2018	2017	June 30, 2016	July 1, 2014 to June 30, 2016
2019	2018	June 30, 2016	July 1, 2014 to June 30, 2016
2020	2019	June 30, 2018	July 1, 2016 to June 30, 2018

(1) Beginning in 2012, the City instituted a policy change as already authorized by law to utilize a 24-month valuation period (instead of an 18-month valuation period) in order to provide more stability, accuracy and fairness in valuation. The dollar amounts of tax collected during these years were accurately reported, it is only the methodology of valuation that changed.

Source: Assessor’s Office Division of the Department of Finance.

The Assessor may consider market sales for periods up to 60 months immediately prior to the June 30 value calculation date if there were insufficient sales during the stated market period to accurately determine the level of value.

Oil and gas leaseholds and lands, producing mines and other lands producing nonmetallic minerals are valued based on production levels rather than by the base year method. Public utilities are valued by the State Property Tax Administrator based upon the value of the utility’s tangible property and intangibles (subject to certain statutory adjustments), gross and net operating revenues and the average market value of its outstanding securities during the prior calendar year.

Determination of Assessed Value. Assessed valuation, which represents the value upon which ad valorem property taxes are levied, is calculated by the Assessor as a percentage of statutory actual value. The percentage used to calculate *assessed* valuation differs depending upon the classification of each property.

Residential Property. To avoid extraordinary increases in residential real property taxes when the base year level of value is changed, the State constitution requires the Legislature to adjust the assessment rate of residential property for each year in which a change in the base year level of value occurs. This adjustment is constitutionally mandated to maintain the same percentage of the aggregate statewide valuation for assessment attributable to residential property which existed in the previous year (although, notwithstanding the foregoing, TABOR prohibits any valuation for assessment ratio increase for a property class without prior voter approval).

Pursuant to the adjustment process described above, the residential assessment rate is adjusted every two years, resulting in the following history of residential assessment rates over the last 30 years.

<u>Levy Years</u>	<u>Residential Assessment Rate (% of Statutory Actual Value)</u>
1989-1990	15.00%
1991-1992	14.34
1993-1994	12.86
1995-1996	10.36
1997-2000	9.74
2001-2002	9.15
2003-2016	7.96
2017-2018	7.20

The residential assessment rate may decline further in future years. In December 2018, the Colorado Legislative Council (the research division of the Legislature) projected that the residential assessment rate will decline to 6.78% starting with levy year 2019 and decline further to 6.41% for levy year 2021. The State Division of Property Taxation, which uses a different methodology, has preliminarily estimated a residential assessment rate of 6.95% starting with levy year 2019. The projections are only estimates, however, and are subject to change as a result of numerous economic factors. The residential assessment rate cannot increase without the approval of Colorado voters.

Non-residential property. All non-residential taxable property, with certain specified exceptions, is assessed at 29% of its statutory actual value. Producing oil and gas property is generally assessed at 87.5% of the selling price of the oil and gas.

Protests, Appeals, Abatements and Refunds. Property owners are notified of the valuation of their real property or taxable personal property and certain other information related to the amount of property taxes levied, in accordance with statutory deadlines. Property owners are given the opportunity to object to increases in the statutory actual value of such property, and may petition for a hearing thereon before the City’s Board of Equalization. Upon the conclusion of such hearings, the Assessor is required to complete the assessment roll of all taxable property and, no later than August 25th each year, prepare an abstract of assessment therefrom. The abstract of assessment and certain other required information is reviewed by the State Property Tax Administrator prior to October 15th of each year and, if necessary, the State Board of Equalization orders the Assessor to correct assessments. The valuation of property is subject to further review during various stages of the assessment process at the request of the property

owner, by the State Board of Assessment Appeals, the State courts or by arbitrators appointed by the County Board of Equalization. On the report of an erroneous assessment, an abatement or refund must be authorized by the County Board of Equalization; however, in no case will an abatement or refund of taxes be made unless a petition for abatement or refund is filed within two years after January 1 of the year in which the taxes were levied. Refunds or abatements of taxes are prorated among all taxing entities which levied a tax against the property.

Statewide Review. The Legislature is required to cause a valuation for assessment study to be conducted each year in order to ascertain whether or not county assessors statewide have complied with constitutional and statutory provisions in determining statutory actual values and assessed valuations for that year. The final study, including findings and conclusions, must be submitted to the Legislature and the State Board of Equalization by September 15th of the year in which the study is conducted. Subsequently, the State Board of Equalization may order a county to conduct reappraisals and revaluations during the following property tax levy year. Accordingly, the City's assessed valuation may be subject to modification following any such annual assessment study.

Homestead/Disabled Veterans Property Tax Exemptions. The Colorado Constitution provides property tax exemptions for qualifying senior citizens (adopted in 2000) and for disabled veterans (adopted in 2006). The senior citizen provision provides that for property tax collection years 2007 and later, the exemption is equal to 50% of the first \$200,000 of actual value of residential real property that is owner-occupied if the owner or his or her spouse is 65 years of age or older and has occupied such residence for at least 10 years. The State legislature has suspended the senior citizen exemption in several past years. The disabled veterans provision provides that for property tax collection years 2008 and later, the same exemption is available to homeowners who have served on active duty in the U.S. Armed Forces and who are rated 100% permanently disabled by the federal government due to a service-connected disability. The State is required to reimburse all local governments for the reduction in property tax revenue resulting from these exemptions; therefore, it is not expected that this exemption will result in the loss of any property tax revenue to the City. There is no assurance, however, that the State reimbursement will be received in a time period which is sufficient to replace the reduced property tax revenue.

Taxation Procedure. The Assessor is required to certify to the City the assessed valuation of property within the City no later than August 25th of each year. If the Assessor makes changes in the valuation for assessment or the total actual value prior to December 10, the Assessor notifies the City of those changes. Subject to the limitations of TABOR, based upon the valuation certified by the Assessor, the City's Budget Office computes a rate of levy which, when levied upon every dollar of the valuation for assessment of property subject to the City's property tax, and together with other legally available City revenues, will raise the amount required by the City in its upcoming fiscal year. The City subsequently certifies the rate of levy sufficient to produce the needed funds. Such certification must be made no later than December 15th of the property tax levy year for collection of taxes in the ensuing year. The property tax rate is expressed as a mill levy, which is the rate equivalent to the amount of tax per one thousand dollars of assessed valuation. For example, a mill levy of 25 mills would impose a \$250 tax on a parcel of property with an assessed valuation of \$10,000.

The Council levies the tax on all property subject to taxation by the City. By December 22nd of each year, levies are presented to Council for certification. If the Council fails to so certify, it is the duty of the Assessor to extend the levies of the previous year. Further revisions to the assessed valuation of property may occur prior to the final step in the taxing procedure, which is the delivery by the Assessor of the tax list and warrant to the Treasurer.

The City Charter imposes a tax limit of 15 mills for all general municipal purposes. This limit does not apply to taxes levied for the payment of general obligation bonded indebtedness, to fund the City's Social Services Fund, to provide for fire and police pensions, to fund a City program for the developmentally disabled or taxes levied pursuant to a voter authorized 2.5 mill levy increase for deferred

capital maintenance. State case law permits the City to impose an additional General Fund levy for functions ordinarily performed by counties in the State. Current State statutes limiting mill levies imposed by counties do not apply to the City.

Property Tax Collections. Taxes levied in one year are collected in the succeeding year. Property taxes are due January 1 of each year. They may be paid in full on or before April 30 or in two equal installments, the first due the last day of February and the second due June 15. The first half becomes delinquent after the last day of February. The second half becomes delinquent after June 15. If the entire tax is paid at one time on or before April 30, no interest is charged.

Delinquent general property taxes draw interest where the following circumstances exist. If the first installment is not paid by the last day of February, penalty interest accrues at the rate of 1% per month from March 1 until June 16, or to the date of payment if such installment is paid prior to June 16. After June 15, the entire tax becomes delinquent and accrues interest at the rate of 1% per month until the date of payment, which penalty interest is in addition to any penalty interest which may have accrued on the same taxes prior to June 16. If the full amount of taxes is paid in a single payment after the last day of April, interest is added to the full amount of taxes due in the amount of 1% per month and accrues from the first day of May until the date of payment.

All taxes levied on property, together with interest thereon and penalties for default, as well as all other costs of collection, constitute a perpetual lien on and against the property taxed from January 1st of the property tax levy year until paid. Such lien is on a parity with the tax liens of other general taxes. It is the Treasurer's duty to enforce the collection of delinquent real property taxes by tax sale of the tax lien on such realty. Delinquent personal property taxes are enforceable by distraint, seizure, and sale of the taxpayer's personal property.

The Treasurer is empowered to sell at public auction property upon which levied taxes remain unpaid, after due process of law. Tax lien sales are held in November of the year in which the taxes become delinquent. All tax certificates not sold to buyers at the annual tax lien sale are bid on by the City. Property that thereby becomes the property of the City or another taxing entity is removed from the tax rolls. Three years after the date of sale, a tax deed may be issued by the Treasurer for unredeemed tax certificates. Sales of personal property may be held at any time after October 1st of the collection year following notice of delinquency and public notice of sale. When any real property has been stricken off to a county and there has been no subsequent purchase, the taxes on such property may be determined to be uncollectible after a period of six years from the date of becoming delinquent and they may be canceled by the Council after that time.

Overlap with Tax Increment Authorities. Colorado law allows the formation of public highway authorities. Pursuant to statute, the board of directors of a public highway authority is entitled to designate areas within the authority's boundaries as "value capture areas" to facilitate the financing, construction, operation or maintenance of highways constructed by the authority; an authority is entitled to capture a portion of the property taxes in such an area to support these purposes. No public highway authority exists in the City.

Similarly, the State law allows the formation of urban renewal authorities and downtown development authorities in areas which have been designated by the governing bodies of municipalities as blighted areas. The City has formed the Denver Urban Renewal Authority, which includes numerous redevelopment areas. With respect to the property included in the boundaries of such districts (or within any urban renewal authority redevelopment area or downtown development authority created in the future and subject to a renewal plan), the assessed valuation of such property that is taxable does not change from the amount existing in the year prior to the adoption of the plan (except that it adjusts in the reassessment years proportionally to the increase or decreases due to market changes within the district). Any increase above the "base" amount is paid to the applicable authority. See Table 10 - Property

Valuations, Tax Levies and Collections-Last Five Years below for information on the assessed valuation attributable to the existing increment districts.

Property Tax Data

Table 9 sets forth the mill levies for the City, School District No. 1, and the Urban Drainage and Flood Control District for the last five levy years. See “DEBT STRUCTURE OF THE CITY - Overlapping Debt and Taxing Entities” for a discussion of mill levies attributable to other taxing entities which overlap or partially overlap the boundaries of the City.

Table 9
City and County Of Denver
City-Wide Mill Levies - Direct And Overlapping Governments¹
(By Assessment Year)

<u>Taxing Entity</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
City and County of Denver:					
General Fund	10.436	8.989	8.943	7.888	7.869
Bond Principal Fund	4.100	5.433	7.433	7.000	7.000
Bond Interest Fund	4.333	3.000	1.000	1.433	1.433
Social Services	4.470	3.849	3.835	3.380	3.374
Developmentally Disabled	1.016	1.012	1.010	1.010	1.009
Fire Pension	1.568	1.350	1.345	1.185	1.183
Police Pension	1.870	1.610	1.604	1.413	1.411
Capital Maintenance ²	2.542	2.534	2.528	2.526	2.525
Capital Improvement	2.720	2.342	2.333	2.056	2.053
Affordable Housing ^{3,4}	<u>0.000</u>	<u>0.000</u>	<u>0.500</u>	<u>0.442</u>	<u>0.444</u>
TOTAL DENVER MILL LEVY	<u>33.055</u>	<u>30.119</u>	<u>30.531</u>	<u>28.333</u>	<u>28.301</u>
School District No. 1	49.299	47.397	50.396	48.244	48.244
Urban Drainage and Flood Control District	<u>0.700</u>	<u>0.611</u>	<u>0.620</u>	<u>0.557</u>	<u>0.820</u>
TOTAL MILL LEVY:	<u>83.054</u>	<u>78.127</u>	<u>81.547</u>	<u>77.134</u>	<u>77.365</u>

Note: A mill equals one-tenth of one percent of assessed valuation.

- 1 The columnar heading shows the year for which property is assessed and property taxes are levied. Taxes are collected the following year. The table excludes certain overlapping government entities that impose mill levies in certain discrete portions of the City, but whose boundaries are not co-terminus with the City’s boundaries. For Overlapping Taxing Districts with General Obligation Debt, see Table 15 under “DEBT STRUCTURE OF THE CITY.”
- 2 A levy in excess of the 2.5 mills approved by voters is allowable due to prior year refunds and abatements.
- 3 In 2016, in addition to an affordable housing linkage fee applicable to new construction, the City Council approved a dedicated mill levy to support affordable housing development and preservation, for collection beginning on January 1, 2017. See footnote 4 below for affordable housing information.
- 4 In August 2018, the City Council approved a new revenue framework for Affordable Housing by increasing the special sales tax on recreational marijuana by two percent (2%), effective October 1, 2018, and depositing such revenue into the Affordable Housing Fund. The City then entered into a new Intergovernmental Agreement (“IGA”) with Denver Housing Authority (“DHA”) pursuant to which DHA will develop and deliver certain affordable housing units and the City will make an annual payment to DHA of the property tax revenues derived from the current affordable housing mills, subject to annual appropriation, from the Affordable Housing Fund for a period of 20 years.

Source: Department of Finance.

Table 10 summarizes the statutory actual and assessed valuation of property in the City, taxes levied and collected by the City for general purposes and the amounts and percentages delinquent for the last five assessment years. Information about the assessed valuation of various tax increment districts is found in footnote 2 to Table 10; the City does not realize the revenue from incremental property taxes attributable to the assessed value of tax increment districts. Collection data is reported as of December 31, 2018.

Table 10
Property Valuations, Tax Levies and Collections - Last Five Years
(\$ in millions)

ACTUAL AND ASSESSED VALUATION:	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Statutory Actual Valuation (est.) ¹	<u>\$ 80,891</u>	<u>\$ 100,204</u>	<u>\$ 105,773</u>	<u>\$ 134,744</u>	<u>\$ 139,408</u>
Assessed Valuation:					
Real Property – Land	\$ 3,218	\$ 4,514	\$ 4,506	\$ 5,671	\$ 5,631
Real Property – Improvement	6,564	8,220	8,406	10,064	10,428
Personal Property	765	826	827	888	918
Public Utilities	838	824	921	925	948
Total Assessed Valuations ²	<u>\$ 11,385</u>	<u>\$ 14,385</u>	<u>\$ 14,659</u>	<u>\$ 17,548</u>	<u>\$ 17,925</u>
Total Assessed Valuation Percentage Change ³	1.07%	26.35%	1.91%	19.71%	2.15%
LEVIES AND COLLECTIONS:^{4,5}					
Taxes Levied:	<u>\$312,314</u>	<u>\$360,103</u>	<u>\$372,011</u>	<u>\$427,059</u>	<u>\$433,101</u>
Total Collections	\$308,808	\$348,477	\$369,940	\$424,106	N/A
Total Collections at Year End (as Percentage of Original Levy)	98.88%	96.77%	99.44%	99.31%	N/A

-
- 1 Colorado statutes establish property valuation methods with actual valuation representing estimated appraisal value before the respective assessment ratios are applied. In general, an income and expense value is used for commercial property, and market value is used for residential property.
 - 2 This includes the assessed valuation attributable to Tax Increment Finance Districts, a portion of which is attributable to the Denver Urban Renewal Authority (“DURA”) or the Denver Downtown Development Authority (“DDDA”). Incremental assessed valuation attributable to DURA and the DDDA were the following amounts: \$818,799,594 for levy year 2014; \$1,149,380,667 for levy year 2015; \$1,141,847,073 for levy year 2016; \$962,347,864 for levy year 2017; and \$1,044,702,284 for levy year 2018. Figures listed for taxes levied and collected are net of amounts paid to DURA or DDDA. See “DEBT STRUCTURE OF THE CITY – Overlapping Debt and Taxing Entities.”
 - 3 Changes in assessed valuations for the years shown are due in part to changes in the years used to compute values which occur every two years and adjustments attributable to a legislative extension of time permitted for appeals of assessed values. See “Property Taxation – Determination of Statutory Actual Value” and Table 8 above.
 - 4 The columnar headings show the years for which property taxes have been assessed and levied. Taxes shown in a column are actually collected in the following year. For example, property taxes levied in 2018 are collected in 2019.
 - 5 Total collections represent City retained collections, therefore, figures do not include mills levied for the Fire Pension and Police Pension funds, School District No.1 or Urban Drainage and Flood Control District.

Source: Department of Finance.

Assessed Valuation of Major Taxpayers

Table 11 lists the major property taxpayers based on assessed valuations for the 2018 assessment year.

Table 11
City and County of Denver Major Property Taxpayers - Assessed Valuations 2018
 (For Collection in 2019) (\$ in thousands)

Name	Business	Assessed Valuation	Percentage of City's Total Assessed Valuation ¹
Public Service Co	Utility	\$ 317,105	1.77%
Brookfield Office Properties	Real Estate	244,362	1.36
Invesco Realty Advisers Inc.	Real Estate	171,639	0.96
Beacon Capital Partners	Real Estate	132,488	0.74
Franklin Street Properties	Real Estate	130,327	0.73
CenturyLink Communications	Utility	120,088	0.67
Taubman Centers Inc.	Real Estate	112,529	0.63
Kroenke Sports Enterprises	Real Estate	107,660	0.60
Columbia-Healthone	Health Care	105,401	0.59
Ivanhoe Cambridge Inc.	Real Estate	<u>104,048</u>	<u>0.58</u>
TOTAL:		<u>\$1,545,646</u>	<u>8.62%</u>

¹ Based on a 2018 assessed valuation of \$17,925,134,030. This includes the assessed valuation that generates tax increment revenues, a portion of which are paid to DURA or DDDA and are not retained by the City. See “DEBT STRUCTURE OF THE CITY - Overlapping Debt and Taxing Entities.”

Source: Department of Finance.

Revenue, Spending and Debt Limitations

In 1992, the voters of the State approved an amendment to the State Constitution known as the “Taxpayer’s Bill of Rights” (“TABOR”), which limits the powers of public entities to borrow, tax and spend.

TABOR restricts the total amount of expenditures and reserve increases (excluding changes in debt service payments) that may be made by the City for all purposes by limiting the City’s revenues to the total amount of revenues received by the City in the preceding year, adjusted for inflation and local growth. Under TABOR, excess revenues received by a government are required to be refunded to citizens in the next fiscal year unless the voters approve that a government may retain excess revenues. On November 6, 2012, Denver voters passed ballot measure 2A that permanently removed all TABOR restrictions described above regarding the collection and retention of all taxes. The measure permanently allows the City to collect, retain, and spend all lawful taxes.

TABOR requires voter approval prior to the City incurring any multiple fiscal year debt or other financial obligation, subject to certain exceptions, such as refinancing outstanding bonds at a lower interest rate. TABOR contains an exception for “enterprises,” defined in TABOR as a government-owned business authorized to issue its own revenue bonds and receiving less than 10% of its annual revenues from all State and local governments combined. The effect of “enterprise” status is to exempt an enterprise from the restrictions and limitations otherwise applicable under TABOR. The City has designated as enterprises for purposes of TABOR the operations of its sanitary and storm sewerage utilities, the Department of Aviation, the Department of Environmental Services, and City-owned golf courses.

The voter approval received by the City at the 2017 Election and at elections held in 1999 and 2007 (relating to the Refunded Bonds) for the issuance of general obligation bonds each included the voter approval requirement for the levy of property taxes to pay the Series 2019A Bonds and the Series 2019B Bonds, respectively. These voter approvals also permit the City to increase its property tax revenue up to the amount of any debt service funded by such revenue. Revenues other than property tax revenues are limited only as a function of the spending limitation described above.

Pension Plans

The majority of the City’s employees are covered under the Denver Employees Retirement Plan (“DERP”). Employees of the police department and the fire department are covered by separate retirement plans affiliated with and administered by the Fire and Police Pension Association (“FPPA”). DERP’s pension plan and the FPPA Plans are described below and at Note F in the City’s basic financial statements included in Appendix A.

Denver Employees Retirement Plan. The following information is from 2017 audited financials of DERP and the 2017 Comprehensive Annual Financial Report (the “2017 CAFR”) of DERP and has not been verified by the City.

DERP is a defined benefit plan. Its purpose is to provide retirement benefits to qualified members of the City and County of Denver and the Denver Health and Hospital Authority. DERP has separate legal standing and has no financial responsibility to the City. The assets of DERP are funds held in trust by DERP for the exclusive purpose of paying pension and certain postemployment health benefits to eligible members. DERP health benefits are described below under “OTHER POST EMPLOYMENT BENEFITS – DERP OPEB Plan.”

The Denver Health and Hospital Authority (“DHHA”) was established in 1996, and effective January 1, 1997, DHHA made contributions to DERP on behalf of its Denver Career Service Authority employees who were members of DERP.

DERP membership consisted of the following as of December 31, 2016 and 2017:

Denver Employees Retirement Plan Membership

	<u>2016</u>	<u>2017</u>
Retirees and beneficiaries currently receiving benefits	9,302	9,644
Terminated employees entitled to benefits but not yet receiving such benefits	3,500	3,464
Current employees:		
Vested	5,104	4,978
Non-vested	<u>3,877</u>	<u>4,114</u>
TOTAL	<u>21,783</u>	<u>22,200</u>

DERP provides retirement benefits plus death and disability benefits. Members who were hired before July 1, 2011, and retire at or after the age of 65 (or on or after age 55 if the sum of their age and credited years of service is at least 75) are entitled to an annual retirement benefit. For members hired before September 1, 2004, the annual retirement benefit is in an amount equal to 2.0% of their final average salary for each year of credited service, payable monthly for life. Effective for employees hired on or after September 1, 2004, the formula multiplier was reduced to 1.5%. Final average salary is based on the member’s highest salary during a 36 consecutive month period of credited service. Members with 5 years of credited service may retire at or after age 55 and receive a reduced retirement benefit.

For members who were hired on or after July 1, 2011, the earliest they can retire is at the age of 60. In order to receive a normal, unreduced retirement prior to age 65, the sum of age added to credited

years of service must equal at least 85. Final average salary is based on the member’s highest salary during a 60 consecutive month period of credited service. Five-year vesting is required of all employees in order to qualify for a benefit, regardless of their age at the time of termination of employment.

Annual cost of living adjustments to retirement benefits are authorized only by vote of DERP’s board of directors; however, no cost of living adjustment has been made since 2002. The estimated cost of benefit and contribution provisions is determined annually by an independent actuary, recommended by DERP’s board of directors and enacted into ordinance by the City Council.

The following are DERP contribution requirements and dates on which contribution requirement changes took effect. As illustrated by the table below, there were no contribution requirement changes in January 2016 or 2017. Effective as of the first payroll after January 1, 2019, the City contribution (employer contribution) was increased to 13.00% and the Employee contribution was increased to 8.50%. Additional change in contribution would require a recommendation by DERP’s board of directors to the City Council and enactment of an ordinance, but no ordinance has been filed with the City Council.

	<u>January 1, 2011</u>	<u>January 1, 2012</u>	<u>January 1, 2013</u>	<u>January 1, 2014</u>	<u>January 1, 2015</u>	<u>January 1, 2018</u>	<u>January 1, 2019</u>
City Contribution	9.50%	10.25%	11.00%	11.20%	11.50%	12.50%	13.00%
Employee Contribution	<u>5.50%</u>	<u>6.25%</u>	<u>7.00%</u>	<u>7.30%</u>	<u>8.00%</u>	<u>8.00%</u>	<u>8.50%</u>
Total	15.00%	16.50%	18.00%	18.50%	19.50%	20.50%	21.50%

The total net plan assets were \$2,082,001,911 and \$2,300,253,563 as of December 31, 2016, and December 31, 2017, respectively. Per DERP’s independently audited 2017 CAFR, which uses the actuarial valuation as of January 1, 2017, 69.53% of the plan’s actuarial accrued liabilities were covered by actuarial value of assets. As of January 1, 2018, the date of the last actuarial valuation, 67.7% of the plan’s actuarial accrued liabilities were funded by actuarial value of assets.

On October 2, 2017, City Council passed a bill approving changes, effective October 1, 2017, to the DERP governing ordinance, one of which was a requested change in the “actuarially assumed rate of investment return” for the plan, from 7.75% to 7.50%. This request was made “in light of work done by DERP’s investment consultant indicating lower 10-year expected returns for the DERP-specific asset allocation.” The other requested changes to this ordinance were non-substantive, technical changes.

Fire and Police Pension Plans. All full-time fire fighters and police officers in the classified service of the City hired on or after April 8, 1978, participate in the Statewide Defined Benefit Plan (“New Hire Plan”), a cost-sharing multiple-employer public employee retirement system. The New Hire Plan is administered by the FPPA. Pursuant to Colorado Revised Statutes §31-31-701(2), which was deleted in 2014 as obsolete, full-time City firefighters and police officers in the classified service hired prior to April 8, 1978 (“Old Hires”) participate in the City’s Old Hire Fire and Police Pension Plans (“Old Hire Plans”), unless the Old Hires elected to become covered by the New Hire Plan before March 1, 1981. The FPPA manages investments and administers the contributions to, and distributions from, the Old Hire Plans. The City’s Police Pension and Relief Board and the Trustees of the Firefighters Pension Fund administer various other matters relating to the Old Hire Plans.

Due to the implementation of the provisions of GASB 68 in 2015, the funded status of the FPPA Old Hire and New Hire Plans will no longer be disclosed. For additional information on the implementation of GASB 68, refer to the City’s 2015 CAFR.

Other Post-Employment Benefits

In addition to the pension benefits described above, the City provides health insurance benefits to eligible retirees and their qualifying dependents. Current and retired employees participate in the same group plans with blended premium rates creating an implicit benefit for the retirees in the plans. The City’s contribution toward the implicit rate subsidy is based on pay-as-you-go funding for the retirees.

The plans for eligible DERP and FPPA retirees are described below and at Note F in the “Other Note Disclosures” section of the City’s 2017 CAFR.

DERP OPEB Plan. DERP retirees are responsible for 100% of the blended premium rate. The health benefit associated with the DERP pension provides monthly health insurance premium reduction of \$12.50 per year of service for retired participants not eligible for Medicare and \$6.25 per year of service for retirees eligible for Medicare. Per DERP’s independently audited 2017 CAFR, which uses the actuarial valuation as of January 1, 2017, 50.4% of the plan’s accrued OPEB Retiree Medical Plan liabilities were covered by actuarial valuation assets.

OPEB for Collectively Bargained Agreements. The City has collectively bargained agreements with the Sheriff, Police, and Fire Departments employees. Each of those agreements provides for post-employment benefits as individually negotiated. All collectively bargained agreements are of public record and available in the Clerk and Recorder’s Office.

The Sheriff Department employees are treated as DERP employees for purposes of retirement including their post-employment health benefits but have additional bargained benefits, including funeral expenses for death in the line of duty, within the collectively bargained agreement. Police and Fire Department employees or their survivors receive contractual payments for their respective non-City post-employment health plans, funeral expenses, and statutorily required death and disability coverages.

DEBT STRUCTURE OF THE CITY

General Obligation Bonds

General obligation bonds are backed by the full faith and credit of the City and are payable from ad valorem property taxes and other general revenues. Except for refunding bonds issued to achieve savings, Denver voters must approve general obligation debt prior to issuance. Under the City Charter, general obligation bonded debt is subject to a limitation of three percent (3%) of the actual value of the taxable property within the City.

The City assesses two separate and distinct property tax mill levies each year in an amount to pay principal and interest, respectively, on general obligation bonds. Funds collected from these mill levies are deposited into separate debt service funds (a bonded indebtedness principal fund and a bonded indebtedness interest fund) of the City. See “FINANCIAL INFORMATION CONCERNING THE CITY – Bond Fund.”

At the 2017 Election, the City’s voters approved seven general obligation 2017 Election Ballot Questions authorizing debt in the aggregate principal amount of \$937,418,500. The Series 2018A Bonds were issued pursuant to the 2017 Election authorization and the Series 2019A Bonds are being issued pursuant to the 2017 Election authorization. Upon issuance of the Series 2019A Bonds, approximately \$662,508,500* in authorization under the 2017 Election will remain.

As of December 31, 2018, the City had outstanding general obligation bonds in the aggregate principal amount of \$737,990,500, which does not include accrued interest of \$9,123,800 on compound interest bonds.

Table 12 sets forth the computation of the general obligation debt margin of the City as of December 31, 2018.

Table 12
Computation of the General Obligation Debt Margin
(\$ in thousands)

TOTAL ESTIMATED ACTUAL VALUATION – December 31, 2018	<u>\$139,408,175</u>
Maximum general obligation debt, limited to 3% of actual valuation	4,182,245
Less outstanding bonds chargeable to limit ¹	<u>737,991</u>
LEGAL DEBT MARGIN – December 31, 2018	<u>\$ 3,444,255</u>

¹ This figure represents outstanding gross principal of the City’s General Obligation Bonds.

General Obligation Bonded Debt

Table 13 lists the City’s outstanding general obligation bonded debt as of December 31, 2018.

* Subject to change.

Table 13
Outstanding General Obligation Debt
(\$ in thousands)

<u>Issue</u>	<u>Original Amount</u>	<u>Amount Outstanding</u>
General Obligation Justice System Facilities Bonds (Denver Mini-Bond Program), Series 2007 ¹	\$ 8,861	\$ 8,861
General Obligations Better Denver and Zoo Bonds, Series 2009A ²	104,500	62,540
General Obligation Better Denver Build America Bonds, Series 2010B	312,055	299,395
General Obligation Better Denver and Refunding Bonds, Series 2013A	120,925	42,195
General Obligation Refunding Bonds, Series 2013B1-2 ³	137,435	105,765
General Obligation Better Denver Bonds (Denver Mini-Bond Program), Series 2014A ⁴	12,000	12,000
General Obligation Elevate Denver Bonds, Series 2018A	193,000	139,330
General Obligation Justice System Facilities Refunding Bonds, Series 2018B	<u>67,905</u>	<u>67,905</u>
TOTAL:	<u>\$956,681</u>	<u>\$737,991</u>

- 1 Amount excludes \$6,477,680 of compound interest on the Series 2007 Capital Appreciation Bonds.
- 2 Includes the Refunded Bonds and the August 1, 2019 maturity.
- 3 Direct bank placement; no official statement prepared.
- 4 Amount excludes \$2,646,120 of compound interest on the Series 2014A Capital Appreciation Bonds.

Source: Department of Finance.

Table 14 sets forth certain debt ratios based on the City's actual and assessed valuations and general obligation bonded debt as of December 31, 2018.

Table 14
Summary of Direct and Overlapping General Obligation Bonded Debt
(\$ in thousands)

Total Direct General Obligation Bonded Debt	\$ 737,991
Overlapping General Obligation Bonded Debt ¹	<u>1,708,747</u>
Total Direct and Overlapping General Obligation Bonded Debt	<u>\$ 2,446,738</u>
Actual Valuation	\$139,408,175
Assessed Valuation ²	\$ 17,925,134

- 1 The overlapping general obligation debt represents the outstanding general obligation debt of School District No. 1. See "DEBT STRUCTURE OF THE CITY - Overlapping Debt and Taxing Entities" below for information relating to other overlapping entities.
- 2 This includes the assessed valuation that generates tax increment revenues, a portion of which are paid to DURA or DDDA and are not retained by the City. See "DEBT STRUCTURE OF THE CITY - Overlapping Debt and Taxing Entities."

Debt Ratios

	<u>Actual Valuation</u>	<u>Assessed Valuation</u>	<u>Per Capita²</u>
Total Direct G.O. Bonded Debt	0.53%	4.12%	\$1,028
Total Direct and Overlapping G.O. Bonded Debt ¹	1.76%	13.65%	\$3,407

1 The overlapping general obligation debt represents the outstanding general obligation debt of School District No. 1. See “Overlapping Debt and Taxing Entities” below for information relating to other overlapping entities.

2 Based upon a 2018 population estimate from the State Demography Office of 718,107.

Source: Department of Finance.

Overlapping Debt and Taxing Entities

The following information has been supplied by the overlapping entities described below and the City has not attempted to verify the accuracy thereof.

School District No. 1 in the City and County of Denver. School District No. 1 (the “School District”) has identical boundaries with the City. As of December 31, 2018, the School District had \$1,708,747,000 aggregate principal amount of general obligation bonds outstanding.

The School District has entered into annually renewable lease purchase arrangements from time to time in which certificates of participation have been executed and delivered by trustees for the transactions. As of December 31, 2018, the aggregate principal amount of such certificates outstanding was \$1,076,255,000. Neither the lease purchase agreements nor the related certificates executed and delivered by the trustees are considered debt or multiple-fiscal year financial obligations of the School District for State law purposes. The obligations of the School District to make lease payments for each year are subject to annual appropriations by the Board of Education.

Metro Wastewater Reclamation District. Metro Wastewater Reclamation District (the “Sewage District”), a governmental and political subdivision of the State, was organized in 1961 and currently includes the City and numerous other adjacent municipal units. Each municipal unit presently owns and operates a sewer system and voluntarily became part of the Sewage District in order to construct and operate a sewage disposal system in the Denver metropolitan area. Under service contracts with the Sewage District, each municipal unit is obligated to pay the Sewage District for the costs of services rendered (including debt service) based on usage of the Sewage District’s facilities. Each municipal unit imposes taxes or charges sufficient to fund its share of Sewage District costs.

The City is meeting its obligation to the Sewage District from a sewer service charge collected from the System’s users. The Sewage District assessed the City charges of \$52,043,395 for 2018. The Sewage District had outstanding \$539,480,000 aggregate principal amount of bonds as of December 31, 2018.

Regional Transportation District. The Regional Transportation District (“RTD”), a governmental and political subdivision of the State, was established in 1969, and currently includes within its boundaries the City, Boulder, City and County of Broomfield and Jefferson Counties and portions of Adams, Arapahoe, Weld and Douglas Counties. RTD is empowered to develop, maintain and operate a mass transportation system within its boundaries. RTD may levy up to one-half of one mill on all taxable property within the RTD for the payment of its expenses in situations of deficiencies, subject to the provisions of State constitutional revenue and spending limitations. RTD has not exercised its power to levy a general ad valorem property tax since 1976. At an election held within the RTD in 2004, voters approved an increase to the RTD’s sales tax rate from 0.6% to 1.0% and authorized debt in the amount of

\$3.477 billion to be spent on the construction and operation of a transit expansion plan known as FasTracks. As of December 31, 2018, approximately \$2.607 billion of FasTracks debt was outstanding. RTD also had \$72,425,000 of principal outstanding on non-FasTracks debt and \$1,137,932,658 of principal outstanding related to certificates of participation and lease purchase agreements under which RTD is the lessee or purchaser.

Urban Drainage and Flood Control District. The Urban Drainage and Flood Control District (the “Flood Control District”), a governmental and political subdivision of the State, was established in 1969 and includes the City and portions of Adams, Arapahoe, Boulder, Broomfield, Douglas and Jefferson Counties. The Flood Control District was established to provide flood control and drainage facilities for the areas within the Flood Control District. The Flood Control District may levy up to 1/10 mill to defray engineering and operating expenses, up to 4/10 mill for construction costs and up to 4/10 mill for maintenance expenses. Beginning with taxes levied in 1986 and collected in 1987, a 1/10 mill for a special revenue fund for the South Platte River basin was authorized. Authorization for an additional levy may be obtained by voter approval. The Flood Control District has no outstanding bonded indebtedness. Projects undertaken by the Flood Control District to date have been financed from ad valorem taxes and local government matching contributions.

Other Overlapping Taxing Entities. There are a number of partially overlapping taxing districts having general obligation debt in amounts which do not materially affect the ability of the City to pay debt service on its general obligation bonds. Assessed valuation and bond mill levy information for those taxing districts with general obligation debt as of December 31, 2018, is provided in Table 15.

Table 15
City and County of Denver Overlapping Taxing Districts With General Obligation Debt
Year Ending December 31, 2018

Taxing District**	Assessed Valuation Attributable to Denver	% of Total Denver Assessed Value	2018 Mill Levy⁴
Adams County/ North Washington Fire ¹	\$ 6,947,730	0.04%	16.650
Aviation Station #2 ²	2,627,850	0.01	53.000
Aviation Station #3 ²	656,010	0.00	53.000
Aviation Station #5 ²	423,520	0.00	10.000
Bellevue Station Metro No 2 ²	42,825,460	0.24	50.559
Broadway Park North MD No 2 (debt) ^{2,3}	24,707,740	0.14	15.200
Broadway Park North MD No 3 ^{2,3}	4,501,410	0.03	16.583
Bowles Metropolitan ¹	30,882,390	0.17	42.000
Broadway Station Metro No.3 ^{2,3}	54,190	0.00	6.000
Central Platte Valley Metro ^{2,3}	243,986,480	1.36	28.250
Central Platte Valley Metro (debt) ²	78,509,280	0.44	10.000
Cherry Creek North B.I.D.	310,367,110	1.73	15.142
Colo. Int. Center Metro No 14 ²	32,904,040	0.18	75.000
Denargo Market Metro No 2 ²	19,349,160	0.11	40.000
Denver Connection West Metro	4,230,150	0.02	55.277
Denver Gateway Center Metro	6,154,880	0.03	50.000
Denver Intl. Bus. Ctr Metro No 1	31,795,040	0.18	44.175
DUS Metro No 2 ^{2,3}	93,282,180	0.52	25.000
DUS Metro No 3 ^{2,3}	9,470,730	0.05	27.639
Ebert Metropolitan ²	114,143,640	0.64	58.040
Ebert Metropolitan (debt) ²	3,711,960	0.02	34.440
Gateway Regional Metro	89,389,450	0.50	16.000
Midtown Metro District	5,455,310	0.03	30.000
Mile High Business Center Metro	26,566,800	0.15	30.000
RiNo GID ³	161,181,020	0.90	4.000
Sand Creek Metropolitan ^{1,2}	36,756,190	0.21	27.500
Sand Creek Metropolitan (debt) ^{1,2}	14,435,470	0.08	16.000
SBC Metro ³	91,961,210	0.51	35.000
Section 14 Metro ^{1,2}	9,315,930	0.05	23.669
Section 14 Metro (debt Raccoon) ^{1,2}	3,592,890	0.02	16.150
Section 14 Metro (debt Fairmark) ^{1,2}	4,598,240	0.03	5.819
South Sloan's Lake Metro No 2 ^{2,3}	19,848,360	0.11	41.378
Southeast Public Impr Metropolitan ¹	338,916,920	1.89	2.000
Westerly Creek Metro ²	530,168,080	2.96	60.194
Special District Total Assessed Value	\$ 2,393,716,820	13.35%	
Denver Total Assessed Value³	\$17,925,134,030		

** Tax districts with general obligation debt as of December 31, 2017

- 1 District also has assessed value located in more than one county.
- 2 Includes related districts which have separate financing and taxing roles; financing districts may not be listed in the chart above due to insignificant assessed value.
- 3 This includes the assessed valuation that generates tax increment revenues, a portion of which are paid to DURA or DDDA and are not retained by the City.
- 4 The mill levy represented is the total mill levy for each respective district, not only the bond mill levy.

Source: Assessor's Office Division of Department of Finance.

Denver Convention Center Hotel Authority Discretionary Economic Development Payments

The City created the Denver Convention Center Hotel Authority (the "DCCHA") for the express purpose of acquiring, constructing, equipping, operating and financing a convention center headquarters hotel, parking garage and supporting facilities across the street from the Colorado Convention Center. The DCCHA has issued various revenue bonds payable from hotel revenues and the hotel is mortgaged by the Authority to the bond trustee to secure the payment of those bonds. The City is not obligated to pay debt

service on the DCCHA bonds. However, the City entered into an Economic Development Agreement with the Authority pursuant to which the City makes economic development payments related to the hotel's construction and operation. The agreement requires \$11,000,000 of payments each year through 2040; those payments are subject to annual appropriation by the City. The Economic Development Agreement is subject to termination on each December 31 according to its terms.

Denver Urban Renewal Authority Contingent and Discretionary Payments

The Denver Urban Renewal Authority ("DURA") has issued numerous series of tax increment revenue bonds secured by certain DURA tax increment revenues. With respect to one series of bonds (the "2010B-1 Bonds"), the City entered into a services agreement with DURA pursuant to which the City's Manager of Finance agreed to request that the City Council consider appropriating funds to replenish the reserve fund for the 2010B-1 Bonds in an amount not to exceed the maximum annual debt service payments (with a maximum of \$12 million) to the extent that DURA's pledged revenues are not sufficient to pay debt service and amounts drawn from the reserve fund for the on the 2010B-1 Bonds. The City Council's decision to appropriate such funds is solely in the City Council's discretion. The 2010B-1 Bonds mature on December 1, 2025, and were outstanding in the aggregate principal amount of \$49,325,000 as of December 31, 2018. The City Council has never been requested to appropriate funds under the services agreement.

Lease Purchase Agreements

Certificated Lease Purchase Agreements. The City has utilized lease purchase transactions whereby an independent lessor sells Certificates of Participation ("COPs") which represent proportionate interests in the lessor's right to receive rentals and revenues paid by the City pursuant to lease purchase agreements executed to facilitate the financing of certain public capital projects. Neither the lease purchase agreements nor the COPs constitute general obligations or other indebtedness of the City within the meaning of any constitutional, statutory, or Charter debt limitations. Under its various lease purchase agreements, the City has the right to appropriate or not appropriate the rental payments due for the then current fiscal year. In the event of nonappropriation, the respective lease purchase agreement terminates and the related COPs are then payable solely from the proceeds received by the trustee for the benefit of the owners of the COPs from specified remedies. If appropriated for the applicable fiscal year, the City has the obligation to pay the related lease agreement rentals for that fiscal year.

Certificates of participation have been executed and delivered in conjunction with various lease purchase agreements discussed in the paragraph above. Principal portions of Base Rentals under these lease purchase agreements outstanding as of December 31, 2018, are summarized in Table 16.

Table 16
Schedule of Certificated Lease Purchase Transactions And Release Dates

As of December 31, 2018

<u>Series</u>	<u>Outstanding Principal Amount</u>	<u>Leased Property</u>	<u>Date Lease Property Scheduled to be Acquired</u>
2005A ¹	\$ 3,475,000	Human Services Campus	May 1, 2020
2008A1-A3	202,350,000	Wellington E. Webb Office Building	December 1, 2031
2010A ²	15,610,000	Central Platte Campus	December 1, 2030
2010B	6,680,000	Wastewater Office Building/Roslyn Maintenance Facility	December 1, 2021
2012A	3,185,000	Denver Cultural Center Parking Garage	December 1, 2021
2012C1-C3 ²	33,670,000	Denver Properties Leasing Trust	December 1, 2031
2013A	23,295,000	Buell Theatre	December 1, 2023
		Blair-Caldwell African American Research Library,	
2015A	19,320,000	Fire Station Nos. 18, 19, and 22	December 1, 2034
2017A ²	15,284,830	Denver Botanic Gardens Parking Facility	December 1, 2028
2018A	<u>129,000,000</u>	Portions of the Colorado Convention Center Expansion Project	June 1, 2048
TOTAL	\$451,869,830		

1 Through June 2016, the entire Human Services Campus was used by the City in its governmental functions. However, as Denver Human Services has modified its policies with respect to privatizing some services, the City has met its services obligations through contracts with non-profit service providers. As a result, the Family Crisis Center portion of the campus has been minimally-used in recent years. The City is currently reviewing alternative human services-related uses with the non-profit sector, under private-use guidelines, to optimize use of the former Family Crisis Center facility. To facilitate this direction the City conducted a TEFRA hearing in 2017.

2 Direct bank placements; no official statement prepared.

Source: Department of Finance.

Non-Certificated Lease Purchase Agreements. As of December 31, 2018, the City was the lessee under various other capitalized lease agreements for the lease purchase of equipment outstanding in the principal amount of \$20,070,334. Since then, the City has entered into a new capitalized lease for equipment for Golf and Parks in the principal amount of \$6,465,027. At the end of the final term of such leases, the City expects to own the equipment that is the subject of such leases. Certificates of participation relating to these leases have not been executed and delivered. The City currently has no real property under any non-certificated lease purchase agreement.

Revenue Bonds

The City has outstanding certain enterprise and dedicated tax revenue bonds payable from specifically pledged revenues, excluding ad valorem taxes. All dedicated tax revenue bonds, except for refunding bonds at a lower interest rate, require prior elector approval under the State Constitution.

As of December 31, 2018, the City's Airport Enterprise had \$6,005,515,000 of airport system revenue bonds and airport system subordinate bonds outstanding. Of this total, \$786,795,000 represents variable rate debt. \$681,183,000 of such variable rate debt have been synthetically swapped to a fixed rate pursuant to interest rate swaps. The termination dates of the swaps range from November 1, 2022, to November 15, 2025, and are shorter than the stated maturity dates of the hedged variable rate debt.

As of December 31, 2018, the City had dedicated tax revenue and dedicated tax revenue refunding bonds outstanding in the aggregate principal amount of \$629,385,000.

As of December 31, 2018, the City had Wastewater Enterprise Revenue Bonds outstanding in the aggregate principal amount of \$242,975,000.

As of December 31, 2018, the City had Golf Enterprise Revenue Bonds outstanding in the aggregate principal amount of \$1,275,000.

ECONOMIC AND DEMOGRAPHIC OVERVIEW

Appendix B contains an economic and demographic overview of the Denver Metropolitan Area as of March 2019.

LEGAL MATTERS

Litigation

[To be finalized with CAO prior to posting] The City is party to numerous pending lawsuits, under which it may be required to pay certain amounts upon final disposition of these matters. Generally, the City is self-insured, except for the City's Airport System. Pursuant to State law and subject to constitutional limitations, if a monetary judgment is rendered against the City, and the City fails to provide for the payment of such judgment, the City Council must levy a tax (not to exceed 10 mills per annum) upon all of the taxable property within the City for the purpose of making provision for the payment of the judgment. The City is required to continue to levy such tax until the judgment is discharged. Such mill levy is in addition to all other mill levies for other purposes.

The City and the County of Adams, Colorado ("Adams County"), the county from which land for the Denver International Airport ("Airport") was annexed into the City, entered into an Intergovernmental Agreement on a New Airport, dated April 21, 1988 (the "Adams County IGA"), and on July 2, 2018, the Board of County Commissioners of Adams County filed a civil complaint, which was amended on July 20, 2018, to include the City of Aurora and the City of Brighton, against the City in the Jefferson County District Court of Colorado for claims related to the Adams County IGA. The City filed an answer to the complaint on July 31, 2018. The Airport is a self-reliant enterprise fund and it is unlikely any result in this litigation will impact the City's general fund.

For Fiscal Year 2019, the City Attorney's office has received an appropriation of approximately \$2.0 million, for payment of claims and judgments for items not covered by existing insurance. Together with unspent funds from Fiscal Year 2018, the City Attorney's office has approximately \$3,620,463 available for such payments. The City considers this amount sufficient to provide for the disposition of matters which are anticipated to be finalized for Fiscal Year 2019.

Governmental Immunity

The Colorado Governmental Immunity Act, Title 24, Article 10, Part 1, C.R.S. (the "Immunity Act"), provides that, with certain specified exceptions, sovereign immunity acts as a bar to any action against a public entity, such as the City, for injuries which lie in tort or could lie in tort.

The Immunity Act provides that sovereign immunity is waived by a public entity for injuries occurring as a result of certain specified actions or conditions, including: the operation of a non-emergency motor vehicle (including a light rail car), owned or leased by the public entity; the operation of any public hospital, correctional facility or jail; a dangerous condition of any public building; certain dangerous conditions of a public highway, road or street; and the operation and maintenance of any public water facility, gas facility, sanitation facility, electrical facility, power facility or swimming facility by such public entity. In such instances, the public entity may be liable for injuries arising from an act or omission of the public entity, or an act or omission of its public employees, which are not willful and wanton, and which occur during the performance of their duties and within the scope of their employment.

The maximum amounts that may be recovered under the Immunity Act for injuries occurring on or after January 1, 2018, whether from one or more public entities and public employees, are as follows: (a) for any injury to one person in any single occurrence, the sum of \$387,000; (b) for an injury to two or more persons in any single occurrence, the sum of \$1,093,000; except in such instance, no person may recover in excess of \$387,000. Those amounts will increase every four years pursuant to a formula based on the Denver-Boulder-Greeley Consumer Price Index. The City may increase any maximum amount that may be recovered from the City for certain types of injuries. However, the City may not be held liable either directly or by indemnification for punitive or exemplary damages unless the City voluntarily pays such damages in accordance with State law. The City has not acted to increase the damage limitations in the Immunity Act.

The City may be subject to civil liability and damages including punitive or exemplary damages under federal laws, and it may not be able to claim sovereign immunity for actions founded upon federal laws. Examples of such civil liability include suits filed pursuant to Section 1983 of Title 42 of the United States Code, alleging the deprivation of federal constitutional or statutory rights of an individual. However, the Immunity Act provides that it applies to any State court having jurisdiction over any claim brought pursuant to any federal law, if such action lies in tort or could lie in tort.

Approval of Certain Legal Proceedings

Legal matters relating to the issuance of the Series 2019A-B Bonds are subject to the approving legal opinions of Butler Snow LLP, Denver, Colorado, and The Holt Group LLC, Denver, Colorado, as Co-Bond Counsel. The substantially final form of the opinions of Co-Bond Counsel is appended to this Official Statement. In addition to acting as Co-Bond Counsel, Butler Snow LLP and The Holt Group LLC have also been retained to advise the City concerning and have assisted in the preparation of this Official Statement.

TAX MATTERS

General Matters. In the opinion of Butler Snow LLP, Bond Counsel, under existing laws, regulations, rulings and judicial decisions, interest on the Series 2019A-B Bonds (including any original issue discount properly allocable to the owner of a Bond) is excludable from gross income for federal income tax purposes and is not a specific preference item for purposes of the federal alternative minimum tax. The opinion described above assumes the accuracy of certain representations and compliance by the City with covenants designed to satisfy the requirements of the Code that must be met subsequent to the issuance of the Series 2019A-B Bonds. Failure to comply with such requirements could cause interest on the Series 2019A-B Bonds to be included in gross income for federal income tax purposes retroactive to the date of issuance of the Series 2019A-B Bonds. The City has covenanted to comply with such requirements. Bond Counsel has expressed no opinion regarding other federal tax consequences arising with respect to the Series 2019A-B Bonds.

The accrual or receipt of interest on the Series 2019A-B Bonds may otherwise affect the federal income tax liability of the owners of the Series 2019A-B Bonds. The extent of these other tax consequences will depend on such owners' particular tax status and other items of income or deduction. Bond Counsel has expressed no opinion regarding any such consequences. Purchasers of the Series 2019A-B Bonds, particularly purchasers that are corporations (including S corporations and foreign corporations operating branches in the United States of America), property or casualty insurance companies, banks, thrifts or other financial institutions, certain recipients of social security or railroad retirement benefits, taxpayers entitled to claim the earned income credit, taxpayers entitled to claim the refundable credit in Section 36B of the Code for coverage under a qualified health plan or taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry tax-exempt obligations, should consult their tax advisors as to the tax consequences of purchasing or owning the Series 2019A-B Bonds.

Bond Counsel is also of the opinion that, under existing State of Colorado statutes, interest on the Series 2019A-B Bonds is exempt from Colorado income tax. Bond Counsel has expressed no opinion regarding other tax consequences arising with respect to the Series 2019A-B Bonds under the laws of the State of Colorado or any other state or jurisdiction.

Original Issue Discount. The Series 2019A-B Bonds that have an original yield above their respective interest rates, as shown on the inside cover of this Official Statement (collectively, the “Discount Bonds”), are being sold at an original issue discount. The difference between the initial public offering prices of such Discount Bonds and their stated amounts to be paid at maturity constitutes original issue discount treated in the same manner for federal income tax purposes as interest, as described above.

The amount of original issue discount that is treated as having accrued with respect to a Discount Bond or is otherwise required to be recognized in gross income is added to the cost basis of the owner of the Series 2019A-B Bond in determining, for federal income tax purposes, gain or loss upon disposition of such Discount Bond (including its sale, redemption or payment at maturity). Amounts received on disposition of such Discount Bond that are attributable to accrued or otherwise recognized original issue discount will be treated as federally tax-exempt interest, rather than as taxable gain, for federal income tax purposes.

Original issue discount is treated as compounding semiannually, at a rate determined by reference to the yield to maturity of each individual Discount Bond, on days that are determined by reference to the maturity date of such Discount Bond. The amount treated as original issue discount on such Discount Bond for a particular semiannual accrual period is equal to (a) the product of (i) the yield to maturity for such Discount Bond (determined by compounding at the close of each accrual period) and (ii) the amount that would have been the tax basis of such Discount Bond at the beginning of the particular accrual period if held by the original purchaser, less (b) the amount of any interest payable for such Discount Bond during the accrual period. The tax basis for purposes of the preceding sentence is determined by adding to the initial public offering price on such Discount Bond the sum of the amounts that have been treated as original issue discount for such purposes during all prior periods. If such Discount Bond is sold between semiannual compounding dates, original issue discount that would have been accrued for that semiannual compounding period for federal income tax purposes is to be apportioned in equal amounts among the days in such compounding period.

Owners of Discount Bonds should consult their tax advisors with respect to the determination and treatment of original issue discount accrued as of any date, with respect to when such original issue discount must be recognized as an item of gross income and with respect to the state and local tax consequences of owning a Discount Bond. Subsequent purchasers of Discount Bonds that purchase such Discount Bonds for a price that is higher or lower than the “adjusted issue price” of the Discount Bonds at the time of purchase should consult their tax advisors as to the effect on the accrual of original issue discount.

Original Issue Premium. The Series 2019A-B Bonds that have an original yield below their respective interest rates, as shown on the inside cover of this Official Statement (collectively, the “Premium Bonds”), are being sold at a premium. An amount equal to the excess of the issue price of a Premium Bond over its stated redemption price at maturity constitutes premium on such Premium Bond. A purchaser of a Premium Bond must amortize any premium over such Premium Bond’s term using constant yield principles, based on the purchaser’s yield to maturity (or, in the case of Premium Bonds callable prior to their maturity, generally by amortizing the premium to the call date, based on the purchaser’s yield to the call date and giving effect to any call premium). As premium is amortized, the amount of the amortization offsets a corresponding amount of interest for the period, and the purchaser’s basis in such Premium Bond is reduced by a corresponding amount resulting in an increase in the gain (or decrease in the loss) to be recognized for federal income tax purposes upon a sale or disposition of such Premium Bond prior to its maturity. Even though the purchaser’s basis may be reduced, no federal income tax deduction is allowed. Purchasers of the Premium Bonds should consult their tax advisors with

respect to the determination and treatment of premium for federal income tax purposes and with respect to the state and local tax consequences of owning a Premium Bond.

Backup Withholding. As a result of the enactment of the Tax Increase Prevention and Reconciliation Act of 2005, interest on federally tax-exempt obligations such as the Series 2019A-B Bonds is subject to information reporting in a manner similar to interest paid on taxable obligations. Backup withholding may be imposed on payments to any owner of the Series 2019A-B Bonds that fail to provide certain required information including an accurate taxpayer identification number to any person required to collect such information pursuant to Section 6049 of the Code. The reporting requirement does not in and of itself affect or alter the excludability of interest on the Series 2019A-B Bonds from gross income for federal income tax purposes or any other federal tax consequence of purchasing, holding or selling federally tax-exempt obligations.

Changes in Federal and State Tax Law. From time to time, there are legislative proposals in the Congress and in the states that, if enacted, could alter or amend the federal and state tax matters referred to under this heading “TAX MATTERS” or adversely affect the market value of the Series 2019A-B Bonds. It cannot be predicted whether or in what form any such proposal might be enacted or whether if enacted it would apply to bonds issued prior to enactment. In addition, regulatory actions are from time to time announced or proposed and litigation is threatened or commenced which, if implemented or concluded in a particular manner, could adversely affect the market value of the Series 2019A-B Bonds. It cannot be predicted whether any such regulatory action will be implemented, how any particular litigation or judicial action will be resolved, or whether the Series 2019A-B Bonds or the market value thereof would be impacted thereby. Purchasers of the Series 2019A-B Bonds should consult their tax advisors regarding any pending or proposed legislation, regulatory initiatives or litigation. The opinions expressed by Bond Counsel are based on existing legislation and regulations as interpreted by relevant judicial and regulatory authorities as of the date of issuance and delivery of the Series 2019A-B Bonds, and Bond Counsel has expressed no opinion as of any date subsequent thereto or with respect to any pending legislation, regulatory initiatives or litigation.

PROSPECTIVE PURCHASERS OF THE SERIES 2019A-B BONDS ARE ADVISED TO CONSULT THEIR OWN TAX ADVISORS PRIOR TO ANY PURCHASE OF THE SERIES 2019A-B BONDS AS TO THE IMPACT OF THE CODE UPON THEIR ACQUISITION, HOLDING OR DISPOSITION OF THE SERIES 2019A-B BONDS.

RATINGS

Moody’s Investors Service (“Moody’s”), Fitch Ratings (“Fitch”) and Standard & Poor’s Ratings Services, a division of the McGraw-Hill Companies, Inc. (“S&P”), have assigned the Series 2019A-B Bonds the ratings shown on the cover page hereof.

Such ratings reflect only the views of the rating agencies and any desired explanation of the significance of such ratings should be obtained from Moody’s at 7 World Trade Center, 250 Greenwich Street, New York, New York 10007, from Fitch at 44 Montgomery Street, Suite 500, San Francisco, California 94101 and from S&P at 55 Water Street, New York, New York 10041. Generally, a rating agency bases its rating on the information and materials furnished to it and on investigations, studies and assumptions of its own. There is no assurance that the ratings will continue for any given period of time or that the ratings will not be revised downward or withdrawn entirely by such rating agencies, if, in the judgment of such rating agencies, circumstances so warrant. Any such downward revision or withdrawal of the ratings may have an adverse effect on the market price or liquidity of the Series 2019A-B Bonds.

CONTINUING DISCLOSURE

The City will execute and deliver a continuing disclosure undertaking (the “Disclosure Undertaking”) at the time of the closing for the Series 2019A-B Bonds. The Disclosure Undertaking will

be executed for the benefit of the Beneficial Owners of the Series 2019A-B Bonds and in order to assist the Initial Purchasers in complying with Rule 15c2-12 promulgated under the Securities Act of 1934 (the “Rule”). The Disclosure Undertaking will provide that so long as the Series 2019A-B Bonds remain outstanding, the City will annually provide certain financial information and operating data to the Municipal Securities Rulemaking Board (“MSRB”) and will provide notice of certain listed events to the MSRB, in compliance with the Disclosure Undertaking. The form of the Disclosure Undertaking is attached hereto as Appendix D.

FINANCIAL ADVISOR

Hilltop Securities Inc., Denver, Colorado (the “Financial Advisor”) has been retained as financial advisor in connection with the issuance of the Series 2019A-B Bonds. During the term of the engagement, the Financial Advisor is not permitted to underwrite or competitively bid for general obligation bonds of the City. The Financial Advisor has provided advice to the City regarding the structure of the Series 2019A-B Bonds. The Financial Advisor has not participated in any independent verification of the information concerning the financial condition or capabilities of the City contained in this Official Statement. The Financial Advisor, however, has provided information relating to the Series 2019A-B Bonds, as reflected in the footnotes to certain tables herein.

PUBLIC SALE

The City expects to offer the Series 2019A-B Bonds at public sale.

OFFICIAL STATEMENT CERTIFICATION

The preparation of this Official Statement and its distribution has been authorized by the Council. This Official Statement is hereby duly approved by the City as of the date on the cover page hereof.

CITY AND COUNTY OF DENVER, COLORADO

By: _____
Mayor

By: _____
Manager of Finance, *ex officio* Treasurer, and
Chief Financial Officer

APPENDIX A

**AUDITED BASIC FINANCIAL STATEMENTS OF THE CITY
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2017**



1801 California Street, Suite 2900 // Denver, CO 80202-2606
303.861.4545 // fax 303.832.5705 // bkd.com

Independent Auditor's Report

The Major and City Council
City and County of Denver, Colorado
Denver, Colorado

We have audited the accompanying financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund and the aggregate remaining fund information of the City and County of Denver (the City), as of and for the year ended December 31, 2017, and the related notes to the financial statements, which collectively comprise the City's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We did not audit the financial statements of Denver Convention Center Hotel Authority, Cherry Creek North Business Improvement District No. 1, Downtown Denver Business Improvement District, Denver Union Station Project Authority, and Denver Preschool Program, Inc., all of which are included as discretely presented component units, which represent 57.13 percent of total assets, 75.50 percent of total revenues, and 3.94 percent of net position (deficit) of the aggregate discretely presented component units as of and for the year ended December 31, 2017. Those statements were audited by other auditors, whose report has been furnished to us, and our opinion on the aggregate discretely presented component units and, insofar as it relates to the amounts included for the Denver Convention Center Hotel Authority, Cherry Creek North Business Improvement District No. 1, Downtown Denver Business Improvement District, Denver Union Station Project Authority, and Denver Preschool Program, Inc., is based solely on the report of the other auditors. Additionally, we did not audit the financial statements of the Gateway Village General Improvement District, the RINO General Improvement District, and the 14th Street General Improvement District, which are included as blended component units, and the Denver Employee Retirement Plan, a fiduciary component unit and the Deferred Compensation Plan, a fiduciary fund of the City, which represent 57.18 percent of total assets, 44.12 percent of total revenues and 79.53 percent of net position (or fund balance) of the aggregate remaining fund information as of and for the year ended



Audit Committee
City and County of Denver

December 31, 2017. Those financial statements were audited by other auditors, whose reports have been furnished to us and our opinion on the aggregate remaining fund information, insofar as it relates to the amounts included for the Gateway Village General Improvement District, the RINO General Improvement District, and the 14th Street General Improvement District, the Denver Employee Retirement Plan, and the Deferred Compensation Plan, is based solely on the reports of the other auditors. We also did not audit the financial statements of the Wastewater Management Enterprise Fund, which is both a major enterprise fund of the City, and 14.11 percent, 14.33 percent and 38.99 percent, respectively, of the assets, revenues and net position of the business-type activities as of and for the year ended December 31, 2017. Those financial statements were audited by another auditor, whose report has been furnished to us, and our opinions on the Wastewater major fund and the business-type activities, insofar as it relates to the amounts included for the Wastewater Management Enterprise Fund, is based solely on the report of the other auditor. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, based on our audit and the reports of the other auditors, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund and the aggregate remaining fund information of the City and County of Denver, as of December 31, 2017, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and budgetary comparison, pension and other postemployment benefit information as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied

Audit Committee
City and County of Denver

certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the City's basic financial statements. The accompanying introduction section, combining and individual fund financial statements and schedules, and statistical section listed in the table of contents, is presented for purposes of additional analysis and are not a required part of the basic financial statements.

The combining and individual fund financial statements and schedules are the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the combining and individual fund financial statements and schedules are fairly stated in all material respects in relation to the basic financial statements as a whole. We also have previously audited, in accordance with auditing standards generally accepted in the United States of America, the City's basic financial statements as of and for the year ended December 31, 2016, which are not presented with the accompanying financial statements. In our report dated May 26, 2017, we expressed unmodified opinions on the respective financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information. In our opinion, the general fund balance sheet as of December 31, 2016 and related statement of revenues, expenditures, and changes in fund balance for the year then ended shown as supplementary information are fairly stated in all material respects in relation to the basic financial statements as of and for the year ended December 31, 2016, taken as a whole.

The introduction section and statistical section listed in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

BKD, LLP

Denver, Colorado
June 5, 2018

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**Management
Discussion
and Analysis**

Management of the City and County of Denver (City) offers readers of the basic financial statements this narrative overview and analysis of the financial activities of the City for the fiscal year ended December 31, 2017. Readers are encouraged to consider the information presented here in conjunction with additional information that is furnished in the letter of transmittal. The focus of the information herein is on the primary government.

Financial Highlights

- The City's assets and deferred outflows of resources exceeded its liabilities and deferred inflows of resources at the close of the fiscal year by \$3,565,112,000 (net position). Of this amount, \$152,536,000 represents a deficit of unrestricted net position.
- The City's total net position increased by \$328,255,000, or 10.1%, over the prior year.
- As of close of the current fiscal year, the City's governmental funds reported combined ending fund balances of \$1,179,411,000, a decrease of \$86,004,000 from the prior year. Approximately 22.4% or \$264,124,000 of the fund balance (unassigned fund balance) is available for spending at the government's discretion.
- At the end of the current fiscal year, unassigned fund balance of the General Fund was \$264,124,000 which represents 20.1% of total General Fund expenditures, including transfers out.
- The City's total bonded debt decreased by \$53,975,000 during the year. General obligation bonds decreased by \$99,630,000 and revenue bonds decreased by \$45,655,000.
- During 2017, the City adopted Governmental Accounting Standards Board Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other than Pension Plans*, Governmental Accounting Standards Board Statement No. 80, *Blending Requirements for Certain Component Units – an amendment of GASB Statement No. 14*, Governmental Accounting Standards Board Statement No. 81, *Irrevocable Split-Interest Agreements*, Governmental Accounting Standards Board Statement No. 82, *Pension Issues - an amendment of GASB Statements No. 67, No. 68, and No 73*, and Governmental Accounting Standards Board Statement No. 86, *Certain Debt Extinguishment Issues*. There was no impact to net position as a result of implementing these principles.

Overview of the Financial Statements

This discussion and analysis is intended as an introduction to the City's basic financial statements. The basic financial statements comprise three components: 1) government-wide financial statements, 2) fund financial statements, and 3) notes to the basic financial statements. In addition to the basic financial statements, also provided are required and other supplementary information.

Government-Wide Financial Statements

The government-wide financial statements are designed to provide readers with a broad overview of the City's finances, in a manner similar to a private-sector business.

The Statement of Net Position presents information on all of the City's assets, liabilities, and deferred inflows/outflows of resources, with the difference reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the City is improving or deteriorating.

The Statement of Activities reports how the City's net position changed during the most recent year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future fiscal periods (e.g., uncollected taxes and earned but unused vacation and sick leave).

The governmental activities reflect the City's basic services, including police, fire, public works, sanitation, economic development, culture, and recreation. Sales and property taxes finance the majority of these services.

The business-type activities reflect private sector-type operations, such as Wastewater Management; the Denver Airport System, including Denver International Airport (DEN); and Golf Courses, where fees for services typically cover all or most of the cost of operations, including depreciation.

The government-wide financial statements include not only the City itself (referred to as the primary government), but also other legally separate entities for which the City is financially accountable. Financial information for most of these component units is reported separately from the financial information presented for the primary government itself. A few component units, although legally separate, function essentially as an agency of the City and, therefore, are included as an integral part of the City.

Fund Financial Statements

A fund is a grouping of related accounts used to maintain control over resources that have been segregated for specific activities or objectives. The City uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. All of the funds of the City can be divided into three categories: governmental funds, proprietary funds, and fiduciary funds.

Governmental funds are used to account for essentially the same functions reported as governmental activities in the government-wide financial statements. Governmental fund financial statements focus on near term inflows and outflows of spendable resources, as well as on the balances left at year-end that are available for spending. Consequently, the governmental fund financial statements provide a detailed short-term view that helps the reader determine whether there are more or fewer financial resources that can be spent in the near future to finance the City's programs. Because this information does not encompass the long-term focus of the government-wide statements, additional information is provided that reconciles the governmental fund financial statements to the government-wide statements explaining the relationship (or differences) between them.

The City maintains 22 individual governmental funds. Information is presented separately in the governmental funds balance sheet and in the governmental funds statement of revenues, expenditures, and changes in fund balances for the General Fund and Human Services special revenue fund, each of which is considered to be a major fund. Data from the other 20 governmental funds are combined into a single aggregated presentation. Individual fund data for these nonmajor governmental funds is provided in the form of combining statements elsewhere in this report.

The City adopts an annual appropriated budget for the General Fund and Human Services special revenue fund. A budgetary comparison schedule has been provided to demonstrate compliance with these budgets for the General Fund and Human Services fund in accordance with U.S. GAAP.

The City maintains two different types of **proprietary funds**: enterprise funds and internal service funds. Enterprise funds are used to report the same functions presented as business-type activities in the government-wide financial statements. The City uses enterprise funds to account for its Wastewater Management, Denver Airport System, Environmental Services, and Golf Course funds. Internal service funds are an accounting device used to accumulate and allocate costs internally among the City's various functions. The City uses internal service funds to account for workers' compensation self-insurance and asphalt plant operations. The internal service funds provide services which predominantly benefit governmental rather than business-type functions. They have been included within governmental activities with an adjustment to reflect the consolidation for internal service fund activities related to the enterprise funds in the government-wide financial statements.

Proprietary funds provide the same type of information as the government-wide financial statements, only in more detail. The proprietary fund financial statements provide separate information for Wastewater Management and the Denver Airport System, both of which are considered to be major funds of the City. Data for the other two enterprise funds and all of the internal service funds are combined into their respective single aggregated presentations. Individual fund data for the nonmajor enterprise funds and all of the internal service funds is provided in the form of combining statements elsewhere in this report.

The City uses **fiduciary funds** to account for assets held on behalf of outside parties, including other governments. When these assets are held under the terms of a formal trust agreement, a private-purpose trust fund is used.

Agency funds generally are used to account for assets that the City holds on behalf of others as their agent. Pension trust funds account for the assets of the City's employee retirement plans.

Fiduciary funds are not reflected in the government-wide financial statements because the resources of those funds are not available to support the City's own programs. The accounting used for fiduciary funds is much like that used for proprietary funds.

The **notes to basic financial statements** provide additional information that is essential to a full understanding of the data provided in the government-wide and fund financial statements.

Other information in addition to the basic financial statements and accompanying notes is presented in the form of certain required supplementary information concerning the City's budgetary comparison schedules and the implicit rate subsidy on other postemployment benefits.

The combining statements supplementary information referred to earlier in connection with nonmajor funds, internal service funds, and nonmajor component units are presented immediately following the budgetary comparison required supplementary information.

Government-Wide Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of a government's financial position. In the case of the City, assets and deferred outflows exceeded liabilities and deferred inflows by \$3,565,112,000 at the close of the most recent fiscal year. Net position of \$2,431,754,000 (62.8%) reflects investment in capital assets (e.g., land, buildings, infrastructure, machinery, and equipment) less any related debt used to acquire those assets that is still outstanding. The City uses these capital assets to provide services to citizens; consequently, these assets are not available for future spending. Although the City's investment in its capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities.

Net positions of the City also include \$1,333,854,000 (37.4%) of restricted net position. These are resources subject to external restrictions as to how they may be used by the City.

Table 1 reflects the City's net position (dollars in thousands) as of December 31, 2017 and 2016:

Table 1

	Governmental Activities		Business-type Activities		Total Primary Government	
	2017	2016	2017	2016	2017	2016
Current and other assets	\$ 1,955,299	\$ 1,904,051	\$ 2,177,479	\$ 1,953,795	\$ 4,132,778	\$ 3,857,846
Capital assets	3,032,374	2,892,680	4,339,141	4,163,611	7,371,515	7,056,291
Total assets	4,987,673	4,796,731	6,516,620	6,117,406	11,504,293	10,914,137
Deferred outflows	409,940	433,322	167,464	211,439	577,404	644,761
Noncurrent liabilities	2,723,039	2,775,460	4,327,606	4,266,391	7,050,645	7,041,851
Other liabilities	385,343	313,439	597,973	554,333	983,316	867,772
Total liabilities	3,108,382	3,088,899	4,925,579	4,820,724	8,033,961	7,909,623
Deferred inflows	472,723	409,889	9,901	2,529	482,624	412,418
Net position						
Net investment in capital assets	1,730,520	1,572,753	701,234	175,636	2,431,754	1,748,389
Restricted	792,057	918,405	493,837	622,880	1,285,894	1,541,285
Unrestricted	(706,069)	(759,893)	553,533	707,076	(152,536)	(52,817)
Total net position	\$ 1,816,508	\$ 1,731,265	\$ 1,748,604	\$ 1,505,592	\$ 3,565,112	\$ 3,236,857

Table 2 reflects the City's changes in net position (dollars in thousands) for the years ended December 31, 2017 and 2016:

Table 2

	Governmental Activities		Business-type Activities		Total Primary Government	
	2017	2016	2017	2016	2017	2016
Revenues						
Program revenues:						
Charges for services	\$ 407,002	\$ 400,525	\$ 1,083,535	\$ 1,032,149	\$ 1,490,537	\$ 1,432,674
Operating grants and contributions	194,285	179,641	873	686	195,158	180,327
Capital grants and contributions	90,432	68,218	77,175	28,975	167,607	97,193
General revenues:						
Facilities development admissions tax	13,816	12,401	-	-	13,816	12,401
Lodgers tax	112,947	88,872	-	-	112,947	88,872
Motor vehicle ownership fee	30,793	26,787	-	-	30,793	26,787
Occupational privilege tax	50,955	49,864	-	-	50,955	49,864
Property tax	419,648	399,859	-	-	419,648	399,859
Sales and use tax	718,577	674,398	-	-	718,577	674,398
Specific ownership tax	57	57	-	-	57	57
Telephone tax	9,372	9,446	-	-	9,372	9,446
Investment income	20,642	19,151	49,083	40,414	69,725	59,565
Other revenues	39,465	24,128	4,941	921	44,406	25,049
Total revenues	2,107,991	1,953,347	1,215,607	1,103,145	3,323,598	3,056,492
Expenses						
General government	445,601	405,900	-	-	445,601	405,900
Public safety	707,981	688,287	-	-	707,981	688,287
Public works	254,381	216,587	-	-	254,381	216,587
Human services	167,131	145,594	-	-	167,131	145,594
Health	62,351	65,265	-	-	62,351	65,265
Parks and recreation	100,294	93,842	-	-	100,294	93,842
Cultural activities	157,531	130,536	-	-	157,531	130,536
Community development	52,832	48,766	-	-	52,832	48,766
Economic opportunity	11,746	14,830	-	-	11,746	14,830
Interest on long-term debt	63,952	62,566	-	-	63,952	62,566
Wastewater management	-	-	124,046	114,740	124,046	114,740
Denver airport system	-	-	825,110	811,094	825,110	811,094
Other enterprise funds	-	-	22,387	22,983	22,387	22,983
Total expenses	2,023,800	1,872,173	971,543	948,817	2,995,343	2,820,990
Change in net position before transfers	84,191	81,174	244,064	154,328	328,255	235,502
Transfers	1,052	(1,676)	(1,052)	1,676	-	-
Transfers of Capital Assets	-	(2,880)	-	2,880	-	-
Change in net position	85,243	76,618	243,012	158,884	328,255	235,502
Net position (deficit) - January 1	1,731,265	1,654,647	1,505,592	1,346,708	3,236,857	3,001,355
Net position - December 31	\$ 1,816,508	\$ 1,731,265	\$ 1,748,604	\$ 1,505,592	\$ 3,565,112	\$ 3,236,857

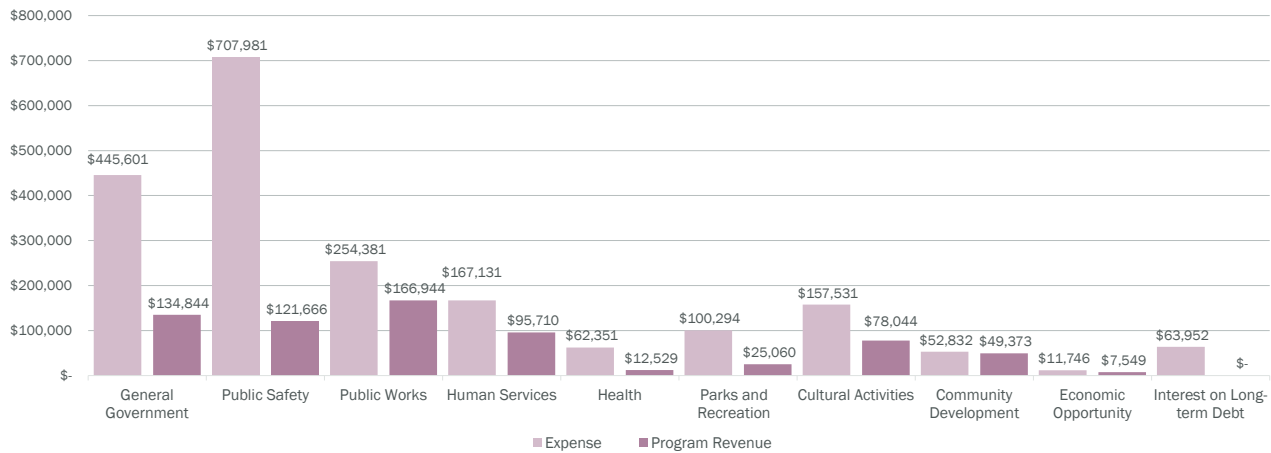
Governmental activities increased the City's net position by \$85,243,000 for the year ended December 31, 2017. Key elements of the increase are as follows:

- Property tax and sales and use taxes totaled 83.9% of all tax revenues and 54.0% of all governmental activities' revenues. Property tax recorded in the governmental funds totaled \$419,648,000 for an increase of \$19,789,000 (4.9%) while sales and use tax revenues of \$718,577,000 were up \$44,179,000 (6.6%) compared to 2016, reflecting stable growth in the 2017 economy. Lodgers tax increased \$24,075,000 (27.1%) due to the City imposing a new 10.75% lodgers fee to short-term rentals, an increasing hotel inventory, and a one-time online travel company legal settlement of \$9,989,000.
- Total governmental activities expenses increased by \$151,627,000 (8.1%) primarily due to an increase in costs for goods, expanded services offered by agencies, and pension expense. General government expense increased \$39,701,000 (9.8%), mainly due to increasing costs for services and increasing personnel costs. Public Safety expenses increased \$19,694,000 (2.9%), in part due to hiring additional deputies and enhanced staffing, technology, training, equipment, and facilities as well as pension expense. Public Works expense increased \$37,794,000 (17.4%) mainly due to an increase in capital project activity and land acquisition costs

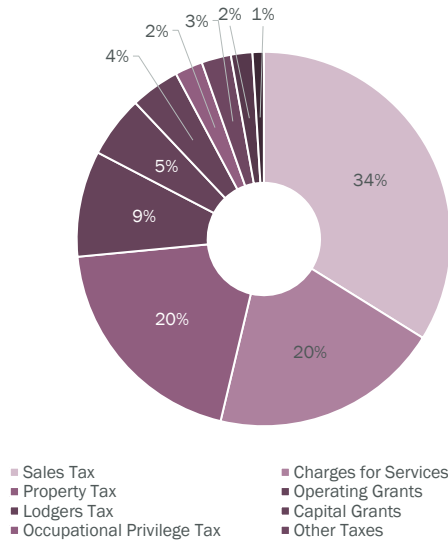
related to the construction of the National Western Center. Human Services expense increased \$21,537,000 (14.8%) mainly due to the agency adding new positions and the reorganization of the Office of Behavioral Health which resulted in expenses from the Crime and Prevention Control Program transitioned to Human Services. Cultural Activities expenses increased \$26,995,000 (20.7%) mainly due to an increase in repairs and maintenance costs in their capital project funds and Convention Complex payments made during 2017.

General government expenses in 2017 were \$445,601,000 (22.0%) of total expenses. Public safety expenses were \$707,981,000 (35.0%) of total expenses. Public Works expenses were \$254,381,000 (12.6%) of total expenses. Cultural activities were \$157,531,000 (7.8%) of total expenses. Human services’ expenses were \$167,131,000 (8.3%) of total expenses. The remainder of the governmental activities expenses is comprised of health with \$62,351,000 (3.1%), parks and recreation with \$100,294,000 (5.0%) community development with \$52,832,000 (2.6%), economic opportunity with \$11,746,000 (.58%), and interest on long-term debt of \$63,952,000 (3.2%).

Expenses and Program Revenues - Governmental Activities
(dollars in thousands)



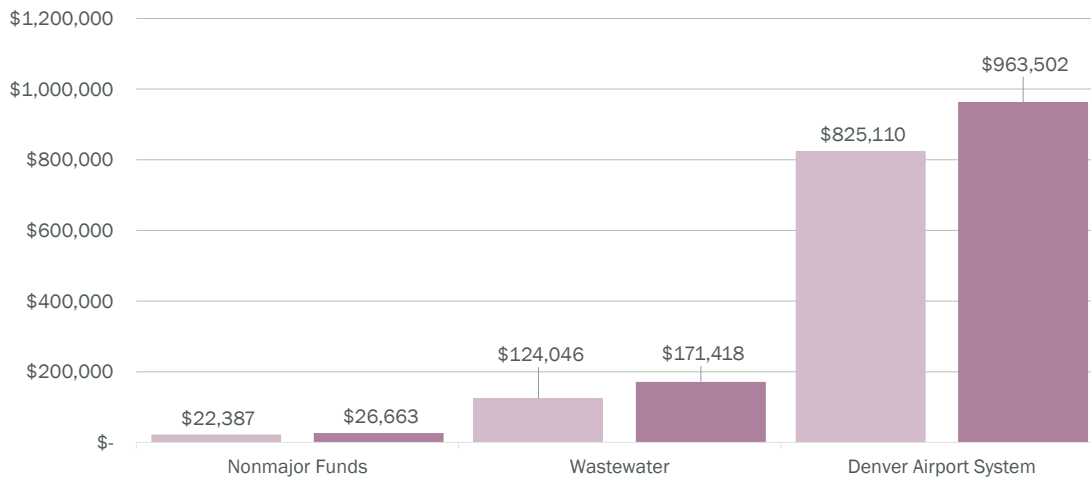
Revenues by Source - Governmental Activities



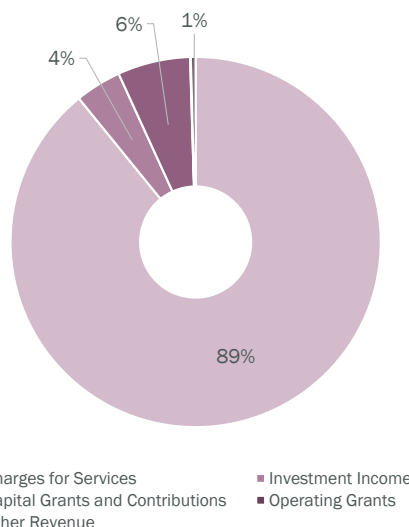
Business-type activities increased the City’s net position by \$243,012,000. Key elements of this increase are as follows:

- Total revenues of \$1,215,607,000 were \$112,462,000 (10.2%), higher compared to prior year amounts. For the Denver Airport System, the change was primarily due to increases in concessions revenue due to the opening of new locations, an increase in enplaned passengers, and increases in car rentals and hotel revenues. Wastewater Management, the change was mainly due to a 5.0% rate increase for the sanitary fees and an 11.0% rate increase in storm fees at Wastewater Management.
- Total expenses of \$971,543,000 increased by \$149,454,000 (8.0%) when compared to the prior year. Wastewater Management expenses in 2017 totaled \$124,046,000 (12.8%) of total business-type activities. Denver Airport System expenses totaled \$825,110,000 (84.9%) of business-type activities. The remaining \$22,387,000 (2.3%) of expenses in business-type activities were related to Environmental Services and Golf activities. The main source of the increase in expenses for all funds was primarily due to an increase in personnel costs due to salary increases and pension expense.

Expenses and Program Revenues - Business-Type Activities
(dollars in thousands)



Revenues by Source - Business-Type Activities



Financial Analysis of the Government's Funds

As noted earlier, the City uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements.

Governmental Funds

The focus of the City's governmental funds is to provide information on current year revenues, expenditures, and balances of spendable resources. Such information is useful in assessing the City's near-term financing requirements. In particular, unassigned fund balance may serve as a useful measure of a government's net resources available for spending at the end of the fiscal year.

As of December 31, 2017, the City's governmental funds reported combined ending fund balances of \$1,179,411,000, a decrease of \$86,004,000 in comparison with the prior year. Approximately 22.4% or \$264,124,000 of the total fund balance amount constitutes unassigned fund balance, which is available for spending at the City's discretion.

The General Fund is the chief operating fund of the City. As of December 31, 2017, unassigned fund balance of the General Fund was \$264,124,000 while total fund balance was \$394,059,000. As a measure of the General Fund's liquidity, it may be useful to compare both unassigned fund balance and total fund balance to total fund expenditures. Unassigned fund balance represents 20.1% of total General Fund expenditures, including transfers out, of \$1,311,813,000 while total fund balance represents 30.0% of the same amount.

The total fund balance of the City's General Fund decreased by \$3,364,000 (0.8%) during the year ended December 31, 2017. This is largely due to increased transfers to capital projects funds for projects related to transportation infrastructure, deferred maintenance, and street paving.

Almost every revenue source increased slightly in 2017 due to a recovery of the economy. Total General Fund revenues including transfers in, totaled \$1,304,289,000, an increase of \$63,506,000 or 5.1%. Certain revenues in the General Fund that increased from 2016 to 2017 include:

- Sales and use taxes earned were higher by \$44,179,000. This increase is primarily attributable to the continuing expansion of the economy and retail marijuana sales tax collections related to the implementation of Amendment 64.
- Lodgers taxes were higher by \$7,177,000, largely as a result of the initiation of collection of lodger's tax on short-term rentals in 2017, an increasing hotel inventory, and a one-time legal settlement from online travel companies of \$9,989,000.
- Property taxes were higher by \$4,319,000 due in part to an increase in the assessed value of property taxed during 2017.

The national and local economies continued to recover in 2017 following the recession of 2009. The City continued to monitor 2017 expenditures. Total General Fund expenditures, including transfers out, increased by \$73,689,000, or 6.0%. The primary drivers of this increase are personnel cost increases and an increase in costs for goods and services.

The Human Services special revenue fund had a total fund balance of \$75,582,000. This amounts to a net decrease in fund balance of \$447,000 during the current year. The underlying reasons for the change include increased liabilities at year-end when compared to 2016.

Proprietary Funds

The City's proprietary funds provide the same type of information found in the government-wide financial statements, but in more detail.

Total net position of Wastewater Management was \$681,788,000 and for the Denver Airport System net position was \$1,023,673,000. Net position for all enterprise funds increased \$243,092,000. Other significant factors concerning the finances of the enterprise funds can be found in the discussion of the City's business-type activities.

General Fund Budgetary Highlights

Differences between the General Fund original budget and the final amended budget include a revision to both the projected revenues and expenditures.

Original revenue estimates for 2017, prepared in the summer of 2016, assumed moderate growth in the local and national economies. Sales and use tax revenue was originally projected to grow by 4.2% over the 2016 revised forecast and total General Fund revenue was projected to increase by 3.4% over 2016 revised figures. In the summer of 2017, the original General Fund revenue forecast, including transfers in, was revised upward by \$14,043,300 or 1.1% over original projections. Major factors contributing to this upward adjustment include:

- The tax revenue was revised upward by \$11,224,000 or 1.3% due largely to the economy expanding more rapidly than originally anticipated, and strong mid-year actual collections
- Licenses and permitting revenue projections were revised upward by \$8,642,000 or 18.0%. This increase was largely driven by upward adjustments to the revenue projections for construction and excavation permitting and street occupancy permitting.
- Fines and forfeitures were revised downward by \$4,846,000 or 8.6% due to a decrease in photo radar collections in part because some construction zones ended. This and other miscellaneous decreases in fine revenue are partially offset by a projected increase in parking fine collections.
- Charges for services revenue was revised upward by \$341,000 or 0.2%.
- Differences between the final amended budget and actual revenues and expenditures are briefly summarized in the following paragraph.

In 2017, actual General Fund revenues, including transfers in, were approximately \$1,304,289,000 which is 1.5% higher than the revised budget for 2017. This overage was due in part to realizing unbudgeted online travel settlement revenue and overperformance in sales and use tax collections. General Fund budget actual expenditures were approximately \$34,000,000 less than the revised 2017 budget. This is a result of achieving unspent appropriations, due in large part to compensation savings and not fully expending contingency funds.

Capital Assets and Bonded Debt Administration

Capital Assets

The City's capital assets for its governmental and business-type activities as of December 31, 2017, were \$7,371,515,000 (net of accumulated depreciation). This investment in capital assets includes land and land rights, collections, buildings and improvements, equipment and other, park facilities, and, for governmental activities, infrastructure (including streets, alleys, traffic signals, bridges, fiber optic cable, and trails). Infrastructure-type assets of business-type activities are reported as buildings and improvements. The City's capital assets by type at December 31, 2017 and 2016 are shown in **Table 3** (dollars in thousands):

Table 3

	Governmental Activities		Business-type Activities		Total Primary Government	
	2017	2016	2017	2016	2017	2016
Land and construction in progress	\$ 577,776	\$ 426,646	\$ 645,294	\$ 537,763	\$ 1,223,070	\$ 964,409
Buildings and Improvements	2,388,822	2,396,115	6,329,131	6,136,972	8,717,953	8,533,087
Equipment and other	333,622	322,575	906,332	880,189	1,239,954	1,202,764
Collections	46,844	44,481	-	-	46,844	44,481
Intangibles	58,532	36,661	33,177	6,125	91,709	42,786
Infrastructure	1,678,600	1,595,588	-	-	1,678,600	1,595,588
Less accumulated depreciation	(2,051,822)	(1,929,386)	(3,574,793)	(3,397,438)	(5,626,615)	(5,326,824)
Total	\$ 3,032,374	\$ 2,892,680	\$ 4,339,141	\$ 4,163,611	\$ 7,371,515	\$ 7,056,291

Major capital asset activity for the year ended December 31, 2017 included the following:

- Governmental Activities – Work on the National Western Center (NWC) commenced and includes costs related to land acquisition within the NWC campus boundaries, preparation for rail consolidation, environmental analysis, preliminary design, engineering and construction.
- Business-type Activities – Wastewater's increase in net capital assets is due to the completion of Wastewater funded projects of approximately \$6,700,000 and the receipt of \$26,300,000 in donated capital assets. The Denver Airport System had a 3.2% increase in capital assets resulting primarily from new facilities and facility improvements entering service during 2017

Additional information on the City's capital asset activity for the year can be found in **Note III-D** in the notes to basic financial statements.

Bonded Debt

At December 31, 2017, the City had total bonded indebtedness of \$5,128,576,000. Of this amount, \$661,776,000 comprises debt backed by the full faith and credit of the City. The remainder of the City's debt, \$4,466,800,000 represents bonds secured by specified revenue sources (i.e., revenue bonds of Wastewater Management and excise tax revenue bonds). The City has no outstanding commercial paper notes as of December 31, 2017.

As of December 31, 2017, the City's general obligation debt is rated AAA by Standard & Poor's rating agency, Fitch Ratings, and Moody's Investors Service. Outstanding bonded debt at December 31, 2017, and 2016, is reflected in **Table 4** (dollars in thousands):

Table 4

			Business-type Activities		Total Primary Government	
	2017	2016	2017	2016	2017	2016
General obligation bonds	\$ 661,776	\$ 761,406	\$ -	\$ -	\$ 661,776	\$ 761,406
Revenue bonds	351,475	374,960	4,115,325	4,046,185	4,466,800	4,421,145
Total	\$ 407,002	\$ 1,136,366	\$ 1,083,535	\$ 4,046,185	\$ 5,128,576	\$ 5,182,551

Additional information on the City's bonded debt for the year can be found in **Note III-G** in the notes to the basic financial statements.

Economic Factors and Next Year's Budget

The original 2018 budget assumes moderate growth in the local economy. The 2018 General Fund original revenues are projected to increase 3.7% from actual 2017 revenues. It is anticipated that 2018 revenues will be revised upward to reflect better than expected performance in 2017 and the early part of 2018. Measures have been taken to have expenditures be in line with anticipated revenues.

It is anticipated that fund balance will increase during 2018 and the City remains committed to growing General Fund reserves.

Requests for Information

This financial report is designed to provide a general overview of the City's finances for all those with an interest in the government's finances. Questions concerning the information provided in this report or requests for additional financial information should be addressed to:

The Controller's Office

201 West Colfax Avenue
 Department 1109
 Denver, CO 80202



Basic Financial

Statement of Net Position

December 31, 2017 (dollars in thousands)

	Primary Government			Component Units
	Governmental Activities	Business-type Activities	Total	
Assets				
Cash on hand	\$ 9,040	\$ -	\$ 9,040	\$ -
Cash and cash equivalents	1,122,202	77,689	1,199,891	47,466
Investments	-	605,374	605,374	-
Receivables (net of allowances):				
Taxes	551,848	-	551,848	99,268
Notes	55,430	-	55,430	-
Accounts	38,161	117,475	155,636	7,459
Accrued interest	5,209	7,192	12,401	260
Other	-	-	-	3,176
Due from other governments	34,325	-	34,325	-
Internal balances	3,402	(3,402)	-	-
Inventories	119	12,552	12,671	-
Prepaid items and other assets	-	1,715	1,715	2,647
Restricted assets:				
Cash and cash equivalents	74,855	76,743	151,598	29,844
Investments	-	1,202,057	1,202,057	205,495
Accounts receivable	-	14,762	14,762	-
Accrued interest receivable	-	2,451	2,451	-
Prepaid items and other assets	20,471	5,728	26,199	-
Long-term receivables (net of allowances)	39,506	29,018	68,524	-
Prepaid expense	-	439	439	-
Interest rate swaps	-	27,686	27,686	-
Assets held for disposition	731	-	731	-
Capital assets:				
Land and construction in progress	577,776	645,294	1,223,070	25,486
Buildings, improvements, infrastructure, collections, and equipment, net of accumulated depreciation	2,454,598	3,693,847	6,148,445	188,524
Total Assets	4,987,673	6,516,620	11,504,293	609,625
Deferred Outflows of Resources				
Accumulated decrease in fair value of hedging derivatives	24,070	10,857	34,927	-
Deferred amount on refundings	22,704	109,545	132,249	23,263
Items related to pension plans	363,166	47,062	410,228	-
Total Deferred Outflows of Resources	409,940	167,464	577,404	23,263
Liabilities				
Vouchers payable	143,195	104,914	248,109	7,757
Accrued liabilities	41,174	54,287	95,461	37,973
Unearned revenue	41,037	59,207	100,244	8,046
Interest rate swaps	27,615	119,484	147,099	-
Advances	7,701	-	7,701	2,209
Due to taxing unit	584	-	584	-
Due to other governments	-	4,821	4,821	299
Liabilities payable from restricted assets	-	55,319	55,319	-
Noncurrent liabilities:				
Due within one year	124,037	199,941	323,978	35,704
Due in more than one year	2,723,039	4,327,606	7,050,645	723,391
Total Liabilities	3,108,382	4,925,579	8,033,961	815,379
Deferred Inflows of Resources				
Property taxes	471,142	-	471,142	91,379
Items related to pension plans	1,581	5,636	7,217	-
Deferred gain on refunding of debt	-	4,265	4,265	-
Total Deferred Inflows of Resources	472,723	9,901	482,624	91,379
Net Position				
Net investment in capital assets	1,730,520	701,234	2,431,754	(71,826)
Restricted for:				
Capital projects and grants	619,480	8,944	628,424	105,673
Emergency use	51,426	-	51,426	24,250
Debt service	96,951	484,893	581,844	28,058
Donor and other restrictions:				
Expendable	-	-	-	15,604
Nonexpendable	3,000	-	3,000	-
Other purposes	21,200	-	21,200	-
Unrestricted (deficit)	(706,069)	553,533	(152,536)	(375,629)
Total Net Position (Deficit)	\$ 1,816,508	\$ 1,748,604	\$ 3,565,112	\$ (273,870)

See accompanying notes to basic financial statements.

Statement of Activities

For the Year Ended December 31, 2017 (dollars in thousands)

Functions/Programs	Expenses	Program Revenues		
		Charges for Services	Operating Grants and Contributions	Capital Grants and Contributions
Primary Government				
Governmental Activities:				
General government	\$ 445,601	\$ 97,788	\$ 25,288	\$ 11,768
Public safety	707,981	97,339	24,327	-
Public works	254,381	79,397	21,992	65,555
Human services	167,131	489	95,221	-
Health	62,351	2,234	10,295	-
Parks and recreation	100,294	13,826	7,310	3,924
Cultural activities	157,531	75,996	2,048	-
Community development	52,832	39,905	283	9,185
Economic opportunity	11,746	28	7,521	-
Interest on long-term debt	63,952	-	-	-
Total Governmental Activities	2,023,800	407,002	194,285	90,432
Business-type Activities:				
Wastewater management	124,046	150,122	-	21,296
Denver airport system	825,110	906,750	873	55,879
Environmental services	10,880	14,700	-	-
Golf course	11,507	11,963	-	-
Total Business-type Activities	971,543	1,083,535	873	77,175
Total Primary Government	\$ 2,995,343	\$ 1,490,537	\$ 195,158	\$ 167,607
Component Units	\$ 227,492	\$ 102,238	\$ 2,917	\$ -

General revenues

Taxes

Facilities development admissions

Lodgers

Motor vehicle ownership fee

Occupational privilege

Property

Sales and use

Specific ownership

Telephone

Investment and interest income

Other revenues

Transfers

Total General Revenues and Transfers**Special Items**

Loss on dissolution

Loss on assumption of debt

Total Special Items

Change in net position

Net position (deficit), January 1

Net Position (Deficit) - December 31

See accompanying notes to basic financial statements.

Net (Expense) Revenue and Changes in Net Position			
Primary Government			Component Units
Governmental Activities	Business-type Activities	Total	
\$ (310,757)	\$ -	\$ (310,757)	
(586,315)	-	(586,315)	
(87,437)	-	(87,437)	
(71,421)	-	(71,421)	
(49,822)	-	(49,822)	
(75,234)	-	(75,234)	
(79,487)	-	(79,487)	
(3,459)	-	(3,459)	
(4,197)	-	(4,197)	
(63,952)	-	(63,952)	
(1,332,081)	-	(1,332,081)	
-	47,372	47,372	
-	138,392	138,392	
-	3,820	3,820	
-	456	456	
-	190,040	190,040	
(1,332,081)	190,040	(1,142,041)	
			\$ (122,337)
13,816	-	13,816	-
112,947	-	112,947	106,900
30,793	-	30,793	-
50,955	-	50,955	-
419,648	-	419,648	26,390
718,577	-	718,577	-
57	-	57	367
9,372	-	9,372	-
20,642	49,083	69,725	2,670
39,465	4,941	44,406	329,237
1,052	(1,052)	-	-
1,417,324	52,972	1,470,296	465,564
-	-	-	(151,446)
-	-	-	(187,842)
-	-	-	(339,288)
85,243	243,012	328,255	3,939
1,731,265	1,505,592	3,236,857	(277,809)
\$ 1,816,508	\$ 1,748,604	\$ 3,565,112	\$ (273,870)

Balance Sheet - Governmental Funds

December 31, 2017 (dollars in thousands)

	General	Human Services	Other Governmental Funds	Total Governmental Funds
Assets				
Cash on hand	\$ 921	\$ 187	\$ 7,932	\$ 9,040
Cash and cash equivalents	286,222	76,845	709,719	1,072,786
Receivables (net of allowances of \$170,347)				
Taxes	203,890	72,234	275,724	551,848
Notes	2,822	-	52,608	55,430
Accounts	19,877	13,022	41,676	74,575
Accrued interest	2,025	-	2,918	4,943
Interfund receivable	13,530	35	181	13,746
Due from other governments		2,581	31,744	34,325
Prepaid items and other assets	2,983	9	17,479	20,471
Restricted assets:				
Cash and cash equivalents	71,295	-	3,560	74,855
Assets held for disposition	-	-	731	731
Total Assets	\$ 603,565	\$ 164,913	\$ 1,144,272	\$ 1,912,750
Liabilities and Fund Balances				
Liabilities:				
Vouchers payable	\$ 42,799	\$ 12,495	\$ 87,045	\$ 142,339
Accrued liabilities	19,609	1,423	738	21,770
Due to taxing units	501	2	81	584
Interfund payable	1,763	1,830	6,406	9,999
Unearned revenue	1,542	18	39,477	41,037
Advances	218	192	7,291	7,701
Compensated absences	-	-	62	62
Total Liabilities	66,432	15,960	141,100	223,492
Deferred Inflows of Resources:				
Unavailable revenues - property taxes levied in advance	130,327	73,371	266,643	470,341
Unavailable revenues - long-term receivables	12,747	-	26,759	39,506
Total Deferred Inflows of Resources	143,074	73,371	293,402	509,847
Fund Balances:				
Nonspendable	2,979	-	20,479	23,458
Restricted	71,295	75,582	667,605	814,482
Committed	55,661	-	20,624	76,285
Assigned	-	-	1,062	1,062
Unassigned	264,124	-	-	264,124
Total Fund Balances	394,059	75,582	709,770	1,179,411
Total Liabilities, Deferred Inflows of Resources, and Fund Balances	\$ 603,565	\$ 164,913	\$ 1,144,272	\$ 1,912,750

See accompanying notes to basic financial statements.

Reconciliation of the Balance Sheet - Governmental Funds to the Statement of Net Position

December 31, 2017 (dollars in thousands)

Amounts reported for governmental activities in the statement of net position are different because:

Total fund balance-governmental funds.	\$ 1,179,411
Capital assets used in governmental activities, excluding internal service funds of \$43 are not financial resources, and therefore, are not reported in the funds.	3,032,331
Accrued interest payable not included in the funds.	(19,305)
Deferred inflow of resources related to property taxes, long-term receivables, and pensions are not available to pay for current-period expenditures, and therefore, are not recorded in the funds.	37,124
Deferred outflow of resources are not financial resources, and therefore are not reported in the funds and include:	
Accumulated decrease in fair value of hedging derivatives	24,070
Pensions	363,166
Loss on refunding	22,704
Interest rate swap liability.	(27,615)
Internal service funds are used by management to charge the cost of these funds to their primary users-governmental funds. The assets and liabilities of the internal service funds are included in governmental activities in the statement of net position.	25,050
Long-term liabilities, including bonds payable, are not due and payable in the current period and therefore are not reported in the governmental funds (this excludes internal service liabilities of \$26,648).	(2,820,428)
Net position of governmental activities	\$ 1,816,508

See accompanying notes to basic financial statements.

Statement of Revenues, Expenditures, and Changes in Fund Balances - Governmental Funds

For the Year Ended December 31, 2017 (dollars in thousands)

	General	Human Services	Other Governmental Funds	Total Governmental Funds
Revenues				
Taxes:				
Facilities development admission	\$ -	\$ -	\$ 13,816	\$ 13,816
Lodgers	32,146	-	80,801	112,947
Motor vehicle ownership fee	30,793	-	-	30,793
Occupational privilege	50,955	-	-	50,955
Property	120,328	66,195	233,125	419,648
Sales and use	656,531	-	64,981	721,512
Specific ownership	-	-	57	57
Telephone	2,453	-	6,919	9,372
Special assessments	-	-	1,257	1,257
Licenses and permits	64,601	-	431	65,032
Intergovernmental revenues	35,500	95,134	116,211	246,845
Charges for services	194,569	489	71,179	266,237
Investment and interest income	9,185	-	10,984	20,169
Fines and forfeitures	49,710	-	1,688	51,398
Contributions	27	86	9,889	10,002
Other revenue	14,366	273	51,555	66,194
Total Revenues	1,261,164	162,177	662,893	2,086,234
Expenditures				
Current:				
General government	276,941	-	205,575	482,516
Public safety	561,995	-	75,714	637,709
Public works	151,959	-	139,248	291,207
Health	46,201	-	13,139	59,340
Human services	7,844	156,825	-	164,669
Parks and recreation	68,087	-	12,902	80,989
Cultural activities	48,444	-	81,525	129,969
Community development	32,463	-	19,417	51,880
Economic opportunity	187	4,228	6,873	11,288
Debt service:				
Principal retirement	4,199	4,255	149,079	157,533
Interest	751	378	64,927	66,056
Capital outlay	-	-	57,959	57,959
Total Expenditures	1,199,071	165,686	826,358	2,191,115
Excess (deficiency) of revenues over (under) expenditures	62,093	(3,509)	(163,465)	(104,881)
Other Financing Sources (Uses)				
Sale of capital assets	3,957	-	-	3,957
Issuance of certificate of participation	-	-	1,055	1,055
Issuance of capital leases	-	-	13,551	13,551
Capital lease refunding	-	-	15,507	15,507
Note proceeds	-	-	4,025	4,025
Payment to escrow	-	-	(21,172)	(21,172)
Payment to component unit	-	-	(306)	(306)
Insurance recoveries	203	-	590	793
Transfers in	43,125	7,050	148,758	198,933
Transfers out	(112,742)	(3,988)	(80,736)	(197,466)
Total Other Financing Sources (Uses)	(65,457)	3,062	81,272	18,877
Net change in fund balances	(3,364)	(447)	(82,193)	(86,004)
Fund balances - January 1	397,423	76,029	791,963	1,265,415
Fund Balances - December 31	\$ 394,059	\$ 75,582	\$ 709,770	\$ 1,179,411

See accompanying notes to basic financial statements.

Reconciliation of the Statement of Revenues, Expenditures and Changes in Fund Balances - Governmental Funds to the Statement of Activities

For the Year Ended December 31, 2017 (dollars in thousands)

Amounts reported for governmental activities in the statement of activities are different because:

Net change in fund balances - total governmental funds	\$ (86,004)
Governmental funds report capital outlays as expenditures. However, in the statement of activities the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense. This is the amount by which capital outlay and capital related expenditures exceeded depreciation expense in the current period:	
Capital expenditures	263,726
Depreciation expense (excluding internal service)	(151,855)
Certain revenues are recorded in the funds under modified accrual but not considered revenue in the statement of activities.	21,910
The issuance of long-term debt and other obligations (e.g., bonds, certificates of participation, and capital leases) provides current financial resources to governmental funds, while the repayment of the principal of long-term debt consumes the current financial resources of governmental funds. Neither transaction, however has any effect on change in net position. Also, governmental funds report the effect of premiums, discounts, and similar items when debt is first issued, whereas these amounts are amortized in the statement of activities. These differences in the treatment of long-term debt and related items consist of:	
Capital lease refunding	(15,507)
Capital lease obligations	(14,606)
GID Proceeds	(4,000)
Principal retirement on bonds	123,115
Amortization of premium, discounts, and deferred gain (loss) on refunding	4,074
Capital lease principal payments	45,006
Principal payments on GID revenue note	3,315
Principal payments on intergovernmental agreement	658
Principal payments on note payable	1,431
Some expenses reported in the statement of activities do not require the use of current financial resources and, therefore, are not reported as expenditures in governmental funds:	
Compensated absences (excluding internal service)	(5,684)
Accrued interest payable	2,104
Legal liability	(5,715)
Net OPEB obligation	(1,446)
Amortization of imputed debt-swap	474
Portion of pension expense that do not require current financial resources	(84,393)
Pension amortization	(16,844)
Internal service funds are used by management to charge their cost to individual funds. The net expense of certain activities of internal service funds is reported within governmental activities.	5,484
Change in net position of governmental activities	\$ 85,243

See accompanying notes to basic financial statements.

Statement of Net Position - Proprietary Funds

December 31, 2017 (dollars in thousands)

	Business-type Activities - Enterprise Funds	
	Wastewater Management	Denver Airport System
Assets		
Current assets:		
Cash and cash equivalents	\$ 16,861	\$ 36,427
Investments	14,079	73,339
Receivables (net of allowance for uncollectibles of \$2,151):		
Accounts	27,864	86,988
Accrued interest	981	6,111
Inventories	-	12,397
Interfund receivable	51	3,727
Prepaid items and other assets	342	1,373
Restricted assets:		
Cash and cash equivalents	-	70,396
Investments	20,344	152,139
Accounts receivable	-	14,190
Accrued interest receivable	-	2,425
Prepaid items	-	5,728
Total Current Assets	80,522	465,240
Noncurrent assets:		
Investments - restricted	103,063	926,510
Investments - unrestricted	71,326	446,630
Capital assets:		
Land and construction in progress	100,211	534,782
Buildings and improvements	17,975	4,228,015
Improvements other than buildings	834,944	1,219,045
Machinery and equipment	15,165	885,000
Intangibles	6,125	27,052
Accumulated depreciation	(309,655)	(3,242,642)
Net capital assets	664,765	3,651,252
Long-term receivables (net of allowances)	-	29,018
Prepaid expense and other	-	439
Interest rate swaps	-	27,686
Total Noncurrent Assets	839,154	5,081,535
Total Assets	919,676	5,546,775
Deferred Outflows of Resources		
Accumulated decrease in fair value of hedging derivatives	-	10,857
Deferred amount on refundings	403	109,142
Items related to pension plans	7,776	36,427
Total Deferred Outflows of Resources	8,179	156,426

See accompanying notes to basic financial statements.

	Other Enterprise Funds	Total Enterprise Funds	Governmental Activities Internal Service Funds
	\$ 24,402	\$ 77,690 87,418	\$ 49,416
	2,623	117,475	3,092
	100	7,192	266
	155	12,552	119
	1,914	5,692	58
	-	1,715	-
	6,347	76,743	-
	-	172,483	-
	572	14,762	-
	26	2,451	-
	-	5,728	-
	36,139	581,901	52,951
	-	1,029,573	-
	-	517,956	-
	10,301	645,294	-
	12,349	4,258,339	3,627
	16,804	2,070,793	-
	6,166	906,331	1,677
	-	33,177	-
	(22,496)	(3,574,793)	(5,261)
	23,124	4,339,141	43
	-	29,018	-
	-	439	-
	-	27,686	-
	23,124	5,943,813	43
	59,263	6,525,714	52,994
	-	10,857	-
	-	109,545	-
	2,859	47,062	-
	2,859	167,464	-

continued

Statement of Net Position - Proprietary Funds, continued

December 31, 2017 (dollars in thousands)

	Business-type Activities - Enterprise Funds	
	Wastewater Management	Denver Airport System
Liabilities		
Current liabilities:		
Vouchers payable	\$ 731	\$ 87,071
Revenue bonds payable	5,065	-
Accrued liabilities	1,457	52,618
Unearned revenue	12,902	45,753
Interfund payable	594	8,418
Capital lease obligations	647	-
Compensated absences	823	2,439
Claims reserve	-	-
Construction payable	15,195	-
Due to other governments	4,821	-
Current liabilities (payable from restricted assets):		
Vouchers payable	-	12,919
Retainages payable	-	11,890
Notes payable	-	3,593
Accrued interest and other liabilities	-	23,458
Other accrued liabilities	-	6,343
Revenue bonds payable	-	186,140
Total Current Liabilities	42,235	440,642
Noncurrent liabilities:		
Interest rate swaps	-	119,484
Notes payable	-	7,600
Revenue bonds payable, net	161,167	3,941,423
Net pension liability	34,492	153,874
Capital lease obligations	5,039	-
Compensated absences	2,486	7,421
Claims reserve	-	-
Total Noncurrent Liabilities	203,184	4,229,802
Total Liabilities	245,419	4,670,444
Deferred Inflows of Resources		
Items related to pension plans	648	4,819
Deferred gain on refunding of debt	-	4,265
Total Deferred Inflows of Resources	648	9,084
Net Position		
Net investment in capital assets	601,526	78,760
Restricted for:		
Capital projects	-	2,708
Debt service	-	484,893
Unrestricted	80,262	457,312
Total Net Position	\$ 681,788	\$ 1,023,673

Adjustment to reflect consolidation of internal service fund activities related to enterprise funds

Net position of business-type activities

See accompanying notes to basic financial statements.

				Governmental Activities	
Other Enterprise Funds		Total Enterprise Funds		Internal Service Funds	
\$	1,917	\$	89,719	\$	856
	590		5,655		-
	212		54,287		37
	552		59,207		-
	430		9,442		55
	311		958		-
	333		3,595		112
	-		-		9,149
	-		15,195		-
	-		4,821		-
	709		13,628		-
	-		11,890		-
	-		3,593		-
	-		23,458		-
	-		6,343		-
	-		186,140		-
	5,054		487,931		10,209
			119,484		-
			7,600		-
	1,275		4,103,865		-
	11,966		200,332		-
	-		5,039		-
	863		10,770		254
	-		-		17,133
	14,104		4,447,090		17,387
	19,158		4,935,021		27,596
	169		5,636		-
	-		4,265		-
	169		9,901		-
	20,948		701,234		43
	6,236		8,944		-
	-		484,893		-
	15,611		553,185		25,355
\$	42,795		1,748,256	\$	25,398
			348		
		\$	1,748,604		

Statement of Revenues, Expenses, and Changes in Fund Net Position - Proprietary Funds

For the Year Ended December 31, 2017 (dollars in thousands)

	Business-type Activities - Enterprise Funds	
	Wastewater Management	Denver Airport System
Operating Revenues		
Charges for services	\$ 150,122	\$ 768,925
Other revenue	-	-
Change in claims reserve	-	-
Total Operating Revenues	150,122	768,925
Operating Expenses		
Personnel services	26,662	163,808
Contractual services	17,621	223,844
Supplies and materials	2,499	38,523
Depreciation and amortization	19,126	183,351
District water treatment charges	54,710	-
Other operating expenses	-	27,357
Total Operating Expenses	120,618	636,883
Operating income	29,504	132,042
Nonoperating Revenues (Expenses)		
Investment and interest income	2,013	46,779
Passenger facility charges	-	118,333
Customer facility fee	-	19,492
Intergovernmental revenue	763	-
Disposition of assets	(142)	-
Grants	-	873
Interest expense	(3,431)	(188,152)
Other revenue	-	4,286
Net Nonoperating Revenues (Expenses)	(797)	1,611
Income before capital grants, contributions, and transfers	28,707	133,653
Capital grants and contributions	21,296	55,879
Transfers out	(757)	-
Change in net position	49,246	189,532
Net position - January 1	632,542	834,141
Net Position - December 31	\$ 681,788	\$ 1,023,673

Change in net position of enterprise funds
 Adjustment to reflect consolidation of internal service fund activities related to enterprise funds
 Change in net position of business-type activities

See accompanying notes to basic financial statements.

	Other Enterprise Funds	Total Enterprise Funds	Governmental Activities Internal Service Funds
	\$ 24,206	\$ 943,253	\$ 21,169
	2,457	2,457	2,418
	-	-	1,531
	26,663	945,710	25,118
	10,523	200,993	2,270
	5,364	246,829	540
	1,271	42,293	6,627
	1,164	203,641	81
	-	54,710	9,105
	3,937	31,294	1,237
	22,259	779,760	19,860
	4,404	165,950	5,258
	291	49,083	1,358
	-	118,333	-
	-	19,492	-
	-	763	-
	34	(108)	-
	-	873	-
	(120)	(191,703)	-
	-	4,286	-
	205	1,019	1,358
	4,609	166,969	6,616
	-	77,175	-
	(295)	(1,052)	(415)
	4,314	243,092	6,201
	38,481	1,505,164	19,197
	\$ 42,795	\$ 1,748,256	\$ 25,398
		\$ 243,092	
		(80)	
		\$ 243,012	

Statement of Cash Flows - Proprietary Funds

For the Year Ended December 31, 2017 (dollars in thousands)

	Business-type Activities - Enterprise Funds	
	Wastewater Management	Denver Airport System
Cash Flows From Operating Activities		
Receipts from customers	\$ 145,474	\$ 768,885
Payments to suppliers	(67,852)	(260,829)
Payments to employees	(24,086)	(149,906)
Other receipts	-	-
Interfund activity	(7,592)	(24,118)
Claims paid	-	-
Net Cash Provided by Operating Activities	45,944	334,032
Cash Flows From Noncapital Financing Activities		
Operating grants received	-	873
Transfers (out)	(757)	-
Net Cash Provided by (Used) in Noncapital Financing Activities	(757)	873
Cash Flows From Capital and Related Financing Activities		
Proceeds from issuance of debt	-	300,000
Bond issue costs	-	(1,836)
Principal payments	(5,573)	(177,597)
Interest payments	(6,252)	(171,970)
Passenger facility charges	-	122,354
Car rental customer facility charges	-	18,443
Payments on capital assets acquired through construction payables	(3,766)	(15,345)
Acquisition and construction of capital assets	(40,911)	(291,859)
Payments to escrow for current refunding of debt	-	(11,471)
Proceeds from sale of assets	282	451
Contributions and advances	2,177	25,658
Intergovernmental revenues	763	-
Net Cash Provided by (Used) in Capital and Related Financing Activities	(53,280)	(203,172)
Cash Flows From Investing Activities		
Purchases of investments	407,358	(2,208,135)
Proceeds from sale of investments	(398,924)	2,076,465
Sale of assets held for disposition	-	8,737
Interest received	2,019	20,329
Net Cash Provided by (Used) in Investing Activities	10,453	(102,604)
Net increase in cash and cash equivalents	2,361	29,129
Cash and cash equivalents - January 1	14,500	77,694
Cash and Cash Equivalents - December 31	\$ 16,861	\$ 106,823

See accompanying notes to basic financial statements.

Other Enterprise Funds	Total Enterprise Funds	Governmental Activities Internal Service Funds
\$ 23,557	\$ 937,916	\$ 20,179
(8,057)	(336,738)	(8,321)
(10,050)	(184,042)	(2,247)
2,457	2,457	2,418
-	(31,710)	-
-	-	(9,105)
<u>7,907</u>	<u>387,883</u>	<u>2,924</u>
-	873	-
(295)	(1,052)	(415)
<u>(295)</u>	<u>(179)</u>	<u>(415)</u>
-	300,000	-
-	(1,836)	-
(962)	(184,132)	(35)
(120)	(178,342)	-
-	122,354	-
-	18,443	-
-	(19,111)	-
(5,965)	(338,735)	-
-	(11,471)	-
34	767	-
-	27,835	-
-	763	-
<u>(7,013)</u>	<u>(263,465)</u>	<u>(35)</u>
-	(1,800,777)	-
-	1,677,541	-
-	8,737	-
288	22,636	1,431
<u>288</u>	<u>(91,863)</u>	<u>1,431</u>
887	32,376	3,905
29,861	122,055	45,511
<u>\$ 30,748</u>	<u>\$ 154,431</u>	<u>\$ 49,416</u>

continued

Statement of Cash Flows - Proprietary Funds, continued

For the Year Ended December 31, 2017 (dollars in thousands)

	Business-type Activities - Enterprise Funds	
	Wastewater Management	Denver Airport System
Reconciliation of Operating Income to Net Cash Provided by Operating Activities		
Operating income (loss)	\$ 29,504	\$ 132,042
Adjustments to reconcile operating income to net cash provided (used) by operating activities:		
Depreciation and amortization	19,126	183,351
Miscellaneous revenue (expenses)	-	(473)
Changes in Assets and Liabilities		
Accounts receivable, net of allowance	(5,985)	(13,591)
Due from other City agencies/departments	-	(3,727)
Interfund receivable	62	-
Inventories	-	(1,681)
Prepaid items and other assets	(65)	(135)
Vouchers payable	(477)	15,483
Unearned revenue	1,275	14,023
Accrued and other liabilities	(300)	(5,159)
Interfund payable	236	294
Claims reserved	-	-
Deferred outflows of resources	2,058	12,945
Deferred inflows of resources	325	4,819
Net pension liability	186	(4,159)
Net Cash Provided by Operating Activities	\$ 45,945	\$ 334,032
Noncash Activities		
Assets acquired through capital contributions	\$ 19,119	\$ -
Assets acquired through city capital contributions, net	15,195	-
Unrealized gain on investments	-	(9,869)
Unrealized gain on derivatives	-	23,857
Capital assets acquired through accounts payable	-	24,809
Amortization of bond premiums and deferred losses and gains on bond refundings	686	3,160
Refunding bond proceeds delivered directly to an irrevocable trust	-	275,505

See accompanying notes to basic financial statements.

Other Enterprise Funds	Total Enterprise Funds	Governmental Activities Internal Service Funds
\$ 4,404	\$ 165,950	\$ 5,258
1,164	203,641	81
-	(473)	-
(319)	(19,895)	(959)
1,075	(2,652)	-
-	62	(31)
46	(1,635)	(61)
-	(200)	-
234	15,240	162
84	15,382	-
(130)	(5,589)	23
39	569	(18)
-	-	(1,531)
778	15,781	-
169	5,313	-
363	(3,610)	-
\$ 7,907	\$ 387,884	\$ 2,924
\$ -	\$ 19,119	\$ -
-	15,195	-
-	(9,869)	-
-	23,857	-
-	24,809	-
-	3,846	-
-	275,505	-

Statement of Fiduciary Net Position - Fiduciary Funds

December 31, 2017 (dollars in thousands)

	Pension, Health, and Other Employee Benefit Trust Funds	Private-Purpose Trust Funds	Agency Funds
Assets			
Cash on hand	\$ -	\$ 384	\$ 3,291
Cash and cash equivalents	42,655	1,046	41,493
Securities lending collateral	130,408	-	-
Receivables (net of allowance for uncollectibles of \$4,505):			
Taxes	328	-	1,000,716
Accounts	1,560	-	14
Investments, at fair value:			
U.S. Government obligations	129,731	-	-
Domestic stocks and bonds	833,200	-	-
International stocks	544,945	-	-
Mutual funds	474,226	-	-
Real estate	174,131	-	-
Alternative investments	469,934	-	-
Other	344,632	-	-
Total Investments	2,970,799	-	-
Prepaid items and other assets	4	-	-
Capital assets, net of accumulated depreciation	3,892	-	-
Total Assets	3,149,646	1,430	\$ 1,045,514
Liabilities			
Vouchers payable	2,334	712	15,498
Securities lending obligation	130,845	-	-
Other accrued liabilities	-	-	3,466
Due to taxing units	-	409	1,026,550
Total Liabilities	133,179	1,121	\$ 1,045,514
Net Position			
Net position restricted for pensions	2,225,426	-	
Net position held in trust for OPEB benefits	74,827	-	
Net position held in trust for deferred compensation benefits	716,214	-	
Net position held in trust for other purposes	-	309	
Net Position Restricted for Pensions and Other Purposes	\$ 3,016,467	\$ 309	

See accompanying notes to basic financial statements.

Statement of Changes in Fiduciary Net Position - Fiduciary Funds

December 31, 2017 (dollars in thousands)

	Pension, Health, and Other Employee Benefit Trust Funds	Private-Purpose Trust Funds
Additions		
Contributions:		
City and County of Denver	\$ 69,363	\$ -
Denver Health and Hospital Authority	6,735	-
Plan members	88,980	-
Total Contributions	165,078	-
Investment earnings:		
Net appreciation in fair value of investments	282,348	-
Interest and dividends	128,807	20
Total Investment Earnings	411,155	20
Less investment expense	(14,783)	-
Net Investment Earnings	396,372	20
Securities lending earnings	2,224	-
Securities lending expenses:		
Borrower rebates	(1,285)	-
Agent fees	(235)	-
Net Earnings from Securities Lending	704	-
Total Net Investment Earnings	397,076	20
Total Additions	562,154	20
Deductions		
Benefits	257,760	-
Refunds of contributions	3,670	-
Administrative expenses	4,615	-
Other deductions	-	-
Total Deductions	266,045	-
Change in net position	296,109	20
Net position - January 1	2,720,358	289
Net Position -December 31	\$ 3,016,467	\$ 309

See accompanying notes to basic financial statements.

Statement of Net Position - Component Units

December 31, 2017 (dollars in thousands)

	Denver Convention Center Hotel Authority	Denver Union Station Project Authority	Denver Urban Renewal Authority	Downtown Denver Development Authority	Other Component Units	Total
Assets						
Cash and cash equivalents	\$ 4,714	\$ -	\$ 7,028	\$ 8,353	\$ 27,371	\$ 47,466
Receivables (net of allowances):						
Taxes	1,790	-	61,912	23,966	11,600	99,268
Accounts	-	-	7,027	-	432	7,459
Accrued interest	-	-	260	-	-	260
Other	-	-	3,074	-	102	3,176
Prepaid items and other assets	1,578	-	1,002	-	67	2,647
Restricted Assets:						
Cash and cash equivalents	-	-	29,565	-	279	29,844
Investments	91,280	-	114,215	-	-	205,495
Capital Assets:						
Land and construction in progress	25,486	-	-	-	-	25,486
Buildings and improvements	249,738	-	-	-	20,913	270,651
Machinery and equipment	28,045	-	183	-	3,901	32,129
Accumulated depreciation	(106,213)	-	(103)	-	(7,940)	(114,256)
Net Capital Assets	197,056	-	80	-	16,874	214,010
Total Assets	296,418	-	224,163	32,319	56,725	609,625
Deferred Outflows of Resources						
Deferred amount on refundings	5,441	-	16,238	-	1,584	23,263
Total Deferred Outflows of Resources	5,441	-	16,238	-	1,584	23,263
Liabilities						
Vouchers payable	2,943	-	-	-	4,814	7,757
Accrued liabilities	10,160	-	19,216	-	8,597	37,973
Unearned revenue	8,039	-	-	-	7	8,046
Advances	1,292	-	917	-	-	2,209
Due to other governments	-	-	241	-	58	299
Noncurrent liabilities:						
Due within one year	-	-	27,865	7,084	755	35,704
Due in more than one year	304,503	-	223,840	180,758	14,290	723,391
Total Liabilities	326,937	-	272,079	187,842	28,521	815,379
Deferred Inflows of Resources						
Property taxes	-	-	55,813	23,966	11,600	91,379
Total Deferred Inflows of Resources	-	-	55,813	23,966	11,600	91,379
Net Position						
Net investment in capital assets	(75,309)	-	80	-	3,403	(71,826)
Restricted for:						
Capital projects	29,588	-	76,085	-	-	105,673
Emergency use	23,938	-	-	-	312	24,250
Debt service	1,111	-	26,947	-	-	28,058
Donor and other restrictions:						
Expendable	9,946	-	5,612	-	46	15,604
Unrestricted (deficit)	(14,352)	-	(196,215)	(179,489)	14,427	(375,629)
Total Net Position (Deficit)	\$ (25,078)	\$ -	\$ (87,491)	\$ (179,489)	\$ 18,188	\$ (273,870)

See accompanying notes to basic financial statements.

Statement of Activities - Component Units

For the Year Ended December 31, 2017 (dollars in thousands)

	Denver Convention Center Hotel Authority	Denver Union Station Project Authority	Denver Urban Renewal Authority	Downtown Denver Development Authority	Other Component Units	Total
Expenses	\$ 99,108	\$ 1,711	\$ 77,152	\$ 16,262	\$ 33,259	\$ 227,492
Program Revenues						
Charges for services	101,798	-	-	-	440	102,238
Operating grants and contributions	-	-	2,811	-	106	2,917
Total Program Revenues	101,798	-	2,811	-	546	105,155
Net expenses	2,690	(1,711)	(74,341)	(16,262)	(32,713)	(122,337)
General Revenues						
Taxes:						
Lodgers	-	-	106,900	-	-	106,900
Property	-	134	-	15,116	11,140	26,390
Specific ownership	-	-	-	-	367	367
Investment and interest income	457	745	1,420	40	8	2,670
Other revenues	11,167	281,439	2,200	9,459	24,972	329,237
Net General Revenues	11,624	282,318	110,520	24,615	36,487	465,564
Special Items						
Loss on dissolution	-	(151,446)	-	-	-	(151,446)
Loss on assumption of debt	-	-	-	(187,842)	-	(187,842)
Total Special Items	-	(151,446)	-	(187,842)	-	(339,288)
Change in net position	14,314	129,161	36,179	(179,489)	3,774	3,939
Net position: January 1	(39,392)	(129,161)	(123,670)	-	14,414	(277,809)
Net Position (Deficit) - December 31	\$ (25,078)	\$ -	\$ (87,491)	\$ (179,489)	\$ 18,188	\$ (273,870)

See accompanying notes to basic financial statements.

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Contents

I. Summary of Significant Accounting Policies

- 50 Note A - Reporting Entity
- 53 Note B - Government-Wide and Fund Financial Statements
- 54 Note C - Measurement Focus, Basis of Accounting, and Statement Presentation
- 55 Note D - Assets, Deferred Outflows, Liabilities, Deferred Inflows, and Net Position or Fund Balances
- 60 Note E - Implementation of New Accounting Principles

II. Stewardship, Compliance, and Accountability

- 60 Note A - Deficit Fund Equity
- 61 Note B - Excess Expenditures Over Authorizations

III. Detailed Notes for All Funds

- 61 Note A - Deposits and Investments
- 72 Note B - Receivables
- 73 Note C - Interfund Receivables, Payables, and Transfers
- 74 Note D - Capital Assets
- 77 Note E - Lease Obligations
- 78 Note F - Rates and Charges
- 78 Note G - Long-term Debt
- 90 Note H - Fund Balances

IV. Other Note Disclosures

- 92 Note A - Risk Management
- 93 Note B - Pollution Remediation
- 93 Note C - Workers' Compensation
- 94 Note D - Contingencies
- 97 Note E - Deferred Compensation Plan
- 98 Note F - Pension Plans
- 115 Note G - Other Postemployment Benefits - Implicit Rate Subsidy

I. Summary of Significant Accounting Policies

The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) applicable to governmental entities. A summary of the City and County of Denver's significant accounting policies applied in the preparation of these financial statements follows.

Note A – Reporting Entity

The City and County of Denver (City) was incorporated in 1861 and became a Colorado Home Rule City on March 29, 1904, under the provisions of Article XX of the Constitution of Colorado, as amended, when the people of the City ratified a Charter providing for a Mayor-Council form of government. The City is operated by authority of the powers granted by its Charter. The City provides typical municipal services with the exception of education, public housing, and sewage treatment that are administered by other governmental entities.

As required by U.S. GAAP, these financial statements present the City (primary government) and its component units. The component units discussed below are included in the City's reporting entity because of the significance of their operational or financial relationships with the City in accordance with Governmental Accounting Standards Board (GASB) Statement No. 14, The Financial Reporting Entity, GASB Statement No. 39, Determining Whether Certain Organizations Are Component Units – an amendment of GASB Statement No. 14, and GASB Statement No. 61, The Financial Reporting Entity: Omnibus – an amendment of GASB Statements No. 14 and No. 34, and GASB Statement No. 80, Blending Requirements for Certain Component Units-an amendment of GASB Statement No. 14. Certain amounts reported in the individual component unit financial statements have been reclassified to conform to the City's accounting policies. Each component unit has a December 31st year end.

1. Blended Component Units.

Gateway Village, Denver 14th Street, and RiNo General Improvement District (GID) – The districts were created by the City as separate legal entities pursuant to state statute. Per statute, the City Council serves as ex officio Board of Directors for the districts. District Advisory Boards, appointed by the City Council, conduct and manage all affairs of the districts, which provide capital improvement and maintenance services entirely to the City, subject to overall approval and supervision of the ex officio Board of Directors. The districts are reported herein in the City's special revenue and debt service funds.

2. Discretely Presented Component Units.

Cherry Creek North, Cherry Creek Subarea, Colfax, Downtown Denver, Old South Gaylord, West Colfax, Federal Boulevard, Bluebird, Colfax-Mayfair, Santa Fe, and RiNo Business Improvement Districts (BID) – Each BID was created by the City as a separate legal entity pursuant to state statute for the purpose of maintaining public improvements and planning development activities within each BID's geographic boundaries. The City appoints the governing boards of the BIDs and is able to impose its will through the approval of the BID's operating budgets.

Denver Convention Center Hotel Authority (DCCHA) – The DCCHA was organized by the City as a nonprofit corporation in accordance with State law for the purpose of owning, acquiring, constructing, equipping, operating and financing a hotel adjacent to the City's convention center. The Mayor appoints the Board of Directors of the DCCHA, subject to City Council confirmation, and a financial benefit/burden relationship exists as a result of an economic development agreement between the City and DCCHA. According to the agreement DCCHA distributes certain excess revenues to the City, makes payments in lieu of taxes to the City, and has entered into a room block agreement which coordinates the reservation of hotel room blocks with events scheduled at the City's convention center. The City makes semi-annual economic development

payments to the DCCHA, which totaled \$10,750,000 in 2017, and will gradually increase to an annual maximum of \$11,000,000 in 2018. The City also has the right to purchase the hotel at the purchase option price per the agreement.

Denver Downtown Development Authority (DDDA) – The DDDA was created for the purpose of promoting public health, safety, prosperity, security, and general welfare in order to halt or prevent deterioration of property values or structures within the central business district and to assist in the development and redevelopment of the central business district, especially to benefit the property within the boundaries of the Authority. The City entered into a cooperation agreement with DDDA in 2009 authorizing the Authority to collect and disburse property and sales tax increment revenues. The DDDA collects property and sales tax increment revenue from the City and disburses it to the Denver Union Station Project Authority (DUSPA) and the Denver Union Station Metro Districts. The Central Platte Valley Metropolitan District also exists within the boundaries of DDDA and it receives property tax revenue from the DDDA. The Board of Directors is appointed by the Mayor and confirmed by City Council, and City Council may remove any director at will. These appointments and the ability of the City to impose its will on the Authority make the City financially accountable for the Authority. DUSPA dissolved on October 31, 2017 and the DDDA entered into a loan agreement in the amount of \$187,842,000. Proceeds from this loan were transferred to DUSPA for the purpose of paying, in full, DUSPA's debt obligations.

Denver Preschool Program, Inc. (DPP) – DPP is a nonprofit corporation organized to administer the Denver Preschool Program that provides tuition credits for children of Denver families the year before the child is eligible for kindergarten. The City is legally obligated to provide financial support to DPP, as the program is funded by a sales and use tax increase of fifteen one-hundredths of one percent (0.15%) that was voter-approved through December 2026. The Mayor appoints 10 of the 11 DPP board members and City Council appoints a council member as the other board member. The City appointments to the governing body and its financial obligations to DPP make the City financially accountable for the DPP.

Denver Union Station Project Authority (DUSPA) – In 2001, the City, the Regional Transportation District (RTD), the Denver Regional Council of Governments, and the Colorado Department of Transportation entered into an intergovernmental agreement for the redevelopment of Denver Union Station and its surrounding environs as a multimodal transportation hub in the City's metropolitan area. The Denver Union Station Project Authority was created by City ordinance in 2008, as a permanent, centralized agency to accomplish the Denver Union Station Project (the Project) which specifically dealt with the financing, acquiring, equipping, designing, constructing, operating and maintaining of the Project. DUSPA was created for the sole purpose of undertaking the Project and did not function as a general-purpose government. On February 3, 2017, the DDDA entered into a loan agreement and used the proceeds that allowed the Authority to prepay, in full, the Authority's debt obligations associated with the building of the Project. On September 18, 2017, Denver City Council passed an ordinance approving the dissolution of the Authority effective October 31, 2017. There was a loss on dissolution of \$151,446,000 at December 31, 2017.

Denver Urban Renewal Authority (DURA) – DURA was created as a separate legal entity by the City pursuant to the state Urban Renewal Law to acquire, clear, rehabilitate, conserve, develop or redevelop identified slum or blighted areas existing within the City and to prevent future blight from developing. In addition, for health and safety purposes, DURA provides housing rehabilitation assistance in the form of low-interest loans to low-income Denver homeowners through two City housing rehabilitation programs. The Mayor appoints the DURA board of directors subject to City Council approval. Any urban renewal project undertaken by DURA must receive prior approval by the City. A significant amount of DURA's financing comes from incremental property and sales tax revenue from the City. In 2009, DURA established Denver Neighborhood Revitalization, Inc. (DNRI), a registered State of Colorado not-for-profit organization and component unit of

DURA, to address the needs in the Denver community related to foreclosed and/or abandoned homes. DNRI administers and executes the Neighborhood Stabilization Program (NSP) funds awarded by the City and County of Denver. DNRI activities include acquisition and rehabilitation of foreclosed residential properties in targeted neighborhoods within the City and County of Denver. For presentation purposes, DURA and DNRI financial activity is combined.

Complete financial statements, as applicable, for the following individual discretely presented component units can be obtained from their respective administrative offices:

Bluebird BID

8005 South Chester Street, Suite 150
Centennial, Colorado 80112

Cherry Creek Subarea BID

1573 South Jamaica Street
Denver, Colorado 80012

Colfax-Mayfair BID

P. O. Box 202161
Denver, Colorado 80220

Denver Convention Center Hotel Authority

1225 17th Street, Suite 3050
Colorado 80202

Denver Preschool Program, Inc.

305 Park Avenue West, Suite B
Denver, Colorado 80205

Denver Urban Renewal Authority

1555 California Street, Suite 200
Denver, Colorado 80202

Old South Gaylord BID

1076 South Gaylord Street
Denver, Colorado 80209

West Colfax BID

4500 West Colfax Avenue
Denver, Colorado 80204

Cherry Creek North BID

299 Milwaukee Street, Suite 201
Denver, Colorado 80206

Colfax BID

P. O. Box 18853
Denver, Colorado 80218

Downtown Denver BID

511 16th Street, Suite 200
Denver, Colorado 80202

Denver Downtown Development Authority

201 West Colfax Avenue, Department 1109 Denver,
Denver, Colorado 80202

Denver Union Station Project Authority

1225 17th Street, Suite 3050
Denver, Colorado 80202

Federal Boulevard BID

2931 West 25th Avenue
Denver, Colorado 80211

Santa Fe BID

901 West 10th Avenue, Suite 2A
Denver, Colorado 80204

RiNO BID/GID

2901 Blake St., Suite 165
Denver, Colorado, 80205

3. Fiduciary Component Unit.

Denver Employees Retirement Plan (DERP) – The DERP is a separate legal entity established by City ordinance to provide pension benefits for substantially all City employees, except police officers and fire fighters. The Mayor appoints the members of the DERP governing board. The DERP is presented herein in the City's fiduciary funds as Pension and Health Benefits Trust Funds. The net position of the DERP is held for the sole benefit of the participants and is not available for appropriation by the City.

4. Related Organizations.

The City appoints members to the boards of the following organizations. The City's accountability for the organizations does not extend beyond making these appointments and there is no fiscal dependency by these organizations on the City.

Denver Health and Hospital Authority (Authority) – The Authority is a political subdivision and body corporate of the State of Colorado. The Authority is governed by a nine-member board, all appointed by the Mayor. The Authority entered into contractual agreements with the City to obtain and operate the City's existing hospital system. In accordance with the contractual agreements between the Authority and the City, the City paid the Authority \$56,236,000 for providing various health related services to the City and its residents during 2017. In addition, the Authority made payments in the amount of \$1,908,000 to the City for human services, fleet, sheriff, and various human resources services.

Denver Housing Authority (DHA) – The DHA was created by ordinance in accordance with U.S. Department of Housing and Urban Development (HUD) regulations. Its five-member board, appointed by the Mayor, controls the daily administration and operations of the DHA. The DHA is dependent on Federal funds from HUD and, as a result, is not financially dependent on the City. In addition, the City is not responsible for any deficits incurred and has no fiscal management control over the DHA.

Denver Public Library Trust (DPL Trust) – The DPL Trust is a charitable entity formed by the Library Commission and the DPL Friends Foundation to accept inherited interests through a bequest. All assets of the DPL Trust derive from a percentage of an interest in two real estate partnerships. The Library Commission appoints the trustees of the DPL Trust. All funds received by the DPL Trust are deposited into a bank account managed by the DPL Trust and quarterly transferred to the DPL Friends Foundation. The monies may be requested during the Denver Public Library's annual budget request from the DPL Friends Foundation.

Denver Water Board – The Denver Water Board was created pursuant to the City Charter as a separate legal entity to oversee the City's water system. The Denver Water Board's five-member governing body is appointed by the Mayor, but the City is not financially accountable for the Denver Water Board because the Denver Water Board has the power to levy property taxes to support general obligation bonds issued by the Denver Water Board and the Denver Water Boards' determination of the necessity for the mill levy would not be subject to approval or modification by the City. The Denver Water Board had no general obligation bonds outstanding as of December 31, 2017, and no longer has authority to issue general obligation bonds.

Lowry Economic Redevelopment Authority (Lowry) – Lowry was created as a public entity by contract between the City and another local government under the Colorado Governmental Immunity Act, CRS Section 24-10-01. Lowry is a separate legal entity intended to maintain, manage, promote, and implement economic redevelopment of the former Lowry Air Force Base. The City is not fiscally accountable for Lowry. Lowry is governed by a nine-member board of directors of which the Mayor appoints seven.

Stapleton Development Corporation (SDC) – The City and DURA created a nonprofit corporation whose objectives would include, but not be limited to, planning an orderly public purpose assessment and redevelopment program for the former Stapleton International Airport property and implementing the redevelopment plan for the property. The SDC board of directors is composed of 11 voting members; the Mayor appoints 9 and 2 are appointed by DURA. All 11 members are confirmed by the City Council. Neither the City nor DURA is financially accountable for SDC, as the City and DURA cannot impose their will on SDC, nor does a financial benefit or burden exist between the entities.

Note B – Government-Wide and Fund Financial Statements

The government-wide financial statements, which include the statement of net position and statement of activities, report information on all of the non-fiduciary activities of the primary government and its component units. Eliminations have been made to minimize the double-counting of internal activities. Governmental activities, which generally are supported by taxes, intergovernmental revenues, and other nonexchange transactions, are

reported separately from business-type activities, which rely generally on fees and charges to external parties. The primary government is reported separately from certain legally separate component units for which the primary government is financially accountable.

The statement of net position reports all of the City's assets and deferred outflows of resources, and liabilities and deferred inflows of resources, with the difference being presented as net position.

The statement of activities demonstrates the extent to which the direct expenses of a given function or business-type activity is offset by program revenues. Direct expenses are clearly identifiable with a specific function. Program revenues include: 1) charges to customers who purchase, use, or directly benefit from goods, services provided by the programs, and 2) grants and contributions that are restricted to meeting the operational or capital requirements of a particular program. Taxes and other items not properly included among program revenues are reported as general revenues.

Separate fund financial statements are provided for governmental funds, proprietary funds, fiduciary funds (even though fiduciary funds are excluded from the government-wide financial statements), and component units. The emphasis of fund financial statements is on major governmental funds, enterprise funds, and component units, each reported as a separate column. All remaining governmental funds, enterprise funds, and component units, are aggregated and reported as nonmajor funds.

Note C – Measurement Focus, Basis of Accounting, and Statement Presentation

The government-wide financial statements are reported using the economic resources measurement focus and the accrual basis of accounting, as are the proprietary and fiduciary funds, and discretely presented component unit financial statements. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of the related cash flows. On an accrual basis, property taxes are recognized in the year for which they are levied. Grants and similar items are recognized as revenue as soon as all eligibility requirements have been met.

Governmental fund financial statements are reported using the current financial resources measurement focus and the modified accrual basis of accounting. Under the modified accrual basis of accounting, revenues are recognized when they are measurable and available. Available means collectible within the current period, or soon enough thereafter, to pay liabilities of the current period or when matured. The City considers all revenue as available, if collected within 60 days after year end. Property taxes, sales and use taxes, franchise taxes, occupational privilege taxes, interest revenue, fines, and charges for services are susceptible to accrual. Other receipts, licenses, permits, and parking meter revenues become measurable and available when cash is received by the City and are recognized as revenue at that time. Grant revenue is considered available if it is expected to be collected within one year and all eligibility requirements are met. Expenditures are recorded when the related liability is incurred, except for debt service expenditures, and certain compensated absences and claims and judgments, which are recognized when the payment is due.

The City reports the following major governmental funds:

- **The General Fund** is the City's primary operating fund. It accounts for all financial resources of the general government, except those required to be reported in another fund. This fund is financed primarily by sales tax, property tax, and charges for services.
- **The Human Services special revenue fund** is used to account for proceeds of restricted revenue to be used for public assistance and welfare activities. This fund is financed primarily by intergovernmental revenue and property taxes.

The City reports the following major proprietary funds:

- **The Wastewater Management fund** accounts for the City's storm and sewer operations. This fund is financed primarily by sanitary sewer and storm drainage charges.

- **The Denver Airport System fund** accounts for the operation of the City's airport system which includes Denver International Airport. This fund is financed primarily by facility rentals, parking revenues, and landing fees.

The City reports the Denver Convention Center Hotel Authority, Denver Union Station Project Authority, Denver Urban Renewal Authority, and DDDA component units as major component units.

Additionally, the City reports the following fund-types:

- **Internal service funds** account for asphalt plant and workers' compensation services provided to the various departments and agencies of the City on a cost reimbursement basis.
- **Pension trust funds** account for the Denver Employees Retirement Plan, which accumulate resources for pension and health benefit payments to qualified City retirees.
- **Other employee benefits trust fund** accounts for the Deferred Compensation Fund, which holds and administers resources to qualified city employees who participate in the plan. Assets are reserved solely for deferred compensation benefits.
- **The private-purpose trust funds** are used to account for resources legally held in trust by the City for use by various organizations for various purposes, such as COBRA payments and unclaimed warrants. All resources of the funds, including any earnings on invested resources, may be used to support the various activities of the organizations. There is no requirement to preserve the resources as capital.
- **Agency funds** account for the Employee Salary Redirect plan, clearing funds for payroll and benefit provider payments, and collected receipts being temporarily held for allocation to other entities. The agency funds are custodial in nature and do not involve measurement of results of operations. The effect of interfund activity generally has been eliminated from the government-wide financial statements. Exceptions to this practice include payments and other charges between the City's enterprise funds and various other functions of the government. Elimination of these charges would distort the direct costs and program revenues reported for the various functions affected.

Proprietary funds distinguish operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal operating revenues of the enterprise and internal service funds are charges to customers for sales and services. Operating expenses for the enterprise and internal service funds include the administrative expenses, cost of sales and services, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

When both restricted and unrestricted resources are available for use, the City uses the restricted resources first, then unrestricted resources as needed. If no other restrictions exist, the order of spending of resources will be committed, assigned, and lastly unassigned.

Note D – Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources, and Net Position or Fund Balances

1. **Cash and Investments.** For the primary government, except when prohibited by trust agreements, the operating cash in each fund is maintained in one consolidated pool by the City. Cash in excess of operating requirements is invested by the City. The City Charter, Section 2.5.3(C) and the Denver Revised Municipal Code, Section 20-21, authorize that investments may be made in U.S. Government obligations, its agencies and sponsored corporations, prime commercial paper, prime bankers' acceptances, certificates of deposit issued by eligible banks and savings and loan associations, local government investment pools, repurchase agreements, forward purchase agreements, securities lending agreements, highly rated municipal securities, high grade corporate bonds, asset-backed securities, supranational debt obligations, federal agency

collateralized mortgage obligations (CMO), federal agency mortgage pass through securities (MBS), money market funds that purchase only the types of securities specified herein, and other similar securities as may be authorized by ordinance. The pension trust funds and component units maintain deposits and investments outside of the City's investment pools. These are primarily in demand deposits and equities, and U.S. Government obligations.

Investments, unless otherwise noted, are stated at fair value, which is primarily determined based upon quoted market prices or other significant, observable inputs, at year end. Fair values of real estate and other investments are determined by independent periodic appraisals. Investments in repurchase agreements and the guaranteed investment contract are stated at cost, while investments in the local government investment pools and certain investments in the Fiduciary Funds are stated at net asset value (NAV).

- 2. Cash Equivalents.** The City's investments held in the consolidated pool with original maturities of three months or less from the purchase date are classified as cash equivalents. For investments owned by wastewater, the airport system, the pension trust funds, and the component units, investments with original maturities of three months or less from the date of purchase are considered cash equivalents.
- 3. Property Taxes Receivable.** Property taxes are reported as a receivable and as deferred inflows of resources when the levy is certified by the City's Assessor on or before December 15 of each year, unless there is a special election. Property taxes receivable is reduced by an allowance for uncollectible taxes. Property taxes are due and considered earned on January 1 following the year levied. The first and second halves become delinquent on March 1 and June 16, respectively. Tax rate levy authority for the 2017 fiscal year was approved when Resolution 1070, Series of 2017, was adopted by the City Council and approved by the Mayor.
- 4. Water and Wastewater Service Accounts.** Sanitary sewer accounts are maintained, billed, and collected by the Water Board in connection with its water accounts. The Wastewater Management enterprise fund is responsible for billing and collecting storm drainage charges using a cycle billing system. Flat rate accounts and certain cycle billings are billed in advance on a monthly basis and revenues relating to future years are classified as unearned revenue. Metered accounts are billed in arrears and have been accrued.
- 5. Interfund Receivables/Payables.** During the course of operations, numerous transactions occur between individual funds for goods provided or services rendered. The balances from these transactions are classified as "interfund receivable" or "interfund payable" on the balance sheet/statement of net position. Other interfund receivables/payables between individual funds have occurred because some funds have overdrawn their equity share of pooled cash.
- 6. Due from Other Governments.** Due from other governments includes amounts due from grantors for grants for specific programs and capital projects. Program and capital grants for capital assets are recorded as receivables and revenues when all eligibility requirements are met. Revenues received in advance of project costs being incurred or for which eligibility requirements have not been met are unearned. In the governmental funds, revenue recognition also depends on the timing of cash collections (availability).
- 7. Inventories and Prepaid Items.** The City values inventories at cost, which approximates market, and accounts for them using either the weighted average method or the first-in/first-out method. The costs of governmental fund-type inventories are recorded as expenditures when purchased.

Payments made to vendors for services representing costs applicable to future accounting periods are recorded as prepaid items in both the government-wide and fund financial statements. The cost of prepaid items in the governmental funds are recorded as an expense when consumed.

- 8. Restricted Assets.** Certain assets of the General Fund, General Government special revenue fund and certain component units are classified as restricted assets because their use is completely restricted by State statute (see **Note IV-D-8**).

In the General Fund and Human Services special revenue fund, certain monies related to capital leases (see **Note III-E-1**) are classified as restricted in accordance with lease requirements.

Certain resources of the governmental activities and the Denver Airport System enterprise fund are classified as restricted assets because their use is limited by applicable bond covenants. These covenants require the accumulation of resources for current principal and interest on both bonds and subordinate bonds, principal and redemption price on term bonds subject to mandatory redemption, principal and interest emergency reserve, and operating and maintenance emergency reserve.

Certain assets of the Environmental Services enterprise fund have been restricted by external parties to be used for future plant and equipment expenditures and payment of certain liabilities.

- 9. Capital Assets.** Land, collections, construction in progress, buildings, equipment, infrastructure, and intangible assets are reported in the applicable governmental or business-type activities, or component unit columns of the government-wide financial statements. Such assets are recorded at cost or estimated cost if purchased or constructed. Donated capital assets are recorded at their estimated acquisition value at the date of donation. The capitalization threshold of the City is \$5,000 except for internally-generated software, which has a threshold of \$50,000. The costs of normal maintenance and repairs that do not add to the value of the assets or materially extend assets' lives are not capitalized. Interest incurred during the construction phase of capital assets of business-type activities is reflected in the capitalized value of the asset constructed, net of interest earned on the invested proceeds over the same period.

Assets under capital leases are recorded at the present value of future minimum lease payments and are amortized over the shorter of the lease term or the estimated useful life of the asset.

Capital assets of the City and certain component units are depreciated on a straight-line basis over the estimated useful lives, as shown in **Table 1**.

Table 1

Capital Asset Type	Estimated Useful Life
Buildings and Improvements	5 to 100 years
Motor vehicles and motorized equipment	5 to 20 years
Furniture, machinery and equipment	3 to 20 years
Collections, excluding library books	15 years
Library books	4 years
Infrastructure	6 to 50 years
Intangibles	3 to 5 years

Library books are depreciated over a four-year life using the composite method. The Western History artwork collection is not capitalized because these assets are held for public exhibition rather than financial gain and the value cannot be determined. They are protected and preserved and proceeds from any sales must be used to acquire other items for collection. In addition, artwork acquired through the Estate of Clyfford Still is not capitalized because the collection must be held for public exhibition and sale of the collection, or any piece of the collection, is prohibited, under the terms of the will and the donation agreement. A value has not been assigned to the Clyfford Still collection and due to the rarity of the collection combined with restrictions within the will for its ownership and exhibition, its ultimate value may be impossible to establish with any certainty.

Assets held for disposition in governmental funds consist of foreclosed property and land pending future sale. No depreciation is recorded for assets held for disposition.

- 10. Long-term Obligations.** The City records long-term debt and other long-term obligations as liabilities in the government-wide and proprietary fund financial statements. Bond premiums and discounts are amortized over the life of the bonds using the effective interest method or the straight-line method, which is not materially different than the effective-interest method, over the term of the debt. Bond premiums and discounts are presented as an addition or reduction (net) of the face amount of the bond payable. With few exceptions, bonds issued by the City are tax-exempt and subject to federal arbitrage regulations.

In the fund financial statements for governmental fund-types, bond issuance costs, other than prepaid insurance, are recognized as expenditures during the current period even if withheld from actual net proceeds. Bond proceeds and bond premiums are reported as an other financing source. Bond discounts are reported as an other financing use.

- 11. Compensated Absences.** The City has vacation, sick, and paid time off leave policies covering substantially all of its employees, as follows:

- Career Service Authority
- Fire and Police Departments' Classified Service
- Undersheriff
- District Attorney and Judges

Employees may accumulate earned but unused benefits up to a specified maximum. The City has recorded an accrued liability for compensated absences in the government-wide and proprietary fund financial statements that was calculated using the vesting method.

- 12. Unearned Revenues.** Unearned revenues reflect amounts that have been received before the City has a legal claim to the funds. In subsequent periods, when the City has a legal claim to the resources, the unearned revenue is removed from the statement of net position/balance sheet and revenue is recognized.
- 13. Pensions.** For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions and pension expense, information about the fiduciary net position of the Denver Employees Retirement Plan (DERP) the Statewide Defined Benefit Plan and Old Hire Fire and Police Pension Plans, administered by the Fire and Police Pension Association of Colorado (FPPA) and the Public Employees' Retirement Association of Colorado Pension Plans (PERA), and additions to/deductions from the various pension plan's fiduciary net position have been determined on the same basis as they are reported by DERP, FPPA, and PERA. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.
- 14. Deferred Outflows of Resources and Deferred Inflows of Resources.** A deferred inflow of resources is an acquisition of net position by the City that is applicable to a future reporting period and a deferred outflow of resources is a consumption of net position by the City that is applicable to a future reporting period. Both deferred inflows and outflows are reported in the Statement of Net Position, but are not recognized in

the financial statements as revenues, expenses, and reduction of liabilities or increase in assets until the period(s) to which they relate. The City reports deferred outflows of resources for pension-related amounts for the City's share of the difference between projected and actual earnings, for the City's share of the difference between contributions to the individual plans and the proportionate share of the contributions, and for changes of assumptions or other inputs. Deferred outflows of resources of the City also consist of the accumulated decrease in fair value of hedging derivatives and the deferred amount on refunding.

The City reports deferred inflows of resources for pension-related amounts in the government wide financial statements or the City's share of the difference between expected and actual experience and for the City's share of the difference between contributions to the individual plans and the proportionate share of the contributions. The City also reports deferred inflows of resources for property tax receivables that are levied for the next fiscal year.

Under the modified accrual basis of accounting, revenue and other fund financial resources are recognized in the period in which they become both measurable and available. Assets recorded in the fund financial statements for which the revenues are not available are reported as a deferred inflow of resources. Deferred inflows of resources are also comprised of property tax and long-term receivables that are unavailable in the fund statements.

A deferred amount on refunding is included in deferred inflows of resources relating to the Denver Airport System. These amounts relate to a deferred gain on refunding that will be recognized as an inflow of resources in future periods over the life of the related debt.

- 15. Net Position.** In the government-wide and fund financial statements, net position is the difference between assets, liabilities, deferred inflows of resources, and deferred outflows of resources. Net investment in capital assets, represents capital assets; less accumulated depreciation; and less any outstanding borrowings related to the acquisition, construction, or improvement of those assets. Certain net positions are restricted for capital projects, emergency use, debt service, and by donor restrictions.
- 16. Fund Balance.** In the governmental fund financial statements, governmental funds report nonspendable, restricted, committed, assigned, and unassigned fund balance classifications based on the nature and extent of the constraints placed on the fund balances.
- 17. Encumbrances.** Encumbrances for contracts and purchase orders are unencumbered at year end and reappropriated against the subsequent year's budget. As of December 31, 2017, the encumbrances reflected in **Table 2** (dollars in thousands) were reappropriated against the 2018 budget for remaining prior year encumbrances.

Table 2

Governmental Activities:

General Fund	\$	62,675
Human Services Fund		17,029
Other Governmental Funds		203,634
Total Governmental Activities	\$	283,338

Business-type Activities:

Wastewater Management	\$	107,706
Denver Airport System		161,352
Other Enterprise Funds		4,420
Total Business-type Activities	\$	273,478

Note E – Implementation of New Accounting Principles

Governmental Accounting Standards Board Statement No. 74. In 2017, the Denver Employee Retirement Plan (DERP), a fiduciary fund of the City, implemented provisions of GASB Statement No. 74 (Statement No. 74), *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. The objective of this statement is to improve the usefulness of information about postemployment benefits other than pensions to establish a consistent set of standards for all postemployment benefits, provide more transparent reporting of the liability, and more useful information about the liability and cost of benefits. There was no impact on net position as a result of implementation. DERP is presented as a fiduciary fund of the City.

Governmental Accounting Standards Board Statement No. 80. In 2017, the City implemented the provisions of GASB Statement No. 80 (Statement No. 80), *Blending Requirements for Certain Component Units-an amendment of GASB Statement No. 14*. The objective of this Statement is to improve financial reporting by clarifying the financial statement presentation requirements for certain component units by amending the blending requirements for the financial statement presentation of component units of all state and local governments. The additional criterion requires blending of a component unit incorporated as a not-for-profit corporation in which the primary government is the sole corporate member. As of December 31, 2017, the City had no component units that meet the amended blending requirements.

Governmental Accounting Standards Board Statement No. 81. In 2017, the City implemented the provisions of GASB Statement No. 81 (Statement No. 81), *Irrevocable Split-Interest Agreements*. The objective of this Statement is to improve accounting and financial reporting for irrevocable split-interest agreements by providing recognition and measurement guidance for situations in which a government is a beneficiary of the agreement. As of December 31, 2017, the City has no agreements that meet the criteria of Statement No. 81.

Governmental Accounting Standards Board Statement No. 82. In 2017, the city implemented the provisions of GASB Statement No. 82 (Statement No. 82), *Pension Issues-an amendment of GASB Statements No. 67, No. 68, and No 73*. This Statement addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements.

Governmental Accounting Standards Board Statement No. 86. In 2017, the City implemented the provisions of GASB Statement No. 86 (Statement No. 86), *Certain Debt Extinguishment Issues*. The primary objective of this Statement is to improve consistency in accounting and financial reporting for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets acquired with only existing resources – resources other than the proceeds of refunding debt– are placed in an irrevocable trust for the sole purpose of extinguishing debt. This Statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. The principal amounts outstanding to be paid from the escrow as of December 31, 2017 was \$26,350,000 for the 2010D bonds and \$16,455,000 for the 2011A bonds. See **Note III-G-1** for additional information.

II. Stewardship, Compliance, and Accountability

Note A – Deficit Fund Equity

At December 31, 2017, the Denver Convention Center Hotel Authority (DCCHA), the Denver Urban Renewal Authority (DURA), and the Downtown Denver Development Authority component units had deficit net position in the amounts of \$25,078,000, \$87,491,000, and \$179,489,000, respectively.

The DCCHA component unit will use revenue from its hotel facility to fund its deficit net position. DDDA receives sales and property tax revenue to fund its deficit net position. The DURA component unit uses Tax Increment Financing (TIF), which is additional incremental property and sales taxes generated by redevelopment projects, to fund its deficit net position.

Note B – Excess Expenditures Over Authorizations

There were no budget basis expenditures that exceeded authorization as of December 31, 2017.

III. Detailed Notes for All Funds

Note A – Deposits and Investments

- 1. Deposits.** The City Charter, Section 2.5.3(c), requires all banking or savings and loan institutions to pledge sufficient collateral as required by law (Public Deposit Protection Act (CRS, 11-10.5-101)) before any public funds are deposited. In addition, the City's Investment Policy requires that certificates of deposit be purchased from institutions that are certified as Eligible Public Depositories by the appropriate state regulatory agency. Under the Colorado Public Deposit Protection Act (PDPA), all deposits exceeding the amount insured by the FDIC are to be fully collateralized at 102.00% of the deposits with specific approved securities identified in the act. The eligible collateral pledged must be held in custody by any Federal Reserve Bank, or branch thereof, or held in escrow by some other bank in a manner as the banking commissioner shall prescribe by rule and regulation, or may be segregated from the other assets of the eligible public depository and held in its own trust department. All collateral so held must be clearly identified as being security maintained or pledged for the aggregate amount of public deposits accepted and held on deposit by the eligible public depository. Deposits collateralized under the PDPA are considered collateralized with securities held by the pledging financial institutions' trust department or agent in the "City's name."

Custodial credit risk is the risk that, in the event of a failure of a financial institution or counterparty, the City would not be able to recover its deposits, investments or collateral securities. At December 31, 2017, the bank balance and carrying amounts of accounts managed by the Manager of Finance (the Manager) were \$13,225,000 and \$19,679,000 respectively. The City's deposits, except for the pension trust fund and certain component units' deposits are subject to, and in accordance with PDPA.

All deposits for DURA, DDDA, and DCCHA were not subject to custodial credit risk at December 31, 2017, since they were covered by FDIC or PDPA.

- 2. Investments.** It is the policy of the City to invest its funds in a manner which will provide for the highest investment return consistent with the preservation of principal and provision of the liquidity necessary for daily cash flow demands. The City's Investment Policy applies to all investment activity of the City under the control of the Manager, including investments of certain monies related to all governmental and business-type activities, and trust and agency funds. The City's Investment Policy does not apply to the investments of the deferred compensation plan or component units. Other monies that may from time to time be deposited with the Manager for investment shall also be administered in accordance with the Investment Policy.

The City Charter, Section 2.5.3(c), and Revised Municipal Code, Section 20-21, authorize the investments that the City can hold. The Investment Policy requires that investments shall be managed in accordance with portfolio theory management principles to compensate for actual or anticipated changes in market interest rates. To the extent possible, investment maturity will be matched with anticipated cash flow requirements of each investment portfolio. Additionally, to the extent possible, investments will be diversified by security type, market sector, and institution. This diversification is required in order that potential losses

on individual securities do not exceed the income generated from the remainder of the portfolios. Deviations from expectations shall be reported in a timely fashion and appropriate action taken to control adverse developments.

At December 31, 2017, the City's investment balances, including fiduciary funds were as shown in **Table 3**.

Table 3

City Investment Balances

December 31, 2017 (dollars in thousands)

	Fair Value
Repurchase agreements	\$ 146
Money market funds	1,716
Local government investment pool	181,912
Common stock	1,044,964
Commercial paper	157,590
Mutual funds	474,279
Municipal bonds	129,845
U.S. Treasury securities	672,163
U.S. agency securities	1,041,204
Corporate bonds	781,348
Structured products ¹	376,521
Multinational fixed income ²	263,324
Annuity contracts	223,860
Real estate	174,131
Other	631,855
Total Investments	\$ 6,154,858

¹Includes asset backed securities, collateralized mortgage obligations, and mortgage back securities.

²Includes supranational securities. Supranationals are U.S. dollar denominated bonds of international organizations such as the World Bank and International Monetary Fund.

The DERP pension trust fund had securities lending collateral of \$224,664,000 at December 31, 2017; see **Note III-A-5** for additional discussion related to this balance.

At December 31, 2017, the investment balances of the discretely presented component units were as shown in **Table 4**.

Table 4

Component Units Investment Balances

December 31, 2017 (dollars in thousands)

	Fair Value
Money market funds	\$ 108,763
Local government investment pool	895
Municipal Bonds	2,744
Commercial paper	13,123
U.S. Treasury securities	31,752
U.S. agency securities	32,533
Corporate bonds	7,781
Structured products ¹	120
Multinational fixed income ²	7,972
Total Investments	\$ 205,683

¹Includes asset backed securities, collateralized mortgage obligations and mortgage backed securities.

²Includes supranational securities. Supranationals are U.S. dollar denominated bonds of international organizations such as the World Bank and International Monetary Fund.

A reconciliation of cash and investments as shown in the basic financial statements as of December 31, 2017, is shown in **Table 5**.

Table 5

Reconciliation of Cash and Investments
December 31, 2017 (dollars in thousands)

	Primary	Component	
Governmental and Business-type Activities	\$ 9,040	\$ -	\$ 9,040
Cash on hand	1,199,890	47,466	1,247,356
Cash and cash equivalents	605,374	-	605,374
Investments	151,598	29,844	181,442
Restricted cash and cash equivalents	1,202,057	205,495	1,407,552
Restricted investments	3,167,959	282,805	3,450,764
Total Governmental and Business-type Activities			
Fiduciary			
Cash on hand	3,675	-	3,675
Total other investments not valued at fair value ²	2,970,799	-	2,970,799
Total Fiduciary	2,974,474	-	2,974,474
Total	6,142,433	282,805	6,425,238

¹The carrying amount of the City's deposits of \$19,679, plus pension deposits of \$19,907, plus other cash amounts of \$33,180, equal \$72,766.

Fair Value Measurements. The City categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

Equities within all asset classes that are classified in Level 1 are valued using prices quoted in active markets for those securities. Equity and equity derivative securities classified in Level 2 are securities whose values are derived daily from associated traded securities. The City currently does not maintain equity securities classified as Level 3. Fixed income securities and derivatives within all asset classes that are classified in Level 2 are valued using either a bid evaluation or a matrix pricing technique. Bid evaluations may include market quotations, yields, maturities, call features, and ratings. Matrix pricing issued to value securities based on the securities' relationship to benchmark quoted prices. Such securities include U.S. Treasuries, corporate and agency bonds, bank loans, and structured products. Level 2 fixed income securities have non-proprietary information that was readily available to market participants, from multiple independent sources, which are known to be actively involved in the market. The city currently does not maintain fixed income securities classified as Level 3.

Investments that are measured at fair value using the net asset value (NAV) per share (or its equivalent) as a proxy are not classified in the fair value hierarchy. See **Table 7** for further detail. Short-term securities generally include investments in money market-type securities reported at amortized cost, which approximates market or fair value.

Investment derivative instruments determination of fair value consists of a two-step process. First settlement prices is determined by utilizing the income approach under GASB 72 from "mid-market" pricing data available from public and subscription source. The second step is to determine the credit valuation adjustment for the derivative instrument. The purpose of the credit valuation adjustment is to quantify the nonperformance risk of the reporting entity as well as the nonperformance risk of the counterparty. Fair value is then determined as the settlement price of the derivative instrument adjusted by the credit valuation adjust of both the reporting entity's payment obligation and the counterparty's payment obligations.

The City has the following recurring fair value measurements as of December 31, 2017 as shown in **Table 6**:

Table 6

Fair Value Measurements

December 31, 2017 (dollars in thousands)

Governmental and Business-type Activities	Fair Value	Level 1	Level 2	Level 3
Municipal bonds	\$ 127,744	\$ -	\$ 127,744	\$ -
Mutual funds	53	53	-	-
Commercial paper	155,040	-	155,040	-
U.S. Treasury securities	593,748	-	593,748	-
U.S. agency securities	953,657	-	953,657	-
Corporate bonds	451,514	-	451,514	-
Structured products	370,427	-	370,427	-
Multinational fixed income	259,063	-	259,063	-
Governmental and Business-type Activities	\$ 2,911,246	\$ 53	\$ 2,911,193	\$ -
Total investments measured at the NAV ¹	178,920	-	-	-
Total other investments not valued at fair value ²	20,265	-	-	-
Total Governmental and Business-type Activities	\$ 3,110,431	\$ -	\$ -	\$ -
Major Component Units	Fair Value	Level 1	Level 2	Level 3
Money market funds	\$ 91,280	\$ -	\$ 91,280	\$ -
Municipal bonds	2,744	2,744	-	-
Mutual funds	-	-	-	-
Commercial paper	13,123	-	13,123	-
U.S. Treasury securities	31,752	31,752	-	-
U.S. agency securities	32,652	-	32,652	-
Corporate bonds	7,781	7,781	-	-
Structured products	-	-	-	-
Multinational fixed income	7,972	-	7,972	-
Governmental and Business-type Activities	\$ 187,304	\$ 42,277	\$ 145,027	\$ -
Total investments measured at the NAV ³	707	-	-	-
Total other investments not valued at fair value ⁴	30,607	-	-	-
Total Major Component Units	\$ 218,618	\$ -	\$ -	\$ -
Fiduciary	Fair Value	Level 1	Level 2	Level 3
Money market funds	\$ 1,716	\$ 1,716	\$ -	\$ -
Municipal Bonds	2,101	-	2,101	-
Common stock	1,044,964	1,044,964	-	-
Commercial paper	2,550	-	2,550	-
U.S. Treasury securities	29,955	20,188	9,767	-
U.S. agency securities	85,256	-	85,256	-
Corporate bonds	7,637	-	7,637	-
Structure products	6,094	-	6,094	-
Multinational fixed income	4,262	-	4,262	-
Mutual funds	474,226	474,226	-	-
Other (self directed brokerage)	301,450	170,514	130,936	-
Total Fiduciary	\$ 1,960,211	\$ 1,711,608	\$ 248,603	\$ -
Total investments measured at the NAV ⁵	826,275	-	-	-
Total investments measured at amortized cost ⁶	22,747	-	-	-
Total other investments not valued at fair value ⁷	235,194	-	-	-
Total Fiduciary	\$ 3,044,427	\$ -	\$ -	\$ -
Total Investments	\$ 6,154,858	\$ -	\$ -	\$ -
Governmental and Business-type Activities				
Investment derivative instruments				
Interest rate swaps ⁸	\$ (119,412)	\$ -	\$ (119,412)	\$ -
Total Governmental and Business-Type Activities	\$ (119,412)	\$ -	\$ (119,412)	\$ -

¹Balance held at Colotrust \$112,349,000, balance held at CSAFE \$66,571,000

²Includes \$146,000 of repurchase agreements, \$3,057,000 of money market funds and \$17,062,000 guaranteed investment contract

³December 31, 2017 balance held at Colotrust

⁴Includes \$17,483,000 of money market funds and \$13,124,000 of commercial paper

⁵Balance held at Colotrust \$1,875,000, balance held at CSAFE \$1,117,000. See **Table 7** for detail of \$823,283,000 measured at NAV

⁶Includes \$22,747,000 in short term investments measured at amortized cost

⁷Includes Deferred Compensation Plan amounts of \$223,860,000 of synthetic guaranteed investment contracts and \$11,334,000 of loans to participants

Table 7

Investments Measured at the NAV

December 31, 2017 (dollars in thousands)

	December 31	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Fixed Income Investments				
Private debt	\$ 189,857,394	\$ 42,798,362	Not eligible	n/a
Emerging market debt	52,153,598	-	Monthly	3 days
Total Fixed Income Investments	\$ 242,010,992	\$ 42,798,362		
Real Estate Investments				
Real estate - open-end	142,838,574	-	Quarterly	20 - 90 days
Real estate - closed-end	31,292,092	9,009,372	Not eligible	n/a
Total real estate investments	\$ 174,130,666	\$ 9,009,372		
Alternative Investments				
Private equity	183,720,981	117,593,984	Not eligible	n/a
Energy investments	83,748,358	49,387,893	Not eligible	n/a
Timber	37,028,290	-	Not eligible	n/a
Total alternative investments	\$ 304,497,629	\$ 166,981,877		
Absolute Return				
Hedge Fund	102,643,530	-	Quarterly	65 days
Total Absolute Return	\$ 102,643,530	\$ -		
Total Investments Measured at the NAV	\$ 823,282,817	\$ 218,789,611		

- Private debt investments are intended to generate returns by lending money to various businesses and enterprises, or by purchasing loans originated by other lenders. There are six commingled investment pools, each taking the form of a partnership or similar structure. The debt may be secured or unsecured, and various yield enhancing techniques may be used, such as royalty sharing, equity options, or the application of leverage.
- Investments in emerging market debt seek to purchase the publicly traded sovereign or corporate debt obligations of developing nations.
- Real Estate Investments - Open end real estate investments are pooled investments that own and operate commercial property. Returns are generated from income and price appreciation. These funds have perpetual life, and periodically accept contributions or honor redemptions.

Closed end real estate investments consist of pooled funds to own and operate commercial property. These funds have a finite life, and funds are returned as investments are liquidated.
- Private equity utilizes a fund of funds approach to make investments in venture capital, buyouts, and other corporate finance transactions.
- Energy investments are a diversified portfolio of energy assets, including interests in oil, natural gas, power generation, and renewables

- Timber investments are made in both domestic and international timberland. Returns are generated through the acquisition, management, harvesting and sale of timber.
- Absolute Return Investments - A hedge fund of funds is used to generate returns that are higher than core fixed income, with significantly lower risk than public equities. A multi strategy approach is used to improve consistency of returns while limiting downside risk.

A portion of the Plan's fixed income assets are exposed to risks, including credit risk, concentration of credit risk, interest rate risk, and foreign currency risk, that have the potential to result in losses.

Interest Rate Risk. Interest rate risk is the risk that changes in financial market interest rates will adversely affect the value of an investment. The City's Investment Policy limits interest rate risk for investments under the control of the Manager by limiting the maximum maturity of investments. Investments in commercial paper have a maximum maturity of 270 days. Corporate debt obligations have a maximum maturity of five years. U.S. Treasury, agency, and supranational, municipal, and asset-backed securities can have a maximum maturity of 10 years. Agency mortgage-backed securities have a maximum maturity of 31 years with an average life limitation of 20 years. Agency collateralized mortgage obligations have a maximum maturity of 31 years with an average life limitation of 10 years. To further mitigate interest rate risk, the investment policy limits investments in asset-backed securities, mortgage-backed securities, and collateralized mortgage obligations to a combined maximum of 20.00% of the City's overall investments. The City also minimizes interest rate risk by maintaining a concentration of its portfolio invested in short-term and extremely liquid investments. The Manager is authorized to waive certain portfolio constraints when such action is deemed to be in the best interest of the City. The Manager has waived the maximum maturity for certain investments in U.S. agency securities that are part of the Denver Airport System structured pool created to facilitate an economic defeasance of a portion of the future debt service payments due on certain airport system bonds, and also the investments held for the Cable Land Trust and Workman's Compensation. Maturities of the underlying investments in the local government investment pool are limited by the pool's investment policies to less than one year.

At December 31, 2017, the City's investment balances and maturities for those investments subject to interest rate risk (excluding the DERP) is shown in **Table 8** (dollars in thousands):

Table 8

Investment Type	Fair Value	Investment Maturities in Years			
		Less than 1	1 - 5	6 - 10	Greater than 10
Local government investment pool	\$ 181,318	\$ 181,318	\$ -	\$ -	\$ -
Municipal bonds	129,845	6,504	96,820	17,439	9,082
U.S. Treasury securities	603,516	13,107	474,176	116,233	-
U.S. agency securities	969,345	131,360	676,867	160,151	967
Corporate bonds	458,942	77,075	381,867	-	-
Multinational fixed income	263,324	40,170	186,105	37,049	-
Structured products	376,521	17,840	274,016	80,085	4,580
Commercial paper	157,590	157,590	-	-	-
Total	\$ 3,140,401	\$ 624,964	\$ 2,089,851	\$ 410,957	\$ 14,629

The City's portfolio of U.S. agency securities includes callable securities. If a callable investment is purchased at a discount, the maturity date is assumed to be the maturity date of the investment. If the investment is bought at a premium, the maturity date is assumed to be the call date. As of December 31, 2017, the City owned agency callable securities with a fair value of \$13,688,000.

The DERP manages interest rate risk through the constraints on duration specified in each manager's investment guidelines included in the Plan's Investment Policy. At December 31, 2017, the DERP pension trust fund fixed income investment balances subject to interest rate risk are shown in **Table 9** (dollars in thousands).

Table 9

Investment Type	Fair Value	Investment Maturities in Years			
		Less than 1	1 - 5	6 - 10	Greater than 10
U.S. Treasury securities	\$ 68,647	\$ 63	\$ 29,311	\$ 31,442	\$ 7,831
U.S. agency securities	71,860	3	34,558	26,728	10,571
Asset backed	720	1	251	286	182
Corporate	223,613	150	203,028	14,976	5,459
Non- U.S. Government bonds	58,792	8	29,522	16,882	12,380
Mortgage backed	39,281	51	15,386	17,496	6,348
Total	\$ 462,913	\$ 276	\$ 312,056	\$ 107,810	\$ 42,771

Credit Quality Risk. Credit quality risk is the risk that the issuer or other counterparty to a debt security will not fulfill its obligations to the City. Moody's, Standard & Poor's, and Fitch Ratings are the three primary Nationally Recognized Securities Rating Organizations (NRSRO) that assess this risk and assign a credit quality rating for most investments. Obligations of the U.S. Government or obligations explicitly guaranteed by the U.S. Government are assigned credit quality ratings of AAA by Fitch and Aaa by Moody's, both with stable outlooks as of December 31, 2017. Standard and Poor's rate securities of the U.S. Government AA+ also with a stable outlook. Of the City's investments at December 31, 2017, commercial paper, municipal bonds, corporate debt obligations, structured products, local government investment pools, and supranational securities were subject to credit quality risk

The City's Investment Policy requires that commercial paper be rated by at least two NRSRO with a minimum short term rating of A-1, P-1, or F-1 at the time of purchase. The Investment Policy requires that the municipal bonds have a minimum underlying issuer rating from at least two of the three rating agencies of A+ or its equivalent. The Investment Policy requires that corporate debt obligations have a minimum underlying issuer rating from at least two of the NRSRO or A- or its equivalent. The Investment Policy requires that asset-backed securities have a minimum underlying issuer rating from at least two of the NRSRO of AA- or its equivalent. The Investment Policy requires that mortgage-backed securities and collateralized mortgage obligations that had ratings of at least Aaa by Moody's, AAA by Fitch and AA+ by Standard & Poor's. The Investment Policy also requires local government investment pools to be in compliance with Title 24 Part 7 of Article 24 of the Colorado Revised Statutes. The Investment Policy also requires supranational securities by issued by institutions with debt obligations rated AAA, or the equivalent, by at least two NRSROs.

Information on the credit ratings associated with the City's investments (excluding DERP) as of December 31, 2017, is shown in **Table 10** (dollars in thousands).

Table 10

S&P	Commercial	Municipal	Corporate	Asset	Agency	Collateralized	Local	Multinational	Total
	Paper	Bonds	Debt Obligations	Backed Securities	Mortgage Backed Securities	Mortgage Obligations	Government Investment Pools	Fixed Income	
AAA	\$ -	\$ 41,594	\$ 51,624	\$ 116,645	\$ 15,088	\$ 39,239	\$ 181,318	\$ 214,619	\$ 660,127
AA+ to AA-	-	73,865	228,309	-	35,636	41,250	-	-	379,060
AA	-	-	41,747	-	-	-	-	-	41,747
A+ to A-	-	5,791	89,537	-	-	-	-	-	95,328
A to A-	-	-	47,726	-	-	-	-	-	47,726
A-1 to A-1+	157,590	-	-	-	-	-	-	-	157,590
NR	-	8,595	-	50,718	24,216	53,729	-	48,706	185,964
Total	\$ 157,590	\$ 129,845	\$ 458,943	\$ 167,363	\$ 74,940	\$ 134,218	\$ 181,318	\$ 263,325	\$ 1,567,542

Moody's									
Aaa	\$ -	\$ 24,979	\$ 80,645	\$ 107,998	\$ 50,723	\$ 105,175	\$ -	\$ 258,363	\$ 627,883
Aa1 to Aa2	-	73,718	116,490	-	-	-	-	-	190,208
Aa3 to A1	-	31,148	173,862	-	-	-	-	-	205,010
A2 to A3	-	-	87,946	-	-	-	-	-	87,946
P-1	157,590	-	-	-	-	-	-	-	157,590
NR	-	-	-	59,365	24,217	29,043	181,318	4,962	298,905
Total	\$ 157,590	\$ 129,845	\$ 458,943	\$ 167,363	\$ 74,940	\$ 134,218	\$ 181,318	\$ 263,325	\$ 1,567,542

The DERP manages credit risk through the constraints on investments specified in each manager's investment guidelines included in the Plan's Investment Policy. Securities implicitly governed by the U.S. Government are included.

Information on the credit ratings associated with the DERP investments in debt securities at December 31, 2017, is shown in **Table 11** (dollars in thousands).

Table 11

S&P	Moody's	Asset Backed	Corporate Bonds	Non-U.S. Government Bonds	Mortgage Backed	Implicit U.S. Government Bonds	Total
AAA	Aaa	\$ 458	\$ 24,008	\$ -	\$ 28,047	\$ 2,291	\$ 54,804
AAA	NR	-	-	-	-	-	-
AA+ to AA-	Aa3 to A1	23	1,204	1,627	1,406	69,568	73,828
A+ to A-	A1 to Baa2	73	3,833	3,844	4,478	-	12,228
BBB+ to BBB-	A3 to Baa3	88	4,580	24,950	5,350	-	34,968
BB+ to BB-	Ba3 to B1	-	-	14,306	-	-	14,306
B+ to B-	B1 to Caa1	-	-	5,758	-	-	5,758
CCC+ to CCC-	B3 to Caa2	78	-	-	-	-	78
D	NR	-	-	-	-	-	-
NR	Aaa to Baa2	-	-	-	-	-	-
NR	NR	-	189,989	8,307	-	-	198,296
Total		\$ 720	\$ 223,614	\$ 58,792	\$ 39,281	\$ 71,859	\$ 394,266
U.S. Government							68,647
Total							\$ 462,913

NR - no rating available

Custodial Credit Risk. Custodial credit risk for investments is the risk that, in the event of a failure, the City will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. Investments are exposed to custodial credit risk if they are uninsured, are

not registered in the City's name, and are held by either the counterparty to the investment purchase or are held by the counterparty's trust department or agent but not held in the City's name. None of the City's investments owned at December 31, 2017, were subject to custodial credit risk.

In accordance with the City's Investment Policy, all of the City's repurchase agreements are collateralized at 102.00% of the market value of the portfolio by U.S. agency securities at the time of purchase. Collateral valuation is calculated and adjusted at least once per week, and adjusted on an as needed basis. Collateral for all investments, including repurchase agreements, are held in the City's name by the City's custodian, Wells Fargo.

One City agency, the Office of Economic Development, owned repurchase agreements that are related to several bank accounts at Vectra Bank in relation to its HUD Section 108 programs. The cash in these accounts is invested each night in repurchase agreements issued by Vectra. The amounts in these accounts are held in the City's name and protected by the PDPA. In addition, Vectra pledges securities that are direct obligations of the U.S. Government, at a minimum collateralized value of 102.00% in compliance with HUD's investment requirements. The total repurchase agreements at December 31, 2017, were \$146,000.

DERP has no formal policy for custodial credit risk. At December 31, 2017, there were no investments or collateral securities subject to custodial credit risk.

Concentration of Credit Risk. Concentration of credit risk is the risk of loss attributed to the magnitude of the City's investment in a single issuer. The City's Investment Policy states that a maximum of 5.00% of the portfolio may be invested in commercial paper, municipal securities, corporate debt obligations, certificates of deposit, asset-backed securities, or mortgage-backed securities issued by any one obligor. The City's Investment Policy states that a maximum of 10.00% of the portfolio may be invested in an individual supranational obligor, local government investment pool, money market mutual fund, or collateralized mortgage obligation. The City's Investment Policy also limits investments in U.S. agency securities to 25.00% of total investments. The City's Investment Policy limits concentrations even further with a combined maximum of 50.00% of the portfolio that can be invested in corporate debt obligations, commercial paper, and certificates of deposit as well as a combined maximum of 20.00% of the portfolio that can be invested in structured products. As of December 31, 2017, all investments were in compliance with this policy. More than 5.00% of the City's investments in U.S. agency securities are in individual issuers: Federal Home Loan Bank (9.39%), Federal National Mortgage Association (8.94%), Federal Home Loan Mortgage Corporation (5.05%).

The DERP Investment Policy mandates that no managed account may invest more than 5.00% of managed assets in the securities of a single issuer. As of December 31, 2017, all DERP investments were in compliance with this policy.

Foreign Currency Risk. Foreign Currency risk is the risk that changes in exchange rates will adversely affect their value of an investment or deposit. The City's Investment Policy, excluding the DERP pension trust fund, does not allow for investments in foreign currency. The DERP pension trust fund Investment

Policy allows 18.50% to 30.0% of total investments to be invested in international equities and 1.50% to 3.50% of total investments to be invested in international fixed income. The DERP pension trust fund exposure to foreign currency risk as of December 31, 2017, is reflected in **Table 12** (dollars in thousands).

Table 12

Foreign Currency	Equities	Fixed Income	Total
Argentine Peso	\$ -	\$ 511	\$ 511
Australian Dollar	17,519	-	17,519
Brazilian Real	13,422	5,231	18,653
British Pound Sterling	64,998	-	64,998
Canadian Dollar	13,396	-	13,396
Chilean Peso	592	1,283	1,875
Chinese Yuan	35,020	668	35,688
Columbian Peso	954	3,567	4,521
Czech Koruna	-	2,060	2,060
Danish Krone	5,473	-	5,473
Egyptian Pound	191	-	191
Euro	111,595	-	111,595
Hong Kong Dollar	33,249	-	33,249
Hungarian Forint	1,585	2,404	3,989
Indian Rupee	14,890	-	14,890
Indonesian Rupiah	4,142	5,184	9,326
Japanese Yen	79,881	-	79,881
Malaysian Ringgit	4,047	4,245	8,292
Mexican Peso	4,104	4,214	8,318
New Israeli Shekel	1,864	-	1,864
New Zealand Dollar	1,335	-	1,335
Nigerian Naira	-	1,309	1,309
Norwegian Krone	5,544	-	5,544
Peru Sole	-	1,455	1,455
Philippine Peso	534	167	701
Polish Zloty	1,966	4,715	6,681
Qatari Riyal	401	-	401
Romanian Leu	-	1,565	1,565
Russian Ruble	7,674	4,089	11,763
Singapore Dollar	7,492	-	7,492
South Korean Won	35,163	-	35,163
South African Rand	10,041	3,432	13,473
Swedish Krona	7,361	-	7,361
Swiss Franc	19,554	-	19,554
Taiwan Dollar	25,256	-	25,256
Thai Baht	7,969	4,125	12,094
Turkish Lira	3,799	3,797	7,596
United Arab Emiarti Dirham	1,909	-	1,909
Uruguayan Peso	-	136	136
Other	785	(2,003)	(1,218)
Total Foreign Deposits and Investments	\$ 543,705	\$ 52,154	\$ 595,859

3. **Denver Convention Center Hotel Authority (DCCHA).** DCCHA's investments were not subject to custodial credit risk at December 31, 2017, since they consisted solely of money market funds that are not evidenced by securities and are in DCCHA's name.

Table 13

Investment Type	Investment Maturities in Years		
	Fair Value	Less than 1	1 - 5
Money market funds	\$ 17,483	\$ 17,483	\$ -
Local government investment pool	707	707	-
U.S. Treasury securities	31,752	9,930	21,822
Structured products	120	26	94
U.S. agency securities	32,532	16,271	16,261
Corporate bonds	7,782	954	6,828
Multinational fixed income	7,972	1,123	6,849
Municipal bonds	2,744	1,217	1,527
Commercial paper	13,123	13,123	-
Total	\$ 114,215	\$ 60,834	\$ 53,381

4. **Denver Urban Renewal Authority (DURA).** Although it does not have a formal policy to limit exposure to interest rate risk, DURA limits the maximum maturity of investments. At December 31, 2017, DURA's investment balances and maturities are shown **Table 13** (dollars in thousands).
5. **Securities Lending.** Although the City is authorized to enter into securities lending programs with certain qualified dealers, it had no security lending transactions in 2017. Under this program, investment securities owned by the City are loaned to the dealer up to a maximum of one year in exchange for a predetermined fee. The City continues to receive interest earnings on the loaned securities. The securities are collateralized by the dealer. The collateral is held in the City's name by Wells Fargo, the City's custodian. Collateral for these transactions is limited to permissible investments included in the City's Investment Policy with maturities not exceeding one year from the date of settlement. The initial market value of the collateral for each investment position maintained with a dealer shall be 102.00% of the market value of the securities being collateralized. Market value includes investment principal plus accrued interest. Collateral valuation levels with each dealer must be determined on at least a weekly basis, and deficiencies from the required 102.00% level must be cured no later than the following business day. The City had no securities on loan as of December 31, 2017.

The DERP pension trust fund participates in a securities lending program to augment income. The program is administered by the DERP custodial agent bank, which lends certain securities for a predetermined period of time, to an independent broker/dealer (borrower) in exchange for collateral. Collateral may be cash, U.S. Government securities, defined letters of credit or other collateral approved by the DERP. Loans of domestic securities are initially collateralized at 102.00% of the fair value of securities lent. Loans of international securities are initially collateralized at 105.00% of the fair value of securities lent. The DERP continues to receive interest and dividends during the loan period as well as a fee from the borrower. There are no restrictions on the amount of securities that can be lent at one time. The duration of securities lending loans generally matches the maturation of the investments made with cash collateral. At December 31, 2017, the fair value of underlying securities lent was \$215,170,000. The fair value of associated collateral was \$224,664,000 of this amount, \$130,408,000 represents the fair value of cash collateral and \$94,256,000 is the fair value of non-cash collateral not reported on the financial statements. The DERP pension trust fund does not have the ability to pledge or sell non-cash collateral unless the borrower defaults, therefore it is not reported on the financial statements.

Note B – Receivables

1. **Accounts Receivables and Allowances.** The City reviews its accounts receivables periodically and allowances for doubtful accounts are established based upon management's assessment of collection.

Table 14 represents the accounts receivables and allowances for doubtful accounts at December 31, 2017.

Table 14

Accounts Receivables and Allowances Summary

December 31, 2017 (dollars in thousands)

Receivable	Governmental Activities					Business-type Activities				Fiduciary Funds
	General	Human Services	Governmental Funds	Internal Service Funds	Total	Wastewater Management	Denver Airport System	Nonmajor Business-type	Total	Agency and DERP
Property taxes	\$ 128,992	\$ 72,659	\$ 265,524	\$ -	\$ 467,175	\$ -	\$ -	\$ -	\$ -	\$ 1,002,737
Other taxes	75,608	-	11,207	-	86,815	-	-	-	-	3,705
Notes	15,265	-	136,025	-	151,290	-	-	-	-	-
Accounts	7,130	13,022	15,034	3,092	38,278	27,864	103,349	3,195	134,408	342
Long-term	80,847	-	30,887	-	111,734	-	29,018	-	29,018	-
Accrued interest	2,025	-	2,918	266	5,209	981	8,536	126	9,643	1,559
Loans	-	-	-	-	-	-	-	-	-	-
Gross Receivable	309,867	85,681	461,595	3,358	860,501	28,845	140,903	3,321	173,069	1,008,343
Allowances	(81,253)	(425)	(88,669)	-	(170,347)	-	(2,151)	-	(2,151)	(5,726)
Net Receivable	\$ 228,614	\$ 85,256	\$ 372,926	\$ 3,358	\$ 690,154	\$ 28,845	\$ 138,752	\$ 3,321	\$ 170,918	\$ 1,002,617

2. **Notes Receivable.** The special revenue funds', General Fund, related organizations, and component unit notes receivable balance at December 31, 2017, is shown in **Table 15** (dollars in thousands).

Table 15

	December 31	Percent of Total Related Notes Receivable
Neighborhood Development Loans	\$ 17,792	n/a
Economic Development Loans	26,074	n/a
Housing Development Loans	107,424	n/a
Total Office of Economic Development	151,290	
Less allowances for delinquent loans	13,400	n/a
Less allowances for forgivable loans	82,460	n/a
Notes Receivable, Net	55,430	
Denver Health and Hospital Park Hill Health Clinic	\$ 3,500	2.31%
Denver Housing Authority	9,561	6.32%
Total Related Organizations Notes Receivable	\$ 13,061 ¹	
Denver Urban Renewal Authority	\$ 4,861	3.22%

¹Amounts included in the notes receivable balance above.

Allowance for uncollectibles for notes receivable of \$95,860,000 is included in the accounts receivable allowance of \$166,472,000 in **Table 14**. The Neighborhood, Economic and Housing Development loans are funded from both federal U.S. Housing and Urban Development grants and City monies designated for affordable housing. Recipients of affordable housing loans target low and moderate income households, special needs and the homeless. Rental and occupancy covenants are recorded on these properties for

affordability periods of 20 years or more. Housing loans may be fully forgivable at the end of the affordability period, due and payable in full, or due and payable based on occupancy rates or other conditions. The Economic Development loans are made to qualified program recipients under the Community Development Block Grant to provide business owners with funds to promote job creation and growth in targeted areas. Loans are collateralized by the underlying properties.

3. **Long-Term Receivables Allowance.** Included in long-term receivables are amounts related to reimbursement for construction costs, parking fines, court fines, and library fines. The City recorded an allowance for uncollectible accounts for governmental activities of \$72,232,000. The DURA component recorded an allowance of \$782,000.
4. **Operating Leases.** The Denver Airport System leases portions of its Denver International Airport buildings and improvements to concession tenants under non-cancelable operating leases. Lease terms vary from 1 to 30 years. The operating leases require retail concessions to pay a minimum guarantee or percentage of gross receipts, whichever is greater. Revenue from these operating leases of \$90,100,000 was recognized in the Denver Airport System enterprise fund during the year ended December 31, 2017. Minimum future rentals due from concessions under operating leases are shown in **Table 16** (dollars in thousands)

Table 16

Year		
2018	\$	59,396
2019		53,528
2020		49,830
2021		24,199
2022		18,695
2023-2027		39,085
2028-2031		184
Total	\$	244,917

The United Airlines lease provides it can be terminated by the airline if the airline's cost per enplaned passenger exceeds \$20 in 1990 dollars. Current costs per enplaned passenger did not approach this limit for either 2017 or 2016. Rental rates for airlines are established using the rate making methodology whereby a compensatory method is used to set terminal rental rates and a residual method is used to set landing fees. Rentals, fees, and charges must generate gross revenues together with other available funds sufficient to meet rate maintenance covenants per governing bond ordinances.

Note C – Interfund Receivables, Payables, and Transfers

Tables 17 and 18 (dollars in thousands) reflect the City's interfund balances as of December 31, 2017.

1. Interfund Payables/Receivables.

Table 17

Receivable Fund	Payable Fund							Total
	General Fund	Human Services	Nonmajor Governmental	Wastewater Management	Denver Airport System	Nonmajor Business-type	Internal Service	
General Fund	\$ -	\$ 1,650	\$ 2,492	\$ 594	\$ 8,367	\$ 376	\$ 51	\$ 13,530
Human Services	35	-	-	-	-	-	-	35
Nonmajor Governmental	1	180	-	-	-	-	-	181
Wastewater Management	-	-	-	-	51	-	-	51
Denver Airport System	1,727	-	2,000	-	-	-	-	3,727
Internal Service	-	-	-	-	-	54	4	58
Nonmajor Business-type	-	-	1,914	-	-	-	-	1,914
Total	\$ 1,763	\$ 1,830	\$ 6,406	\$ 594	\$ 8,418	\$ 430	\$ 55	\$ 19,496

These balances result from the time lag between the dates that interfund goods and services are provided or reimbursable expenditures occur, transactions are recorded in the accounting system, and payments between funds are made. In addition, some balances result from the overdraft of cash balances in the payable funds.

2. Transfers

Table 18

Transfers In	Transfers Out						Total
	General Fund	Human Services	Nonmajor Governmental	Wastewater Management	Nonmajor Business-type	Internal Service	
General Fund	\$ -	\$ -	\$ 43,125	\$ -	\$ -	\$ -	\$ 43,125
Human Services	7,050	-	-	-	-	-	7,050
Nonmajor Governmental	105,692	3,988	37,611	757	295	415	148,758
Nonmajor Business							\$ -
Total out	\$ 112,742	\$ 3,988	\$ 80,736	\$ 757	\$ 295	\$ 415	\$ 198,933

Transfers are used to move revenues from the fund in which the City budget requires collection to the fund required to expend the monies, and to move unrestricted revenues collected in the General Fund to finance various activities accounted for in other funds.

Note D – Capital Assets

Capital asset activity for the year ended December 31, 2017, are shown in **Tables 19** and **20**.

1. Governmental Activities.

Table 19

Governmental Activities

For the Year Ended December 31, 2017 (dollars in thousands)

	January 1	Additions	Deletions	Transfers	December 31
Capital assets not being depreciated:					
Land and land rights	\$ 328,861	\$ 118,767	\$ (113)	\$ -	\$ 447,515
Construction in progress	97,785	57,970	-	(25,494)	130,261
Total capital assets not being depreciated	426,646	176,737	(113)	(25,494)	577,776
Capital assets being depreciated:					
Buildings and improvements	2,396,115	4,019	(25,024)	13,712	2,388,822
Equipment and other	322,575	29,380	(19,910)	1,577	333,622
Collections	44,481	5,974	(3,671)	60	46,844
Intangibles	36,661	23,534	(3,774)	2,111	58,532
Infrastructure	1,595,588	79,678	(4,700)	8,034	1,678,600
Total capital assets being depreciated	4,395,420	142,585	(57,079)	25,494	4,506,420
Less accumulated depreciation for:					
Buildings and improvements	(838,148)	(63,136)	1,983	18,680	(880,621)
Equipment and other	(236,296)	(25,190)	17,446	(8)	(244,048)
Collections	(22,370)	(5,724)	3,650	-	(24,444)
Intangibles	(31,660)	(5,905)	1,721	(18,672)	(54,516)
Infrastructure	(800,912)	(51,981)	4,700	-	(848,193)
Total accumulated depreciation	(1,929,386)	(151,936)	29,500	-	(2,051,822)
Total capital assets being depreciated, net	2,466,034	(9,351)	(27,579)	25,494	2,454,598
Governmental Activities Capital Assets, net	\$ 2,892,680	\$ 167,386	\$ (27,692)	\$ -	\$ 3,032,374

2. Business-type Activities.

Table 20

Business-type Activities

For the Year Ended December 31, 2017 (dollars in thousands)

	January 1	Additions	Deletions	Transfers	December 31
Capital assets not being depreciated:					
Land and land rights	\$ 326,042	\$ 48	\$ -	\$ 464	\$ 326,554
Construction in progress	204,880	380,837	(7,802)	(259,175)	318,740
Total capital assets not being depreciated	530,922	380,885	(7,802)	(258,711)	645,294
Capital assets being depreciated:					
Buildings and improvements	4,147,529	-	(16,532)	127,341	4,258,338
Improvements other than buildings	2,023,049	14,277	(8,314)	41,781	2,070,793
Machinery and equipment	830,782	7,284	(15,909)	84,175	906,332
Intangibles	28,767	-	(1,004)	5,414	33,177
Total capital assets being depreciated	7,030,127	21,561	(41,759)	258,711	7,268,640
Less accumulated depreciation for:					
Buildings and improvements	(1,188,193)	(133,798)	2,479	-	(1,319,512)
Improvements other than buildings	(1,449,406)	(32,317)	7,895	-	(1,473,828)
Machinery and equipment	(755,246)	(35,948)	15,533	-	(775,661)
Intangibles	(4,593)	(2,199)	1,000	-	(5,792)
Total accumulated depreciation	(3,397,438)	(204,262)	26,907	-	(3,574,793)
Total capital assets being depreciated, net	3,632,689	(182,701)	(14,852)	258,711	3,693,847
Business-type Activities Capital Assets, net	\$ 4,163,611	\$ 198,184	\$ (22,654)	\$ -	\$ 4,339,141

Note: Interest costs of \$11,473 were capitalized during 2017.

3. Major Discretely Presented Component Units. Capital Asset activity for the Denver Convention Center Hotel Authority, DDDA, and Denver Urban Renewal Authority component units is shown in Table 21.

Table 21

Discretely Presented Component Units

For the Year Ended December 31, 2017 (dollars in thousands)

	January 1	Additions and Transfers	Deletions	December 31
Capital assets not being depreciated:				
Land and land rights	\$ 23,421	\$ -	\$ -	\$ 23,421
Construction in progress	282	2,779	(996)	2,065
Total capital assets not being depreciated	23,703	2,779	(996)	25,486
Capital assets being depreciated:				
Buildings and improvements	249,824	317	(403)	249,738
Machinery and equipment	27,647	1,416	(835)	28,228
Total capital assets being depreciated	277,471	1,733	(1,238)	277,966
Less accumulated depreciation for:				
Buildings and improvements	(70,440)	(11,757)	101	(82,096)
Machinery and equipment	(26,055)	(947)	2,782	(24,220)
Total accumulated depreciation	(96,495)	(12,704)	2,883	(106,316)
Total capital assets being depreciated, net	180,976	(10,971)	1,645	171,650
Discretely Presented Component Units				
Capital Assets, net	\$ 204,679	\$ (8,192)	\$ 649	\$ 197,136 ¹

¹ Excludes net capital assets of \$16,874 of Other Component Units.

4. **Depreciation Expense.** Depreciation expense that was charged to governmental activities' functions is shown in **Table 22** (dollars in thousands).

Table 22

General government	\$ 24,256
Public safety	14,041
Public works, including depreciation of infrastructure	64,853
Human services	1,019
Health	524
Parks and recreation	16,751
Cultural activities	30,320
Community development	91
Capital assets held by internal service funds	81
Total	\$ 151,936

5. **Construction Commitments.** The City's governmental and business-type activities have entered into construction and professional services contracts having remaining commitments under contract as of December 31, 2017, as shown in **Table 23** (dollars in thousands).

Table 23**Governmental Activities:**

Winter Park Capital	\$ 1,292
Capital Improvements	69,025
Conservation Trust	3,595
Bond Projects	38,694
Other Capital Projects	42,230
Entertainment and Culture	1,112
Total Governmental Activities	\$ 155,948

Business-type Activities:

Wastewater Management	\$ 81,200
Denver Airport System	126,076
Total Business-type Activities	\$ 207,276

The commitments for these funds are not reflected in the accompanying financial statements. Only the unpaid amounts incurred to date for these contracts are included as liabilities in the financial statements.

6. **Tax Abatements.** The City negotiates property tax abatement agreements on an individual basis and has tax abatement agreements with 88 entities as of December 31, 2017.

Pursuant to sections 30-11-123 and 31-15-903, CRS, and Chapter 53, Article XVI, DRMC, the City is authorized under the Business Incentive Program to enter into agreements with qualifying taxpayers for an incentive tax credit in the amount of the general fund portion of the taxes upon the taxpayer's new taxable personal property assessed by the City upon the new taxable personal property located at or within a new business facility, or directly attributable to an expanded business facility and located at or within the expanded facility, and used in connection with the operation of the new or expanded facility.

If at any time after the City grants an incentive tax credit, the City, in its sole discretion determines that Taxpayer did not meet all requirements of sections 30-11-123 and 31-15-903, CRS, Chapter 53, Article XVI, DRMC or other incentive tax credit requirements of the City under section 53-544, DRMC in the tax year for which a credit was granted, Taxpayer agrees that City may issue to Taxpayer a Special Notice of Valuation, and assess and collect from Taxpayer, in the manner provided for in the Colorado Revised Statutes, taxes in the amount of the incentive tax credit for the subject tax year.

The City has not made any commitments as part of the agreements other than to reduce taxes. The City is not subject to any tax abatement agreements entered into by other governmental entities. Total tax abatements as of December 31, 2017 were \$250,000.

DURA has entered into agreements with various redevelopers to reimburse developer expenditures for certain capital improvements using tax increment financing above a stated base, that is collected by the City and passed through to DURA. These reimbursements are conditional on the developer meeting specified obligations and will only be paid when enough tax increment revenue relating to the specific project is collected. As of December 31, 2017, the approved reimbursement obligations where tax increment revenue has already been collected and will be paid to various redevelopers was \$17,575,000.

Note E – Lease Obligations

- Capitalized Leases.** The governmental activities capital leases are for various properties including the Wellington Webb Municipal Office Building, 2000 West Third Avenue Wastewater building, the Denver office building at 200 W. 14th Ave., District 1, 2, 3, and 5 Police Stations, Fire Station #10, certain Human Services facilities, the Buell Theatre, the 5440 Roslyn maintenance facility property, and the public parking unit within the Cultural Center parking garage. The capital leases also include certain computer software and network equipment, and public works, safety, and parks and recreation equipment.

The City provided funding for the construction of parking facilities adjacent to the Denver Museum of Nature and Sciences (DMNS) the Denver Zoo, and the Denver Botanic Gardens (DBG) from proceeds of certificates of participation (COP) financings. Under separate agreements, the DMNS, the Denver Zoological Foundation Inc., and DBG agreed to increase their admission charges and provide a portion of their admission revenues to help make the COP lease payments. In 2017, the DMNS collected and remitted \$606,000 to the City to be applied to the lease payments. The Zoo collected and remitted \$642,000. DBG collected and deposited \$307,000 with a trustee to be applied to lease payments.

In addition to base rental payments, the lease agreement related to the Wellington Webb Municipal Office Building requires the City to make all payments for any swap agreements relating to the Series 2008A Certificates of Participation (COPs) entered into by the lessor. There are 3 swap agreements considered to be hybrid instruments embedded in the lease. See **Note III-G-7** for detailed information regarding the swaps.

Payments are due annually. The Airport entered into an Installment Purchase Agreement on January 5, 2017 with Santander for \$4,100,000 to finance various capital equipment purchases at a rate of 1.19%. Payments are due annually. Assets under capital leases at December 31, 2017 totaled \$2,400,000 net of accumulated depreciation of \$3,500,000. The related net book values of plant and equipment under capital lease obligations as of December 31, 2017, are shown in **Table 24** (dollars in thousands).

Table 24

	Governmental Activities	Business-type Activities
Buildings	\$ 296,139	\$ -
Equipment	28,815	6,378
Intangibles	4,169	-
Land	16,667	-
Less accumulated depreciation	(138,190)	(3,854)
Net Book Value	\$ 207,600	\$ 2,524

Table 25 (dollars in thousands) is a schedule by year of future minimum lease obligations together with the present value of the net minimum lease payments as of December 31, 2017.

Table 25

Year	Governmental Activities	Business-type Activities
2018	\$ 38,293	\$ 2,631
2019	43,372	1,873
2020	39,510	875
2021	37,830	912
2022	34,591	949
2023-2027	131,652	1,968
2028-2032	121,123	-
2032 - 2035	2,990	-
Total minimum lease payments	449,361	9,208
Less amounts representing interest	(89,142)	(702)
Present Value of Minimum Lease Payments	\$ 360,219	\$ 8,506

- 2. Operating Leases.** The City is committed under various cancelable leases for property and equipment. These leases are considered for accounting purposes to be operating leases. Lease expenses for the year ended December 31, 2017, were approximately \$4,398,000, for governmental activities and \$1,316,000 for business-type activities. The City expects these leases to be replaced in the ordinary course of business with similar leases. Future minimum lease payments should be approximately the same amount.

Note F – Rates and Charges

The Denver Airport System establishes annually, as adjusted semi-annually, airline facility rentals, landing fees, and other charges sufficient to recover the costs of operations, maintenance, and debt service related to the airfield and space utilized by the airlines. Any differences between amounts collected and actual costs allocated to the airline's leased space are credited or billed to the airlines. As of December 31, 2017, there was no liability due to the airlines.

For the years ended December 31, 2001 through 2005, 75.00% of net revenues (as defined by bond ordinance) remaining at the end of each year is to be credited in the following year to the passenger airlines signatory to use and lease agreements; and thereafter it is 50.00%, capped at \$40,000,000. The net revenues credited to the airlines for the year ended December 31, 2017 were \$40,000,000 and have been accrued as a liability at year end.

Note G – Long-Term Debt

- 1. General Obligation Bonds.** The City issues general obligation bonds to provide for the acquisition and construction of major capital facilities. General obligation bonds have been issued for both governmental and business-type activities. General obligation bonds are reported in the proprietary funds if they are expected to be repaid from proprietary fund revenues.

In March 2017, the city irrevocably placed \$50,985,000 of existing cash resources in escrow for the sole purpose of satisfying scheduled payments of both interest and principal on the 2010D (\$32,176,000) and 2011A bonds (\$18,809,000). The escrow agent applied these cash resources to the purchase of essentially risk-free federal securities and there is no risk of the acquired securities being substituted for non-risk-free monetary assets. Prior to the in-substance legal defeasance, the principal amounts outstanding on the 2010D and 2011A bonds were \$29,150,000 and \$16,455,000 respectively. The principal amounts outstanding to be paid from the escrow as of December 31, 2017 was \$26,350,000 for the 2010D bonds and \$16,455,000 for the 2011A bonds.

General obligation bonds are direct obligations and pledge the full faith and credit of the City. These bonds are generally issued as 15 to 20-year serial bonds, except for refunding issues. General obligation bonds outstanding, excluding unamortized premium of \$11,228,000, at December 31, 2017, are \$661,776,000. Interest rates vary from 2.30% to 5.65% with a net interest cost of 1.53% to 6.77%.

General obligation bonds have been issued by the Denver 14th Street GID; however, these bonds are solely the obligation of the District and not the primary government. As of December 31, 2017, there are bonds outstanding in the amount of \$4,000,000 for the Denver 14th Street GID.

Annual debt service requirements to maturity for general obligation bonds are shown in **Table 26** (dollars in thousands).

Table 26

Year	Governmental Activities			
	General Government		General Improvement District	
	Principal ¹	Interest ²	Principal	Interest
2018	\$ 57,045	\$ 30,113	\$ 160	\$ 150
2019	42,895	27,663	200	112
2020	44,540	25,981	205	106
2021	46,315	24,162	205	100
2022	39,291	31,123	215	94
2023 - 2027	257,760	88,440	1,165	378
2028 - 2032	173,930	25,119	1,300	203
2033 - 2037	-	-	550	27
2037 - 2041	-	-	-	-
Total	\$ 661,776	\$ 252,601	\$ 4,000	\$ 1,170

¹Does not include \$5,774 and \$1,989 of compound interest on the Series 2007 and 2014A mini-bonds respectively or unamortized premium of \$11,228.

²Excludes Build America Bonds interest subsidy. The City is eligible to receive \$60 million over the remaining life of its Direct Pay Build America Bonds to subsidize interest payments.

- 2. Revenue Bonds.** The City and component units issue bonds and notes where income derived from acquired or constructed assets is pledged to pay debt service. Certain Airport system revenue bonds are subject to mandatory redemption requirements in 2015, and subsequent years. Revenue bonds outstanding, excluding unamortized premium (net of discount) of \$208,538,000 and \$32,708,000, for the primary government and the component unit DCCHA respectively, at December 31, 2017, are shown in **Table 27** (dollars in thousands).

Table 27

Purpose	Net Interest Cost	Interest Rates	Amount
Excise Tax Revenue	3.28% to 3.89%	1.54% to 5.00%	\$ 351,475
Wastewater Management	2.41% to 3.39%	3.00% to 5.00%	147,880
Golf Enterprise	4.80%	4.75% to 5.00%	1,865
Denver Airport System			3,965,580
Total primary government			4,466,800
DCCHA component unit			271,795
Total			\$ 4,738,595

Revenue bonds' debt service requirements to maturity are shown in **Tables 28** and **29** (dollars in thousands).

Table 28

	Governmental Activities		Business-type Activities					
	Principal ¹	Interest	Golf Enterprise		Wastewater Management		Denver Airport System	
			Principal	Interest	Principal ²	Interest	Principal ³	Interest
2018	\$ 22,090	\$ 13,509	\$ 590	\$ 92	\$ 5,065	\$ 5,983	\$ 186,140	\$ 155,319
2019	21,440	13,168	620	62	5,285	5,761	195,100	148,771
2020	15,910	12,777	655	31	5,500	5,529	200,265	141,804
2021	14,260	12,432	-	-	5,745	5,288	210,375	134,262
2022	14,940	12,120	-	-	6,000	5,035	229,875	126,734
2023 - 2027	40,705	52,387	-	-	22,210	22,052	1,085,780	498,546
2028 - 2032	60,245	43,828	-	-	27,015	17,246	898,275	301,731
2033 - 2037	-	36,634	-	-	21,040	12,595	396,710	150,466
2038-2042	30,830	36,464	-	-	25,600	8,037	342,640	64,402
2043 - 2047	131,055	14,351	-	-	24,420	2,490	127,140	9,817
2048-2050	-	-	-	-	-	-	93,280	1,531
Total	\$ 351,475	\$ 247,670	\$ 1,865	\$ 185	\$ 147,880	\$ 90,016	\$ 3,965,580	\$ 1,733,383

¹Does not include unamortized premium of \$28,203.

²Does not include unamortized premium of \$18,352.

³Does not include unamortized premium of \$161,983.

Table 29

Year	Component Unit	
	DCCHA	
	Principal ¹	Interest
2018	-	13,333
2019	2,130	13,333
2020	2,545	13,248
2021	2,985	13,146
2022	8,670	13,026
2023 - 2028	50,290	58,182
2028 - 2032	64,180	44,288
2033 - 2037	81,915	26,555
2038 - 2041	59,080	6,004
Total	\$ 271,795	\$ 201,115

¹Does not include unamortized premium of \$32,708.

In January 2000, the City increased the tax rate on its lodger's tax by 1.75% and short-term auto rental tax by 1.75%. The City has pledged the increase portion of those taxes for debt service on \$149,190,000 of Series 2005A Excise Tax Revenue Refunding Bonds issued in August 2005, and \$73,630,000 of Series 2009A Excise Tax Revenue Refunding Bonds issued in May 2009. The bonds were issued for the purpose of refunding bonds that financed the expansion of the Colorado Convention Center and were payable through 2023.

In November 2015, Denver voters approved the indefinite extension of each of the 1.75% lodger's tax and the 1.75% auto rental tax increases ("Excise Tax Increases") and authorized the issuance of up to \$778 million of new excise tax revenue bonds supported by pledged portions of the lodger's, food and beverage, and 23 auto rental taxes for the purpose of financing tourism-related projects for the National Western Center and for improvements to the Colorado Convention Center.

In April 2016, the city issued Dedicated Tax Revenue Refunding and Improvement Bonds, Series 2016AB, in the amount of \$397,310,000. The bonds were issued to fund the initial costs of the National Western Center and Colorado Convention Center improvements, as well as to advance refund all of the outstanding 2005A and 2009A bonds. Effective April 6, 2016, all of the outstanding 2005A and 2009A bonds were defeased and advance refunded resulting in a present value savings of \$3,608,000 and a deferred loss of \$17,517,000. The City pledged additional revenues to the repayment of the 2016A-B bonds that were not pledged to the

repayment of the 2005A and 2009A bonds. The previously unpledged 3.25% and 3.5% portions of the lodger's tax and auto rental tax, respectively, have been pledged to the repayment of the 2016A-B bonds. No new excise taxes or increases to existing excise taxes were imposed in conjunction with the issuance of 2016A-B bonds.

The Series 2016A bonds are fixed rate bonds with final maturity in 2046; The Series 2016B bonds are fixed rate bonds with final maturity in 2032. The total principal and interest remaining to be paid on the bonds is \$237,896,000, with annual combined debt service requirements ranging from \$6,725,000 to \$11,048,000. In 2017, debt service paid and net revenue available for debt service was \$11,061,000 and \$35,293,000, respectively

The City, through its Department of Aviation, has pledged future Airport System Net Revenues, as defined in the 1984 Airport System General Bond Ordinance as supplemented and amended and the 1990 Airport System Subordinate Bond Ordinance as supplemented and amended. The \$3,965,580 of outstanding bonds were issued for the purpose of financing capital projects at the airport and for refinancing earlier bond issues and have maturities ranging from 2017 to 2043. The total principal and estimated interest remaining to be paid on the bonds is \$5,698,963,000. Over the past 10 years, annual net revenues available for debt service have averaged \$451,629,000. In 2017, debt service paid and net revenue available for debt service was \$345,717,000 and \$517,942,000, respectively.

On December 7, 2017, the Airport issued \$254,200,000 of Series 2017A bonds (AMT) to refund all of the outstanding Series 2007A and Series 2007D Bonds, and \$21,300,000 of Series 2017B Bonds (non-AMT) to refund all of the outstanding Series 2007C Bonds, each through a negotiated sale with Raymond James as the lead underwriter. Combined, these two transactions will result in a net present value savings of \$47,000,000 through 2033. The difference between the reacquisition price of \$326,800,000 and the net carrying amount of the old debt of \$327,100,000 resulted in the recognition of a deferred gain on refunding in the amount of \$300,000. The deferred gain on refunding is being amortized over the remaining life of the old debt.

On December 21, 2017, the City, for and on behalf of the Airport, issued \$300,000,000, Airport System Subordinate Revenue Bonds Series 2017C - AMT (Series 2017C Bonds). The final maturity of the Series 2017C Bonds is November 15, 2050, with an initial term rate period ending on December 30, 2020. The Series 2017C Bonds bear interest at a variable rate with interest initially due on July 1, 2018, and on the first business date of the month thereafter. At the end of the initial term rate period, the Series 2017C Bonds are subject to mandatory redemption. The proceeds from the Series 2017C Bonds are available to fund Airport capital improvements and were used to pay for the issuance cost.

Included in the Airport System's revenue bonds are \$34,900,000 of Series 1992F, G; \$26,200,000 of Series 2002C, \$55,200,000 of Series 2008B, \$92,600,000 of Series 2008C1, \$200,000,000 of Series 2008C2-C3, \$104,655,000 of Series 2009C and \$130,600,000 of Series 2007G1-G2 of Airport Revenue Bonds Series. These bonds are currently credit facility bonds, which bear interest at rates indexed to 1-month LIBOR and are subject to mandatory redemption when the credit facilities and reimbursement agreements supporting them expire and upon the occurrence of certain other events of default. These agreements will either be extended, replaced, or the bonds will be refunded prior to the expiration date.

The City, through its Wastewater Management Division, has pledged future income from its storm drainage and sanitary sewerage facilities, net of operating expenses, for debt service on \$50,425,000 of Series 2012 Wastewater Revenue Bonds issued in January 2012 and for debt service on \$115,000,000 of Series 2016 Wastewater Revenue bonds issued in November of 2016. The Series 2012 bonds were issued for the purpose of refunding the remaining \$20,350,000 of Series 2002 Wastewater Revenue bonds outstanding and to finance improvements to the storm drainage facilities. The Series 2016 bonds were issued to finance capital improvement projects. The total principal and interest remaining to be paid on the bonds is \$237,896,000, with annual requirements ranging from \$6,725,000 to \$11,048,000. Over the past 10 years, annual net revenues available for debt service have averaged \$21,706,000. In 2017, debt service paid and net revenue available for debt service was \$11,061,000 and \$35,293,000 respectively.

The City, through its Golf Division, has pledged future income from its golf facilities, net of operating expenses, for debt service on \$7,365,000 of Series 2005 Golf Enterprise Revenue Bonds issued in March 2006. The bonds were issued for the purpose of financing the construction of certain golf facilities of the City and are payable through 2020. The total principal and interest remaining to be paid on the bonds is \$2,050,000, with annual requirements of approximately \$684,000. Over the past 10 years annual net revenues available for debt service have averaged \$1,608,000. In 2017, debt service paid and net revenue available for debt service was \$685,000 and \$1,940,000, respectively.

For detailed information on individual bond issues see Other Supplementary Schedules – Combined Schedule of Bonds Payable and Escrows. **Other Supplementary Schedules – Combined Schedule of Bonds Payable and Escrows.**

3. **Other Debt.** DURA component unit note payable and tax increment bonds, exclusive of unamortized premium of \$25,641,000, at December 31, 2017, are comprised of the following individual issues shown in **Table 30** (dollars in thousands).

Table 30

Purpose	Interest Rates	Amount
Series 2010B-1	3.00% - 5.00%	56,125
Series 2013A-1	5.00%	115,785
Series 2014D-2	4.10% - 4.19%	49,290
Note payable		4,864
Total		\$ 226,064

¹Fixed rate through 2016, then converts to variable

On June 23, 2016, the RiNo Denver General Improvement district issued \$3,000,000 of revenue notes for the purpose of financing improvements to Brighton Boulevard between 29th and 44th Streets. The revenue notes were issued with a fixed rate of 3.55% and mature on 6/1/2036. Debt service for the RiNo General Improvement District's revenue note is to be paid from special assessments collected from property owners fronting Brighton Boulevard within the district.

Debt service requirements to maturity for DURA's bond issues as well as RiNo GID's revenue note are shown in **Table 31** (dollars in thousands).

Table 31

Year	DURA		RiNo GID	
	Principal	Interest	Principal	Interest
2018	\$ 27,865	\$ 10,541	\$ 84	\$ 76
2019	26,390	9,207	87	72
2020	20,955	7,925	91	69
2021	20,410	6,918	94	66
2022	24,125	5,972	97	63
2023 - 2037	101,455	10,663	541	258
2028 - 2036	-	-	1,171	187
Total	\$ 221,200	\$ 51,226	\$ 2,165	\$ 791

Debt service for DURA's note, payable to the City, is dependent on the availability of tax increment financing (TIF) revenue. Due to the uncertainty of this revenue the payments cannot be estimated. Payments will be made quarterly on the 10th of January, April, June and October, and will consist of the entirety of DURA's receipt of TIF revenues.

- 4. Indentures and Reporting Requirements.** The City is subject to a number of limitations and restrictions contained in various indentures. Such limitations and covenants include: continued collection of pledged revenues, segregation of pledged revenues, and maintenance of specified levels of bond reserve funds, permissible investment of bond proceeds and pledged revenues, and ongoing disclosure to the secondary bond market in accordance with the Securities and Exchange Commission's Rule 15c2-12. The City is in compliance with all significant covenants.
- 5. Notes payable.** The Airport System entered into Master Installment Purchase Agreements on October 26, 2006. These include an agreement with Koch Financial Corporation for \$23,000,000 and an agreement with GE Capital Public Finance for \$9,000,000. These transactions will finance capital equipment purchases at rates and terms of 4.34% and 4.16% based on a 30/360 calculation for 2007. The Airport System entered into a \$20,500,000 Master Installment Purchase Agreement with Sovereign Leasing, LLC on January 10, 2012, to finance capital equipment purchases, at a rate of 1.96% based on a 30/360 calculation for 2012. The payment schedules relating to the note requirements as of December 31, 2017, are shown in **Table 32** (dollars in thousands).

Table 32

Year	Denver International Airport	
	Principal	Interest
2018	2,108	155
2019	2,149	113
2020	2,192	71
2021	2,235	27
Total	\$ 8,684	\$ 366

- 6. Changes in Long-term Liabilities.** Long-term liability activity for the year ended December 31, 2017, is shown in **Tables 33** and **34** (dollars in thousands).

Table 33

Governmental Activities	January 1	Additions	Deletions	December 31	Due within one year
Legal liability	\$ 3,850	\$ 14,165	\$ 8,450	\$ 9,565	\$ -
Compensated absences:					
Classified service employees - 3,304	96,579	30,519	27,453	99,645	4,644
Career Service employees - 6,339	47,193	30,425	27,785	49,833	3,896
Net other postemployment benefit obligation	17,089	1,446	-	18,535	-
Net pension liability	1,128,204	176,563	92,871	1,211,896	-
Claims payable	27,813	7,574	9,105	26,282	9,149
General obligation bonds ¹	767,870	46,904	145,235	669,539	57,045
GID general obligation bonds	3,535	4,000	3,535	4,000	160
GID revenue note	2,309	-	144	2,165	84
Excise tax revenue bonds	374,960	-	23,485	351,475	22,090
Capitalized lease obligations	375,112	30,113	45,006	360,219	26,275
Unamortized premium	50,253	-	7,641	42,612	-
Intergovernmental agreement	1,968	-	658	1,310	694
Other governmental funds - note payable	1,431	-	1,431	-	-
Total Governmental Activities	\$ 2,898,166	\$ 341,709	\$ 392,799	\$ 2,847,076	\$ 124,037

¹ Ending balance includes compound interest from the 2007 and 2014A mini-bonds of \$7,764.

Table 34

	January 1	Additions	Deletions	December 31	Due within one year
Business-type Activities					
Wastewater Management:					
Revenue bonds	\$ 152,860	\$ -	\$ 4,980	\$ 147,880	\$ 5,065
Unamortized premium	19,122	-	770	18,352	-
Net pension liability	34,306	186	-	34,492	-
Capitalized lease obligations	6,278	-	592	5,686	647
Compensated absences	3,323	104	117	3,310	823
Total Wastewater Management	215,889	290	6,459	209,720	6,535
Denver Airport System:					
Revenue bonds	3,890,895	575,505	500,820	3,965,580	186,140
Unamortized premium	144,853	39,799	22,669	161,983	-
Net pension liability	158,033	5,349	9,513	153,869	-
Notes payable	10,751	-	2,067	8,684	2,108
Capitalized lease obligations	3,994	-	1,485	2,509	1,485
Compensated absences	9,503	7,000	6,643	9,860	2,439
Total Denver Airport System	4,218,029	627,653	543,197	4,302,485	192,172
Nonmajor enterprise funds:					
Revenue bonds	2,430	-	565	1,865	590
Net pension liability	11,773	520	327	11,966	-
Capitalized lease obligations	708	-	397	311	311
Compensated absences	1,193	465	462	1,196	333
Total nonmajor enterprise funds	16,104	985	1,751	15,338	1,234
Total Business-type Activities	\$ 4,450,022	\$ 628,928	\$ 551,407	\$ 4,527,543	\$ 199,941
Major Component Units:					
Revenue bonds ¹	\$ 306,791	\$ -	\$ 2,288	\$ 304,503	\$ -
Increment bonds and notes payable ²	588,989	197,315	346,757	439,547	34,949
Compensated absences	161	127	121	167	-
Total Major Component Units	\$ 895,941	\$ 197,442	\$ 349,166	\$ 744,217	\$ 34,949

¹Includes unamortized premium of \$32,708.

²Includes unamortized premium of \$25,641.

The legal liability, compensated absences, net other post-employment benefit (OPEB) obligation and other accrued liabilities in the governmental activities are generally liquidated by the General Fund. The other governmental funds include a note payable liquidated by the Community Development special revenue fund and a claims payable liquidated by the Workers' Compensation internal service fund. The amount available for long-term debt in the debt service funds and in the special revenue fund was \$125,061,000.

- 7. Swap Agreements.** Included in the City's governmental activities are three derivatives that are embedded in the City's certificated lease for the Webb Municipal Office Building. The intent of the three pay-fixed, receive-variable interest rate swaps is to protect against rising interest rates on the variable rate 2008A Certificates of Participation (COPs). In 2003, Civic Center Office Building, Inc., the lessor, entered into two swap agreements with JP Morgan, associated with the 2003C1 and 2003C2 COPs, and one swap agreement with Lehman Brothers that was associated with the 2003C3 COPs. In October 2008, due to the deteriorating credit rating of the insurer (AMBAC), the outstanding COPs were refunded by the Series 2008A1-A3 Refunding Certificates of Participation, terminating the three swaps. To maintain the interest rate hedge related to the lease payments, the derivative instruments with JP Morgan were amended and new swaps were entered into that were associated with the 2008A1 and 2008A2 COPs. The derivative instrument with Lehman Brothers was terminated and replaced with an agreement with Royal Bank of Canada (RBC). A new swap was initiated under the RBC agreement that

was associated with the 2008A3 COPs. At the time of termination of the 2003 swaps, the JP Morgan swaps had negative fair values, and no termination payments were made. In addition to a termination payment made to Lehman Brothers by the City, an up-front payment of \$475,000 was received from RBC at the initiation of the 2008 replacement swap. These events resulted in off-market components of the swaps that are being treated as implied loans for accounting purposes and are being amortized through investment revenues over the life of the new hedges.

As of December 31, 2017, all three swaps are effective cash flow hedges and the fair values and changes in fair values are reported in the government-wide Statement of Net Position as deferred outflows of governmental activities. The combined fair market value of the three swaps as of December 31, 2017 was (\$27,615,000). The year-end fair values were calculated using the mid-market LIBOR swap curves as of December 31, 2017. The fair values represent the difference between the present value of the fixed payments and the present value of the floating payments, at forward floating rates as of December 31, 2017. When the present value of payments to be made by the City exceeds the present value of payments to be received, the swap has a negative value to the City. When the present value of payments to be received by the City exceeds that of payments to be made, the swap has a positive value to the City.

Table 35 provides the swap associated debt rates as of December 31, 2017.

Table 35

Swap	2008A1	2008A2	2008A3
Associated debt	2008A1 COP	2008A2 COP	2008A3 COP
Fixed payment to counterparty	3.400%	3.400%	3.130%
Variable payment from counterparty (68% LIBOR)	-(0.994%)	-(0.994%)	-(0.994%)
Net swap interest rate	2.406%	2.406%	2.136%
Variable-rate certificate coupon payment	1.780%	1.780%	1.780%
Net swap and certificate rate	4.186%	4.186%	3.916%

As rates vary, lease interest payments and net swap payments will vary. As of December 31, 2017, lease payment requirements of the related variable rate COPs and the net swap payments, assuming current rates remain the same, for their terms, are summarized in **Table 36** (dollars in thousands).

Table 36

Year	Principal	Interest	Interest Rate	Total
			Swaps Net	
2018	9,235	3,766	4,857	17,858
2019	9,805	3,602	4,637	18,044
2020	10,410	3,427	4,404	18,241
2021	11,055	3,242	4,157	18,454
2022	11,735	3,045	3,895	18,675
2023-2027	70,170	11,823	14,976	96,969
2028-2031	89,175	4,554	5,567	99,294
Total	\$ 211,585	\$ 33,459	\$ 42,493	\$ 287,535

Table 37 (dollars in thousands) provides the fair values and the 2017 changes in fair value of the on-market and the implied loan portions of the swaps as of December 31, 2017, and the accounting classifications of the changes in fair value for the year then ended.

Table 37

Counterparty	Effective Date	Notional Amount	Termination Date	Associated Debt Series	Fair Values 12/31/2017	Change in Fair Value	Classification
2008A1 Swap Agreements							
JP Morgan Chase Bank	7/17/03	\$ 67,650	12/1/29	2008A1 COP	\$ (7,791)	\$ (1,391)	Deferred outflow Investment revenue
						\$ (246)	
2008A2 Swap Agreements							
JP Morgan Chase Bank	7/17/03	57,045	12/1/29	2008A2 COP	(6,568)	(1,172)	Deferred outflow Investment revenue
						(207)	
2008A3 Swap Agreements							
Royal Bank of Canada	10/1/08	86,890	12/1/31	2008A3 COP	(13,256)	(1,198)	Deferred outflow Investment revenue
						(21)	
Total		\$ 211,585			\$ (27,615)	\$ (3,761)	\$ (474)

Note: Certain City derivatives have been reported as investment derivatives in accordance with the provisions of GASB 53. Additionally, investment income on these derivatives has also been recognized in accordance with GASB 53. The City does not enter into derivative transactions for investment purposes, nor does the City Charter allow for the investment in derivative investments.

The risk involved in the three swaps flows through the lease from Civic Center Office Building, Inc. (the “lessor”) to the City. The following risks are generally associated with swap agreements:

- **Credit risk** – All of the governmental activity swaps rely on the performance of the respective swap counterparties. The City is exposed to the risk of these counterparties being unable to fulfill their financial obligations to the lessor. The City measures the extent of the risk based on the credit ratings of each counterparty and the fair value of the swap agreement. As of December 31, 2017, there was no risk of loss to the City, as the swap agreements had negative fair values. The credit ratings of the counterparties as of December 31, 2017 are shown in **Table 38**

Table 38

Counterparty (Credit Support Provider)	Ratings of the Counterparty or its Credit Support Provider		
	S&P	Moody's	Fitch
JP Morgan Chase Bank	A+	Aa3	AA-
Royal Bank of Canada	AA-	A1	AA

- **Termination risk** – Any party to these swap agreements may terminate the swap if the other party fails to perform under the terms of the contract. Additionally, the lessor may terminate any of the swap agreements at any time at its sole discretion. If the swap had a negative fair value at the time of termination the City could be liable to the counterparty for a termination payment equal to the fair market value of the swap. If any of the swaps were terminated, the associated variable rate certificates would no longer have the benefit of the interest rate hedge.

- **Interest rate risk** – The City is exposed to interest rate risk on the swaps. In regards to the pay fixed, receive variable swaps, as the London Interbank Offered Rate (LIBOR) index rate decreases, the City's net payments on the swaps increase.
- **Basis risk** – The City pays interest at variable rates on the COPs associated with the swaps. Each of the swap agreements provide for the applicable counterparty to make variable rate payments based on the LIBOR index. To the extent that the variable rate paid on the certificates is different than the rate received from the counterparties based on LIBOR, there may be a net loss or benefit to the City.

The Airport System has entered into interest rate swap agreements in order to protect against rising interest rates. The 1998, 1999 and 2009A swap agreements are pay fixed, receive variable rate, cash flow hedges, with the variable payment from the counterparty based on the USD-SIFMA Municipal Swap Index and the variable rate of the bonds. The rest of the Airport System's swap agreements are considered investment derivatives as defined by GASB 53. **Table 39** provides a profile of the terms of the Airport's swap agreements (all rates as of December 31, 2017).

Table 39

SWAP	1999, 2002	2005, 2006B	2006A, 2008A	1998	2008B
	2009A		2002C,		2002C,
Associated Debt	2008B, 2009C	2016A, 2017A	2007F-G, 2016B	2008C2-C3	2002C, 2008C1
Payment to counterparty	7.313%	5.373%	4.009%	4.740%	4.760%
Payment from counterparty	2.904%	5.181%	1.095%	1.200%	1.286%
Net swap interest rate	4.409%	0.192%	2.914%	3.540%	3.474%
Associated bond interest rate	1.471%	5.000%	1.849%	1.720%	1.750%
Net swap and bond rate	5.880%	5.192%	4.763%	5.260%	5.224%

As rates vary, variable rate bond interest payments and net swap payments will vary. As of December 31, 2017, debt service requirements of the related variable rate debt and net swap payments for the Airport System's cash flow hedges (1998, 1999 and 2009A swap agreements), assuming current interest rates remain the same, for their terms, are reflected in **Table 40** (dollars in thousands).

Variable Rate Bonds and Swap payments are calculated using rates in effect on December 31, 2017.

Table 40

Year	Interest Rate			
	Principal	Interest	Swaps Net	Total
2018	\$ 8,300	\$ 6,383	\$ 15,391	\$ 30,074
2019	43,870	6,253	14,005	64,128
2020	47,140	5,561	11,252	63,953
2021	49,115	4,818	8,272	64,128
2022	54,485	4,047	5,045	63,577
2023-2027	121,910	11,644	6,486	140,040
2028-2032	75,180	2,887	-	78,067
Total	\$ 400,000	\$ 41,593	\$ 60,451	\$ 503,967

Table 41 (dollars in thousands) provides a summary of the Airport's interest rate swap transactions as of December 31, 2017.

Table 41

Counterparty	Effective Date	Notional Amount	Bond/Swap Termination Date	Associated Debt Series	Payable Swap Rate	Variable Receivable Swap Rate	Changes in Fair Value		Fair Values December 31	
							Classification	Amount		
Hedging Derivatives										
1998 Swap Agreements										
Goldman Sachs Capital Markets, L	10/4/00	100.000	11/15/25	2008C2-C3	4.7600%	70% LIBOR + 0.10%	Deferred outflow	\$(1,172)	\$ (13,595)	
							Investment income	(2,447)		
Societe Generale, New York Branch	10/4/00	100.000	11/15/25	2008C2-C3	4.7190%	70% LIBOR + 0.10%	Deferred outflow	(1,172)	(13,418)	
							Investment income	(2,411)		
1999 Swap Agreements										
Goldman Sachs Capital Markets, L	10/4/01	100.000	11/1/22	¹	5.6179%	SIFMA	Deferred outflow	(1,480)	(11,945)	
							Investment income	(2,721)		
Merrill Lynch Capital Services, Inc.	10/4/01	50.000	11/1/22	¹	5.5529%	SIFMA	Deferred outflow	(740)	(5,878)	
							Investment income	(1,330)		
Investment Derivatives										
2002 Swap Agreements										
Goldman Sachs Capital Markets, L	4/15/02	100.000	11/1/22	¹		SIFMA	76.33% LIBOR	Investment income	(624)	108
2005 Swap Agreements										
Royal Bank of Canada	11/15/06	49.578	11/15/25	2007D	³ 3.6560%	70% LIBOR	Investment income	(1,347)	(4,964)	
JP Morgan Chase Bank, N.A.	11/15/06	49.578	11/15/25	2007D	³ 3.6874%	70% LIBOR	Investment income	(1,361)	(5,036)	
Jackson Financial Products, LLC	11/15/06	99.156	11/15/25	2007D	³ 3.6560%	70% LIBOR	Investment income	(2,694)	(9,928)	
Piper Jaffray Financial Products, Inc.	11/15/06	49.578	11/15/25	2007D	³ 3.6560%	70% LIBOR	Investment income	(1,347)	(4,964)	
2006A Swap Agreements										
JP Morgan Chase Bank, N.A.	11/15/07	139.450	11/15/25	2007F-G/2014A	² 4.0085%	70% LIBOR	Investment income	(4,411)	(14,033)	
GKB Financial Services Corp.	11/15/07	46.483	11/15/25	2007F-G/2014A	² 4.0085%	70% LIBOR	Investment income	(1,470)	(4,677)	
2006B Swap Agreements										
Royal Bank of Canada	11/15/06	49.578	11/15/25	³	SIFMA	4.0855%	Investment income	1,112	5,535	
JP Morgan Chase Bank, N.A.	11/15/06	49.578	11/15/25	³	SIFMA	4.0855%	Investment income	1,120	5,527	
Jackson Financial Products, LLC	11/15/06	99.156	11/15/25	³	SIFMA	4.0855%	Investment income	2,287	11,000	
Piper Jaffray Financial Products, Inc.	11/15/06	49.578	11/15/25	³	SIFMA	4.0855%	Investment income	1,109	5,516	
2008A Swap Agreements										
Royal Bank of Canada	12/18/08	92.967	11/15/25	2007F-G	^{2,4} 4.0085%	70% LIBOR	Investment income	(2,940)	(9,354)	
2008B Swap Agreements										
Loop Financial Products I, LLC	1/8/09	100.000	11/15/25	2008C1	² 4.7600%	70% LIBOR + 0.10%	Investment income	(3,361)	(15,731)	
2009A Swap Agreements										
Loop Financial Products I, LLC	1/12/10	50.000	11/15/22	¹	5.6229%	SIFMA	Deferred outflow	(1,062)	(5,961)	
							Investment income	(1,021)		
TOTAL									\$ (91,798)	

¹ Swaps are currently associated with Series 2009C bonds, Series 2008B, and a portion of the Series 2002C bonds.

² A portion of the Series 2002C bonds are additionally associated with these swaps.

³ Previously associated with 2006A. Swaps currently associated with Series 2016A.

⁴ Previously associated with 2014A. Swaps currently associated with Series 2016B.

Note: Certain City derivatives have been reported as investment derivatives in accordance with the provisions of GASB 53. Additionally, investment income on these derivatives has also been recognized in accordance with GASB 53. The City does not enter into derivative transactions for investment purposes, nor does the City Charter allow for the investment in derivative investments.

Payments by the Airport System to counterparties relating to these swap agreements, including termination payments, are Subordinate Obligations, subordinate to debt service payments on the Airport System's Senior Bonds, and on parity with the Airport System's Subordinate Bonds. The year-end fair values were calculated using the mid-market LIBOR and BMA swap curves as of December 31, 2017. Fair values represent the difference between the present value of the fixed payments and the present value of the floating payments, at forward floating rates as of December 31, 2017. When the present value of payments to be made by the Airport System exceeds the present value of payments to be received, the swap has a negative value to the Airport System. When the present value of payments to be received by the Airport System exceeds that of payments to be made, the swap has a positive value to the Airport System.

The following risks are generally associated with swap agreements:

- Credit Risk** –All of the Airport System’s swap agreements rely upon the performance of swap counterparties. The Airport System is exposed to the risk of these counterparties being unable to fulfill their financial obligations to the Airport System. The Airport System measures the extent of this risk based upon the credit ratings of the counterparty and the fair value of the swap agreement. If the Airport System delivers a surety policy or other credit support document guaranteeing its obligations under the swap agreement that is rated in the highest rating category of either Standard & Poor’s, Moody’s Investors Service or Fitch, for any swap agreement, the counterparty to that agreement is obligated to either be rated, or provide credit support securing its obligations under the swap agreement rated in the highest rating category of either Standard & Poor’s, Moody’s Investors Service or Fitch; or, under certain circumstances, provide collateral. The Airport System is obligated, under the swap agreements, to provide such surety policy or credit support if the unsecured and unenhanced ratings of the Airport System’s Senior Bonds is below any two of BBB by Standard & Poor’s, Baa2 by Moody’s Investors Service or BBB by Fitch. As of December 31, 2017, the ratings of the Airport System’s Senior Bonds were A+ by Standard & Poor’s (with a stable outlook), A1 by Moody’s Investors Service (with a stable outlook) and A+ by Fitch (with a stable outlook). Therefore, no surety policy or credit has been provided to the counterparties by the Airport System. Failure of either the Airport System or the counterparty to provide credit support or collateral, as described in the swap agreements, is a termination event under the swap agreements (see termination risk below). The ratings of the counterparties, or their credit support providers, as of December 31, 2017, are shown in **Table 42**.

Table 42

Counterparty (Credit Support Provider)	Ratings of the Counterparty or its Credit Support Provider		
	S&P	Moody's	Fitch
Goldman Sachs Capital Markets, L.P. (Goldman Sachs Group, Inc.)	BBB+	A3	A
JP Morgan Chase Bank, N.A.	A+	Aa3	AA-
LOOP Financial Products, LLC (Deutsche Bank, AG, New York Branch)	A-	Baa2	BBB+
Merrill Lynch Capital Services, Inc. (Merrill Lynch & Co., Inc.)	NR	A3	A
Royal Bank of Canada	AA-	A1	AA
Societe Generale, New York Branch	A	A1	A+
Jackson Financial Products, LLC (Merrill Lynch & Co., Inc.)	NR	A3	A
GKB Financial Services Corporation II, Inc. (Societe Generale New York Branch)	A	A2	A+
Piper Jaffray Financial Products, Inc. (Morgan Stanley Capital Services, Inc.)	BBB+	A3	A

NR - no rating available.

As of December 31, 2017, there was no risk of loss for the swap agreements that had negative fair values. For the swap agreements that had positive fair values, the risk of loss is the amount of the derivative's fair value.

- **Termination Risk** – Any party to the Airport System's swap agreements may terminate the swap if the other party fails to perform under the terms of the contract. Additionally, the Airport System may terminate any of its swap agreements at any time at its sole discretion. Further, certain credit events can lead to a termination event under the swap agreements (see Credit Risk on preceding page). If, at the time of termination, the swap has a negative fair value, the Airport System could be liable to the counterparty for a payment equal to the swap's fair value. If any of the Airport System's swap agreements are terminated, the associated variable rate bonds would either no longer be hedged with a synthetic fixed interest rate or the nature of the basis risk associated with the swap agreement may change. The Airport System is not aware of any existing event that would lead to a termination event with respect to any of its swap agreements.
- **Interest Rate Risk** – The Airport System is exposed to interest rate risk in that as the variable rates of the swap agreements decrease, the Airport System's net payments on the swap agreements increase.
- **Basis Risk** – Each of the Airport System's swap agreements is associated with certain debt obligations or other swaps. The Airport System pays interest at variable interest rates on some of the associated debt obligations and associated swaps. The Airport System receives variable payments under some of its swap agreements. To the extent the variable rate on the associated debt or the associated swap paid by the Airport System is based on an index different than that used to determine the variable payments received by the Airport System under the swap agreement, there may be an increase or decrease in the synthetic interest rate intended under the swap agreement.

- 8. Synthetic Guaranteed Investment Contracts.** An option in the City's deferred compensation plan includes a custom stable value fund that includes synthetic guaranteed investment contracts (SGICs). The contracts provide a stable rate of return to the participants. The value of the underlying investments is \$227,558,000 as of December 31, 2017.

Note H – Fund Balances

In accordance with GASB Statement No. 54, fund balances are classified as nonspendable, restricted, committed, assigned or unassigned. When expenditures are incurred that use funds from more than one classification, the City will generally determine the order which the funds are used on a case-by-case basis, taking into account any applicable requirements of grant agreements, contracts, business circumstances, or other constraints. If no restrictions otherwise exist, the order of spending of resources will be restricted, committed, assigned and lastly, unassigned.

The City has a target of maintaining a General Fund balance reserve that is 15.00% of budgeted expenditures and should not go below 10.00% of budgeted expenditures, except in response to a severe crisis, economic or otherwise.

Fund balances by classification are detailed in **Table 43** (dollars in thousands).

Table 43

	General	Human Services	Other Governmental Funds	Total Governmental Funds
Fund Balances				
Nonspendable				
Endowment	\$ -	\$ -	\$ 3,000	\$ 3,000
Prepaid items	2,979	-	17,479	20,458
Total Nonspendable	2,979	-	20,479	23,458
Restricted:				
General government	-	-	100,085	100,085
Public safety - administration	-	-	26,807	26,807
Public safety - fire	-	-	31	31
Public safety - police	-	-	288	288
Public safety - sheriff	-	-	6,839	6,839
Public works	-	-	169,875	169,875
Human services	-	75,582	-	75,582
Health	-	-	2,044	2,044
Parks & recreation	-	-	35,709	35,709
Cultural activities	-	-	110,388	110,388
Community development	-	-	36,312	36,312
Economic opportunity	-	-	810	810
Assets held for resale	-	-	730	730
Loans receivable	-	-	52,607	52,607
Long-term debt	19,909	-	125,040	144,949
Emergency use	51,386	-	40	51,426
Total Restricted	71,295	75,582	667,605	814,482
Committed:				
General government	22,613	-	-	22,613
Public safety - admin	985	-	-	985
Public safety - fire	585	-	-	585
Public safety - police	2,197	-	-	2,197
Public safety - sheriff	4,393	-	-	4,393
Public works	11,155	-	-	11,155
Human Services	2,073	-	-	2,073
Health	4,267	-	-	4,267
Parks & recreation	2,474	-	3,756	6,230
Cultural Activities	1,280	-	16,868	18,148
Community development	3,533	-	-	3,533
Economic opportunity	106	-	-	106
Total Committed	55,661	-	20,624	76,285
Assigned:				
General government	-	-	-	-
Public safety - admin	-	-	-	-
Public works	-	-	1,062	1,062
Parks & recreation	-	-	-	-
Cultural activities	-	-	-	-
Total Assigned	-	-	1,062	1,062
Unassigned	264,124	-	-	264,124
Total Fund Balances	\$ 394,059	\$ 75,582	\$ 709,770	\$ 1,179,411

- **Nonspendable Fund Balances** – Nonspendable fund balances are amounts that cannot be spent because they are either not in a spendable form or are legally or contractually required to be maintained intact.

The City has two types of nonspendable fund balances: Prepaid items and an endowment. The prepaid items, which total \$20,458,000 are in a nonspendable form and the endowment totaling \$3,000,000 is in a permanent fund whose earnings are used for the maintenance of the residence known as Cableland.

- **Restricted Fund Balances** – Restricted fund balances represent amounts constrained by external parties, enabling legislation and/or constitutional provisions.
- **Committed Fund Balances** – Committed funds can only be used for specific purposes pursuant to constraints imposed by City Council, the highest level of decision-making authority in the City. City Council’s formal action to establish committed funds, and to rescind committed funds, is through passage of ordinance.
- **Assigned Fund Balances** – Assigned fund balances are constrained for specific purposes by City Council as authorized by the City’s charter.
- **Unassigned Fund Balance** – Unassigned fund balance is the residual classification for the General Fund. A negative unassigned fund balance occurs when expenditures exceed amounts that are nonspendable, restricted, committed, or assigned.

IV. Other Note Disclosures

Note A – Risk Management

The City is exposed to various risks of losses related to torts; theft of, damage to, and destruction of assets; errors and omissions; and natural disasters. In addition, the City is party to numerous pending or threatened lawsuits under which it may be required to pay certain amounts upon final disposition of these matters. The City has historically retained these risks, except where it has determined that commercial insurance is more cost beneficial or legally required. The City has covered all claim settlements and judgments out of its General Fund resources, except where specifically identifiable to an enterprise fund. The City currently reports substantially all of its risk management activities, except workers’ compensation (see **Note IV-C**), in its General Fund. Claims expenditures and liabilities are reported when it is probable that a loss has occurred and the amount of that loss can be reasonably estimated. Current liabilities are reported when the liability has matured. These losses include an estimate of claims that have been incurred but not reported.

The Lowry Landfill, which accepted hazardous waste from the late 1960s to 1980, is listed on the national Superfund list. This means that the contamination at the site will be mitigated under the auspices of the U.S. Environmental Protection Agency. Under federal law, the City, as owner and operator of the facility is one of the parties responsible for cleanup of the site. The City’s share of the remaining costs for cleanup could be incurred over the next 5 to 30 years. The City’s liability for a portion of the cleanup costs is probable, but cannot be reasonably estimated.

With respect to matters expecting to be settled subsequent to 2017, the City Attorney estimates the amount of liability determined as probable and incurred but not reported claims and judgments at December 31, 2017, to be approximately \$9,565,000. The City Attorney also estimates that pending cases having a reasonably possible likelihood of resulting in an additional liability aggregating approximately \$115,000 at December 31, 2017.

Changes in the long-term legal liability during the past two years are shown in **Table 44** (dollars in thousands).

Table 44

	2017	2016
Beginning balance - January 1	\$ 3,850	\$ 5,215
Current year claims and changes in estimates	16,898	530
Claims settled	(11,183)	(1,895)
Ending balance - December 31	\$ 9,565	\$ 3,850

Pursuant to Colorado law, if a monetary judgment is rendered against the City, and the City fails to provide for the payment of such judgment, the Board of County Commissioners must levy a tax (not to exceed 10 mills per annum) upon all of the taxable property within the City for the purpose of making provision for the payment of the judgment. The City must continue to levy such tax until the judgment is discharged. Such mill levy is in addition to all other mill levies for other purposes. The Colorado Governmental Immunity Act establishes limits for claims made against governmental entities. These limits are \$350,000 per injury or \$990,000 per occurrence. See **Note IV-D-5** regarding Denver Airport System related litigation.

Note B – Pollution Remediation

The City had four underground storage tanks that leaked, and were under remediation. Funds spent on remediation were partially reimbursed up to 50.00% of the cost by the Colorado Petroleum Storage Tank Trust. As of December 31, 2017, the underground storage tanks were fully remediated and no additional costs are anticipated to incur.

The Environmental Protection Agency has listed a large area in north Denver on the National Priorities List of Superfund Sites because of lead, arsenic and cadmium contamination found in soils in residential neighborhoods. EPA has divided the Site into three operable units. Operable Unit 1 (OU1) consists of the contaminated residential soils in north Denver. Operable Unit 2 (OU2) is the Grant-Omaha Smelter Site. Operable Unit 3 (OU3) is the Argo Smelter Site.

ASARCO, Inc. finished the remediation of Operable Unit 1 in 2006 and has not claimed that the City is responsible for any of those costs; therefore, management believes the possibility that the City has any liability associated with OU1 is remote.

The EPA has named the City a Potentially Responsible Party (PRP) at OU2 as the current owner of part of the site where the former Grant-Omaha Smelter was located. Denver has entered into an Administrative Order on Consent to perform a remedial investigation and feasibility study and has paid \$18,000 dollars of EPA's past costs. Whether this site is contaminated or whether it will require remediation cannot be determined until completion of the remedial investigation and feasibility study. The City's responsibility for some of the investigation and clean up costs is probable; however, at this early stage in the process it is not possible to estimate the costs associated with this site, therefore no liability has been accrued. ASARCO, Inc. is another significant PRP at the site. ASARCO, Inc. filed bankruptcy and the City filed a contingent claim for environmental remediation costs and reached a settlement with ASARCO for \$640,000, for which payment has been received.

The City has no connection to OU3 and EPA has not asserted that the City has any responsibility for investigation or clean up, therefore management believes the possibility is remote that the City has any liability associated with OU3.

Note C – Workers' Compensation

The City has a Workers' Compensation self-insurance trust established in accordance with State Statutes to be held for the benefit of the City's employees. This trust is included in the Workers' Compensation internal service fund.

The Workers' Compensation internal service fund compensates City employees, or their eligible dependents, for injuries as authorized by the State Workers' Compensation law, in addition to maintaining in-house records of claims. The Workers' Compensation program is part of the City's Risk Management Office, which also provides safety training and loss prevention for all City departments and agencies.

The Department of Labor and Employment of the State of Colorado establishes the amount of funding required each year for the City to maintain its self-insured permit. The requirement is calculated using the average amount of claims paid over the previous three years plus the outstanding liability for claims as of the end of the previous year. This requirement at December 31, 2017, for 2018, was \$17,182,000. The Workers' Compensation internal service fund has current assets and appropriations set aside in 2017 to satisfy this requirement. These funds may only be used for payment of workers' compensation benefits and administrative costs.

The City has purchased reinsurance coverage in order to reduce its risk. For the period from January 1, 2017 through December 31, 2017, the self-retention amount was \$2,500,000 for all employees. The City had no settlements in the past three years that exceeded its self-retention levels.

Liabilities are reported when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated, and includes an amount for claims that have been incurred but not reported. Claim liabilities are calculated considering the effects of inflation, recent claim settlement trends, and other economic and social factors. The liability is reported in the Workers' Compensation internal service fund and was discounted for investment income. Changes in the liability during the past two years are shown in **Table 45** (dollars in thousands).

Table 45

	2017	2016
Beginning balance, undiscounted - January 1	\$ 27,813	\$ 29,449
Current year claims and changes in estimates	13,457	12,965
Claims paid	(9,105)	(8,309)
Ending balance undiscounted	32,165	34,105
Less discount	(5,883)	(6,292)
Ending balance - December 31	\$ 26,282	\$ 27,813

Note D – Contingencies

- 1. Legal Debt Margin.** Per the City Charter, the City's indebtedness for general obligation bonds shall not exceed 3.00% of actual value as determined by the last final assessment of the taxable property within the City. At December 31, 2017, the City's general obligation debt outstanding was \$661,776,000 and the City's legal debt margin was \$3,526,264, or 2.6% of actual value of taxable property.
- 2. Prior Years' Defeased Bonds.** At various dates in prior years, the City and certain component units have placed proceeds from bond issues and cash contributions in irrevocable refunding escrow accounts. The amounts deposited in the irrevocable escrow accounts are invested in U.S. Treasury obligations that, together with interest earned thereon, would provide amounts sufficient for payment of all principal and interest of the bond issues on each remaining payment date. The likelihood of the earnings and principal maturities of the U.S. Treasury obligations not being sufficient to pay the defeased bond issues appears remote. Accordingly, the escrow accounts and outstanding defeased bonds are not included in the accompanying financial statements. Defeased bonds principal outstanding at December 31, 2017, for the City, Denver International Airport, and the 14th Street GID was \$177,085,000, \$430,600,000, and \$3,430,000, respectively.
- 3. Grants and Other.** Under the terms of federal and state grants, periodic audits are required and certain costs may be questioned as not being appropriate expenditures under the terms of the grants. Such audits could lead to reimbursement to the grantor agencies. City management believes disallowances, if any, will be immaterial to its financial position and activities.

The City is responsible for administering certain federal and state social services programs for which the related revenue and expenditures are not included in the accompanying financial statements since the state now makes the grant disbursements.

Table 46 (dollars in thousands) lists Denver County electronic benefit transfers (EBT) authorizations, warrant expenditures, and total expenditures associated with the Human Services special revenue fund for the year ended December 31, 2017.

Table 46

Program	City EBT Authorizations	City Share of Authorizations	Expenditures by City Warrant	City Share of Authorizations Plus Expenditures by City Warrant	Total Expenditures
Adult Protective Services	\$ -	\$ -	\$ 2,853	\$ 2,853	\$ 2,853
Aid to Needy & Disabled	3,362	672	-	672	3,362
Child Care	16,495	1,688	1,424	3,112	17,919
Child Support Enforcement ¹	(7)	(3)	14,232	14,230	14,225
Child Support IV-D Waiver	-	-	82	82	82
Child Welfare	23,753	4,909	37,698	42,607	61,451
Child Welfare 100 FTE	-	-	1,848	1,848	1,848
Child Welfare DDS Transition	-	-	10	10	10
Child Welfare Grants - IV-E Waiver	-	-	2,230	2,230	2,230
Child Welfare Pathway to Success	-	-	71	71	71
Colorado Works	18,186	3,621	9,066	12,687	27,252
Core Services	4,994	794	2,205	2,999	7,199
County Administration	-	-	22,558	22,558	22,558
County Initiative TANF	65	65	-	65	65
County Only Pass Thru	-	-	7,869	7,869	7,869
Federal Grants	-	-	6,249	6,249	6,249
Food Assistance Benefits	120,660	-	-	-	120,660
Food Assistance Job Search	-	-	1,435	1,435	1,435
Foster Care Adoption Recruitment	-	-	5	5	5
Home Care Allowance	836	42	-	42	836
Low Income Energy Assistance	3,781	-	251	251	4,032
Non-allocated Programs ²	130	127	343	470	473
Old Age Pension	18,490	-	758	758	19,248
PSSF Caseworker Visitation	-	-	4	4	4
SSI - Home Care Allowance	930	47	-	47	930
TANF Collections-EBT	(438)	(88)	-	(88)	(438)
Title IV-B Sub Part 2 - PSSF	-	-	343	343	343
Title IV-E Independent Living	-	-	183	183	183
Total	\$ 211,237	\$ 11,874	\$ 111,717	\$ 123,592	\$ 322,954

¹The State pays Direct Settled items for EBT administration, IRS fees and Locator fees and then charges the counties for those costs. These are not true EBT payments, but are amounts settled via CFMS.

²Does not include audit adjustments, TANF Collections - IV-D Retained, Medicaid Collections and programs not settled in CFMS, with the exception of federal grants, which are also captured in the CAFR. It also excludes County Wide Cost Allocation Pass Thru, as these amounts are not earned by expenses incurred by Human Services.

- 4. Conduit Debt Obligations.** From time to time, the City issues industrial development revenue bonds, single-family mortgage revenue bonds, multi-family mortgage revenue bonds, construction loan revenue bonds, and special obligation revenue bonds to provide financial assistance to private-sector entities for the acquisition and construction of private, industrial, and commercial facilities deemed to be in the public

interest. The bonds are secured by the property financed and are payable solely from payments received on the underlying mortgage loans. Upon repayment of the bonds, ownership of the acquired facilities transfers to the private-sector entity served by the bond issuance. Not the City, the State, nor any political subdivision thereof is obligated in any manner for repayment of the bonds. Accordingly, the bonds are not reported as liabilities in the accompanying financial statements. As of December 31, 2017, the aggregate principal amount payable for the bonds, excluding the Airport's Special Facility Revenue bonds, was approximately \$31,503,000.

To finance the acquisition and construction of various facilities at Denver International Airport, the City issued three series of Special Facility Revenue Bonds. These bonds are special limited obligations of the City, payable and secured by a pledge of certain revenues to be received from lease agreements for these facilities. The bonds do not constitute a debt or pledge of the full faith and credit of the City or the Airport System, and accordingly, have not been reported in the accompanying financial statements. As of December 31, 2017, Airport Special Facility Revenue Bonds outstanding totaled \$250,575,000.

5. **Denver Airport System.** The City and Adams County entered into an intergovernmental agreement for Denver International, dated April 21, 1988 (the Intergovernmental Agreement). The Intergovernmental Agreement establishes maximum levels of noise that should not be exceeded on an average annual basis at various grid points surrounding the Airport. Penalties must be paid to Adams County when these maximums are exceeded.

There is no noise penalty due for 2017.

The Airport System is involved in several other claims and lawsuits and is the subject of certain other investigations. The Airport System and its legal counsel estimate that the ultimate resolution of these matters will not materially affect the accompanying financial statements of the Airport System.

Under the terms of the Federal grants, periodic audits are required and certain costs may be questioned as not being appropriate expenditures under the terms of the grants. Such audits could lead to reimbursement to the grantor agencies. The Airport System management believes disallowances, if any will be immaterial to its financial position and activities of the Airport.

6. **Environmental Services.** State and federal laws will require the City to close the Denver Arapahoe Disposal Site (DADS) once its capacity is reached and to monitor and maintain the site for 30 subsequent years. The contracted operator is responsible for all closure and post-closure costs for the landfill's individual cells while they are under contract to operate the landfill. However, the ultimate responsibility rests with the City as owner of the facility. The City contractually shifted this financial responsibility to its operator as described below.

Effective October 1, 1997, the City renegotiated its contract with Waste Management of Colorado, Inc. (WMC), the current operator of DADS. As a result, the City assigned its responsibility for all closure and post-closure costs to WMC. To cover these costs, WMC has provided a performance bond of \$3,000,000, provided a corporate guarantee from their parent company, Waste Management, Inc (WMI), and posted a financial assurance plan with the State of Colorado (including an insurance certificate of \$25,663,000 as of April 2017). Due to this assignment of closure and post-closure costs to WMC, the City no longer recognizes the related closure and post-closure costs liability in its financial statements.

7. **Denver Urban Renewal Authority.** In connection with DURA's development of the Denver Dry Building, DURA has guaranteed certain loans made to the Denver Building Housing, Ltd. by the Bank of Denver with an outstanding balance of \$2,429,000 at December 31, 2017. In addition, DURA has guaranteed all obligations of the Denver Dry Development Corporation as general partner, under the terms and conditions of the limited

partnership agreement of the Denver Building Housing, Ltd. No amounts have been recorded as a liability in the financial statements, as DURA management believes the possibility of having to make payments under these guarantees is remote.

8. **TABOR.** At the general election held November 3, 1992, the voters of the State approved an amendment to the Colorado Constitution limiting the ability of the State and local governments, such as the City, to increase revenues, debt and spending, and restricting property, income and other taxes. In addition, the amendment requires that the State and local governments obtain voter approval to create any “multiple fiscal year direct or indirect debt or other financial obligation whatsoever without adequate present cash reserves pledged irrevocably and held for payments in all future fiscal years. The amendment excludes from its restrictions the borrowings and fiscal operations of “enterprises. Enterprises are defined to include government-owned businesses authorized to issue their own revenue bonds and receiving less than 10.00% of their revenues in grants from all Colorado State and local governments combined. The amendment also requires the establishment of an “Emergency Reserve” equal to 3.00% of fiscal year spending excluding debt service for all years subsequent to 1994. The City has established an emergency reserve of \$51,386,000. The amendment is also applicable to several component units, which have established emergency reserves of \$40,000.

In November 2005, local voters approved Referred Measure 1B to allow the City to retain revenues collected, with the exception of property tax revenue, in excess of the limits established by the state amendment to the constitution for 10 fiscal years beginning with fiscal year 2005 and thereafter retain and spend any excess revenues up to the amount of the revenue cap as defined. For 2017, TABOR revenues exceeded the established limits by \$358,303,000.

In November 2012, Denver voters approved Referred Measure 2A to allow the City to retain all revenues collected beginning in 2013.

There are numerous uncertainties about the interpretation of the amendment and its application to particular governmental entities and their operations. It is possible that the constitutionality of the amendment as applied in some situations may be challenged on various grounds, including the argument that the amendment conflicts with other constitutional provisions and violates the protections afforded by the federal constitution against impairment of contract.

9. **National Western Center.** The National Western Center redevelopment requires the acquisition of 10 residential parcels and 28 commercial parcels. The City negotiates a purchase price with property owners and reimburses property owners for the reasonable cost of obtaining their own appraisal. As of December 31, 2017, there were pending legal cases with eight property owners that disputed the appraised amounts.

Note E – Deferred Compensation Plan

1. **Description of the Plan** The Deferred Compensation Plan (Plan) was adopted by the City to provide a means by which public employees could defer a portion of their current income and related income taxes to future years. Under Section 457 of the Internal Revenue Code, amounts deferred and income earned on those funds are not taxed until made available to the participant. The Plan’s publicly available financial report can be obtained by contacting the City of Denver Controller’s Office at 201 West Colfax Avenue, Department 1109, Denver, Colorado, 80202.
2. **Administration of the Plan** The Deferred Compensation Governing Committee of the City manages the Plan. The Committee has designated a third-party administrator for the Plan to account for all deferred compensation, withdrawals, interest income credited, and the individual balance for each participant. In addition, the administrators execute individual participant agreements and provide Plan information and counseling to all eligible employees.

3. **Investments.** Investments are recorded at fair value. In compliance with the City Charter, the Deferred Compensation Governing Committee has approved certain options for investment. All investments are transferred to a retirement trust investment fund offered by the Teachers Insurance and Annuity Association of America-College Retirement Equities Fund (TIAA-CREF). The Plan provides for self-directed investments by the participants.
4. **Contributions.** Participation in the Plan is voluntary and is open to all City employees. The City does not make any contributions. The maximum deferral in any one year is generally limited to 100.00% of a participant's pre-deferred taxable income or \$18,000 for 2017. Those who are age 50 and older may save an additional \$6,000 per year. However, special provisions, applicable during the last three taxable years before a participant attains normal retirement age under the Plan, or any year thereafter prior to the participants' separation from service, may increase the annual maximum up to \$36,000 for 2017. Total contributions by employees were \$35,374,000 for 2017.
5. **Withdrawals.** Withdrawals from the Plan may be made upon retirement, termination of employment with the City, or in hardship cases as approved by the Administrator. Upon death, amounts credited to the participant are paid to the beneficiary designated by the participant.

Eligible participants may elect the Systematic Withdrawal Option, purchase an annuity, or receive a lump-sum distribution. The Systemic Withdrawal Option allows eligible participants to withdraw specified amounts from their account at regular intervals. The balance of their account remains in the pool of Plan assets and continues to be invested as directed by the participant. The annuity option allows eligible participants to purchase a payment stream for a period certain or for the lifetime of the annuitant. Contracts purchased under this annuity option remain as assets of the Plan. The periodic distributions are accounted for as withdrawals in the year disbursed.

6. **Assets.** All amounts of compensation deferred under the Plan, all property and rights purchased with those amounts, and all income attributable to those amounts, property, or rights are held in trust by the City for the exclusive benefit of the participants and their beneficiaries. The assets of the Plan are reported as an other employee benefit trust fund of the City.
7. **Plan Termination and Amendments.** The City can at any time elect to amend, modify, or terminate the Plan. However, notice must be given to all participants at least 45 days prior to the effective date of an amendment. No amendments will deprive the participants of any benefits they were entitled to prior to the change. If the Plan is terminated, all amounts then credited to the participants are to be paid out by the administrators under the normal withdrawal requirements and procedures.
8. **Component Units.** Several component units offer plans similar to the City's which are also qualified under Section 457 of the Internal Revenue Code.

Note F – Pension Plans

The City has six pension plans covering substantially all employees of the primary government, as follows:

- Denver Employees Retirement Plan (DERP)
- Fire and Police Pension Plan - Statewide Defined Benefit Plan (FPPA SWDB)
- Public Employees' Retirement Association of Colorado Pension Plan - State Division Trust Fund (PERA SDTF)
- Public Employees' Retirement Association of Colorado Pension Plan - Judicial Division Trust Fund (PERA JDTF)

- Denver Old Hire Fire Pension Fund (FPPA Old Hire Fire)
- Denver Old Hire Police Pension Fund (FPPA Old Hire Police)

The majority of the City's employees are covered under the Denver Employees Retirement Plan. Full time firemen and policemen are covered under the Fire and Police Pension Association plans, and county court judges and the District Attorney are covered under the Public Employees' Retirement Association of Colorado. In addition to the six plans offered, several component units offer various types of pension plans, which include deferred annuity plans and defined contribution plans.

A summary of pension related items as of and for the year ended December 31, 2017, is presented in **Table 47** (dollars in thousands).

Table 47

Plan	Net Pension Liability	Deferred Outflows of Resources	Deferred Inflows of Resources	Pension Expense
DERP:				
Governmental Activities	\$ 895,242	\$ 205,729	\$ -	\$ 133,329
Business-type Activities	200,326	47,062	5,636	29,633
FPPA SWDB	13,797	77,321	1,108	21,556
PERA SDTF	1,358	463	-	278
PERA JDTF	14,835	5,500	473	2,192
Old hire Fire	174,539	33,792	-	18,196
Old hire Police	112,125	40,361	-	18,310
Total	\$ 1,412,222	\$ 410,228	\$ 7,217	\$ 223,494

1. Cost Sharing Multiple-Employer Defined Benefit Pension Plans.

The Denver Employees Retirement Plan (DERP)

Plan Description. The Denver Employees Retirement Plan (DERP) administers a cost sharing multiple-employer defined benefit plan to eligible members. The DERP is administered by the DERP Retirement Board in accordance with sections 18-401 through 18-430.7 of the City's Revised Municipal Code. Amendments to the plan are made by ordinance. These Code sections establish the plan, provide complete information on the DERP, and vests the authority for the benefit and contribution provisions with the City Council. The DERP Retirement Board acts as the trustee of the Plan's assets.

The Plan provides retirement, death and disability benefits for its members and their beneficiaries. Members who were hired before July 1, 2011, and retire at or after age 65 (or at age 55 if the sum of their age and credited service is at least 75) are entitled to an annual retirement benefit, in an amount equal to 2.00% of their final average salary for each year of credited service, payable monthly for life. Effective for employees hired after September 1, 2004, the formula multiplier was reduced to 1.50%. Final average salary is based on the member's highest salary during a 36 consecutive month period of credited service. Members with 5 years of credited service may retire at or after age 55 and receive a reduced retirement benefit.

For members who were hired after July 1, 2011, they must be age 60 and have combined credited service of at least 85 in order to receive a normal retirement prior to age 65. Final average salary is based on the member's highest salary during a 60 consecutive month period of credited service. Five-year vesting is required of all employees in order to qualify for a benefit, regardless of their age at the time of termination of employment.

Annual cost of living adjustments are granted on an ad hoc basis. The estimated cost of benefit and contribution provisions is determined annually by an independent actuary, recommended by the plan's Board, and enacted into ordinance by Denver City Council.

The Plan is accounted for using the economic resources measurement focus and the accrual basis of accounting. DERP issues a publicly available comprehensive annual financial report that can be obtained at <https://www.derp.org/>.

Funding Policy. The City contributes 11.50% of covered payroll and employees make a pre-tax contribution of 8.00% in accordance with Section 18-407 of the Revised Municipal Code of the City. The City's contributions to DERP for the year ended December 31, 2017, were \$64,404,000, which equaled the required contributions.

Pension Liabilities, Pension Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to Pensions At December 31, 2017, the City reported a liability of \$1,095,568,000 for its proportionate share of the net pension liability related to DERP. The net pension liability was measured as of December 31, 2016, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2015. Standard update procedures were used to roll forward the total pension liability to December 31, 2016. The City's proportion of the net pension liability was based on City contributions to DERP for the calendar year 2016 relative to the total contributions of participating employers to DERP.

At December 31, 2016, the City's proportion was 89.84%, which was an increase of 0.33% from its proportion measured as of December 31, 2015.

The components of the City's proportionate share of the net pension liability related to DERP as of December 31, 2017, are presented in **Table 48** (dollars in thousands).

Table 48

	Governmental Activities	Business-type Activities	Total
Total pension liability	\$ 2,372,129	\$ 530,806	\$ 2,902,935
Plan fiduciary net position	1,476,887	330,480	1,807,367
Net pension liability	\$ 895,242	\$ 200,326	\$ 1,095,568

For the year ended December 31, 2017, the governmental activities and the business-type activities recognized pension expense of \$133,329,000 and \$29,633,000, respectively. A summary of the City's deferred outflows of resources and deferred inflows of resources related to pensions for DERP as of December 31, 2017, is presented in **Table 49** (dollars in thousands).

Table 49

	Governmental Activities		Business-type Activities		Total	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	\$ 18,404	\$ -	\$ 4,118	\$ -	\$ 22,522	\$ -
Changes of assumptions or other inputs	23,672	-	5,297	-	28,969	-
Net difference between projected and actual earnings on pension plan investments	100,998	-	22,600	-	123,598	-
Changes in proportion	10,575	-	2,723	5,636	13,298	5,636
Contributions subsequent to the measurement date	52,080	-	12,324	-	64,404	-
Total	\$ 205,729	\$ -	\$ 47,062	\$ 5,636	\$ 252,791	\$ 5,636

The \$64,404,000 reported as deferred outflows of resources related to pensions, resulting from contributions subsequent to the measurement date, will be recognized as a reduction of the net pension liability in the year ended December 31, 2018. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as presented in **Table 50** (dollars in thousands).

Table 50

Year	Governmental Activities	Business-type Activities	Total
2018	\$ 65,381	\$ 13,606	\$ 78,987
2019	56,133	10,019	66,152
2020	32,214	5,495	37,709
2021	(79)	(18)	(97)
Thereafter	-	-	-
Total	\$ 153,649	\$ 29,102	\$ 182,751

The total pension liability in the December 31, 2016 actuarial valuation was determined using the actuarial assumptions and other inputs presented in **Table 51**.

Table 51

	DERP
Investment rate of return	7.75%
Salary increases	3.25% - 7.25%
Inflation	2.75%

Mortality rates were based on the RP-2000 Combined Mortality Table via scale AA to 2020, with multipliers specific to gender and payment status of employee.

The latest experience study was conducted in 2013 covering the 5-year period of January 1, 2008 to December 31, 2012. At the time, the recommended mortality table was expected to produce a margin of 8.00% on the retired male mortality experience and 7.00% on the retired female experience.

The long-term expected rate of return on pension plan investments was determined using a building block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return were adopted by the plan's trustees after considering input from the plan's investment consultant and actuary(s). For each major asset class that is included in the pension plan's target asset allocation as of December 31, 2016, these best estimates are summarized in **Table 52**.

Table 52

Asset Class	Target Allocation	Long-Term Expected Rate of Return
U. S. Equities	22.50%	5.70%
Non - U. S. developed markets	15.50%	6.70%
Emerging markets	8.00%	11.60%
Total Public Equity	46.00%	
Core fixed income	11.50%	1.00%
Debt	2.50%	5.50%
Private debt	6.50%	7.50%
Total Fixed Income	20.50%	
Real estate	8.00%	6.00%
Absolute return	5.00%	3.10%
Energy MLP's	7.00%	9.00%
Private equity/other	13.50%	8.90%
Cash	0.00%	0.30%
Total Asset Class	100.00%	

Discount Rate. The discount rate used to measure the total pension liability was 7.75%. This single discount rate was based on the expected rate of return on pension plan investments of 7.75%. The projection of cash flows used to determine this single rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the City's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate.

Table 53 presents the City's proportionate share of the net pension liability, calculated using a discount rate of 7.75%, as well as what the City's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher (dollars in thousands):

Table 53

	1% Decrease 6.75%	Current Discount Rate 7.75%	1% Increase 8.75%
City's proportionate share of the net pension liability			
Governmental Activities	\$ 1,141,878	\$ 895,242	\$ 685,640
Business-type activities	255,515	200,326	153,424
Total	\$ 1,397,393	\$ 1,095,568	\$ 839,064

Pension Plan Fiduciary Net Position. Detailed information about the pension plan's fiduciary net position is available in the separately issued DERP financial reports found at <https://www.derp.org/index.cfm/ID/38>.

Fire and Police Pension Plan – Statewide Defined Benefit Plan (FPPA SWDB)

Plan Description. Full-time firefighters and police officers hired on or after April 8, 1978, participate in the Statewide Defined Benefit Plan - Fire and Police Pension Plan (FPPA SWDB). The plan is a cost-sharing multiple-employer defined benefit pension plan administered by the Fire and Police Pension Association of Colorado (FPPA) that provides normal, early, vested, or deferred retirement and death benefits. Authority for the plan, including benefit and contribution provisions, is derived from Title 31, Articles 30, 30.5, and 31 of the Colorado Revised Statutes. The plan is amended by statute and is accounted for using the economic resources measurement focus and the accrual basis of accounting. FPPA issues a publicly available comprehensive annual financial report that can be obtained at http://fppaco.org/toc_frames.html.

Funding Policy. Statute requires the City contribute 8.00% of base salary and employees make a pre-tax contribution of 9.00% for a total contribution rate of 17.00%. In 2014, employees elected to increase the member contribution rate to the plan beginning in 2015. Employee contribution rates will increase 0.50% annually through 2022 to a total of 12.00% of base salary. Employer contributions will remain at 8.00% resulting in a combined contribution rate of 20.00% in 2022. The City's contributions to the FPPA SWDB for the year ended December 31, 2017, were \$15,934,000.

Pension Assets, Pension Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to Pensions. At December 31, 2017, the City reported a liability of \$13,797,000 for its proportionate share of the net pension liability related to the FPPA SWDB plan. The net pension liability was measured as of December 31, 2016, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2015. Standard update procedures were used to roll forward the total pension asset to December 31, 2016. The City's proportion of the net pension liability was based on City contributions to FPPA SWDB plan for the calendar year 2016 relative to the total contributions of participating employers to the FPPA SWDB plan.

At December 31, 2016, the City's proportion was 38.18%, which was a decrease of 1.63% from its proportion measured as of December 31, 2015.

For the year ended December 31, 2017, the City recognized pension expense of \$21,556,000. The components of the City's proportionate share of the net pension liability related to FPPA SWDB as of December 31, 2017, are presented in **Table 54** (dollars in thousands).

Table 54

	FPPA SWDB	
Total pension liability	\$	771,905
Plan fiduciary net position		758,108
Net pension liability (asset)	\$	13,797

A summary of the City's deferred outflows of resources and deferred inflows of resources related to pensions for FPPA SWDB as of December 31, 2017, is presented in **Table 55** (dollars in thousands).

Table 55

Sources	FPPA SWDB	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	\$ 12,319	\$ 702
Changes of assumptions or other inputs	9,425	-
Net difference between projected and actual earnings on pension plan investments	37,242	-
Change in proportion	2,600	406
Contributions subsequent to the measurement date	15,934	-
Total	\$ 77,520	\$ 1,108

The \$15,934,000 reported as deferred outflows of resources related to pensions, resulting from contributions subsequent to the measurement date, will be recognized as an increase in the net pension asset in the year ended December 31, 2017. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as presented in **Table 56** (dollars in thousands).

Table 56

Year	FPPA SWDB
2018	\$ 14,476
2019	14,476
2020	13,627
2021	5,699
2022	2,759
Thereafter	9,441
Total	\$ 60,478

The total pension liability in the December 31, 2016 actuarial valuation was determined using the actuarial assumptions and other inputs presented in **Table 57**.

Table 57

	FPPA SWDB
Investment rate of return	7.50%
Salary increases	4.00% - 14.00%
Inflation	2.50%

Effective January 1, 2016, the post-retirement mortality tables for non-disabled retirees is a blend of the Annuitant and Employee RP-2014 generational mortality tables with blue-collar adjustment projected with Scale BB. The occupationally disabled post-retirement mortality assumption uses the same table as used for healthy annuitants, except there is a three-year set-forward, meaning a disabled member age 70 will be valued as if they were a 73-year-old healthy retiree. The totally disabled post-retirement mortality assumption uses the RP-2014 generational mortality tables for disabled annuitants, except an additional provision to apply a minimum 3% mortality probability to males and 2% mortality probability for females is

included to reflect substantial impairment for this population. The pre-retirement off-duty mortality tables are adjusted to 55% of the RP-2014 mortality tables for active employees. The on-duty mortality rate is 0.00020%.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the Fund's target asset allocation as of December 31, 2016, are summarized in **Table 58**.

Table 58

Asset Class	Target Allocation	Long-Term Expected Rate of Return
Global equity	36.00%	9.25%
Equity long/short	10.00%	7.35%
Illiquid alternatives	23.00%	10.75%
Fixed income	15.00%	4.10%
Absolute return	10.00%	6.55%
Managed futures	4.00%	5.50%
Cash	2.00%	0.00%
Total Asset Class	100.00%	

Discount Rate. The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers will be made based on the actuarially determined rates based on the Board's funding policy, which establishes the contractually required rates under Colorado statutes. Based on those assumptions, the SWDB plan fiduciary net position was projected to be available to make all the projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the City's Proportionate Share of the Net Pension Liability (Asset) to Changes in the Discount Rate. **Table 59** presents the City's proportionate share of the net pension asset, calculated using a discount rate of 7.50%, as well as what the City's proportionate share of plan's net pension asset would be if it were calculated using a discount rate that is 1.00% lower or 1.00% higher (dollars in thousands):

Table 59

	1% Decrease	Single Discount Rate Assumption	1% Increase
	6.50%	7.50%	8.50%
City's proportionate share of the net pension liability (asset)	\$ 117,394	\$ 13,797	\$ (72,245)

Pension Plan Fiduciary Net Position. Detailed information about the pension plan's fiduciary net position is available in the separately issued FPPA financial reports found at http://fppaco.org/toc_frames.html.

Public Employees' Retirement Association of Colorado Pension Plans (PERA)

Plan Description. County court judges and the District Attorney of the City are provided with pensions through the State Division Trust Fund (SDTF) or the Judicial Division Trust Fund (JDTF) —cost-sharing multiple-employer defined benefit pension plans administered by PERA. PERA provides retirement, disability, and survivor benefits that are specified in Title 24, Article 51 of the Colorado Revised Statutes (C.R.S), administrative rules set forth at 8 C.C.R. 1502-1, and applicable provisions of the federal Internal Revenue Code. Colorado State law provisions may be amended from time to time by the Colorado General Assembly. Plan benefits are specified in Title 24, Article 51 of the Colorado Revised Statutes (CRS), administrative rules set forth at 8 C.C.R. 1502-1, and applicable provisions of the federal Internal Revenue Code. Colorado State law provisions may be amended from time to time by the Colorado General Assembly. The plans are accounted for using the economic resources measurement focus and the accrual basis of accounting. PERA issues a publicly available comprehensive annual financial report that can be obtained at www.copera.org/investments/pera-financial-reports.

Funding Policy. Eligible employees are required to contribute 8.00% of their PERA-includable salary. The City contributes 19.13% of includable salaries to the SDTF and 16.34% of includable salaries to the JDTF. Employer contributions are recognized by the SDTF and the JDTF in the period in which the compensation becomes payable to the member and the City is statutorily committed to pay the contributions to the plans. The City's contributions to the SDTF for the year ended December 31, 2017, were \$46,000. The City's contributions to the JDTF for the years ended December 31, 2017, were \$468,000.

Pension Liabilities, Pension Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to Pensions. At December 31, 2017, the City reported a liability of \$1,358,000 and \$14,835,000 for the SDTF and JDTF, respectively, for its proportionate share of the net pension liability related to the PERA plans. The net pension liabilities were measured as of December 31, 2016, and the total pension liabilities used to calculate the net pension liabilities was determined by an actuarial valuation as of December 31, 2015. Standard update procedures were used to roll forward the total pension liabilities to December 31, 2016. The City's proportion of the net pension liabilities were based on City contributions to the SDTF and JDTF plan for the calendar year 2016 relative to the total contributions of participating employers to the SDTF and JDTF plans.

At December 31, 2016, the City's proportion of the SDTF was 0.007%, which equaled its proportion measured as of December 31, 2015.

At December 31, 2016, the City's proportion of the JDTF was 5.84% which was a decrease of 0.18% from its proportion measured as of December 31, 2015.

The components of the City's net pension liability related to PERA as of December 31, 2017, are presented in **Table 60** (dollars in thousands).

Table 60

		SDTF		JDTF
Total pension liability	\$	2,366	\$	31,693
Plan fiduciary net position		1,008		16,858
Net pension liability	\$	1,358	\$	14,835

For the year ended December 31, 2017, the City recognized pension expense for the SDTF and JDTF of \$278,000 and \$2,192,000, respectively. A summary of the City's deferred outflows of resources and deferred inflows of resources related to pensions for the SDTF and JDTF plans as of December 31, 2017, is presented in **Table 61** (dollars in thousands).

Table 61

	SDTF		JDTF		Total	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	\$ 13	\$ -	\$ 1,267	\$ -	\$ 1,280	\$ -
Changes of assumptions or other inputs	346	-	3,039	-	3,385	-
Net difference between projected and actual earnings on pension plan investments	45	-	726	-	771	-
Change in proportion	13	-	-	473	13	473
Contributions subsequent to the measurement date	46	-	468	-	514	-
Total	\$ 463	\$ -	\$ 5,500	\$ 473	\$ 5,963	\$ 473

The \$46,000 and \$468,000 reported by the SDTF and JDTF plans, respectively, as deferred outflows of resources related to pensions, resulting from contributions subsequent to the measurement date, will be recognized as a reduction of the net pension liability in the year ended December 31, 2017. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as presented in **Table 62** (dollars in thousands).

Table 62

Year	SDTF	JDTF
2018	\$ 224	\$ 1,587
2019	176	1,427
2020	17	1,064
2021	-	481
2022	-	-
Thereafter	-	-
Total	\$ 417	\$ 4,559

The total pension liability in the December 31, 2015 actuarial valuation was determined using the actuarial assumptions and other inputs in **Table 63**.

Table 63

	SDTF	JDTF
Price inflation	2.40%	2.80%
Salary increases, including wage inflation	3.50% - 9.17%	4.40% - 5.40%
Investment Rate of Return, net of pension plan investment expenses, including price inflation	7.25%	7.50%

Mortality rates were based on the RP-2000 Combined Mortality Table for Males or Females, as appropriate, with adjustments for mortality improvements based on a projection of Scale AA to 2020 with males set back 1 year, and females set back two years. Active member mortality was based upon the same mortality rates but adjusted to 55 percent of the base rate for males and 40 percent of the base rate for females. For disabled retirees, the RP-2000 Disabled Mortality Table (set back two years for males and two years for females) was assumed.

The actuarial assumptions used in the December 31, 2015 valuation were based on the results of an actuarial experience study for the period January 1, 2008 through December 31, 2011, adopted by PERA's Board on November 13, 2012, and an economic assumption study, adopted by PERA's Board on November 15, 2013 and January 17, 2014.

As a result of the 2016 experience analysis and the October 28, 2016 actuarial assumptions workshop, revised economic and demographic actuarial assumptions including withdrawal rates, retirement rates for early reduced and unreduced retirement, disability rates, administrative expense load, and pre- and post-retirement and disability mortality rates were adopted by PERA's Board on November 18, 2016 to more closely reflect PERA's actual experience. As the revised economic and demographic assumptions are effective as of the measurement date, December 31, 2016, these revised assumptions were reflected in the total pension liability roll-forward procedures.

Healthy mortality assumptions for active members reflect the RP-2014 White collar Employee Mortality Table, a table specifically developed for actively working people. To allow for an appropriate margin of improved mortality prospectively, the mortality rates incorporate a 70% factor applied to male rates and a 55% factor applied to female rates.

Healthy, post-retirement mortality assumptions reflect the RP-2014 Healthy Annuitant Mortality Table, adjusted as follows:

- **Males** Mortality improvement projected to 2018 using the MP-2015 projection scale, a 78% factor applied to rates for ages less than 80, a 108% factor applied to rates for ages 80 and above, and further adjustments for credibility.
- **Females** Mortality improvement projected to 2020 using the MP-2015 projection scale, a 78% factor applied to rates for ages less than 80, a 109% factor applied to rates for ages 80 and above, and further adjustments for credibility.

For disabled retirees, the mortality assumption was changed to reflect 90% of the RP-2014 Disabled Retiree Mortality Table. The mortality assumption was changed to reflect 90% of the RP-2014 Disabled Retiree Mortality Table.

The SDTF's and JDTF's long-term expected return on plan assets is reviewed as part of regular experience studies prepared every four or five years for PERA. As a result of the October 28, 2016 actuarial assumptions workshop and the November 18, 2016 PERA Board meeting, the economic assumptions changed, effective December 31, 2016, as follows:

Investment rate of return assumption decreased from 7.50% per year, compounded annually, net of investment expenses, to 7.25% per year, compounded annually, net of investment expenses.

Price inflation assumptions decreased from 2.80% per year to 2.40% per year.

Real rate of investment return assumption increased from 4.70% per year, net of investment expenses, to 4.85% per year, net of investment expenses.

Wage inflation assumption decreased from 3.90% per year to 3.50% per year.

Several factors were considered in evaluating the long-term rate of return assumption for the SDTF and JDTF, including long-term historical data, estimates inherent in current market data, and a log-normal distribution analysis in which best estimate ranges of expected future real rates of return (expected return,

net of investment expense and inflation) were developed by the investment consultant for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation.

As of the most recent analysis on the long-term expected rate of return presented to the PERA Board on November 18, 2016, the target allocation and best estimates of geometric real rates of return for each major asset class are summarized for both the JDTF and SDTF in **Table 64**.

Table 64

Asset Class	Target Allocation	30-Year Expected Geometric Real Rate of Return
U. S. equity - large cap	21.20%	4.30%
U.S. equity - small cap	7.42%	4.80%
Non U. S. equity - developed	18.55%	5.20%
Non U. S. equity - emerging	5.83%	5.40%
Core fixed income	19.32%	1.20%
High yield	1.38%	4.30%
Non-US fixed income - developed	1.84%	0.60%
Emerging market debt	0.46%	3.90%
Core real estate	8.50%	4.90%
Opportunity fund	6.00%	3.80%
Private cash equity	8.50%	6.60%
Cash	1.00%	0.20%
Total Asset Class	100.00%	

SDTF Discount Rate. The discount rate used to measure the total pension liability was 5.26%.

The projection of cash flows used to determine the discount rate applied the actuarial method and assumptions is shown above. In addition, the following methods and assumptions were used in the projection of cash flows:

- Updated economic and demographic actuarial assumptions adopted by PERA's Board on November 18, 2016.
- Total covered payroll for the initial projection year consists of the covered payroll of the active membership present on the valuation date and the covered payroll of future plan members assumed to be hired during the year. In subsequent projection years, total covered payroll was assumed to increase annually at a rate of 3.50%.
- Employee contributions were assumed to be made at the current member contribution rate. Employee contributions for future plan members were used to reduce the estimated amount of total service cost for future plan members not financed by their member contributions.
- Employer contributions were assumed to be made at rates equal to the fixed statutory rates specified in law and effective as of the measurement date, including current and estimated future AED and SAED, until the Actuarial Value Funding Ratio reaches 103%, at which point, the AED and SAED will each drop 0.50% every year until they are zero. Additionally, estimated employer contributions included reductions for the funding of the AIR and retiree health care benefits. For future plan members, employer contributions were further reduced by the estimated amount of total service costs for future plan members not financed by their member contributions.

- Employer contributions and the amount of total service cost for future plan members were based upon a process used by the plan to estimate future actuarially determined contributions assuming an analogous future plan member growth rate.
- The AIR balance was excluded from the initial fiduciary net position, as, per statute, AIR amounts cannot be used to pay benefits until transferred to either the retirement benefits reserve or the survivor benefits reserve, as appropriate. As the ad hoc post-retirement benefit increases financed by the AIR are defined to have a present value at the long-term expected rate of return on plan investments equal to the amount transferred for their future payment, AIR transfers to the fiduciary net position and the subsequent AIR benefit payment have no impact on the Single Equivalent Interest Rate (SEIR) determination process, AIR transfers to the fiduciary net position and the subsequent AIR benefit payments were estimated and included in the projections.
- Benefit payments and contributions were assumed to be made at the end of the month.

Based on the above assumptions and methods, the GASB Statement No. 67 projection test indicates the SDTF's fiduciary net position was projected to be depleted in 2039 and, as a result, the municipal bond index rate was used in the determination of the discount rate. The long-term expected rate of return of 7.25% on pension plan investments was applied to periods through 2039 and the municipal bond index rate, the December average of the Bond Buyer General Obligation 20-year Municipal Bond Index published weekly by the Board of Governors of the Federal Reserve System, was applied to periods on and after 2039 to develop the discount rate. For the measurement date, the municipal bond index rate was 3.86%, resulting in a discount rate of 5.26%.

As of the prior measurement date, the GASB Statement No. 67 projection test indicated that the SDTF's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on plan investments of 7.50% was applied to all periods of projected benefit payments to determine the total pension liability. The discount rate determination did not use a municipal bond index rate and the discount rate was 7.50%.

Sensitivity of the City's proportionate share of the net pension liability to changes in the discount rate. Table 65 presents the City's proportionate share of the net pension liability calculated using the discount rate of 5.26%, as well as what the City's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (4.26%) or one percentage point higher (6.26%) than the current rate (dollars in thousands).

Table 65

	1% Decrease	Current	1% Increase
	4.26%	5.26%	6.26%
City's proportionate share of the net pension liability	\$ 1,682	\$ 1,358	\$ 1,092

JDTF Discount Rate. The discount rate used to measure the total pension liability was 5.18%. The projection of cash flows used to determine the discount rate applied the actuarial method and assumptions is shown above. In addition, the following methods and assumptions were used in the projection of cash flows:

- Updated economic and demographic actuarial assumptions adopted by PERA's Board on November 18, 2016.
- Total covered payroll for the initial projection year consists of the covered payroll of the active membership present on the valuation date and the covered payroll of future plan members assumed to be hired during the year. In subsequent projection years, total covered payroll was assumed to increase annually at a rate of 3.50%.
- Employee contributions were assumed to be made at the current member contribution rate. Employee contributions for future plan members were used to reduce the estimated amount of total service cost for future plan members.
- Employer contributions were assumed to be made at rates equal to the fixed statutory rates specified in law and effective as of the measurement date, including current and estimated future AED and SAED, until the Actuarial Value Funding Ratio reaches 103%, at which point, the AED and SAED will each drop 0.50% every year until they are zero. Additionally, estimated employer contributions included reductions for the funding of the AIR and retiree health care benefits. For future plan members, employer contributions were further reduced by the estimated amount of total service costs for future plan members not financed by their member contributions.
- Employer contributions and the amount of total service cost for future plan members were based upon a process used by the plan to estimate future actuarially determined contributions assuming an analogous future plan member growth rate.
- The AIR balance was excluded from the initial fiduciary net position, as, per statute, AIR amounts cannot be used to pay benefits until transferred to either the retirement benefits reserve or the survivor benefits reserve, as appropriate. As the ad hoc post-retirement benefit increases financed by the AIR are defined to have a present value at the long-term expected rate of return on plan investments equal to the amount transferred for their future payment, AIR transfers to the fiduciary net position and the subsequent AIR benefit payment have no impact on the Single Equivalent Interest Rate (SEIR) determination process, AIR transfers to the fiduciary net position and the subsequent AIR benefit payments were estimated and included in the projections.
- Benefit payments and contributions were assumed to be made at the end of the month.

Based on the above assumptions and methods, the GASB Statement No. 67 projection test indicates the JDTF's fiduciary net position was projected to be depleted in 2036 and, as a result, the municipal bond index rate was used in the determination of the discount rate. The long-term expected rate of return of 7.25% on pension plan investments was applied to periods through 2036 and the municipal bond index rate, the December average of the Bond Buyer General Obligation 20-year Municipal Bond Index published weekly by the Board of Governors of the Federal Reserve System, was applied to periods on and after 2036 to develop the discount rate. For the measurement date, the municipal bond index rate was 3.86%, resulting in a discount rate of 5.18%.

As of the prior measurement date, the long-term expected rate of return on plan investments of 7.50% and the municipal bond index rate of 3.57% were used in the discount rate determination resulting in a discount rate of 5.73%.

Sensitivity of the City's proportionate share of the net pension liability to changes in the discount rate.

Table 66 presents the City's proportionate share of the net pension liability calculated using the discount rate of 5.18%, as well as what the City's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (4.18%) or one percentage point higher (6.18%) than the current rate (dollars in thousands).

Table 66

	1% Decrease 4.18%	Current Discount Rate 5.18%	1% Increase 6.18%
City's proportionate share of the net pension liability	\$ 18,683	\$ 14,835	\$ 11,566

Pension Plan Fiduciary Net Position. Detailed information about the pension plan's fiduciary net position is available in the separately issued PERA financial reports found at <https://www.copera.org/investments/pera-financial-reports>.

2. Agent Multiple-Employer Defined Benefit Plans**Denver Old Hire Fire and Police Pension Funds (FPPA Old Hire Fire and Police)**

Plan Description. The Old Hire plans are agent multiple-employer defined benefit pension plans that are administered by the Fire and Police Pension Association (FPPA). Authority for the plans, including benefit and contribution provisions, is derived from Title 31, Articles 30, 30.5, and 31 of the Colorado Revised Statutes. The Plans are amended by statute. The plans provide normal, early, vested, or deferred retirement benefits to plan participants. The Old Hire pension plans are for fire fighter and police employees hired before April 8, 1978. The plans are accounted for using the economic resources measurement focus and the accrual basis of accounting and are closed to new entrants. FPPA issues a publicly available comprehensive annual financial report that includes the old hire plans and can be obtained at fpaco.org/toc_frames.html.

Funding Policy. The City is required to contribute to the Old Hire plans at an actuarially determined rate. Modification of the Old Hire plans is regulated by state law and by FPPA Rules and Regulations as authorized by state law. Changes to contribution requirements require an affirmative vote of 65.00% of active members and City Council ordinance. The City's contributions to the FPPA Old Hire Fire and Police plans for the year ended December 31, 2017 were \$16,355,000 and \$7,988,000, respectively.

Plan Membership. The plan membership of the Old Hire plans as of December 31, 2016 is presented in **Table 67**.

Table 67

Members	Old Hire Fire	Old Hire Police	Total
Retirees and beneficiaries	\$ 801	\$ 1,052	\$ 1,853
Inactive, non-retired beneficiaries	-	-	-
Active members	1	-	1.00
Total	\$ 802	\$ 1,052	\$ 1,854

Pension Liabilities, Pension Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to Pensions.

At December 31, 2017, the City reported a liability of \$174,539,000 and \$112,125,000 for the Old Hire Fire and Old Hire Police plans, respectively, for the net pension liability related to the FPPA old hire plans. The net pension liabilities were measured as of December 31, 2016, and the total pension liabilities used to calculate the net pension liabilities was determined by an actuarial valuation as of December 31, 2015. Standard update procedures were used to roll forward the total pension liabilities to December 31, 2016.

The components of the net pension liability of the City as of December 31, 2017, is presented in **Table 68** (dollars in thousands).

Table 68

	Old Hire Fire	Old Hire Police
Total pension liability	\$ 490,578	\$ 696,160
Fiduciary net position	316,039	584,035
Net Pension Liability	\$ 174,539	\$ 112,125

For the year ended December 31, 2017, the City recognized \$18,196,000 and \$18,310,000 of pension expense for the Old Hire Fire and Old Hire Police plans, respectively. A summary of the City's deferred outflows of resources and deferred inflows of resources related to pensions for the Old Hire Fire and Old Hire Police plans as of December 31, 2017, is presented in **Table 69** (dollars in thousands).

Table 69

	Old Hire Fire		Old Hire Police		Total	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Changes of assumptions or other inputs	-	-	-	-	-	-
Net difference between projected and actual earnings on pension plan investments	17,437	-	32,373	-	49,810	-
Contributions subsequent to the measurement date	16,355	-	7,988	-	24,343	-
Total	\$ 33,792	\$ -	\$ 40,361	\$ -	\$ 74,153	\$ -

The \$16,355,000 and \$7,988,000 reported by the Old Hire Fire and Old Hire Police plans, respectively, as deferred outflows of resources related to pensions, resulting from contributions subsequent to the measurement date, will be recognized as a reduction of the net pension liability in the year ended December 31, 2018. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as presented in **Table 70** (dollars in thousands).

Table 70

Year	Old Hire Fire	Old Hire Police
2018	\$ 5,515	\$ 10,205
2019	5,516	10,206
2020	5,107	9,459
2021	1,299	2,503
2022	-	-
Thereafter	-	-
Total	\$ 17,437	\$ 32,373

The changes in net pension liability for Old Hire Fire and Old Hire Police plans are presented in **Table 71**.

Table 71

	Old Hire Fire			Old Hire Police		
	Increase (Decrease)			Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balances as of January 1, 2017	\$ 497,664	\$ 329,239	\$ 168,425	\$ 702,471	\$ 605,939	\$ 96,532
Changes for the year:						
Service cost	-	-	-	-	-	-
Interest	35,748	-	35,748	50,590	-	50,590
Differences between expected and actual experience	-	-	-	(56,901)	-	(56,901)
Changes of assumptions	(42,834)	-	(42,834)	-	-	-
Contributions - employer	-	13,061	(13,061)	-	5,027	(5,027)
Contributions - employee	-	7	(7)	-	-	-
Net investment income	-	17,084	(17,084)	-	30,983	(30,983)
Benefit payments	-	(42,834)	42,834	-	(56,901)	56,901
Administrative expense	-	(518)	518	-	(1,013)	1,013
Other changes	-	-	-	-	-	-
Total Net Changes	\$ (7,086)	\$ (13,200)	\$ 6,114	\$ (6,311)	\$ (21,904)	\$ 15,593
Balances as of December 31, 2017	\$ 490,578	\$ 316,039	\$ 174,539	\$ 696,160	\$ 584,035	\$ 112,125

The long-term expected rate of return on pension plan investments was determined using a building block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the Plans target asset allocation as of December 31, 2016 are summarized in **Table 72**.

Table 72

Asset Class	Target Allocation	Long-Term Expected Rate of Return
Global equity	36.00%	6.75%
Equity long/short	10.00%	4.85%
Illiquid alternatives	23.00%	8.25%
Fixed income	15.00%	0.50%
Absolute return	10.00%	4.05%
Managed futures	4.00%	3.00%
Cash	2.00%	0.00%
Total	100.00%	

The total pension liability in the December 31, 2015 actuarial valuation was determined using the actuarial assumptions and other inputs reflected in **Table 73**.

Table 73

	Old Hire Fire	Old Hire Police
Investment rate of return	7.50%	7.50%
Salary increases	N/A	N/A
Inflation	3.00%	3.00%

Mortality rates were based on the RP-2000 Combined Mortality Table with Blue Collar Adjustment, projected with Scale AA.

The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers will be made based on the actuarially determined rates based on the Board's funding policy, which establishes the contractually required rates under Colorado statutes. Based on those assumptions, the plan fiduciary net position was projected to be available to make all the projected future benefit payments of current plan members. Therefore, the long-term expected rate of return of pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the City's Net Pension Liability to Changes in the Discount Rate. Table 74 presents the City's net pension liability/(asset), calculated using a discount rate of 7.50%, as well as what the City's net pension liability/(asset) would be if it were calculated using a discount rate that is 1.00% lower (6.50%) or 1.00% higher (8.50) (dollars in thousands):

Table 74

	1% Decrease 6.50%	Current Single Discount Rate Assumption 7.50%	1% Increase 8.50%
Old Hire Fire net pension liability	\$ 218,497	\$ 174,539	\$ 136,673
Old Police Fire net pension liability	178,648	112,125	55,267
Total	\$ 397,145	\$ 286,664	\$ 191,940

Pension Plan Fiduciary Net Position. Pension Plan Fiduciary Net Position. Detailed information about the pension plan's fiduciary net position is available in the separately issued FPPA financial reports found at http://fppaco.org/toc_frames.html.

Each retirement system issues a publicly available financial report that includes financial statements and required supplementary information of that plan. Those reports are available by contacting:

Colorado PERA

P. O. Box 5800
Denver, Colorado 80217-5800

Denver Employees Retirement Plan

777 Pearl Street
Denver, Colorado 80203

Fire and Police Pension Association

5290 DTC Parkway, Suite 100
Greenwood Village, Colorado 80111

Note G – Other Postemployment Benefits

In addition to the pension benefits described in **Note IV-F**, the City provides health insurance to eligible retirees and their qualifying dependents. Current and retired employees participate in the same group plans with blended premium rates creating an implicit rate subsidy for the retirees in the plans.

- DERP Participants' Plan Description.** The City acts in a cost-sharing multiple-employer capacity by providing health insurance to eligible DERP retirees and their qualified dependents through the City's group insurance plans. As authorized by section 18-412 of the City's Revised Municipal Code, DERP retirees are allowed to participate in the health insurance programs offered to active employees. To be eligible, a retiree must be a minimum of 55 years of age if hired prior to July 1, 2011, and a minimum of 60 years of age if hired after July 1, 2011, with 5 years of service and have begun receiving their pension benefit. Coverage ceases when one

reaches Medicare age. As of the December 31, 2016 actuarial valuation, there are 8,422 active employees under age 65 covered under the health insurance plans. In addition, there are 1,107 retired employees not yet covered by Medicare who are covered by the plans. There is no stand-alone financial report for this medical coverage benefit and it is not included in the DERP report.

2. **Funding Policy for DERP Participants' Plan.** DERP retirees are responsible for 100.00% of the blended premium rate. They may choose to use their health benefit toward the premium costs. The health benefit associated with the DERP pension (see **Note IV-H**) provides monthly health insurance premium reduction of \$12.50 per year of service for retired participants under the age of 65 and \$6.25 per year of service for retirees age 65 and older. The City's required contribution toward the implicit rate subsidy is based on pay-as-you-go financing.

Contributions made by the City toward the implicit rate subsidy for DERP participants were \$6,099,000, \$5,208,000, and \$5,658,000, for the years ended December 31, 2017, 2016, and 2015, respectively, based on pay-as-you-go financing.

The Schedule of Funding Progress, presented as Required Supplementary Information following the notes to the financial statements, presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

3. **PERA Participants' Plan Description.** The City acts in cost sharing multiple employer capacity by providing county judges and the District Attorney access to the Health Care Trust Fund (HCTF), a healthcare trust administered by PERA. The HCTF benefit provides a health care premium subsidy and health care programs (known as PERACare) to PERA participating benefit recipients and their eligible beneficiaries. Title 24, Article 51, Part 12 of the CRS, as amended, establishes the HCTF and sets forth a framework that grants authority to the PERA Board to contract, self-insure and authorize disbursements necessary in order to carry out the purposes of the PERACare program, including the administration of health care subsidies. PERA issues a publicly available comprehensive annual financial report that includes financial statements and required supplementary information for the HCTF. The report can be obtained at www.copera.org/investments/pera-financial-reports.
4. **Funding Policy for PERA Participants' Plan.** The City is required to contribute at a rate of 1.02% of PERA-includable salary for all PERA members as set by statute. No member contributions are required. The contribution requirements for the City are established under Title 24, Article 51, Part 4 of the CRS, as amended. The apportionment of the contributions to the HCTF is established under Title 24, Article 51, Section 208(1)(f) of the CRS, as amended. For the years ending December 31, 2017, 2016, and 2015, respectively the City contributions to the HCTF were \$6,000, \$5,000 and \$5,000, respectively, equal to their required contributions for each year.
5. **FPPA Participants' Plan Description.** The City acts in a single-employer capacity by providing access to health insurance to eligible FPPA retirees and their qualified dependents through the respective groups' insurance plans. Based on City practice, fire fighter retirees and police officer retirees are allowed to participate in the health insurance programs offered to active employees. Fire fighters and police officers hired prior to April 8, 1978, are eligible for this coverage with a minimum of 25 years of service; however, police officers are also eligible when they begin collecting their pension benefit should they not obtain 25

years of service. For FPPA employees hired after April 7, 1978, they must have elected to begin collecting their pension and be a minimum of 55 years of age with 5 years of service or attained age 50 with 30 years of service. Coverage ceases when one reaches Medicare age. As of the December 31, 2016 actuarial valuation, there are 2,361 active employees under age 65 covered under the health insurance plans. In addition, there are 228 retired employees not yet covered by Medicare who are covered by the plans. There is no stand-alone financial report for this medical coverage benefit and it is not included in the FPPA report.

- 6. Funding Policy for FPPA Participants' Plan.** FPPA retirees are responsible for 100.00% of the blended premium rate. The City's required contribution toward the implicit rate subsidy is based on pay-as-you-go financing.
- 7. Annual Cost and Net Other Post Employment Benefit Obligation for FPPA Participants Plan.** The City's annual other postemployment benefit (OPEB) cost is calculated based on the Annual Required Contributions (ARC), an amount actuarially determined in accordance with the parameters of GASB 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded Actuarial Accrued Liabilities (AAL) over a period of 30 years. **Table 75** (dollars in thousands) details the components of the City's annual OPEB cost for the year, the amount contributed, and changes in the City's net OPEB obligation.

Table 75

Employer's normal cost	\$ 1,844
Amortization of unfunded AAL	1,568
Interest on net OPEB obligation	684
Adjustment to ARC	(679)
Annual OPEB Cost	3,417
Employer contribution	1,971
Increase in net OPEB obligation	1,446
Net OPEB obligation - January 1	17,089
Net OPEB Obligation - December 31	\$ 18,535

The annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB Obligation for the year ended December 31, 2017, and the two preceding years are detailed in **Table 76** (dollars in thousands).

Table 76

Fiscal Year Ended	Annual OPEB Cost	Contributions	% of Annual Cost OPEB Contributions	Net OPEB Obligations
December 31, 2015	\$ 4,431	\$ 1,940	43.8%	\$ 15,639
December 31, 2016	3,284	1,834	55.8%	17,089
December 31, 2017	3,417	1,971	57.7%	18,535

8. Funded Status and Funding Progress for FPPA Participants Plan. The funded status for the year ended December 31, 2017, is presented in **Table 77** (dollars in thousands).

Table 77

		OPEB
Actuarial accrued liability (AAL)	\$	41,045
Actuarial value of plan assets		-
Unfunded AAL (UAAL)	\$	41,045
Funded ratio		0.00%
Covered payroll	\$	219,076
UAAL as a % of covered payroll		18.7%

Actuarial valuations of an ongoing plan involve the 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 employer are subject to continual revisions as actual results are compared with past expectations and new estimates are made about the future. The Schedule of Funding Progress, presented as Required Supplementary Information following the notes to the financial statements, presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

9. Actuarial Methods and Assumptions. Projections and benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and the plan members) and included in the types of benefits provided at the time of each valuation and the historic pattern of benefit costs between the employer and the plan members to that point. 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 long-term perspective of calculations. **Table 78** details the actuarial methods and assumptions used.

Table 78

		OPEB
Actuarial valuation date		12/31/17
Actuarial cost method		Entry age normal
Amortization method		Level % of pay
Remaining amortization period		30 years, open
Actuarial assumptions:		
Investment rate of return		4.00%
Healthcare cost trend		Grading from 8.5% decreasing by .5% per year to 5% thereafter
General inflation		3% annually
Projected salary increases		4.00%

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Required Supplementary Information Budgetary Comparison Schedule - General Fund and Human Services Special Revenue Fund

Year Ended December 31, 2017 (dollars in thousands)

	General Fund			
	Budget		Actual	Variance with Final Budget
	Original	Final		
Revenues				
Taxes	\$ 863,507	\$ 874,731	\$ 893,206	\$ 18,475
Licenses and permits	48,066	56,708	64,601	7,893
Intergovernmental revenues	35,764	37,395	35,500	(1,895)
Charges for services	207,138	207,479	194,569	(12,910)
Investment and interest income	10,100	10,268	9,185	(1,083)
Fines and forfeitures	56,286	51,440	49,710	(1,730)
Contributions	-	-	27	27
Other revenue	11,353	8,235	14,366	6,131
Total Revenues	1,232,214	1,246,256	1,261,164	14,908
Budget Basis Expenditures				
General government	341,922	301,259	277,555	23,704
Public safety	517,665	571,307	562,314	8,993
Public works	125,487	156,566	155,871	695
Human services	-	7,844	7,844	-
Health	47,124	47,148	46,201	947
Parks and recreation	68,996	72,181	68,087	4,094
Cultural activities	45,549	49,066	48,549	517
Community development	28,795	33,694	32,463	1,231
Economic Opportunity	5,821	187	187	-
Total Budget Basis Expenditures	1,181,359	1,239,252	1,199,071	40,181
Excess (deficiency) of revenues over budget basis expenditures	50,855	7,004	62,093	55,089
Other Financing Sources (Uses)				
Insurance recoveries	-	-	203	203
Transfers in	40,819	40,819	43,125	2,306
Transfers out	127,899	133,670	(112,742)	(246,412)
Total Other Financing Sources (Uses)	168,718	174,489	(65,457)	(239,946)
Excess (deficiency) of revenues and other financing sources over budget basis expenditures and other financing uses	\$ 219,573	\$ 181,493	(3,364)	\$ (184,857)
Fund balances - January 1			397,423	
Fund Balance - December 31			\$ 394,059	

See accompanying notes to required supplementary information.

Human Services Special Revenue Fund					
Budget		Actual	Variance with Final Budget		
Original	Final				
\$ 65,528	\$ 65,528	\$ 66,195	\$ 667		
-	-	-	-		
138,765	138,765	95,134	(43,631)		
284	284	489	205		
-	-	-	-		
-	-	-	-		
-	-	86	86		
-	284	273	(11)		
<u>204,577</u>	<u>204,861</u>	<u>162,177</u>	<u>(42,684)</u>		
-	-	-	-		
-	-	-	-		
-	-	-	-		
196,470	195,793	165,686	30,107		
-	-	-	-		
-	-	-	-		
-	-	-	-		
<u>196,470</u>	<u>195,793</u>	<u>165,686</u>	<u>30,107</u>		
8,107	9,068	(3,509)	(12,577)		
-	-	-	-		
7,300	7,300	7,050	(250)		
(1,589)	(1,589)	(3,988)	(2,399)		
<u>5,711</u>	<u>5,711</u>	<u>3,062</u>	<u>(2,649)</u>		
<u>\$ 13,818</u>	<u>\$ 14,779</u>	(447)	<u>\$ (15,226)</u>		
		76,029			
		<u>\$ 75,582</u>			

Notes to Required Supplementary Information Budgetary Comparison Schedule

The City adheres to the following procedures in establishing the budgetary data for governmental fund types reflected in the financial statements:

1. Formal budgetary integration for expenditures is employed during the year for the general, special revenue, and capital projects funds except for certain special assessment projects and general improvement district funds. Formal budgetary integration is not employed for debt service funds, and certain special assessment projects and general improvement district funds included in capital projects and debt service funds, because effective budgetary control is alternatively achieved through bond and general obligation bond indenture provisions.
2. Budgets for appropriation in the General, Human Services special revenue, and capital projects funds are adopted on a basis consistent with GAAP. The General Fund and Human Services special revenue fund legally adopt budgets on an annual basis for expenditures. All other special revenue funds and the capital projects funds adopt budgets on a project length basis.
3. On or before July 1, heads of all City departments and agencies submit requests for appropriations to the budget officer who compiles the requests and submits a comprehensive budget request document to the Mayor. Thereafter, on or before September 15 of each year, the Mayor briefs the City Council on the tentative revenue and expenditure plans for the ensuing year. After receiving and considering City Council's recommendations, the Mayor prepares and submits to the City Council, on or before the third Monday in October of each year, a proposed budgetary report which includes all projected revenues and expenditures, the amount to be raised by taxation to pay interest on general obligation bonded indebtedness, and the amounts to be expended during the ensuing year for capital improvement projects identifying the sources of revenue for financing such projects. Upon receipt of the proposed budget, the City Council publishes a notice that the budget is open for inspection by the public and that a public hearing on the proposed budget will be held by no later than the fourth Monday in October. After the public hearing and consideration is given to the input by the public, the City Council, not later than the second Monday in November, adopts the budget by passage of an ordinance.
4. Authorization to transfer budgeted amounts between departments (appropriations) within any fund or revisions that alter the total expenditures of any fund must be approved by the City Council. Management can transfer budgeted amounts between line items within departments (appropriations). The legal level of budgetary control is established and maintained at the funded project level for special revenue and capital projects funds and at the department level for all other funds. Budgeted amounts are as originally adopted and as amended by the City Council throughout the year.
5. Unencumbered appropriations in the General Fund and Human Services special revenue fund lapse at year end. The unencumbered appropriations in the remaining special revenue funds and capital projects funds do not lapse at year end, but terminate upon expiration of the grant or project fiscal year or term.

Required Supplementary Information Other Postemployment Benefits - Implicit Rate Subsidy

December 31, 2017 (dollars in thousands)

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability - Entry Age	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	Unfunded Actuarial Accrued Liability as a % of Covered Payroll
FPPA						
December 31, 2015	\$ -	\$ 50,461	\$ 50,461	0.0%	\$ 209,829	24.0%
December 31, 2016	-	39,396	39,396	0.0%	210,650	18.7%
December 31, 2017	-	41,045	41,045	0.0%	219,076	18.7%

Schedule of Employer Contributions

Year Ended	Employer Contributions	
	FPPA	
	Annual Required Contribution	Percentage Contributed
December 31, 2015	\$ 4,431	43.8%
December 31, 2016	3,284	55.8%
December 31, 2017	3,416	57.7%

Required Supplementary Information

Schedule of City's Proportionate Share of the Net Pension Liability - DERP

December 31, 2017 (dollars in thousands)

	City's Proportion of the Net Pension Liability	City's Proportionate Share of the Net Pension Liability	City's Covered Payroll	City's Proportionate Share of the Net Pension Liability (Asset) as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
DERP					
December 31, 2015	88.88%	\$ 778,462	\$ 557,646	139.60%	70.12%
December 31, 2016	89.51%	1,055,539	571,367	184.74%	62.26%
December 31, 2017	89.84%	\$ 1,095,568	\$ 574,914	190.56%	62.26%

Note: Information is not available prior to 2015. In future reports, additional years will be added until 10 years of historical data are presented.

Note: Information presented in this schedule has been determined as of the City's measurement date (December 31 of the year prior to the most recent fiscal year) of the collective net pension liability in accordance with Governmental Accounting Standards Board Statement No. 68.

Note: Changes in assumptions. The discount rate used to measure the total pension liability at December 31, 2015 was changed from 8% at the prior measurement date to 7.75%.

Required Supplementary Information Schedule of City Contributions - DERP

December 31, 2017 (dollars in thousands)

	Statutorily Required Contributions	Contributions in Relation to Statutorily Required Contribution	Contribution Deficiency (Excess)	City's Covered Payroll	Contributions as a % of Covered Payroll
DERP					
December 31, 2015	\$ 64,443	\$ 60,181	\$ 4,262	\$ 560,157	10.74%
December 31, 2016	59,159	64,345	(5,186)	574,914	11.19%
December 31, 2017	\$ 64,404	\$ 64,404	\$ -	\$ 541,545	11.89%

Note: Information is not available prior to 2015. In future reports, additional years will be added until 10 years of historical data are presented.

Note: Information presented in this schedule has been determined as of the City's most recent fiscal year end (December 31) in accordance with Governmental Accounting Standards Board Statement No. 68.

Note: There were no benefit changes during the year.

As of October 1, 2015, the valuation interest was lowered from 8% to 7.75%. The latest experience study was conducted in 2013 covering the 5-year period of January 1, 2008 to December 31, 2012. At the time, the recommended mortality table was expected to produce a margin of 8% on the retired male mortality experience and 7% on the retired female experience (Source: Denver Employees Retirement Plan 2013 Actuarial Experience Study for the period ending December 31, 2012, page 24).

Required Supplementary Information Schedule of City's Proportionate Share of the Net Pension Liability - FPPA SWDB

December 31, 2017 (dollars in thousands)

	City's Proportion of the Net Pension Liability (Asset)	City's Proportionate Share of the Net Pension Liability (Asset)	City's Covered Payroll	City's Proportionate Share of the Net Pension Liability (Asset) as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
FPPA SWDB					
December 31, 2015	39.51%	\$ (44,591)	\$ 230,820	19.32%	106.80%
December 31, 2016	39.81%	\$ (701)	\$ 251,518	0.28%	100.10%
December 31, 2017	38.18%	\$ 13,797	\$ 257,016	5.37%	98.21%

Note: Information is not available prior to 2015. In future reports, additional years will be added until 10 years of historical data are presented.

Note: Information presented in this schedule has been determined as of the City's measurement date (December 31 of the year prior to the most recent fiscal year) of the collective net pension liability in accordance with Governmental Accounting Standards Board Statement No. 68.

Required Supplementary Information Schedule of City Contributions - FPPA SWDB

December 31, 2017 (dollars in thousands)

	Statutorily Required Contributions	Contributions in Relation to Statutorily Required Contribution	Contribution Deficiency (Excess)	City's Covered Payroll	Contributions as a % of Covered Payroll
FPPA SWDB					
December 31, 2015	\$ 20,121	\$ 15,299	\$ 4,822	\$ 251,518	6.08%
December 31, 2016	20,561	15,648	4,913	257,016	6.09%
December 31, 2017	\$ 16,000	\$ 15,934	\$ 66	\$ 200,006	7.97%

Note: Information is not available prior to 2015. In future reports, additional years will be added until 10 years of historical data are presented.

Note: Information presented in this schedule has been determined as of the City's most recent fiscal year end (December 31) in accordance with Governmental Accounting Standards Board Statement No. 68.

Note: Changes in Assumptions. At least every five years, the FPPA's Board of Directors, in accordance with best practices, reviews its economic and demographic actuarial assumptions. At its July 2015 meeting, the Board of Directors reviewed and approved recommended changes to the actuarial assumptions. The recommendations were made by the FPPA's actuaries, Gabriel, Roeder, Smith & Co., based upon their analysis of past experience and expectations of the future. The assumption changes were effective for actuarial valuations beginning January 1, 2016 and were used in the rollforward calculation of total pension liability as of December 31, 2015. Actuarial assumptions effective for actuarial valuations prior to January 1, 2016 were used in the determination of the actuarially determined contributions as of December 31, 2015. The actuarial assumptions impact actuarial factors for benefit purposes such as purchases of service credit and other benefits where actuarial factors are used.

Required Supplementary Information

Schedule of City's Contributions - FPPA Old Hire Fire and Police

December 31, 2017 (dollars in thousands)

FPPA	Actuarially determined Required Contributions	Contributions in Relation to Actuarially Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
Old Hire Fire					
December 31, 2015	\$ 13,061	\$ 15,912	\$ (2,851)	139	11447.48%
December 31, 2016	13,053	13,061	(8)	90	14512.22%
December 31, 2017	16,355	16,355	-	n/a	n/a
Old Hire Police					
December 31, 2015	\$ 16,262	\$ 18,977	\$ (2,715)	102	18604.90%
December 31, 2016	5,027	5,027	-	n/a	n/a
December 31, 2017	7,988	7,988	-	n/a	n/a

Note: Information is not available prior to 2015. In future reports, additional years will be added until 10 years of historical data are presented.

Note: Information presented in this schedule has been determined as of the City's most recent fiscal year end (December 31) in accordance with Governmental Accounting Standards Board Statement No. 68.

Notes to Schedule

Valuation date: Actuarially determined contributions rates are calculated as of January 1 of even numbered years.

The contribution rates have a one-year lag, so the actuarial valuation as of January 1, 2012, determines the contribution amounts for 2013 and 2014.

	Old Hire Fire	Old Hire Police
Methods and assumptions used to determine contribution rates:		
Actuarial cost method	Entry Age Normal	Entry Age Normal
Amortization method	Level Dollar, Open	Level Dollar, Open
Remaining amortization period	18 Years	20 Years
Asset valuation method	5-Year smoothed market	5-Year smoothed market
Inflation	3.00%	3.00%
Salary increases	N/A	N/A
Investment rate of return	7.50%	7.50%
Retirement age	Any remaining actives are assumed to retire immediately.	Any remaining actives are assumed to retire immediately.
Mortality	Post-retirement: RP-2000 Combined Mortality Table, with Blue Collar Adjustment Disabled: RP-2000 Disabled Mortality Table All tables projected with Scale AA.	Post-retirement: RP-2000 Combined Mortality Table, with Blue Collar Adjustment Disabled: RP-2000 Disabled Mortality Table All tables projected with Scale AA.

Note: Changes in assumptions. The FPPA's Board of Directors, in accordance with best practices, reviews its economic and demographic actuarial assumptions at least every five years. Beginning in the 2016 valuations, the inflation assumption was reduced from 3.0% to 2.5%, the real return on investments was increased to 5.0% for an overall nominal investment return of 7.5%, an explicit charge for administrative expenses was added in the actuarial contribution calculation, the base mortality tables were revised with the explicit assumption for rising longevity in the future to reflect current mortality studies, and the expected incidence of total disability was increased.

Changes in benefit terms: No changes to benefit provisions occurred since the prior valuation. However, the member contributions increased 0.50% of base salary.

Required Supplementary Information

Schedule of City's Proportionate Share of the Net Pension Liability - PERA

December 31, 2017 (dollars in thousands)

	City's Proportion of the Net Pension Liability	City's Proportionate Share of the Net Pension Liability	City's Covered Payroll	City's Proportionate Share of the Net Pension Liability (Asset) as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
PERA SDTF					
December 31, 2015	0.007%	\$ 674	\$ 207	325.60%	59.80%
December 31, 2016	0.007%	755	221	341.63%	56.10%
December 31, 2017	0.007%	1,358	203	668.97%	42.60%
PERA JDTF					
December 31, 2015	6.400%	\$ 8,854	\$ 2,800	316.21%	66.90%
December 31, 2016	6.018%	11,066	2,986	370.60%	60.10%
December 31, 2017	5.840%	14,835	2,864	517.98%	53.20%

Note: Information is not available prior to 2015. In future reports, additional years will be added until 10 years of historical data are presented.

Note: Information presented in this schedule has been determined as of the City's measurement date (December 31 of the year prior to the most recent fiscal year) of the collective net pension liability in accordance with Governmental Accounting Standards Board Statement No. 68.

Required Supplementary Information

Schedule of City's Contributions - PERA

December 31, 2017 (dollars in thousands)

PERA	Statutorily Required Contributions	Contributions in Relation to Statutorily Required Contribution	Contribution Deficiency (Excess)	City's Covered Payroll	Contributions as a % of Covered Payroll
SDTF					
December 31, 2015	\$ 36	\$ 37	\$ (1)	\$ 221	16.74%
December 31, 2016	37	37	-	203	18.23%
December 31, 2017	46	46	-	314	14.65%
JDTF					
December 31, 2015	\$ 488	\$ 488	\$ -	\$ 2,986	16.34%
December 31, 2016	468	468	-	2,864	16.34%
December 31, 2017	468	468	-	2,841	16.47%

Note: Information is not available prior to 2015. In future reports, additional years will be added until 10 years of historical data are presented.

Note: Information presented in this schedule has been determined as of the City's most recent fiscal year end (December 31) in accordance with Governmental Accounting Standards Board Statement No. 68.

Note: Changes to assumptions or other inputs since the December 31, 2013 actuarial valuation are as follows:

- The following changes were made:
 - o Valuation of the full survivor benefit without any reduction for possible remarriage
 - o Reflection of the employer match on separation benefits for all eligible years
 - o Reflection of one year of service eligibility for survivor annuity benefit
 - o Refinement of the 18 month annual increase timing
 - o Refinements to directly value certain and life, modified cash refund and pop-up benefit forms.
- The following methodology changes were made:
 - o Recognition of merit salary increases in the first projection year
 - o Elimination of the assumption that 35% of future disabled members elect to receive a refund
 - o Removal of the negative value adjustment for liabilities associated with refunds of future terminating members
 - o Adjustments to the timing of the normal cost and unfunded actuarial accrued liability payment calculations to reflect contributions throughout the year

Required Supplementary Information**Schedule of Changes in the City's Net Pension Liability and Related Ratios - FPPA Old Hire Fire**

(dollars in thousands)

FPPA Old Hire Fire	2015	2016	2017
Total pension liability			
Service Cost	\$ -	\$ -	\$ -
Interest	34,596	34,026	35,748
Changes of benefit terms	-	-	-
Differences between actual and expected experience	-	(699)	-
Changes of assumptions	-	32,102	-
Benefit payments, including refunds of employee contributions	(42,249)	(42,134)	(42,834)
Net change in total pension liability	(7,653)	23,295	(7,086)
Total pension liability - beginning	482,022	474,369	497,664
Total pension liability - ending	\$ 474,369	\$ 497,664	\$ 490,578
Plan fiduciary net position			
Contributions - employer	\$ 13,944	\$ 16,803	\$ 13,061
Contributions - employee	7	7	8
Net investment income	23,465	6,174	17,084
Benefit payments, including refunds of employee contributions	(42,249)	(42,134)	(42,834)
Administrative expense	(545)	(488)	(518)
Net change in plan fiduciary net position	(5,378)	(19,638)	(13,199)
Plan fiduciary net position - beginning	354,255	348,877	329,238
Plan fiduciary net position - ending	\$ 348,877	\$ 329,239	\$ 316,039
Net Pension Liability	\$ 125,492	\$ 168,425	\$ 174,539
Plan fiduciary net position as a percentage of the total pension liability	73.55%	66.16%	64.42%
Covered payroll	87	90	90
Net pension liability as a percentage of covered payroll	143734.99%	187436.70%	194240.85%

Note: Information is not available prior to 2015. In future reports, additional years will be added until 10 years of historical data are presented.

Note: Information presented in this schedule has been determined as of the City's measurement date (December 31 of the year prior to the most recent fiscal year) of the collective net pension liability in accordance with Governmental Accounting Standards Board Statement No. 68.

Required Supplementary Information**Schedule of Changes in the City's Net Pension Liability and Related Ratios - FPPA Old Hire Police**

(dollars in thousands)

FPPA Old Hire Police	2015	2016	2017
Total pension liability			
Service Cost	\$ -	\$ -	\$ -
Interest	49,249	48,801	50,590
Changes of benefit terms	-	-	-
Differences between actual and expected experience	-	(12,201)	-
Changes of assumptions	-	43,358	-
Benefit payments, including refunds of employee contributions	(55,137)	(55,326)	(56,901)
Net change in total pension liability	(5,888)	24,632	(6,311)
Total pension liability - beginning	683,727	677,839	702,471
Total pension liability - ending	\$ 677,839	\$ 702,471	\$ 696,160
Plan fiduciary net position			
Contributions - employer	\$ 16,262	\$ 18,089	\$ 5,027
Contributions - employee	5	-	-
Net investment income	42,091	11,278	30,983
Benefit payments, including refunds of employee contributions	(55,137)	(55,326)	(56,901)
Administrative expense	(977)	(910)	(1,013)
Net change in plan fiduciary net position	2,244	(26,869)	(21,904)
Plan fiduciary net position - beginning	630,564	632,808	605,939
Plan fiduciary net position - ending	\$ 632,808	\$ 605,939	\$ 584,035
Net Pension Liability	\$ 45,031	\$ 96,532	\$ 112,125
Plan fiduciary net position as a percentage of the total pension liability	93.36%	86.26%	83.89%
Covered payroll	90	n/a	n/a
Net pension liability as a percentage of covered payroll	50070.05%	n/a	n/a

Note: Information is not available prior to 2015. In future reports, additional years will be added until 10 years of historical data are presented.

Note: Information presented in this schedule has been determined as of the City's measurement date (December 31 of the year prior to the most recent fiscal year) of the collective net pension liability in accordance with Governmental Accounting Standards Board Statement No. 68.

APPENDIX B

**AN ECONOMIC AND DEMOGRAPHIC OVERVIEW OF
THE DENVER METROPOLITAN REGION**

Introduction

In 2018, Colorado’s employment growth accelerated, aided by continued positive net migration, strong economic activity, and wage growth. Colorado remains a top-10 state for employment growth, with a 2.4 percent increase in jobs over-the-year. The Denver metropolitan statistical area ranked fourth among the nation’s 25 largest metropolitan areas for employment gains in 2018, rising 2.5 percent. The expanding Denver metropolitan area economy is bolstered by a vibrant entrepreneurial community, rising population and employment growth, and an increasing presence in the global economy.

The Denver metropolitan area is comprised of seven counties – Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson. The Denver metropolitan area economy strongly influences the economy statewide as the area accounts for about 62 percent of Colorado jobs and 56 percent of the state’s total population. All 11 industry supersectors in the Denver metropolitan area added jobs in 2018, with the addition of 41,600 jobs of the total 64,900 jobs added in the state. The City and County of Denver represents 22.5 percent of the total Denver metropolitan area population, the largest portion of the seven counties in the region. With nearly 520,000 workers, the City and County of Denver is the state’s largest job base and employment grew 2.6 percent between the third quarters of 2017 and 2018.

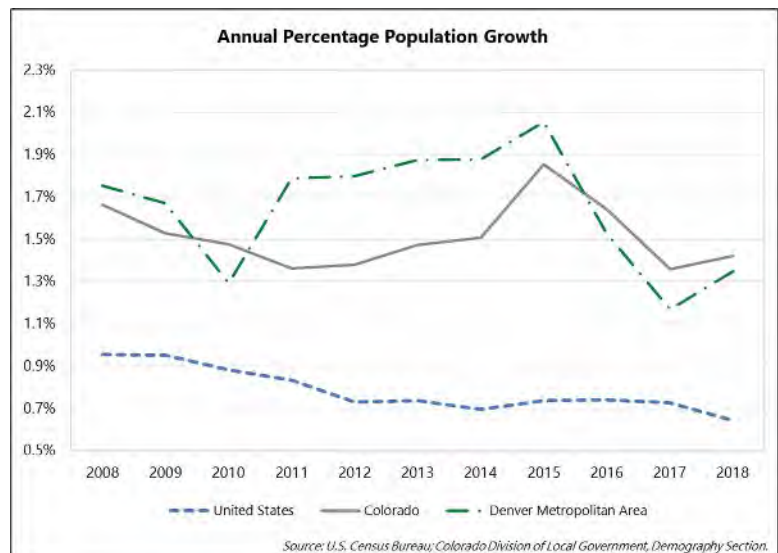
Population

Colorado

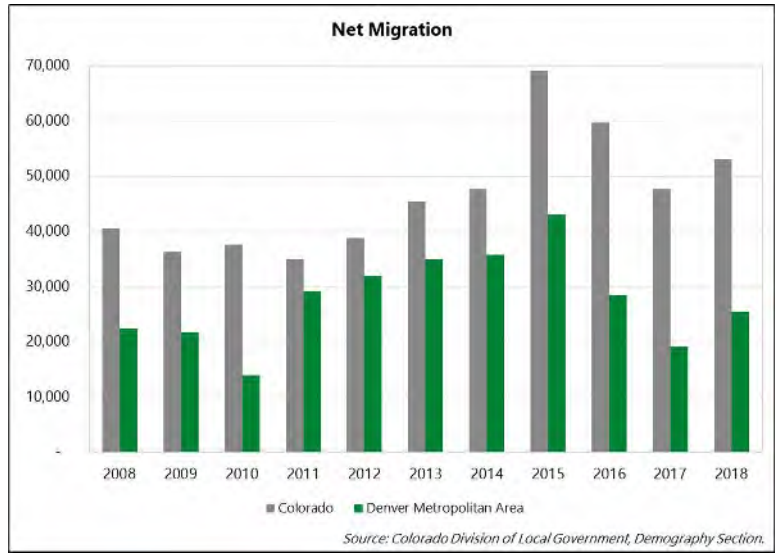
Colorado ranked among the top states for population growth in 2018. According to data from the U.S. Census Bureau, Colorado grew by nearly 80,000 people between July 2017 and July 2018, making it the seventh fastest-growing state in the nation. The state’s increase of 1.4 percent over-the-year was more than twice that of the nation and reached nearly 5.7 million in 2018, about 787,300 higher than in 2008. However, the population growth from 2016 through 2018 continued to slow due to less net in-migration, more deaths, and fewer births.

Population growth is comprised of both natural increase and net migration. Natural increase is the difference between births and deaths, and typically changes only gradually as the population ages. Net migration reflects the number of in-migrants to the state minus the number leaving, and it tends to be more volatile as economic cycles, housing costs, and other less-predictable factors tend to influence population mobility. Natural increase accounted for 40 percent of Colorado’s total population change between 2009 and 2018, and net migration accounted for 60 percent. According to the U.S. Census Bureau, Colorado’s natural increase ranked ninth in 2018 among the 50 states and the state’s net migration ranked eighth.

Like many of the fastest growing states, net migration contributed the most to Colorado’s rapid population growth. Demographers expect this trend to continue and will be the major contributing factor to Colorado’s



population growth throughout the remainder of the decade, representing about 66 percent of the state's population increase in 2018. Colorado is experiencing two major demographic shifts in the state's population. First, in 2015, the largest generational group residing in the state became the millennials (born 1981-1996), surpassing the baby boomers (born 1946-1964). Second, Colorado's share of the population 65 years and older is increasing rapidly. Colorado is aging relatively fast, with the fifth-highest share of those 65 years and over (13.9 percent) in 2017. Between 2008 and 2018, the 65 years and older population increased by 293,100 or an annual average growth rate of 4.6 percent. This rate is 3.1 percentage points higher than the statewide total population annual average growth rate of 1.5 percent over this period. The State Demography Office projects that by 2030, this percentage will increase to nearly 18 percent of the population, rising from about 806,000 to about 1.2 million people.



Denver Metropolitan Area

The Denver metropolitan area is home to nearly 3.2 million people. The area's population increased 1.3 percent over-the-year and averaged 1.6 percent per year between 2008 and 2018, which was 0.9 percentage points above the national average (0.7 percent). The 10-year average annual growth rate for the area was relatively stable through most of the recent recession and recovery due to strong positive net migration.

Between 2008 and 2018, net migration represented 59 percent of total Denver metropolitan area population growth, and natural increase represented 41 percent of total growth. However, migration patterns have varied over the last 20 years. During the prior ten-year period (1999-2008), net migration represented a smaller 44 percent of the population change. Net migration surged in the Denver metropolitan area following the Great Recession and comprised most of the net migration to Colorado. Since 2010, net migration in the area accounted for about 60 percent of total Colorado net migration. However, the Denver metropolitan area's net migration fell to 40 percent in 2017.

Millennials are the largest population group in the area, totaling about 789,200 in 2018 and comprising nearly 25 percent of the population. Millennials also represent the largest share of the potential working age population ages 16 to 64 years. The Denver metropolitan area is an attractive location for this demographic and consistently ranks as a top area for college graduates and the millennial generation.

Individuals 65 years and over in the Denver metropolitan area represented 9.5 percent of the population in 2008 and grew to an estimated 13 percent of the population in 2018, which is smaller than the national share (15.7 percent). In absolute terms, the population 65 years and over was about 257,000 in 2008 and increased to about 416,900 in 2018, a 62.2 percent increase. The area's median age (37.3) is lower than the nationwide median (38.1).

Denver Metropolitan Area Population by County

Area	2008	2013	2018	Avg. Annual Population Growth	
				2008-2013	2013-2018
Adams	425,138	469,340	512,576	2.0%	1.8%
Arapahoe	556,246	606,938	649,703	1.8%	1.4%
Boulder	291,827	309,628	326,189	1.2%	1.0%
Broomfield	54,400	59,979	70,063	2.0%	3.2%
Denver	581,903	649,478	718,107	2.2%	2.0%
Douglas	276,740	306,223	340,436	2.0%	2.1%
Jefferson	530,565	551,876	579,631	0.8%	1.0%
Denver Metropolitan Area	2,716,819	2,953,462	3,196,704	1.7%	1.6%
Colorado	4,901,938	5,266,317	5,689,227	1.4%	1.6%

Source: Colorado Division of Local Government, Demography Section.

Of the seven Denver metropolitan area counties, the City and County of Broomfield and Douglas County reported the fastest population growth over the past five years. Growth in four of the seven counties exceeded the statewide average growth rate between 2013 and 2018, while growth in all seven counties exceeded the national average growth rate.

City and County of Denver

The City and County of Denver represents 22.5 percent of the total Denver metropolitan area population, the largest portion of the seven counties in the region. The young adults (age 25-34) represent the largest portion of the City and County of Denver’s working age population, representing 21.8 percent of the population, which is 5.4 percentage points higher than the portion in the Denver metropolitan area. The City and County of Denver has a median age of 35.4, about two years younger than the surrounding population. Between 2008 and 2018, total population growth averaged 2.1 percent per year. Over this 10-year period, net migration represented more than 62 percent of the population growth, while less than 38 percent was attributed to natural increase.

Employment

The U.S. Bureau of Labor Statistics releases employment data based on two different surveys. The household survey – also called the Current Population Survey (CPS) – reflects employment characteristics by place of residence and is the data source for statistics on labor force, employment and self-employment, and unemployment by county. This data is discussed in the Labor Force & Unemployment section of this report.

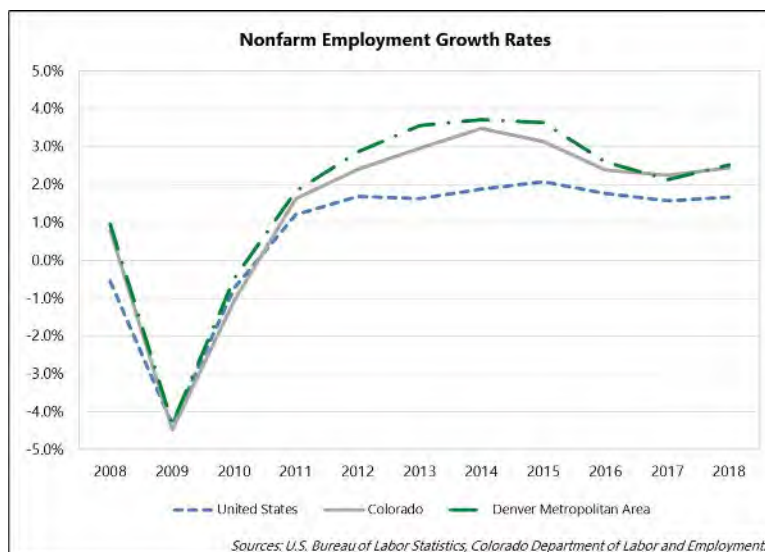
The so-called “establishment” survey is the data source for the Current Employment Statistics (CES) series, which includes detailed information on employment, hours, and earnings by industry. Although the survey does not count the self-employed, the CES data are some of the most closely watched and widely used gauges of employment trends.

Industry employment data in the CES series are grouped according to North American Industry Classification System (NAICS) codes. This coding structure includes 20 detailed industry sectors that are combined to form 11 “supersectors.”

Colorado

Colorado employment increased 2.4 percent in 2018, accelerating from 2.3 percent in 2017 and gained 64,900 jobs over-the-year. The state's employment growth rate was 0.7 percentage points above the national rate (1.7 percent) in 2018 and has consistently been at least 0.4 percentage points above the national rate since 2011. During the past 10 years, Colorado employment grew at an annual average rate of 1.5 percent and added 480,900 jobs to the state's economy over this period of time.

Fifty-eight percent of the state's total employment is concentrated in four supersectors consisting of government, professional and business services, wholesale and retail trade, and education and health services. Several supersectors including natural resources and construction, leisure and hospitality, and information continue to drive the state's recent period of economic expansion. Additionally, the state's high-tech and advanced industries support strong employment growth. Colorado employment rose across all 11 supersectors from 2017 to 2018, with the fastest growth recorded in natural resources and construction (+5.8 percent). Transportation, warehousing, and utilities and the information supersectors also recorded strong employment growth over-the-year, rising 5.7 percent and 4.2 percent, respectively.



Denver Metropolitan Area

The U.S. Bureau of Labor Statistics also compiles CES data for a number of Metropolitan Statistical Areas (MSAs), including the Denver-Aurora-Lakewood MSA (Denver MSA) and the Boulder MSA. The Denver MSA consists of ten counties: Adams, Arapahoe, Broomfield, Clear Creek, Denver, Douglas, Elbert, Gilpin, Jefferson, and Park Counties. Because CES data are not available for the counties individually, data in this section of the report reflects the Denver MSA and Boulder MSA (Boulder County) combined.

This 11-county region has a nonfarm employment base of nearly 1.7 million workers, which accounted for about 62 percent of the state's employment. Employment increased 2.5 percent between 2017 and 2018, with the addition of 41,600 jobs. From 2008 to 2018, the region's employment growth averaged 1.8 percent per year, higher than the state average (1.5 percent).

All 11 industry supersectors in the Denver metropolitan area continued to increase in 2018. Four supersectors in the Denver metropolitan area—professional and business services, wholesale and retail trade, education and health services, and government—represent 59 percent of the region's total employment. The three supersectors that added the most jobs in 2018 were professional and business services (+10,000 jobs), natural

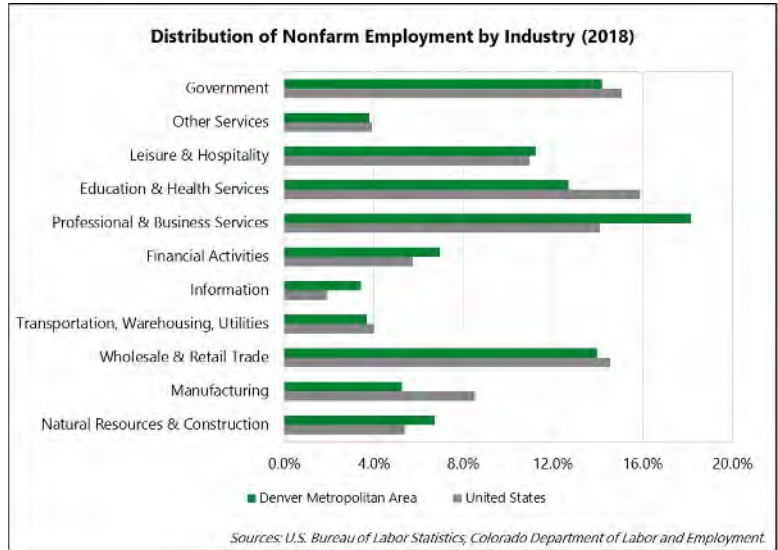
resources and construction (+6,000 jobs), and government (+4,700 jobs). Transportation, warehousing, and utilities recorded the fastest growth among the 11 supersectors, rising 6.8 percent between 2017 and 2018. While natural resources and construction comprised 6.7 percent of total employment in the region in 2018, the supersector recorded fast growth (+5.7 percent) or an increase of 6,100 jobs over-the-year, the second-most added in absolute terms.

Several key trends drove employment growth in the Denver metropolitan area in 2018.

Generally, the area experienced rapid employment growth in several high-

knowledge, high-wage sectors, including

professional and business services, healthcare, and information. The region's innovative and entrepreneurial activity continued to draw significant tech-related and information technology-software employees, particularly to downtown Denver and Boulder County. Professional and business services—the largest supersector in the Denver metropolitan area—includes computer systems design and software engineering, which were major expanding components of this supersector in 2018. Transportation, warehousing, and utilities recorded the strongest year of growth since 2000. Since the Denver metropolitan area is a distribution hub, rapid expansions of fulfillment and distribution centers related to e-commerce resulted in the strongest year of employment growth in the transportation, warehousing, and utilities supersector since 2000. Further, the region's natural resources and construction supersector benefited from strong construction activity and record levels of commercial real estate space completed.



City and County of Denver

The City and County of Denver is the employment center for the Denver metropolitan area and accounts for just under one-third of the employment in the region. The Central Business District is the core of many of downtown Denver's largest sectors in banking, energy, and law, among a variety of other businesses. With nearly 520,000 workers, the City and County of Denver is the state's largest job base and employment grew 2.6 percent between the third quarters of 2017 and 2018.

The City and County of Denver's three largest industry supersectors by employment concentration are professional and business services (20.6 percent), government (13.2 percent), and leisure and hospitality (12.9 percent). Total employment rose in nine of the 11 industry supersectors from the third quarter of 2017 to the same time in 2018. The fastest employment increases occurred in information (+8 percent) and natural resources and construction (+7.6 percent). Employment declined slightly in the manufacturing and government supersectors between the third quarters of 2017 and 2018.

Labor Force & Unemployment

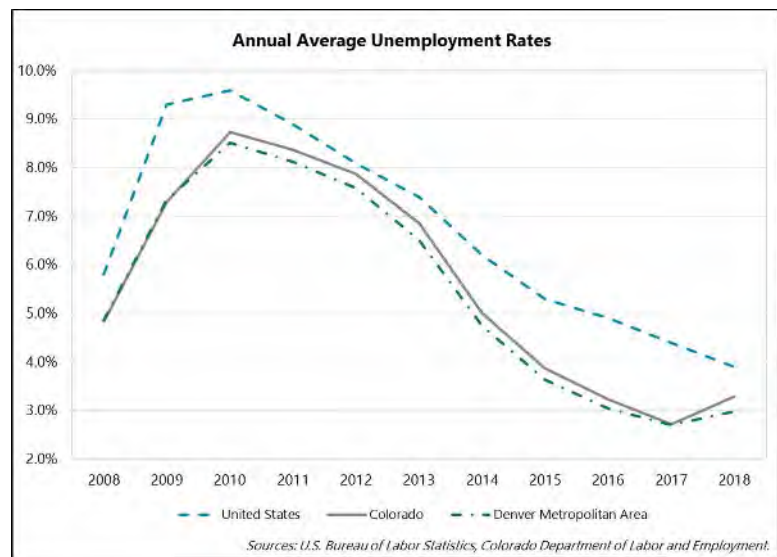
The U.S. unemployment rate fell to a historic low, reaching its lowest point since the late 1960s. According to data from the U.S. Bureau of Labor Statistics, the U.S. unemployment rate declined to 3.9 percent in 2018, a decline of 0.5 percentage points from the 2017 rate (4.4 percent). While the labor market remains tight, companies continued to hire at a fast pace as consumer confidence remained strong.

Colorado

Colorado's unemployment rate remained near historically low levels in 2018 but increased slightly from the 2017 rate. The unemployment rate for 2018 increased to 3.3 percent, 0.6 percentage points higher than the 2017 rate of 2.7 percent. The higher rate was due to strong growth in Colorado's labor force, which grew 3.5 percent between 2017 and 2018 and was faster than employment growth. Despite a higher unemployment rate for 2018, this rate is still 5.4 percentage points below the peak rate of 8.7 percent reached in 2010. Colorado's unemployment rate remained below the national rate for the 14th consecutive year. The state's unemployment rate in 2018 was 0.6 percentage points below the national average.

Denver Metropolitan Area

In 2018, the unemployment rate in the Denver metropolitan area increased from the 17-year low posted in 2017. The region's rising wages and strong job market contributed to a 3 percent growth in the labor force in 2018. The Denver metropolitan area's labor force growth outpaced employment growth for the first time since the Great Recession and was the second-fastest annual increase since 2008. The growing labor force pushed up the unemployment rate in the region to 3 percent in 2018, 0.3 percentage points higher than the 2.7 percent unemployment rate recorded in 2017. The Denver metropolitan area has been consistently below the statewide and nationwide rates since 2010.



City and County of Denver

As an urban center, the City and County of Denver typically records higher unemployment than the Denver metropolitan area. The unemployment rate has generally matched or been slightly higher than the metropolitan area since 2010, averaging about 0.2 percentage points above the Denver metropolitan area over this period of time. The average annual unemployment rate in the City and County of Denver peaked at 9.1 percent in 2010, but steadily declined each year until 2017. Similar to the trends for Colorado and the Denver metropolitan area, the unemployment rate in the City and County of Denver increased from 2.8 percent in 2017 to 3 percent in 2018.

Major Employers

Small businesses represent a significant portion of Colorado's workforce, spurring job creation and economic growth. According to the most recent data from the U.S. Small Business Administration, nearly all private businesses in Colorado, or 99.5 percent of employers are considered small, or employing fewer than 500 workers. In the Denver metropolitan area, data from the U.S. Census Bureau show that 99.7 percent of businesses employed fewer than 500 workers and nearly 98 percent of businesses employed fewer than 100 workers. An additional key facet of Colorado's employment base is the state's level of entrepreneurial activity. Colorado had the nation's fourth-largest share of proprietors as a percentage of total employment in 2017.

While small businesses and the self-employed are vitally important to the Denver metropolitan area economy, larger firms are key providers of jobs and income. According to the most recent data from the U.S. Census Bureau, about 75 firms with 1,000 or more employees were operating in the Denver metropolitan area and a third of these large businesses were located in the City and County of Denver.

Ten companies headquartered in Colorado were included on the June 2018 *Fortune 500* list. Arrow Electronics was the highest ranked Colorado company at #113 with \$26.8 billion in revenue. The remaining nine companies on the list were DaVita HealthCare Partners Inc. (#179), Dish Network (#203), Molson Coors Brewing (#275), Ball Corp. (#277), Qurate Retail (#288), DCP Midstream (#344), Liberty Media (#377), Newmont Mining Corp. (#385), and Western Union (#494).

While private sector businesses account for the majority of employment in the Denver metropolitan area, the public sector also represents a sizeable portion of the area's job base. As the capital of Colorado, the City and County of Denver has a large concentration of government employees. Specifically, public sector employment in Denver consists of 14,300 federal government employees, 15,100 state government employees, and 40,500 employees in local government entities through the third quarter of 2018, including Denver Public Schools (14,000 employees) and the City and County of Denver (13,800 employees).

Metro Denver Largest Private Sector Employers

Company	Product/Service	Employment
King Soopers Inc.	Grocery	14,380
Wal-Mart	General Merchandise	11,900
HealthONE Corporation	Healthcare	11,070
SCL Health System	Healthcare	8,750
Centura Health	Healthcare	8,640
UCHealth	Healthcare, Research	8,520
CenturyLink	Telecommunications	8,290
Lockheed Martin Corp.	Aerospace & Defense Related Systems	7,580
Comcast	Telecommunications	7,350
Kaiser Permanente	Healthcare	6,990
Children's Hospital Colorado	Healthcare	6,850
Safeway Inc.	Grocery	6,180
United Airlines	Airline	6,050
Target Corp.	General Merchandise	5,640
Amazon*	Warehousing & Distribution Services	5,280
United Parcel Service	Parcel Delivery	4,250
Charles Schwab	Financial Services	4,230
University of Denver	University	4,140
DISH Network	Satellite TV & Equipment	4,060
Southwest Airlines	Airline	3,990

Source: Development Research Partners, May 2018.

**Includes Amazon Robotics and Fulfillment Center planned opening in Thornton in August 2018.*

International Trade

The Denver metropolitan area's central U.S. location just west of the nation's geographic center makes it a strategic choice for companies conducting international business. The area is one of the nation's premier transportation hubs at the crossroads of major interstate highways that serve a critical function in supporting interstate and international commerce. Shipping businesses can access the Denver metropolitan area via all transportation modes except water, and the region's location midway between Canada and Mexico is another asset for trade-focused companies. More than 32 percent of the total dollar value of export shipments from Colorado went to Canada and Mexico in 2018. The state's other largest trading partners include China, South Korea, Japan, and Malaysia. The state's top six

partners accounted for about 55 percent of the value of exports in 2018.

Colorado exports increased for the second consecutive year in 2018 after declining from 2014 to 2016. Colorado exports totaled \$8.3 billion, increasing 3.3 percent over-the-year from 2017 to 2018. However, Colorado's exports in 2018 were below the peak in 2013 of more than \$8.5 billion. Much of the decline was attributed to exports to Canada, which fell each year from 2014 through 2016. Colorado recorded robust export growth to South Korea, the Netherlands, Taiwan, and Canada in 2018.

Nearly two-thirds of Colorado's \$8.3 billion in exports consisted of four key products, which were computer and electronic products, food products, machinery, and chemicals. Computer and electronic products comprised over 23 percent of the state's export volume in 2018, while food products comprised nearly 21 percent. Exports of mineral and ores and machinery were the largest contributors to growth in Colorado's exports overall in 2018.

Computer and electronic products rose for the second-consecutive year in 2018 after several years of declines, rising 0.5 percent over-the-year. Growth in Colorado’s exports was negatively impacted by contractions in food manufacturing, chemical products, and nonmetallic mineral products.

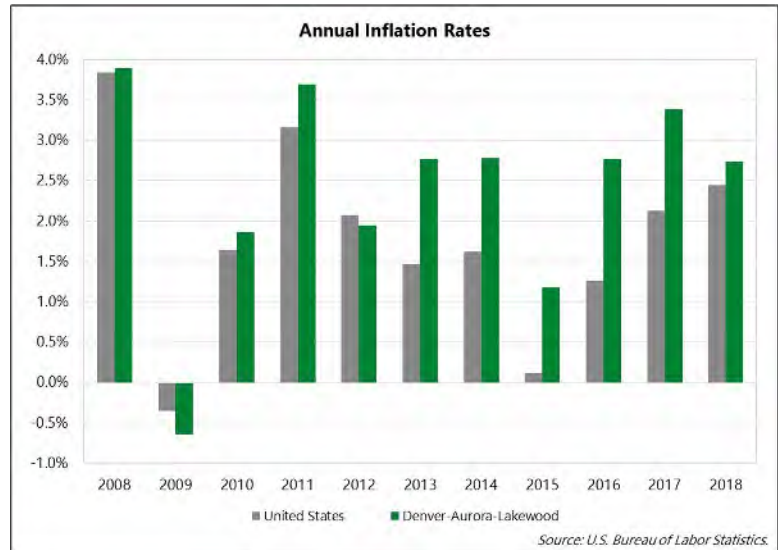
Inflation

The U.S. Bureau of Labor Statistics measures inflation – or deflation – as a change in the Consumer Price Index (CPI). The CPI is a compilation of price measures for items in eight broad categories, the most heavily weighted of which are housing, transportation, and food and beverages. Housing carries the most weight of these three categories.

Changes in the Denver-Aurora-Lakewood CPI have often reflected changes in the national CPI. However, local inflation trends during and after the recent recession followed a slightly different course. The decline and subsequent increase in the Denver-Aurora-Lakewood CPI in 2009 and 2010 differed from national averages by a few tenths of a percentage point.

Since 2013, inflation in the Denver-Aurora-Lakewood area has outpaced the U.S. an average of nearly three-times the national rate. The rapid increase in home prices in the Denver metropolitan area from 2013 to 2018 and rising medical care costs were major drivers of price increases over the past five years. Housing costs in the Denver-Aurora-Lakewood area increased at an average annual rate of 4.5 percent between 2013 and 2018, while housing costs across the U.S. rose 2.6 percent during the same period. Overall, the Denver-Aurora-Lakewood CPI rose 2.7 percent in 2018, 0.3 percentage points higher than the U.S. CPI. During 2018, the U.S. index increased 2.4 percent.

Five of the eight individual components increased at a faster pace in 2018 in the Denver-Aurora-Lakewood area than the U.S. average, consisting of food and beverages, housing, medical care, recreation, and transportation. The medical care component increased the most over-the-year, growing 6.4 percent in the Denver-Aurora-Lakewood area, while the U.S. increased 2 percent. Recreation recorded the smallest increase (+0.2 percent) in the local area, while the U.S. increased 0.5 percent in the same component. Apparel and education and communication were the only components to record declines over-the-year, decreasing 3.2 percent and 0.2 percent, respectively. The U.S. recorded increases in all components between 2017 and 2018.

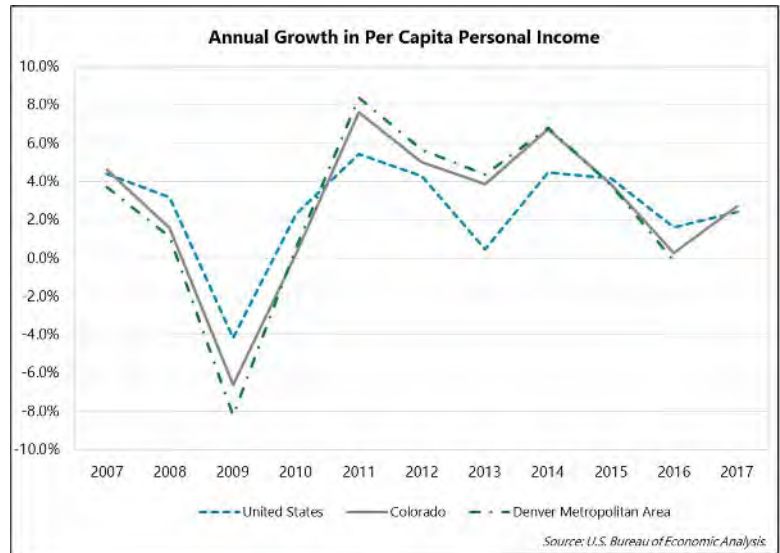


Income

Colorado

The largest component of personal income is earnings from work, meaning a difficult labor market and slow wage growth can affect overall personal income trends. Total personal income increased each year from 2010 to 2018 in Colorado. Between 2013 and 2018, personal income in Colorado increased at an annual rate of 5.4 percent. Personal income growth peaked in 2014 at 8.9 percent before slowing in 2015 and 2016, due in part to a contraction in the oil and gas markets. Personal income growth rose 5.8 percent in 2017 and increased 5.7 percent in 2018 as proprietors’ income and increasing transfer receipts bolstered growth.

Growth in per capita personal income – or total personal income divided by population – followed similar trends in Colorado, increasing each year since 2010. However, per capita personal income growth slowed in Colorado in 2016, rising a smaller 0.3 percent over-the-year. Colorado’s per capita personal income increased 4.4 percent in 2017 and 4.2 percent in 2018, posting growth rates for both of these years that were higher than the nation. In Colorado, per capita personal income was \$56,846 in 2018, or 106 percent of the national average, representing the 13th-highest level of the states.



Denver Metropolitan Area

Total personal income in the Denver metropolitan area has generally followed the same statewide trend over the last decade. Between 2010 and 2017, total personal income increased an average of 6.4 percent per year in the Denver metropolitan area, compared with 5.9 percent in Colorado and 4.3 percent in the U.S. In 2017, the Denver metropolitan area’s total personal income rose 6.4 percent, compared with 5.8 percent in Colorado and 4.4 percent in the U.S.

Per capita personal income in the Denver metropolitan area is higher than both Colorado and the U.S. Per capita personal income in the Denver metropolitan area in 2017 (\$60,685) was 117 percent of the U.S. average. Comparatively high wage rates tend to keep per capita personal income in the Denver metropolitan area above the national average. Despite a slower 0.1 percent growth in per capita personal income in the Denver metropolitan area in 2016, per capita personal income surged 5.1 percent in 2017. This was 0.7 percentage points above the Colorado per capital personal income growth and 1.4 percentage points above the nationwide growth.

City and County of Denver

Per capita personal income in the City and County of Denver is generally higher than the U.S., averaging 132 percent of the national number between 2010 and 2017. The income differential peaked in 2014, when per capita personal income (\$68,147) reached 145 percent of the national average. After the Great Recession, per capita income increased from 2010 through 2014. Per capita income declined 1.6 percent in 2015 and decreased another 4.5 percent in 2016 due to rapid population growth and the oil and gas contraction. Per capita personal income in the City and County of Denver reached \$69,862 in 2017.

The City and County of Denver boasts a higher than average per capita personal income compared with the Denver metropolitan area, averaging 115 percent of the metro-wide number from 2010 to 2017. The difference can be attributed to the relatively high wage rates in the county. The average annual wage in the City and County of Denver was \$67,625 in 2017, which was \$4,158 higher than the Denver metropolitan area average annual wage.

Retail Trade

Retail sales account for a large part of the nation’s total economic output and are a useful indicator of overall consumer health. Retail trade sales declined significantly during the Great Recession, falling 1.3 percent in 2008 and decreasing 7.2 percent in 2009. During the economic recovery, retail sales increased steadily from 2010 to

AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

2018, averaging 4.4 percent per year over this period. Retail sales reached their highest level in 2018, rising 4.9 percent between 2017 and 2018 to \$6 billion. Eleven of the 12 retail trade categories recorded growth in 2018.

Sales of motor vehicles and auto parts is the largest retail trade category in the United States by volume. Sales of motor vehicles and auto parts, a good indicator of healthy spending, rose 2.7 percent in 2018. Gasoline stations were the fastest growing retail trade category from 2017 to 2018, which rose 12.7 percent. Gasoline stations were followed by non-store retailers, rising 9.5 percent over-the-year and includes businesses engaged in mail-order or electronic shopping, door-to-door sales, and in-home demonstrations, among other things. The only retail trade category to contract in 2018 was the sporting goods, hobby, book, and music stores category, which fell 5.4 percent.



Colorado

Retail trade sales in Colorado fell sharply during the Great Recession and improved significantly between 2010 and 2018. Following the Great Recession, retail trade sales increased during the economic recovery as consumers' incomes increased and spending abilities improved. Since 2010, retail sales growth has outpaced the nation, with sales increasing at an average annual rate of 6.3 percent from 2010 to 2015. Sales growth slowed slightly in 2016 to 4.2 percent, possibly reflecting the slower growth in personal income and the oil and gas slowdown. However, retail trade sales increased 5.2 percent in 2017 and rose 5.5 percent in 2018. The increase in 2018 retail trade sales reflected the combination of a strong economy, increased job creation, improved wages, and an increase in net worth.

Denver Metropolitan Area

Consumer confidence remained strong during the economic recovery and continued to improve in 2018, rising higher than pre-recession levels. Denver metropolitan area retail trade sales rose 8 percent in 2014 and 5.5 percent in 2015. Retail sales data at the county and city level is currently available only through 2015 from the Colorado Department of Revenue due to data publication issues. The City and County of Denver has the largest share of retail trade activity in the Denver metropolitan area, comprising 23 percent of the region's retail sales.

U.S. Retail Trade Sales (\$millions)

Industry	2017	2018	Percent Change
Retail Trade:			
Motor Vehicle / Auto Parts	\$1,196,850	\$1,228,928	2.7
Furniture and Furnishings	\$117,597	\$121,417	3.2
Electronics and Appliances	\$97,177	\$98,817	1.7
Building Materials / Nurseries	\$378,028	\$390,777	3.4
Food/Beverage Stores	\$718,554	\$743,360	3.5
Health and Personal Care	\$333,921	\$345,379	3.4
Service Stations	\$456,724	\$514,953	12.7
Clothing and Accessories	\$261,816	\$274,497	4.8
Sporting/Hobby/Books/ Music	\$83,987	\$79,490	-5.4
General Merchandise/ Warehouse	\$691,710	\$714,531	3.3
Misc. Store Retailers	\$126,518	\$130,940	3.5
Non-Store Retailers	\$618,980	\$677,710	9.5
Total Retail Trade	\$5,081,862	\$5,320,799	4.7
Food / Drinking Services	\$676,821	\$717,326	6.0
TOTAL	\$5,758,683	\$6,038,125	4.9

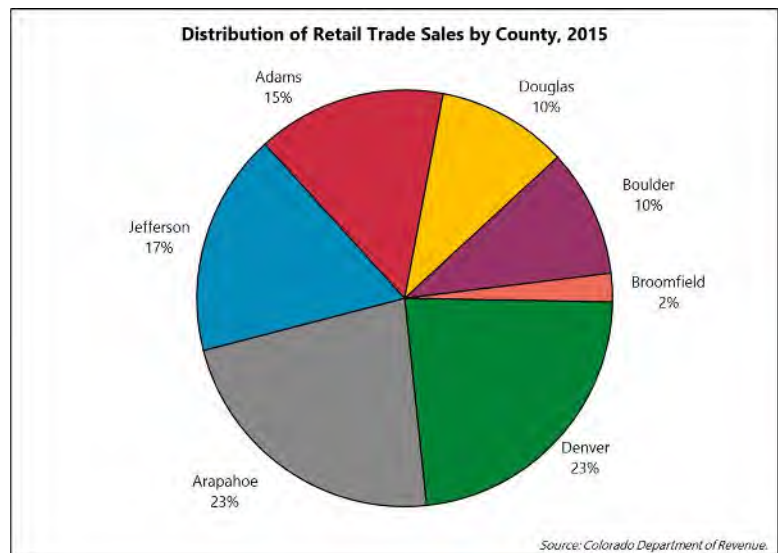
Note: Data are not adjusted for inflation. Sales by industry may not add to totals due to rounding and data suppression. Source: U.S. Census Bureau.



Another indicator of consumer activity is Colorado state sales tax collections in the Denver metropolitan area. After state sales tax collections in the Denver metropolitan area slowed from a 5.8 percent increase in 2015 to a 3.5 percent increase in 2016, state sales tax collections rose 5 percent in 2017. While state sales tax collections in 2017 were 1 percentage point below the annual rate of growth over the past five years (6 percent from 2012 to 2017), growth in collections indicates retail spending remains robust.

The City and County of Denver also had the largest share of sales tax collections in the Denver metropolitan area in 2017, representing 28.3 percent of the total and rose 4.5 percent between 2016 and 2017. Trends in sales tax collections for the City and County of Denver followed similar trends to the Denver metropolitan area, rising 4.7 percent in 2015 and 0.9 percent in 2016. Sales tax collections rose 4.5 percent in 2017 and averaged 5.7 percent over the past five years.

It should be noted that state sales tax collections may vary by year based on changes in the tax base as policy-makers enact exemptions, expand the number of taxable products, or issue rulings and guidance on collections and reporting.



Residential Real Estate

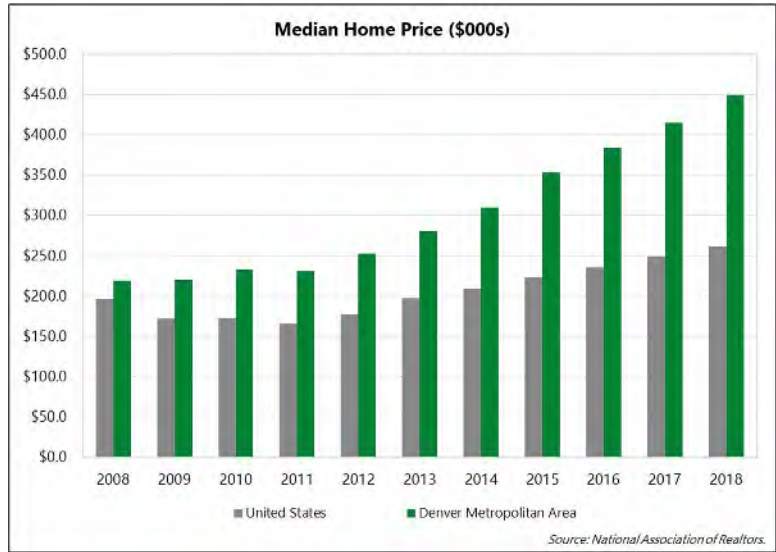
Combined, all aspects of the housing market – from new home construction to money spent on mortgage and rental payments, furnishings, and home improvements – contribute significantly to the nation’s economy.

In recent years, demographic shifts, affordability challenges, and limited supply have contributed to decreasing homeownership rates across the nation. Data from the U.S. Census Bureau show the U.S. homeownership rate fell from 67.5 percent in the fourth quarter of 2008 to 64.8 percent in the fourth quarter of 2018. Homeownership rates for states and metropolitan areas has been even more profound: Colorado’s homeownership rate decreased from 68.5 percent in the fourth quarter of 2008 to 66.3 percent in the fourth quarter of 2018. Similarly, the Denver metropolitan area’s homeownership rate fell from 68.4 percent in the fourth quarter of 2008 to 64.9 percent in the fourth quarter of 2018.

Further, demographic shifts are changing the makeup of the residential real estate market. Millennials represent an increasing share of homeownership, while the aging baby boomers represent a slightly smaller share. The homeownership rate was highest among householders ages 65 years and over (78.8 percent) and lowest for those under 35 years of age (36.5 percent). Between 2017 and 2018, the homeownership rate for those ages 65 years and older fell from 79.2 percent to 78.8 percent, respectively. The homeownership rate for those under 35 years of age increased from 36 percent in 2017 to 36.5 percent in 2018. Combined with historically low interest rates, the disconnect between high demand homes and the low supply has pushed home prices to record high levels. As a result, homeownership has been more challenging for all generational groups. Concurrently, demand for housing is urging new construction activity, resulting in increasing new residential building permits for single-family detached and multi-family homes.

Residential Home Prices

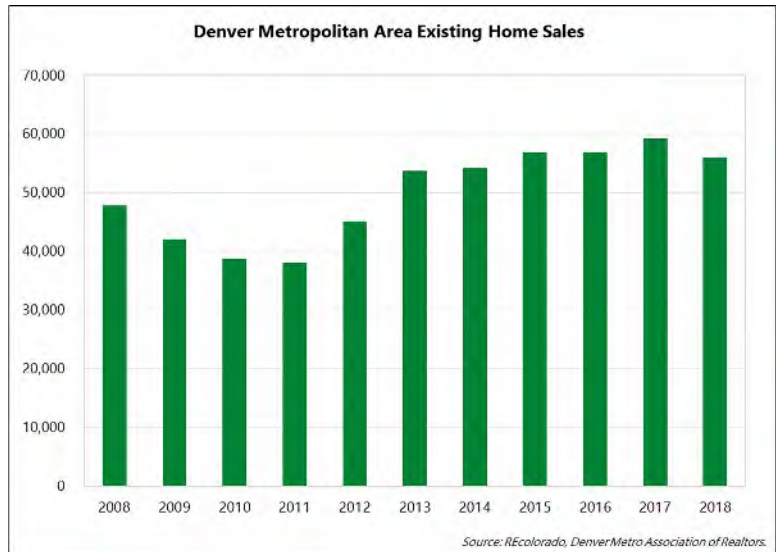
The median home price rose for the seventh-consecutive year in 2018 as low inventory and strong in-migration drove-up prices. The median home price rose 8.5 percent to \$449,900 from 2017 to 2018. Over the last decade, home prices have doubled in the Denver metropolitan area, rising \$230,000 since 2009. Additionally, home prices have increased every year since 2009, except in 2011 when home prices fell 0.4 percent over-the-year. The Denver metropolitan area median home price is now 80 percent higher than the 2006 peak, whereas the 2018 national median home price is 18 percent higher than the 2006 peak. The national median price reached \$261,600 in 2018, a 5.1 increase from 2017. Since 1994, home prices in the Denver metropolitan area have been higher than the nation. However, the differential between the two areas has increased significantly in recent years. Driven by rapid price appreciation in the Denver metropolitan area, the differential reached \$188,300 in 2018, the greatest difference on record.



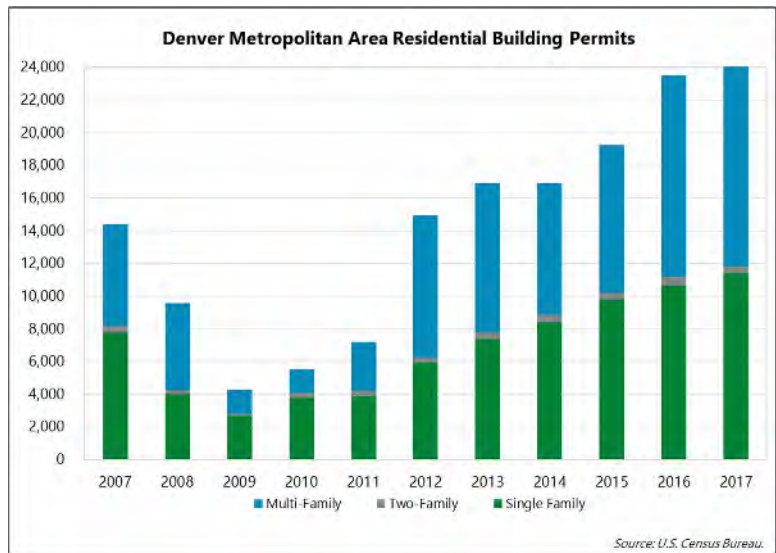
Home prices in the Denver metropolitan area increased at a rate well above the national average and among the fastest of the largest metropolitan areas in the U.S., as tracked by the S&P/Case-Shiller Home Price Index. As of December 2018, Denver recorded the fifth largest over-the-year increase of the 20 cities tracked by the index. Denver was also among 12 cities tracked in the 20-city index that had surpassed their pre-recession peaks as of December 2018. The December 2018 data shows the Denver index was 53.4 percent above its prerecession peak that was reached in August 2006. The 20-city composite index was 3.1 percent above its peak that was reached in July 2006. Another housing price index, the Federal Housing Finance Agency’s Home Price Index shows the Denver-Aurora MSA as having the 64th highest (+8.15 percent) over-the-year increase of 100 metropolitan areas for the period ending December 31, 2018. While increasing home prices are a positive sign for the economy, the rate at which prices are rising suggests a significant disconnect in the supply and demand for homes.

Residential Home Sales

Existing home sales in the Denver metropolitan area decreased for the first time since 2011, falling 5.5 percent from 2017 to 2018 to 55,987. Several factors influenced the housing market in 2018 including slower net migration, rising interest rates, and low affordability as home price increases continued to outpace wage growth. Further, low inventory limited growth in sales in 2018 and fell to a record low at the end of 2017, with the Denver Metro Association of Realtors (DMAR) recording 3,854 active listings. While active listings rose to 5,577 in December 2018, the level was 80 percent lower than recorded in May 2008.



Over the last decade, Denver metropolitan area existing home sales increased 17 percent from 2008 to 2018. Following the Great Recession, home sales fell to a low of 38,106 sales in 2011. Home sales increased from 2012 to 2015, rising an average of 10.8 percent over the period, but slowed in 2016 and 2017. Despite the decline in sales, home sales remain at historically high levels.



Foreclosures

Foreclosure filings in the Denver metropolitan area declined for the ninth-consecutive year in 2018, falling 8.6 percent from 2017 to 2018. The Denver metropolitan area's low

unemployment rate, strong job market, rising home prices, and demand for housing have enabled many homeowners to maintain mortgage payments, restructure debt, and avoid foreclosure. Five of the seven counties in the Denver metropolitan area recorded foreclosure declines in 2018, ranging from a 27.3 percent decline in Boulder County to a 2.9 percent decline in Jefferson County. The City and County of Broomfield and Douglas County were the only two counties that recorded increases in foreclosure filings in 2018, rising 7.7 percent and 4.9 percent, respectively.

Residential Building Permits

The combination of low inventory and high demand have constrained the residential real estate market, and the pace of new development has been challenged to keep up with the increase in new households. Construction permits rose 2.2 percent in 2017 with 24,021 residential construction permits issued, the highest recorded permit count since 2001. Residential construction permits in the Denver metropolitan area have increased for the eighth-consecutive year since falling to a low of 4,288 permits in 2009. In 2017, single-family detached permits rose 7.1 percent and comprised about 48 percent of total permits issued. Single-family attached permits declined by nearly



28 percent from 2016 to 2017 but comprised just 1.6 percent of permits. Multi-family permits also declined, falling by 0.7 percent to 12,218 permits. Despite the drop in multi-family permits, multi-family permit activity remained at historic highs. It is important to note that multi-family construction, which has historically represented about one-third of permits issued over the past 20 years, comprised nearly 51 percent of the total in 2017. Multi-family permits have represented roughly one-half or more of all permits issued in the Denver metropolitan area from 2012 to 2017.

Total permits issued in the City and County of Denver rose 34.2 percent between 2016 and 2017, after falling 0.7 percent in the previous year. The increase was attributed to a 42.6 percent increase in multi-family permits (7,960 permits). Single-family detached permits increased 25.6 percent (2,370), while single-family attached permits decreased 47.1 percent to 198 permits.

Generational shifts are changing the residential real estate market in the Denver metropolitan area. There has been an influx of millennial homebuyers in 2018 as older millennials are beginning to payoff student loan debt and had a longer period to grow in their careers. Additionally, low interest rates have led to more millennials entering the homeownership market. According to LendingTree.com, Denver ranked fifth among the “Most Popular Cities for Millennial Homebuyers” in 2018, with 45 percent of all new purchase mortgage requests from those under the age of 35. Another growing trend is a return to multigenerational living, driven by shifts in senior living, immigration reform, and affordability. The ongoing shift has increased new types of home product for this type of living including flexible units and accessory dwelling units. Additionally, the aging of the population in the Denver metropolitan area has increased demand for senior living facilities, ranging from independent senior living to assisted living facilities.

Apartment Market

Demand kept pace with supply and new units were rapidly absorbed in the Denver metropolitan area’s apartment market in 2018. In 2018, tenants in the Denver metropolitan area absorbed 13,707 units, more than the number constructed. Subsequently, apartment rent growth has moderated, and vacancy rates remain stable. The vacancy rate average increased just 0.3 percentage points to 5.9 percent in 2018 from 2017.

Markets across the region are also showing signs of stabilizing. The *Denver Metro Apartment Vacancy and Rent Survey* indicates average annual vacancy rates decreased from 2017 to 2018 in three of the six county-level markets reported, including the Boulder/Broomfield markets, Adams County, and Douglas County. The vacancy rate decreases ranged from 0.9 percentage points in Douglas County to 0.3 percentage points in the Boulder/Broomfield markets. The vacancy rate increased in two markets including the City and County of Denver (+0.8 percentage points) and Arapahoe County (+0.7 percentage points). The vacancy rate remained unchanged in Jefferson County at 5 percent. Among the six submarkets, the City and County of Denver reported the highest average annual vacancy rate in 2018, reaching 7.3 percent. The City and County of Denver reported a vacancy rate of 6.5 percent in 2017, the second-highest rate of the six submarkets.

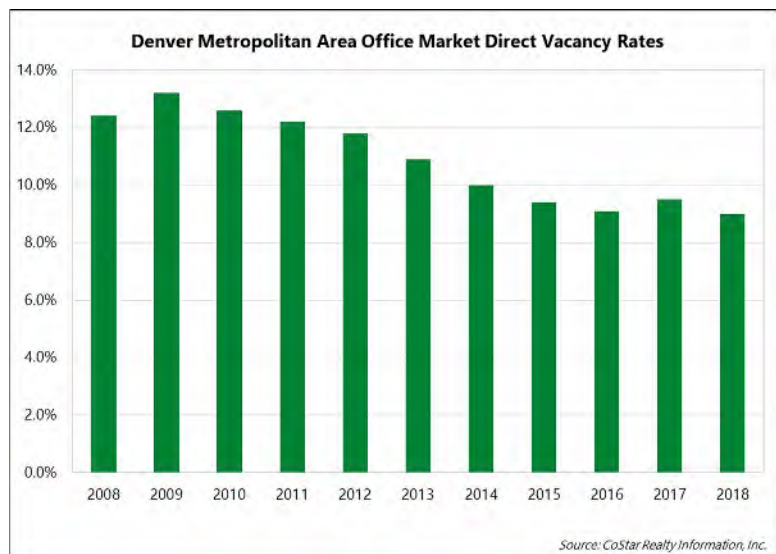
Average lease rates in the Denver metropolitan area showed signs of slowing in 2018 as a result of the balanced market conditions. While average lease rates increased slightly in 2018, the pace of growth slowed to its lowest level since 2011. Average rent in the Denver metropolitan area increased 3.8 percent between 2017 and 2018 to \$1,456 per month. Rent growth peaked in 2015 at 12.2 percent before slowing to 6.9 percent in 2016 and 3.9 percent in 2017. Every county reported over-the-year increases in the average rental rate. Jefferson County recorded the largest increase in the average rental rate, reporting a 4.9 percent increase between 2017 and 2018. Douglas County reported the smallest increase in the average rental rate, rising 1 percent over-the-year. The average monthly rental rate reached \$1,502 in the City and County of Denver, a 4.6 percent increase from 2017. Average monthly rental rates ranged from \$1,367 in Adams County to \$1,607 in the Boulder/Broomfield submarket.

Commercial Real Estate

Office Activity

Data from CoStar Realty Information, Inc. show that vacancy for office space remained stable and rents were flat in 2018. The vacancy rate over the four quarters of 2018 in the Denver metropolitan area averaged 9.6 percent, which was the same average one year earlier. The fourth quarter 2018 vacancy rate of 9 percent was 0.5 percentage points below the prior year. However, the vacancy rate in 2018 rose to as high as 10 percent in the second quarter of 2018, its highest point since the fourth quarter of 2014. The office vacancy rate had declined year-over-year for 26 consecutive quarters before increasing starting in the first quarter of 2017. While office lease rates have steadily increased since the second quarter of 2011, lease rates in 2017 and 2018 remained relatively flat. The average lease rate for direct space in the fourth quarter of 2018 (\$26.62 per square foot) was relatively unchanged from the year-ago level.

Office construction activity increased in 2018 with 3.83 million square feet completed, up from 3 million square feet in 2017. Office construction activity in the Denver metropolitan area was at its highest level since 2001. Some of the year's most notable completed construction projects included the 672,000-square-foot 1144 Fifteenth tower, the 428,200-square-foot 16 Chestnut Building at Denver Union Station, the 324,100-square-foot Village Center Station II building in Greenwood Village, and the 222,100-square-foot INOVA Dry Creek 2 building in Centennial. Further, there was about 4.1 million square feet of office space under construction during the fourth quarter of 2018. Of this space, nearly 76 percent, or 3.1 million square feet, was under construction in the City and County of Denver.



Industrial and Flex Activity

CoStar Realty Information shows that the industrial market posted a stable vacancy rate in 2018 despite adding nearly 6 million square feet of newly completed space to the market. Additionally, demand for industrial space was strong as rents continued to grow throughout the year. The industrial direct vacancy rate averaged 4 percent through the four quarters of 2018 in the Denver metropolitan area, down from an annual average of 4.1 percent in 2017. Average lease rates continued to climb in the industrial market. While average lease rates appeared to moderate in 2017, even posting an over-the-year decline in the first quarter of 2017, average lease rates increased as much as 6.7 percent over-the-year in the first quarter of 2018. From the fourth quarter of 2017 to the fourth quarter of 2018, average lease rates in the industrial market rose 3.9 percent to \$8.05 per square foot triple-net.

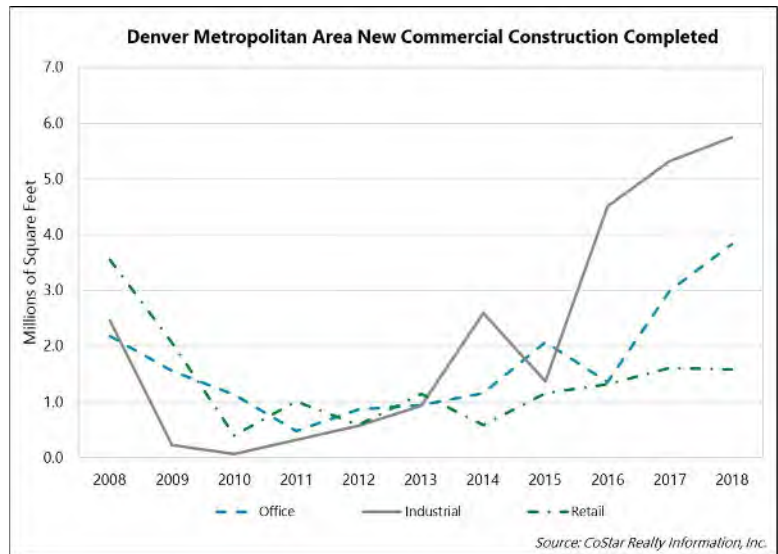
Strong industrial demand over the past several years has led to record levels of construction activity, notably for warehousing and distribution space for online merchandisers. Absorption in the industrial market remained strong as new completions were at historic levels for the past three years. New completions rose to 5.75 million square feet in 2018, up from 5.32 million square feet in 2017, representing a record year of new industrial completions. There was another 4.6 million square feet under construction in the fourth quarter of 2018. Notable industrial

projects completed included the 2.4 million-square-foot Amazon fulfillment center in Thornton and the 701,900-square-foot Building 15 in Aurora.

The Denver metropolitan area flex market recorded falling vacancy rates and increasing average lease rates through the fourth quarter of 2018. Direct flex market vacancy averaged 5.7 percent in 2018, 0.7 percentage points below the average vacancy rate in 2017. The fourth quarter 2018 vacancy rate (5.2 percent) was 0.6 percentage points below the fourth quarter 2017 level of 5.8 percent and was the lowest recorded vacancy rate based on records going back to 1999. The Denver metropolitan area direct flex market lease rate was \$12.07 per square foot, 0.3 percent above the fourth quarter 2017 average. Since the fourth quarter of 2012, the average lease rate has risen steadily, increasing \$3.44 per square foot from 2012 to 2018. There was about 442,800 square feet of flex space completed in the Denver metropolitan area in 2018, including 133,122 square feet of flex space in the Interpark industrial development in the City and County of Broomfield. As of the fourth quarter of 2018, there was about 432,500 square feet of flex space under construction.

Retail Activity

Consumer confidence in the Mountain Region, which includes Colorado, remained strong in 2018 with several index values during the year rising above previous high levels reached in the early 2000s. Retail sales in both Colorado and the Denver metropolitan area have steadily increased over the past five years in response to increased consumer demand and rising consumer spending activity. Signaling an improved retail real estate market in the Denver metropolitan area, vacancy rates continued to decline, average lease rates grew, and construction activity continued at a reasonable pace in 2018. In the fourth quarter of 2018, the vacancy rate fell to 4.1 percent,



falling by 0.2 percentage points from the fourth quarter of 2017. The vacancy rate in the Denver metropolitan area’s retail market peaked at 8 percent in 2009. Over the same time period, the average lease rate was up 5.2 percent over-the-year to \$19.12 per square foot. While average lease rate growth appears to have peaked in 2017, retail average lease rates outpaced increases for office and industrial space in 2018.

Analysts have noted that strong population and housing growth continues to drive the Denver metropolitan area’s retail market. Additionally, retailers in categories such as entertainment, fitness, grocery, and food and beverage continue to lead leasing activity in the area. Even with national closures and e-commerce disruption, the market has rebounded and continues to attract developers and investors. In 2018, the Denver metropolitan area’s retail market added 1.59 million square feet of space in 113 buildings. The level of construction remained close to the long-term average of 1.65 million square feet per year since 2006. An additional 1 million square feet of retail space was under construction at the end of 2018. Some of the major projects completed in 2018 included the 330,000-square-foot Denver Premium Outlets in Thornton, a 140,000-square-foot King Soopers in Arvada, and the 77,300-square-foot Promenade at Castle Rock.



Medical Facilities

The Denver metropolitan area offers a robust culture of health and wellness and is home to major health systems and significant healthcare and wellness facilities. The area's growing and aging population and changes in residents' behavior and lifestyle choices will continue to drive demand for healthcare and wellness services.

As one of the most ambitious medical developments in the nation, the \$5.4 billion, 578-acre Fitzsimons Innovation Community and adjacent Anschutz Medical Campus is the largest academic health and bioscience center between Chicago and the West Coast. The campus serves more than 500,000 patients annually and offers two world-class research hospitals—UCHealth University of Colorado Hospital and Children's Hospital Colorado. In 2018, the Veteran's Administration celebrated the opening of its Rocky Mountain Regional VA Medical Center in Aurora. The facility features 306,000 square feet of diagnostic and treatment space, 260,000 square feet of inpatient space, and 302,000 square feet of clinic space in 12 buildings across 31 acres.

Construction activity remained robust for medical and healthcare facilities in 2018 to accommodate ongoing patient demand. Notable healthcare projects included the construction of Denver Health's \$157 million outpatient center, which is part of a \$937 million bond package approved by Denver voters in 2017. A five-story, 100,000-square-foot medical pavilion will soon be developed at Saint Joseph's Hospital in Denver's Uptown neighborhood that is expected to be completed in the second quarter of 2020. Further, Boulder Community Health is expanding with a new 30,000-square-foot office on South Boulder Road. BCH is also building a new medical office and urgent care center in Erie, where it plans to open the new Lafayette rehabilitation center. Children's Hospital Colorado is expanding its North Campus, which will be four times the size of the existing facility once complete.

Transportation

Highways

Colorado's transportation network includes almost 1,000 miles of Interstate highway, more than 350 miles of other freeways and expressways, and almost 87,400 miles of arterials, collectors, and local roads. The Texas Transportation Institute reported that the Denver-Aurora area had nearly 1.3 million auto commuters who logged 21.7 million vehicle-miles of freeway travel and 21 million arterial street daily vehicle-miles in 2014. Commuters in the Denver-Aurora area also observe 49 hours of traffic congestion annually per commuter, ranking Denver with the 19th highest level of traffic congestion of the 101 tracked metropolitan areas.

Major transportation projects aimed at improving travel and accessibility throughout the Denver metropolitan area were underway in 2018. Construction continued on the \$276 million C-470 Express Lanes project, which will provide 12.5 miles of increased mobility between I-25 and Wadsworth Boulevard. The project will include both two-lane and one-lane expansions for the Eastbound and Westbound directions. The project also includes on- and off-ramp improvements, widening of existing bridges, and replacing the bridges over the South Platte River. The project is expected to be completed in 2019. The Central 70 project broke ground in August 2018 and includes plans to reconstruct a 10-mile stretch of I-70, add a new express lane in each direction along I-70, lower a portion of the highway below grade, and create a 4-acre park above the highway cap. Construction of the \$1.2 billion project is anticipated through 2022.

Mass Transit

The Regional Transportation District (RTD), funded by a 1 percent sales tax, oversees the Denver metropolitan area's mass transit system. RTD operates 1,035 buses on 142 fixed routes, 172 light rail vehicles on 58.5 miles of track, and 66 commuter rail vehicles on 29 miles of track. The District operates 84 Park-n-Rides, 54 active light rail stations on 10 rail lines (A, B, C, D, E, F, L, H, R, and W), and 10,053 bus stops. RTD is continuing work on the G Line from Wheat Ridge to Denver that spans 11 miles and eight stations between Union Station and near Ward Road and I-70. The project could be completed as early as 2019.



FasTracks is a multibillion-dollar comprehensive transit expansion plan to build 122 miles of new commuter rail and light rail, extend existing routes, and expand the regional bus network across the eight-county district. RTD works continually to expand capacity and services for public transportation in order to meet increasing demand. Future projects include the N Line, a 13-mile rail line that will provide service from Union Station through Denver, Commerce City, Thornton, Northglenn, and eventually north Adams County; several rail extensions including the L Line extension that will connect the existing downtown rail service to the University of Colorado A Line; the C and D lines will be extended 2.5 miles into Highlands Ranch and provide 1,000 parking spaces; and the E, F, and R lines will be extended 2.3 miles, offering service into Lone Tree and provide an additional 1,300 parking spaces.

Air

Denver International Airport (DEN) is a state-of-the-art facility owned and operated by the City and County of Denver. Occupying 53 square miles and located approximately 24 miles northeast of downtown Denver, DEN is the primary airport serving the nine-county region and the state of Colorado. DEN is one of the few major U.S. airports with room to expand to accommodate future growth.

DEN is the 20th-busiest airport in the world and the fifth-busiest airport in the United States, with nearly 64.5 million passengers travelling through DEN in 2018. This was the fifth-consecutive year of record-breaking growth for the airport, with passenger traffic increasing 5.1 percent between 2017 and 2018. Additionally, several records were broken throughout the year including the busiest August in DEN history, the first time the airport served more than 6 million passengers in a single month in July, and the first time that passenger traffic surpassed 5 million in the month of April. International traffic also continues to increase at DEN as a result of strong demand and increased carrier capacity. International passenger traffic rose 13.9 percent between 2017 and 2018 and accounted for nearly 5 percent of the airport's total passenger traffic.

DEN continues to be the fastest-growing airport in the country, adding more flights and more seats than any top-10 U.S. airport in the past year. Located near the geographic center of the United States, DEN is the only major hub airport within a 500-mile radius. DEN provides nonstop service to more than 200 destinations worldwide, including 26 international destinations in 12 countries and over 180 domestic destinations in 46 states. DEN is served by 24 airlines, including major hubs for United, Southwest, and Frontier Airlines. In fact, United Airlines has grown more at DEN than any other U.S. airport. Many domestic and international service additions were announced in 2018, including Frankfurt, Germany and the Cayman Islands. Additionally, DEN celebrated inaugural nonstop flights to Zurich, Switzerland on a new DEN carrier, Edelweiss/SWISS, and Paris-Charles de Gaulle on Norwegian Air Shuttle.

DEN is a leading air cargo center and a key distribution hub. Eight cargo airlines and 15 major and national carriers currently provide cargo service at DEN, handling 613.6 million pounds of cargo in 2018. With 24-hour operations, the airfield and a 39-acre cargo ramp make freight handling efficient, with no curfews. DEN is home to several world-class cargo companies and support facilities, including FedEx, UPS, Southern Air, and United Airlines cargo. The U.S. Postal Service facility is located nearby, providing a wide array of competitive shipping and receiving options.

DEN serves its ever-expanding travel market with six runways, three concourses, and 111 gates with 32 ground load positions. DEN has capacity for six additional runways, another terminal, and two additional concourses. The Jeppesen Terminal at DEN features 1.5 million square feet of space, and includes passenger ticketing, baggage claim, ground transportation, international arrivals, shops and restaurants, and Transportation Security Administration (TSA) security checkpoints. Located adjacent to the Jeppesen Terminal is the Westin Denver International Airport, which opened in 2015. The Westin offers 519 guest rooms, 37,500 square feet of conference space, 15 meeting rooms, and an open-air plaza for arts and entertainment.

DEN is at the forefront of technology advancements. In 2018, DEN and the Federal Aviation Administration (FAA) successfully launched an upgrade to the use of satellite-based air traffic management that will help airlines save fuel, cut travel times, reduce miles flown, and improve the efficiency of final approach patterns for incoming planes in low-visibility operations. DEN is a leader in developing, testing, and implementing NextGen flight procedures and was the first commercial airport to design a truly comprehensive plan of Area Navigation (RNAV) that allows aircraft to fly more predictable and smoother approaches into DEN that reduce fuel consumption and noise. Since 2010, DEN has worked closely with the FAA, Jeppesen, the major airlines, and Rocky Mountain and Centennial Airports to implement NextGen and Unmanned Aircraft Systems (UAS) programs.

Three reliever airports complement DEN's expanding role in the Denver metropolitan area economy. Centennial Airport serves the southeast metropolitan area; Colorado Air and Space Port (formerly Front Range Airport) is located six miles southeast of DEN and serves the northeast Denver metropolitan area; and Rocky Mountain Metropolitan Airport serves Jefferson, Broomfield, and Boulder Counties in the northwest area. Three general aviation airports – Boulder Municipal Airport, Erie Municipal Airport, and Vance Brand Municipal Airport in Longmont – also serve the Denver metropolitan area.

Rail

Rail lines are a critical component of the nation's transportation system and are vital to the Denver metropolitan area's economic health and global competitiveness. According to the Colorado Department of Transportation, Colorado's freight rail system extends over 2,684 miles and is operated by 14 privately owned railroads. Together, these freight railroads move nearly 155 million tons of products into, out of, within, and through Colorado. The Denver metropolitan area serves as a major hub for the Burlington Northern Santa Fe and Union Pacific railroads. Combined, these railroads operate more than 80 percent of freight track miles and carry most freight by volume and by value in the state. Coal is the predominant commodity by weight for trips originating and terminating in Colorado, representing 50 percent of total tonnage and 28 percent of product value carried by rail.

The primary passenger rail system in the Denver metropolitan area includes light rail, commuter rail, and intercity passenger rail. Amtrak's California Zephyr route offers area residents transportation through the Rocky Mountains west of Denver and connects Chicago to San Francisco. The Southwest Chief route passes through Lamar, La Junta, and Trinidad, providing transportation between Kansas City, Kan. and Albuquerque, N.M. In 2017, Amtrak began new, seasonal service between Denver and Winter Park Resort. The Amtrak Winter Park Express marked the return of the "Ski Train" to the Denver metropolitan area and provides a car-free transportation alternative. Nearly 280,000 travelers passed through Colorado Amtrak stations in fiscal year 2017, and 55 percent of those travelers either boarded or alighted from trains in the Denver metropolitan area. There were 11.5 percent more riders in fiscal year 2017 than there were during the 2016 fiscal year, which was bolstered by the additional 16,658 passengers on the new Ski Train.

Tourism

The Denver metropolitan area offers visitors a variety of natural, cultural, and historical assets, with the nation's largest public parks system, over 100 golf courses, and over 850 miles of bike paths with nearly 90 bike sharing stations. The area also offers major attractions including a zoo, an aquarium, two waterparks, two amusement parks, over 40 museums, and 13 historical sites. In 2017, arts and cultural events attracted 15 million people and generated \$1.9 billion in economic activity.

In 2017, Denver continued a 12-year streak of record-setting growth in visitors, visitor spending, and tax generation. According to the most recent study by Longwoods International, Denver tourism activity increased to a record 31.7 million visitors spending \$6.5 billion in 2017, representing a 1 percent increase in visitors and a 5 percent increase in spending over 2016. Of the 31.7 million, 17.4 million were overnight visitors, which increased 1

AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

percent over-the-year. Top Denver attractions included the 16th Street Mall, the Cherry Creek Shopping District, and the Lower Downtown area, as well as numerous cultural facilities such as the Denver Zoo, the Denver Botanic Gardens, and the Denver Museum of Nature and Science.

Denver metropolitan area residents and visitors have a multitude of recreational opportunities from which to choose including skiing, hiking, camping, biking, and hunting. Colorado remains the number one ski destination in the country with over 21 percent of the market share, according to Longwoods International. The state is a top three ski and snowboard state, with 77 percent of the state's resorts in the top 100 U.S. ski resorts. The state is home to 28 ski and snowboard resorts offering 330 ski lifts and 67,490 skiable acres.

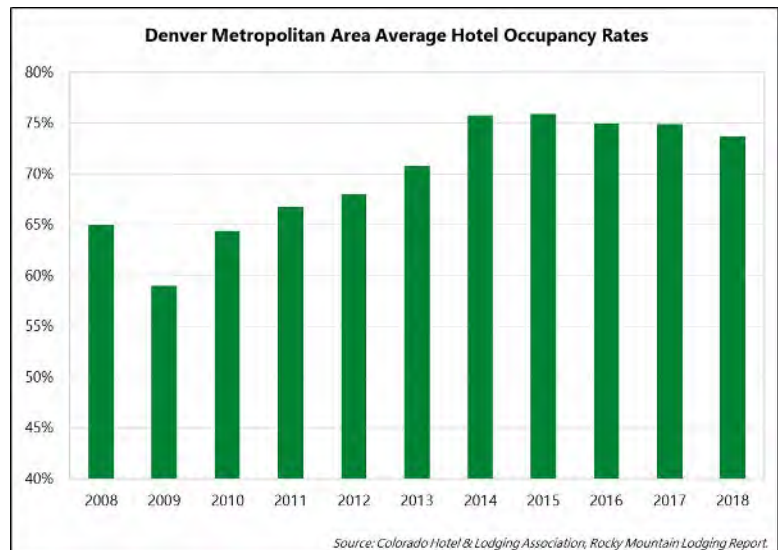
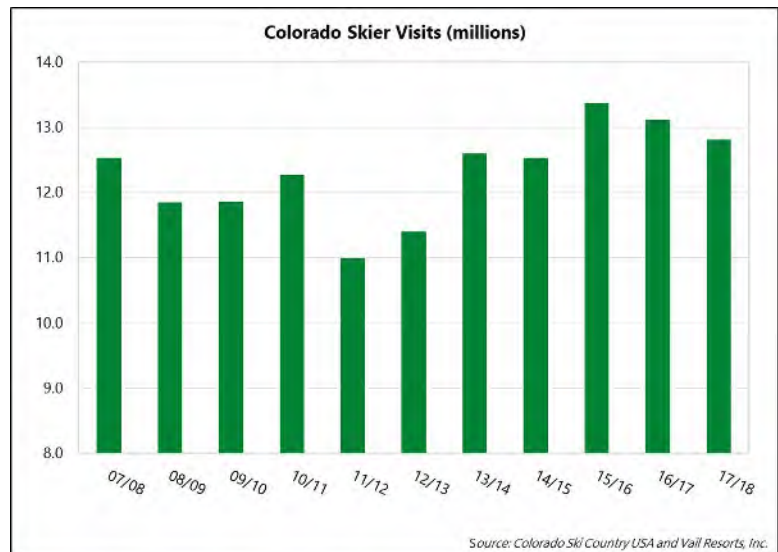
Twelve Colorado ski resorts are located within two hours of the Denver metropolitan area. Estimates from Colorado Ski Country USA and Vail Resorts, Inc. indicate that the number of skier visits during the 2017-18 ski season declined by about 2.4 percent compared with the prior season, falling to about 12.8 million skier visits.

Colorado skier visits – or the count of persons skiing or snowboarding for any part of one day – peaked during the 2015-16 season at 13.4 million visits.

The Denver metropolitan area hosts many nationally recognized events and festivals throughout the year that positively impact the economy and attract numerous visitors including the National Western Stock Show, the Cinco de Mayo Festival, Denver Comic Con, and the Great American Beer Festival. Additionally, the Denver Performing Arts Complex is one of the largest such complexes in the world and attracts several major performances for visitors each year.

Business, professional, and leisure travelers to Denver have increased in recent years. In 2017, overnight leisure and business travelers spent \$5.6 billion, an increase of 5.7 percent over-the-year. These travelers drive convention activity and spur hotel development in Denver. Since it opened in 1990, the Colorado Convention Center has been an economic engine for downtown Denver, generating more than \$500 million a year in spending. In 2018, the Convention Center hosted over 180 events that attracted more than 893,000 attendees.

There were several new hotels that opened in 2018 or are in the pipeline for 2019, including the Hilton Garden Inn Denver Union Station, the Marriott Element Downtown East, the 201-room Jacquard Hotel in Cherry Creek North, the Ramble Hotel Denver in the River North Art District, and the Origin Red Rocks. Notably, the Gaylord Rockies Resort opened in late 2018, which is the largest hotel property in the state with more than 1,500 hotel rooms.



Despite rising demand over the last few years, the hotel industry in the Denver metropolitan area is showing signs of stabilizing. According to the *Rocky Mountain Lodging Report*, the 2018 revenue per available room (RevPAR) dropped 1.3 percent over 2017, a statistic many in the industry view as the most important indicator. The flood of new rooms in the area's market has contributed to a decline in RevPAR after seven years of significant growth. The average occupancy rate also fell, declining to 73.7 percent in 2018 from 74.9 percent in 2017. The region's average nightly room rate for 2018 (\$144.03) was 0.2 percent higher than the 2017 average.

Summary

The Denver metropolitan area has a nonfarm employment base of nearly 1.7 million workers, which accounted for about 62 percent of the state's employment. Employment growth in the region has been slightly stronger than the state, rising 2.5 percent between 2017 and 2018 compared with 2.4 percent in Colorado. All 11 industry supersectors in the Denver metropolitan area added jobs in 2018, with the addition of 41,600 jobs of the total 64,900 jobs added in the state. The unemployment rate in the Denver metropolitan area increased from the 17-year low posted in 2017. The growing labor force pushed up the unemployment rate from 2.7 percent in 2017 to 3 percent in 2018.

The residential real estate market in the Denver metropolitan area began to moderate in 2018. Existing home sales decreased for the first time since 2011, falling 5.5 percent from 2017 to 2018 due to slower net migration, rising interest rates, and low affordability. However, home prices continued to climb in 2018; the median home price rose for the seventh-consecutive year, rising 8.5 percent to \$449,900 in 2018. Additionally, the combination of low inventory and high demand have constrained the residential real estate market, and the pace of new development has been challenged to keep up with the increase in new households.

Commercial construction activity in the office, industrial, and retail markets remained strong in 2018 as the level of completed space rose to a record 11.61 million square feet. Vacancy rates declined in three of the four major property types (office, flex, and retail) and increased slightly in industrial. The average lease rates continued to grow in industrial, flex, and retail, but remained flat for office. New development continued in 2018 in the Denver metropolitan area with levels of activity in several of the markets, including office and industrial, exceeding their pre-recession peak. The amount of space under construction in the fourth quarter of 2018 remained near multi-decade highs with 10.12 million square feet under construction. Construction activity also remained robust for hotels, medical, and healthcare facilities across the region.

The Denver metropolitan area offers visitors, travelers, and recreationists world-class natural, cultural, and historical assets. Further, the Denver metropolitan area's multimodal transit system accommodates its growing population of 3.2 million residents and visitors alike. Transportation options throughout the region including Denver International Airport, three reliever airports, FasTracks, and various highways and rail systems, supports the region's quality of life and growing appeal for businesses, workers, and residents.

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	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
POPULATION (July 1)											
United States (thousands)	304,094	306,772	309,326	311,580	313,874	316,058	318,386	320,743	323,071	325,147	327,167
Colorado	4,901,938	4,976,853	5,050,332	5,119,182	5,189,861	5,266,317	5,345,680	5,444,871	5,534,240	5,609,445	5,689,227
Denver Metropolitan Area	2,716,819	2,762,164	2,797,896	2,847,883	2,899,133	2,953,462	3,008,976	3,070,803	3,117,696	3,154,134	3,196,704
City and County of Denver	581,903	595,573	604,879	621,034	635,339	649,478	664,715	683,081	696,347	705,651	718,107
POPULATION GROWTH RATE											
United States	1.0%	0.9%	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.6%	0.6%
Colorado	1.7%	1.5%	1.5%	1.4%	1.4%	1.5%	1.5%	1.9%	1.6%	1.4%	1.4%
Denver Metropolitan Area	1.8%	1.7%	1.3%	1.8%	1.8%	1.9%	1.9%	2.1%	1.5%	1.2%	1.3%
City and County of Denver	2.0%	2.3%	1.6%	2.7%	2.3%	2.2%	2.3%	2.8%	1.9%	1.3%	1.8%
NET MIGRATION											
Colorado	40,469	36,267	37,569	34,944	38,710	45,345	47,655	69,096	59,628	47,640	52,979
Denver Metropolitan Area	22,326	21,639	13,892	29,168	31,857	34,971	35,778	43,055	28,421	19,030	25,382
City and County of Denver	5,480	7,620	3,819	10,705	9,286	9,094	10,143	13,324	8,316	4,665	7,837
NONAGRICULTURAL EMPLOYMENT											
United States (millions)	137.2	131.3	130.4	131.9	134.2	136.4	139.0	141.8	144.4	146.6	149.1
Colorado (thousands)	2,349.3	2,244.4	2,221.1	2,257.3	2,311.7	2,380.5	2,463.7	2,541.0	2,601.8	2,660.4	2,725.3
Denver Metropolitan Area (thousands)	1,420.7	1,359.5	1,353.1	1,378.0	1,417.6	1,468.2	1,522.7	1,578.1	1,619.2	1,653.9	1,695.5
City and County of Denver	449,254	423,282	420,523	422,704	434,083	441,249	460,619	478,564	494,614	506,023	519,781
NONAGRICULTURAL EMPLOYMENT GROWTH RATE											
United States	-0.5%	-4.3%	-0.7%	1.2%	1.7%	1.6%	1.9%	2.1%	1.8%	1.6%	1.7%
Colorado	0.8%	-4.5%	-1.0%	1.6%	2.4%	3.0%	3.5%	3.1%	2.4%	2.3%	2.4%
Denver Metropolitan Area	1.0%	-4.3%	-0.5%	1.8%	2.9%	3.6%	3.7%	3.6%	2.6%	2.1%	2.5%
City and County of Denver	1.5%	-5.8%	-0.7%	0.5%	2.7%	1.7%	4.4%	3.9%	3.4%	2.3%	2.7%

2018 EMPLOYMENT DISTRIBUTION BY INDUSTRY

	United States	Colorado	Denver Metropolitan Area	City & County of Denver
Natural Resources & Construction	5.4%	7.4%	6.7%	6.3%
Manufacturing	8.5%	5.4%	5.2%	4.0%
Wholesale & Retail Trade	14.5%	14.0%	14.0%	11.3%
Transportation, Warehousing, Utilities	4.0%	3.3%	3.7%	5.6%
Information	1.9%	2.7%	3.4%	2.6%
Financial Activities	5.7%	6.3%	6.9%	7.7%
Professional & Business Services	14.1%	15.6%	18.2%	20.6%
Education & Health Services	15.9%	12.5%	12.7%	12.4%
Leisure & Hospitality	11.0%	12.5%	11.2%	12.9%
Other Services	3.9%	4.1%	3.8%	3.5%
Government	15.1%	16.3%	14.2%	13.2%

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
UNEMPLOYMENT RATE											
United States	5.8%	9.3%	9.6%	8.9%	8.1%	7.4%	6.2%	5.3%	4.9%	4.4%	3.9%
Colorado	4.8%	7.3%	8.7%	8.4%	7.9%	6.9%	5.0%	3.9%	3.2%	2.7%	3.3%
Denver Metropolitan Area	4.9%	7.3%	8.5%	8.1%	7.6%	6.5%	4.7%	3.6%	3.0%	2.7%	3.0%
City and County of Denver	5.4%	8.1%	9.1%	8.6%	7.9%	6.6%	4.8%	3.7%	3.1%	2.8%	3.0%

CONSUMER PRICE INDEX (CPI-U, 1982-84=100)

United States	215.3	214.5	218.1	224.9	229.6	233.0	236.7	237.0	240.0	245.1	251.1
Denver-Boulder-Greeley	209.9	208.5	212.4	220.3	224.6	230.8	237.2	240.0	246.6	255.0	262.0

INFLATION RATE

United States	3.8%	-0.4%	1.6%	3.2%	2.1%	1.5%	1.6%	0.1%	1.3%	2.1%	2.4%
Denver-Aurora-Lakewood	3.9%	-0.6%	1.9%	3.7%	1.9%	2.8%	2.8%	1.2%	2.8%	3.4%	2.7%



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
TOTAL PERSONAL INCOME (millions, except as noted)											
United States (billions)	\$12,439	\$12,051	\$12,542	\$13,315	\$13,998	\$14,176	\$14,983	\$15,712	\$16,116	\$16,820	\$17,573
Colorado	\$207,773	\$198,147	\$204,692	\$222,572	\$236,687	\$248,959	\$271,101	\$284,143	\$289,621	\$306,411	\$323,767
Denver Metropolitan Area	\$127,120	\$119,244	\$123,978	\$136,459	\$146,258	\$154,805	\$169,476	\$176,907	\$179,824	\$191,255	N/A
City and County of Denver	\$31,213	\$27,656	\$29,471	\$33,539	\$36,684	\$40,024	\$45,200	\$45,701	\$44,469	\$49,226	N/A
TOTAL PERSONAL INCOME GROWTH RATE											
United States	3.6%	-3.1%	4.1%	6.2%	5.1%	1.3%	5.7%	4.9%	2.6%	4.4%	4.5%
Colorado	3.3%	-4.6%	3.3%	8.7%	6.3%	5.2%	8.9%	4.8%	1.9%	5.8%	5.7%
Denver Metropolitan Area	2.9%	-6.2%	4.0%	10.1%	7.2%	5.8%	9.5%	4.4%	1.6%	6.4%	N/A
City and County of Denver	6.2%	-11.4%	6.6%	13.8%	9.4%	9.1%	12.9%	1.1%	-2.7%	10.7%	N/A
PER CAPITA PERSONAL INCOME											
United States	\$40,904	\$39,284	\$40,546	\$42,735	\$44,599	\$44,851	\$47,060	\$48,985	\$49,883	\$51,731	\$53,712
Colorado	\$42,492	\$39,851	\$40,547	\$43,456	\$45,572	\$47,236	\$50,662	\$52,116	\$52,269	\$54,561	\$56,846
Denver Metropolitan Area	\$47,053	\$43,374	\$44,336	\$47,939	\$50,478	\$52,444	\$56,358	\$57,645	\$57,722	\$60,685	N/A
City and County of Denver	\$54,215	\$46,954	\$48,856	\$54,152	\$57,880	\$61,761	\$68,147	\$67,048	\$64,004	\$69,862	N/A
PER CAPITA PERSONAL INCOME GROWTH RATE											
United States	2.7%	-4.0%	3.2%	5.4%	4.4%	0.6%	4.9%	4.1%	1.8%	3.7%	3.8%
Colorado	1.4%	-6.2%	1.7%	7.2%	4.9%	3.7%	7.3%	2.9%	0.3%	4.4%	4.2%
Denver Metropolitan Area	1.0%	-7.8%	2.2%	8.1%	5.3%	3.9%	7.5%	2.3%	0.1%	5.1%	N/A
City and County of Denver	4.1%	-13.4%	4.1%	10.8%	6.9%	6.7%	10.3%	-1.6%	-4.5%	9.2%	N/A
RETAIL TRADE SALES (millions, except as noted)											
United States (billions)	\$4,383	\$4,066	\$4,284	\$4,597	\$4,820	\$5,002	\$5,211	\$5,345	\$5,498	\$5,759	\$6,038
Colorado	\$74,911	\$66,454	\$70,105	\$75,804	\$80,248	\$84,240	\$90,507	\$94,936	\$98,930	\$104,075	\$109,799
Denver Metropolitan Area	\$43,829	\$38,882	\$40,894	\$43,658	\$46,861	\$49,299	\$53,245	\$56,192	N/A	N/A	N/A
City and County of Denver	\$10,252	\$8,517	\$8,925	\$9,454	\$10,388	\$10,992	\$12,409	\$12,946	N/A	N/A	N/A



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
RETAIL TRADE SALES GROWTH RATE											
United States	-1.3%	-7.2%	5.4%	7.3%	4.8%	3.8%	4.2%	2.6%	2.9%	4.7%	4.9%
Colorado	-0.6%	-11.3%	5.5%	8.1%	5.9%	5.0%	7.4%	4.9%	4.2%	5.2%	5.5%
Denver Metropolitan Area	-0.8%	-11.3%	5.2%	6.8%	7.3%	5.2%	8.0%	5.5%	N/A	N/A	N/A
City and County of Denver	0.9%	-16.9%	4.8%	5.9%	9.9%	5.8%	12.9%	4.3%	N/A	N/A	N/A
MEDIAN HOME PRICE (thousands)											
United States	\$196.6	\$172.1	\$173.1	\$166.2	\$177.2	\$197.4	\$208.9	\$223.9	\$235.5	\$248.8	\$261.6
Denver Metropolitan Area	\$219.3	\$219.9	\$232.4	\$231.4	\$252.4	\$280.6	\$310.2	\$353.6	\$384.3	\$414.7	\$449.9
EXISTING HOME SALES											
Denver Metropolitan Area	47,837	42,070	38,818	38,106	45,210	53,711	54,183	56,931	56,915	59,258	55,987
NEW RESIDENTIAL UNITS											
DENVER METROPOLITAN AREA											
Single Family	4,037	2,690	3,791	3,885	5,947	7,396	8,396	9,786	10,663	11,419	N/A
Two-Family	224	133	285	309	299	399	440	422	532	384	N/A
Multi-Family	5,296	1,465	1,478	3,005	8,679	9,145	8,074	9,061	12,301	12,218	N/A
Total Units	9,557	4,288	5,554	7,199	14,925	16,940	16,910	19,269	23,496	24,021	N/A
OFFICE VACANCY RATE											
Denver Metropolitan Area	12.4%	13.2%	12.6%	12.2%	11.8%	10.9%	10.0%	9.4%	9.1%	9.5%	9.0%
HOTEL OCCUPANCY RATE											
Denver Metropolitan Area	65.0%	59.0%	64.4%	66.8%	68.0%	70.8%	75.8%	75.9%	75.0%	74.9%	73.7%
SKIER VISITS											
	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18
Colorado (millions)	12.5	11.9	11.9	12.3	11.0	11.4	12.6	12.5	13.4	13.1	12.8

N/A: Not Available

Sources: U.S. Department of Commerce, Bureau of the Census; Colorado Division of Local Government, Demography Section; U.S. Department of Labor, Bureau of Labor Statistics; Colorado Department of Labor and Employment, Labor Market Information; U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, Bureau of the Census; Colorado Department of Revenue; Colorado Legislative Council; National Association of REALTORS; REcolorado; Denver Metro Association of REALTORS; U.S. Department of Commerce, Bureau of the Census; CoStar Realty Information, Inc.; Rocky Mountain Lodging Report; Vail Resorts, Inc. and Colorado Ski Country USA.



APPENDIX C

BOOK-ENTRY ONLY SYSTEM

DTC will act as securities depository for the Series 2019A-B Bonds. The Series 2019A-B Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered certificate will be issued for each maturity of the Series 2019A-B Bonds, in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 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"). DTC has a Standard & Poor's rating 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.

Purchases of Series 2019A-B Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2019A-B Bonds on DTC's records. The ownership interest of each actual purchaser of each Series 2019A-B Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2019A-B Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Series 2019A-B Bonds, except in the event that use of the book-entry system for the Series 2019A-B Bonds is discontinued.

To facilitate subsequent transfers, all Series 2019A-B Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Series 2019A-B Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2019A-B Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2019A-B Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Series 2019A-B Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Series 2019A-B Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Series 2019A-B Bond documents. For example, Beneficial Owners of Series 2019A-B Bonds may wish to ascertain that the nominee holding the Series 2019A-B 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 Registrar and request that copies of notices be provided directly to them.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Series 2019A-B 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 City as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts Series 2019A-B Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal, interest and redemption proceeds on the Series 2019A-B 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 City or the Paying Agent 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, the Paying Agent or the City, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal, interest or redemption proceeds to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the City or the Paying Agent, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the Series 2019A-B Bonds at any time by giving reasonable notice to the City or the Registrar and Paying Agent. Under such circumstances, in the event that a successor depository is not obtained, Series 2019A-B Bond certificates are required to be printed and delivered.

The City may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, Series 2019A-B Bond certificates will be printed and delivered to DTC.

The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the City believes to be reliable, but the City takes no responsibility for the accuracy thereof.

APPENDIX D

FORM OF CONTINUING DISCLOSURE UNDERTAKING

THIS CONTINUING DISCLOSURE UNDERTAKING (this “Disclosure Undertaking”) is executed and delivered by the City and County of Denver, Colorado (the “City”), in connection with the issuance of its \$_____ General Obligation Elevate Denver Bonds, Series 2019A (the “Series 2019A Bonds”) and its \$_____ General Obligation Better Denver and Zoo Refunding Bonds, Series 2019B (the “Series 2019B Bonds” and with the Series 2019A Bonds, the “Series 2019A-B Bonds”).

The Series 2019A Bonds are issued for the purposes of (1) financing the cost of acquiring, constructing, installing, and improving various civic facilities, and (2) paying the costs of issuance of the Series 2019A Bonds. The Series 2019B Bonds are issued for the purposes of (1) refunding the City’s outstanding General Obligation Better Denver and Zoo Bonds, Series 2009A maturing on and after August 1, 2020 (the “Refunded Bonds”), and (2) paying the costs of issuance of the Series 2019B Bonds. The Series 2019A-B Bonds are issued pursuant to Ordinance No. 19-0283, Series of 2019 (the “Bond Ordinance”) finally adopted on April 15, 2019 by the City Council of the City.

In consideration of the purchase of the Series 2019A-B Bonds by the Participating Underwriters (as defined below), the City covenants and agrees as follows:

Section 1. Purpose of the Disclosure Undertaking. This Disclosure Undertaking is being executed and delivered by the City for the benefit of the Bondowners (as defined below) and in order to allow the Participating Underwriters to comply with Rule 15c2-12(b)(5) promulgated by the Securities and Exchange Commission (the “Commission”) under the Securities Exchange Act of 1934, as amended.

Section 2. Definitions. The defined terms set forth in the Bond Ordinance apply to any capitalized term used in this Disclosure Undertaking unless otherwise defined in this Section. As used in this Disclosure Undertaking, the following capitalized terms shall have the following meanings:

“*Annual Financial Information*” means the financial information or operating data with respect to the City delivered at least annually pursuant to Section 3 hereof, substantially similar to the type set forth in the Official Statement as described in Schedule 1 attached hereto. Annual Financial Information may, but is not required to, include Audited Financial Statements and may be provided in any format deemed convenient by the City.

“*Audited Financial Statements*” means the annual financial statements of the City, prepared in accordance with generally accepted accounting principles for governmental units as prescribed by the Governmental Accounting Standards Board, which financial statements are to be audited by an auditor as required or permitted by ordinances of the City, the City’s Charter, and the laws of the State of Colorado.

“*Bondowner*” or “*Owner of the Bonds*” means the registered owners of the Series 2019A-B Bonds and, so long as the Series 2019A-B Bonds are subject to the book-entry system, any person who, through any contract, arrangement or otherwise, has or shares investment power with respect to the Bonds, which includes the power to dispose, or direct the disposition, of the Bonds.

“*City Representative*” means the Chief Financial Officer, as the Manager of Finance/*ex officio* Treasurer of the City, or the Manager’s designee, and successors in function, if any.

“*Events*” means any of the events listed in Section 4(a) of this Disclosure Undertaking.

“*Managing Underwriter*” means the underwriter of the Series 2019A-B Bonds required to comply with Rule 15c2-12 in connection with the offering of the Series 2019A-B Bonds or any successor

known to the City Representative. If the Series 2019A-B Bonds are sold to different underwriters, there may be a separate Managing Underwriter for each series of the Series 2019A Bonds.

“*MSRB*” shall mean the Municipal Securities Rulemaking Board. As of the date hereof, the MSRB’s required method of filing is electronically via its Electronic Municipal Market Access (EMMA) system available on the Internet at <http://emma.msrb.org>.

“*Official Statement*” means the final Official Statement dated April 23, 2019, together with any supplements thereto prior to the date on which the Series 2019A-B Bonds are initially issued.

“*Participating Underwriters*” has the meaning given thereto under Rule 15c2-12 or any successors to such Participating Underwriters known to the City Representative.

“*Rule 15c2-12*” means Rule 15c2-12 adopted by the Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

Section 3. Provision of Annual Financial Information.

(a) Commencing with the Fiscal Year ended December 31, 2019, and annually while the Series 2019A-B Bonds remain outstanding, the City Representative shall provide to the MSRB in an electronic format as prescribed by the MSRB, Annual Financial Information and Audited Financial Statements with respect to the City. No such Annual Financial Information shall be deemed an official act of the City without the approval of the City Representative.

(b) Such Annual Financial Information with respect to the City shall be provided not later than 270 days after the end of each Fiscal Year. If not provided as a part of the Annual Financial Information, the Audited Financial Statements with respect to the City will be provided when available, but in no event later than 270 days after the end of each Fiscal Year.

(c) The City Representative may provide Annual Financial Information and Audited Financial Statements with respect to the City by specific cross-reference to other documents which are available to the public on the MSRB’s Internet Website or filed with the Commission. If the document so referenced is a final official statement within the meaning of Rule 15c2-12, such final official statement must be available from the MSRB. The City Representative shall clearly identify each such other document provided by cross-reference.

Section 4. Reporting of Events.

(a) The City shall file or cause to be filed with the MSRB, in a timely manner not in excess of ten business days after the occurrence of the event, notice of any of the events listed below with respect to the Bonds:

1. Principal and interest payment delinquencies.
2. Non-payment related defaults, *if material*.
3. Unscheduled draws on any debt service reserve relating to the Series 2019A-B Bonds reflecting financial difficulties.
4. Unscheduled draws on any credit enhancement relating to the Series 2019A-B Bonds reflecting financial difficulties.
5. Substitution of credit or liquidity providers or their failure to perform.

6. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds.
7. Modifications to rights of the Owners of the Bonds, *if material*.
8. Bond calls, *if material*, and tender offers.
9. Defeasance of the Series 2019A-B Bonds or any portion thereof.
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 obligated person.¹
13. The consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, 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 obligation² of the obligated person, *if material*, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a financial obligation of the Issuer, 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 a financial obligation² of the obligated person, any of which reflect financial difficulties.

(b) Such notice shall be deemed an official notice from the City only upon approval by the City Representative.

(c) At any time the Series 2019A-B Bonds are outstanding, the City Representative shall provide, in a timely manner, to the MSRB, notice of any failure of the City to timely provide the Annual

¹ For the purposes of the event identified in subparagraph (b)(5)(i)(C)(12) of Rule 15c2-12, the event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent, or similar officer for an obligated person 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 obligated person, or if such jurisdiction has been assumed by leaving the existing governing body and official 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 obligated person.

² For purposes of the events identified in subparagraphs (b)(5)(i)(C)(15) and (16) of Rule 15c2-12, the term “financial obligation” is defined to mean a (A) debt obligation; (B) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (C) a guarantee of (A) or (B). The term “financial obligation” does not include municipal securities as to which a final official statement has been otherwise provided to the MSRB consistent with Rule 15c2-12.

Financial Information and Audited Financial Statements as specified in Section 3 hereof. Such notice shall be deemed an official notice from the City only upon the approval of the City Representative.

Section 5. Format; Identifying Information. All documents provided to the MSRB pursuant to this Disclosure Undertaking shall be in the format prescribed by the MSRB and accompanied by identifying information as prescribed by the MSRB.

As of the date of this Disclosure Undertaking, all documents submitted to the MSRB must be in portable document format (PDF) files configured to permit documents to be saved, viewed, printed, and retransmitted by electronic means. In addition, such PDF files must be word-searchable, provided that diagrams, images, and other non-textual elements are not required to be word-searchable.

Section 6. Term. This Disclosure Undertaking shall be in effect from and after the issuance and delivery of the Series 2019A-B Bonds and shall extend to the earlier of (a) the date all principal and interest on the Series 2019A-B Bonds shall have been deemed paid pursuant to the terms of the Bond Ordinance; (b) the date that the City shall no longer constitute an “obligated person” with respect to the Series 2019A-B Bonds within the meaning of Rule 15c2-12; and (c) the date on which those portions of Rule 15c2-12 which require this Disclosure Undertaking are determined to be invalid by a court of competent jurisdiction in a non-appealable action, have been repealed retroactively or otherwise do not apply to the Bonds, which determination shall be evidenced by an opinion of nationally recognized bond counsel selected by the City, a copy of which opinion shall be given to the Managing Underwriter. The City Representative shall file a notice of any such termination with the MSRB.

Section 7. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Undertaking, the City may amend this Disclosure Undertaking, and any provision of this Disclosure Undertaking may be waived (a) if such amendment occurs prior to the actual issuance and delivery of the Series 2019A-B Bonds and the Managing Underwriter consents thereto, (b) if such amendment is consented to by the Owners of no less than a majority in aggregate principal amount of the Series 2019A-B Bonds, or (c) if such amendment or waiver is otherwise consistent with Rule 15c2-12. Written notice by any such amendment or waiver shall be provided by the City Representative to the MSRB, and the Annual Financial Information shall explain the reasons for the amendment and the impact of any change in the type of information being provided.

Section 8. Additional Information. Nothing in this Disclosure Undertaking shall be deemed to prevent the City from disseminating any other information, using the means of dissemination set forth in this Disclosure Undertaking or any other means of communication, or including any other annual information or notice of occurrence of an event which is not an Event, in addition to that which is required by this Disclosure Undertaking, provided that the City shall not be required to do so. No such information shall be deemed an official notice from the City without the approval of the City Representative. If the City chooses to include any annual information or notice of occurrence of an event in addition to that which is specifically required by this Disclosure Undertaking, the City shall have no obligation under this Disclosure Undertaking to update such information or include it in any future annual filing or notice of occurrence of an Event.

Section 9. Default and Enforcement. If the City or the City Representative fail to comply with any provision of this Disclosure Undertaking, any Owner of any Series 2019A-B Bond may take action in the District Court for the Second Judicial District in the State of Colorado to seek specific performance by court order, to compel the City and the City Representative to comply with its obligations under this Disclosure Undertaking; provided that any Owner of the Series 2019A-B Bonds seeking to require compliance with this Disclosure Undertaking shall first provide to the City Representative at least 30 days’ prior written notice of the City’s or the City Representative’s failure, giving reasonable details of such failure, following which notice the City and the City Representative shall have 30 days to comply. A default under this Disclosure Undertaking shall not be deemed an Event of Default under the Bond Ordinance or the Series 2019A-B Bonds. The sole remedy under this Disclosure Undertaking in the event

of any failure of the City or the City Representative to comply with this Disclosure Undertaking shall be an action to compel performance.

Section 10. Beneficiaries. This Disclosure Undertaking shall inure solely to the benefit of the City, the Participating Underwriters and Owners from time to time of the Series 2019A-B Bonds and shall create no rights in any other person or entity.

Date: May 6, 2019

CITY AND COUNTY OF DENVER, COLORADO

Brendan J. Hanlon
Chief Financial Officer, as the Manager of
Finance/*ex officio* Treasurer

Schedule 1

Index of Official Statement Tables to be Updated

“Annual Financial Information” means the financial information or operating data with respect to the City substantially similar to the type set forth in the Official Statement under Tables 4 through 16.

APPENDIX E

FORM OF OPINIONS OF CO-BOND COUNSEL

[Closing date]

City and County of Denver, Colorado
201 W. Colfax
Denver, Colorado 80202

CITY AND COUNTY OF DENVER, COLORADO

\$ _____
**General Obligation
Elevate Denver Bonds,
Series 2019A**

\$ _____
**General Obligation Better
Denver and Zoo Refunding Bonds,
Series 2019B**

Ladies and Gentlemen:

We have acted as Co-Bond Counsel to the City and County of Denver, Colorado (the “City”) in connection with the issuance of its General Obligation Elevate Denver Bonds, Series 2019A, in the aggregate principal amount of \$_____ and its General Obligation Better Denver and Zoo Refunding Bonds, Series 2019B, in the aggregate principal amount of \$_____ (collectively, the “Bonds”) pursuant to an authorizing ordinance of the City Council of the City adopted on April 15, 2019 (the “Ordinance”). In such capacity, we have examined the City’s certified proceedings and such other documents and such law of the State of Colorado and of the United States of America as we have deemed necessary to render this opinion letter. Capitalized terms not otherwise defined herein shall have the meanings ascribed to them in the Ordinance.

Regarding questions of fact material to our opinions, we have relied upon the City’s certified proceedings and other representations and certifications of public officials and others furnished to us without undertaking to verify the same by independent investigation.

Based upon such examination, it is our opinion as Co-Bond Counsel that:

1. The Bonds constitute valid and binding general obligations of the City.
2. All of the taxable property in the City is subject to the levy of ad valorem taxes to pay the Bonds without limitation of rate and in an amount sufficient to pay the principal of and interest on the Bonds when due.
3. Interest on the Bonds is excludable from gross income under federal income tax laws pursuant to Section 103 of the Internal Revenue Code of 1986, as amended to the date hereof (the “Tax Code”), is excludable from alternative minimum taxable income as defined in Section 55(b)(2) of the Tax Code, and is excludable from Colorado taxable income and Colorado alternative minimum taxable income under Colorado income tax laws in effect as of the date hereof. The opinions expressed in this paragraph assume continuous compliance with the covenants and representations contained in the City’s certified proceedings and in certain other documents and certain other certifications furnished to us.

The opinions expressed in this opinion letter are subject to the following:

The rights of the owners of the Bonds and the enforceability of the Bonds and the Bond Ordinance are limited by bankruptcy, insolvency, reorganization, moratorium, and other similar laws affecting creditors' rights generally, and by equitable principles, whether considered at law or in equity.

In expressing the opinions above, we are relying, in part, on a certificate of Hilltop Securities Inc., acting as financial advisor to the City, verifying the mathematical computations of the sufficiency of the moneys deposited in the Escrow Fund to pay the principal of and accrued interest on the Refunded Bonds on the Redemption Date.

In this opinion letter issued in our capacity as Co-Bond Counsel, we are opining only upon those matters set forth herein, and we are not passing upon the accuracy, adequacy, or completeness of the Official Statement or any other statements made in connection with any offer or sale of the Bonds or upon any federal or state tax consequences arising from the receipt or accrual of interest on or the ownership or disposition of the Bonds, except those specifically addressed herein.

This opinion letter is issued as of the date hereof and we assume no obligation to revise or supplement this opinion letter to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur.

Respectfully submitted,

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