

PRELIMINARY OFFICIAL STATEMENT DATED DECEMBER \_\_, 2011

NEW ISSUE - BOOK-ENTRY ONLY

Fitch: “\_\_”  
Moody’s: “\_\_”  
Standard & Poor’s: “\_\_”  
See “RATINGS.”

*In the opinion of Sherman & Howard L.L.C and GCR, LLP, Co-Bond Counsel, dated as of the date of delivery of the Bonds, assuming continuous compliance with certain covenants described herein, interest on the Bonds is excluded 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 Bonds (the “Tax Code”), interest on the Bonds is excluded from alternative minimum taxable income as defined in Section 55(b)(2) of the Tax Code except that such interest is required to be included in calculating the “adjusted current earnings” adjustment applicable to corporations for purposes of computing the alternative minimum taxable income of corporations, and interest on the Bonds is excluded from Colorado taxable income and Colorado alternative minimum taxable income under Colorado income tax laws in effect on the date of delivery of the Bonds as described herein. See “TAX MATTERS.”*

71-982

\$ \_\_\_\_\_ \*  
**CITY AND COUNTY OF DENVER, COLORADO,**  
**FOR AND ON BEHALF OF THE**  
**WASTEWATER MANAGEMENT DIVISION OF ITS**  
**DEPARTMENT OF PUBLIC WORKS,**  
**WASTEWATER ENTERPRISE REVENUE BONDS**  
**SERIES 2012**

Dated: Date of Delivery

Due: November 1, as shown below

The Wastewater Enterprise Revenue Bonds, Series 2012 (the “Bonds”) are issued by the City and County of Denver, Colorado (the “City”) for and on behalf of the Wastewater Management Division of its Department of Public Works (the “Enterprise”) as fully registered bonds in denominations of \$5,000 or any integral multiple thereof. The Bonds will be initially registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York (“DTC”), as securities depository for the Bonds. Purchases by beneficial owners of the Bonds are to be made in book-entry form only. Beneficial owners are not to receive certificates evidencing their interests in the Bonds. See “THE BONDS--Book-Entry Form.”

The Bonds bear interest at the rates set forth below and are payable on May 1, 2012, and semiannually thereafter on May 1 and November 1, to and including the maturity dates shown below (unless the applicable Bonds are redeemed earlier). The principal of, premium, if any, and interest on the Bonds are payable by Zions First National Bank, Denver, Colorado, as paying agent, to DTC. DTC is required to remit such principal, premium and interest payments to the beneficial owners of the Bonds, as more fully described herein. See “THE BONDS--Book-Entry Form.”

This Preliminary Official Statement and the information contained herein are subject to completion or amendment. These securities may not be sold, nor may offers to buy be accepted, prior to the time the Official Statement is delivered in final form. Under no circumstances shall this Preliminary Official Statement constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of these securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction.

The Bonds are subject to redemption prior to their respective maturities as described herein under "THE BONDS--Redemption."

**MATURITY SCHEDULE\***  
(CUSIP© 6-digit issuer number: \_\_\_\_\_)

**Wastewater Enterprise Revenue Bonds  
Series 2012**

Maturing (November 1)	Principal Amount	Interest Rate	Yield <sup>(1)</sup>	CUSIP <sup>©</sup> Issue Number <sup>(2)</sup>	Maturing (November 1)	Principal Amount	Interest Rate	Yield <sup>(1)</sup>	CUSIP <sup>©</sup> Issue Number <sup>(2)</sup>
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(1) This information is not provided by the City.

(2) Neither the City nor the Underwriters takes responsibility for the accuracy of CUSIP numbers which are included solely for the convenience of the owners of the Bonds.

The Bonds are being issued for the purpose of (i) financing storm drainage facilities for the City, (ii) refunding, paying and discharging the City's outstanding Wastewater Revenue Bonds, Series 2002, (iii) funding a debt service reserve account and (iv) paying the costs of issuing the Bonds. See "USE OF PROCEEDS."

The Bonds are special and limited obligations of the City, for and on behalf of the Wastewater Management Division of its Department of Public Works, payable solely from and secured by a first lien (but not necessarily an exclusive first lien) upon the revenues derived by the City from the operation of its storm drainage and sanitary sewerage facilities, subject only to the payment of operation and maintenance expenses. The Bonds are also payable, under certain circumstances, from a debt service reserve account. The Bonds are not general obligations of the City. The Bonds are not payable in whole or in part from the proceeds of general property taxes nor is the full faith and credit of the City pledged to pay the Bonds. See "SECURITY FOR THE BONDS - Pledge and Flow of Funds."

**This cover page contains certain information for general reference only. It is not a summary of this issue. Investors must read this Official Statement in its entirety to obtain information essential to making informed investment decisions.**

The Bonds are offered when, as and if issued, subject to the approval of legality and certain other legal matters by Sherman & Howard L.L.C., Denver, Colorado and GCR, LLP, Denver, Colorado, as Co-Bond Counsel, and certain other conditions. It is expected that the Bonds in book-entry form will be available for deposit with The Depository Trust Company and delivery in New York, New York, on or about January \_\_, 2012.

The date of this Official Statement is January \_\_, 2012.

\* Preliminary, subject to change.

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**CITY AND COUNTY OF DENVER  
CITY OFFICIALS [Update]**

**MAYOR**

Michael B. Hancock

**City Council**

Chris Nevitt, President

Albus Brooks	Paul Lopez
Charles V. Brown Jr.	Judy H. Montero
Jeanne Faatz	Deborah Ortega
Christopher Herndon	Jeanne Robb
Robin Kneich	Susan Shepherd
Peggy A. Lehmann	Mary Beth Susman

**Auditor**

Dennis J. Gallagher

**Cabinet Officials**

Cary Kennedy	Deputy Mayor, Manager of Finance/ <i>Ex-Officio</i> Treasurer
Adrienne Benavidez	Manager of the Department of General Services
Laurie Dannemiller	Manager of the Department of Parks and Recreation
Kim Day	Manager of the Department of Aviation
George Delaney	Manager of the Department of Public Works
Doug Linkhart	Manager of the Department of Environmental Health
Alex Martinez	Manager of the Department of Safety
Penny May	Manager of the Department of Human Services
Molly Urbina	Manager of Community Planning and Development
Douglas J. Friednash, Esq.	City Attorney

**Clerk and Recorder, *Ex-Officio* Clerk**

Debra Johnson

**Co-Bond Counsel**

Sherman & Howard L.L.C.  
Denver, Colorado

GCR, LLP  
Denver, Colorado

**Financial Advisor**

Piper Jaffray & Co.  
Denver, Colorado

No dealer, salesman or other person has been authorized to give any information or to make any representation, other than the information contained in this Official Statement, in connection with the offering of the Bonds, and, if given or made, such information or representation must not be relied upon as having been authorized by the City or the Underwriters. The information in this Official Statement is subject to change without notice, and neither the delivery of this Official Statement nor any sale hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the City or others since the date hereof. This Official Statement does not constitute an offer or solicitation in any jurisdiction in which such offer or solicitation is not authorized or in which any person making such offer or solicitation is not qualified to do so or to any person to whom it is unlawful to make such offer or solicitation. The information contained in this Official Statement has been obtained from the City and other sources which are deemed reliable.

This Official Statement is submitted in connection with the sale of the Bonds, and may not be reproduced or used, in whole or in part, for any other purpose.

THE PRICES AT WHICH THE BONDS ARE OFFERED MAY VARY FROM THE INITIAL OFFERING PRICES APPEARING ON THE COVER PAGE. IN ADDITION, THE UNDERWRITERS MAY ALLOW CONCESSIONS OR DISCOUNTS FROM SUCH INITIAL OFFERING PRICES TO PARTICULAR PURCHASERS, AND THE UNDERWRITERS MAY ENGAGE IN TRANSACTIONS INTENDED TO STABILIZE THE PRICES OF THE BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET IN ORDER TO FACILITATE THEIR DISTRIBUTION. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR THE SECURITIES REGULATORY AUTHORITY OF ANY STATE HAS APPROVED OR DISAPPROVED THE BONDS OR THIS OFFICIAL STATEMENT. ANY REPRESENTATION TO THE CONTRARY IS UNLAWFUL.

THIS OFFICIAL STATEMENT IS BEING PROVIDED TO PROSPECTIVE PURCHASERS EITHER IN BOUND PRINTED FORM ("ORIGINAL BOUND FORMAT") OR IN ELECTRONIC FORMAT ON THE FOLLOWING WEBSITE: [WWW.MUNIDOC.COM](http://WWW.MUNIDOC.COM) THIS OFFICIAL STATEMENT MAY BE RELIED UPON ONLY IF IT IS IN ITS ORIGINAL BOUND FORMAT OR IT IS PRINTED IN FULL DIRECTLY FROM SUCH WEBSITE.

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# OFFICIAL STATEMENT

Relating to

\$ \_\_\_\_\_ \*

**CITY AND COUNTY OF DENVER, COLORADO,  
FOR AND ON BEHALF OF THE  
WASTEWATER MANAGEMENT DIVISION OF ITS  
DEPARTMENT OF PUBLIC WORKS,  
WASTEWATER ENTERPRISE REVENUE BONDS  
SERIES 2012**

## INTRODUCTION

This Official Statement, which includes the 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 “City Charter”), for and on behalf of the Wastewater Management Division of its Department of Public Works (the “Enterprise”), of its \$ \_\_\_\_\_ \* Wastewater Enterprise Revenue Bonds, Series 2012 (the “Bonds”).

The Bonds are issued by ordinance (the “Bond Ordinance”) adopted prior to the issuance of the Bonds by the City Council (the “Council”) for the purpose of (i) financing storm drainage facilities, (ii) refunding, paying and discharging the City’s outstanding Wastewater Revenue Bonds, Series 2002 (the “2002 Bonds” or the “Refunded Bonds”), (iii) funding a debt service reserve account and (iv) paying the costs of issuance of the Bonds. See “USE OF PROCEEDS.”

The Bonds mature and are paid in the years and amounts set forth on the cover page of this Official Statement. Interest on the Bonds accrues at the rates set forth on the cover page of this Official Statement and is payable by check, draft or wire transfer to the registered owners of the Bonds. Interest is to be calculated on the basis of a 360-day year of twelve 30-day months.

This Official Statement includes financial and other information about the City and the Enterprise and also contains descriptions of the Bonds and related documents. None of such information or descriptions purports to be complete. Except for any updated financial information provided herein, all references to financial and other information about the City and the Enterprise are qualified in their entirety by reference to “APPENDIX A – Basic Financial Statements of the City for the Fiscal Year Ended December 31, 2010.” All references to the Bonds and related documents are qualified in their entirety by reference to the approved form of the Bonds and such related documents.

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\* Preliminary, subject to change

This Official Statement contains economic and demographic information as of June 2011 about the City and its metropolitan area prepared by Development Research Partners for use by the City. See "APPENDIX C - An Economic and Demographic Overview of the Denver Metropolitan Region."

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."

## **THE BONDS**

### **Authority**

The Bonds are issued pursuant to art. XX, § 6 of the State Constitution, the City Charter, the ordinance of the City establishing the Enterprise as an enterprise of the City and authorizing the Enterprise to have and exercise certain powers in furtherance of its purposes (the "Enterprise Ordinance"), part 4 of article 35 of title 31, Colorado Revised Statutes, as amended, and the Supplemental Public Securities Act (part 2 of article 57 of title 11, Colorado Revised Statutes, as amended). As revenue bonds issued for and on behalf of an enterprise, the Bonds may be issued without voter approval in advance under art. X, § 20 of the State Constitution. See "LEGAL MATTERS – Constitutional Revenue, Spending and Debt Limitations." The City's covenants with the owners of the Bonds are set forth in the Bond Ordinance finally passed and adopted by the Council prior to the delivery of the Bonds.

### **Description**

The Bonds bear interest from their date of initial delivery to maturity or prior redemption at the rates set forth on the cover page of this Official Statement. The Bonds shall be issued in fully registered form in denominations of \$5,000 or integral multiples thereof.

### **Security**

The Bonds are special and limited obligations of the City, for and on behalf of the Enterprise, payable as to principal and interest (the "Debt Service Requirements") solely from and secured by a first lien (but not necessarily an exclusive first lien) upon the revenues derived by the City from the operation of the storm drainage facilities (the "Storm Drainage Facilities") and the sanitary sewerage facilities (the "Sanitary Sewerage Facilities") of the City, subject only to the payment of operation and maintenance expenses of the Storm Drainage Facilities and the Sanitary Sewerage Facilities. Under the Bond Ordinance the City may, upon satisfaction of certain requirements, issue additional parity securities. See "SECURITY FOR THE BONDS - Additional Bonds." The Bonds are also payable, under certain circumstances, from a debt service reserve account. The Bonds are not general obligations of the City. The Bonds are not payable in whole or in part from the proceeds of general property taxes, nor is the full faith and credit of the City pledged to pay the Bonds. See "SECURITY FOR THE BONDS - Pledge and Flow of Funds."



## **Payment of Principal and Interest; Record Date**

The principal of, interest on and any premium due in connection with the redemption of the Bonds shall be payable in lawful money of the United States of America to the registered owners of the Bonds by Zions First National Bank, Denver, Colorado, or its successor, as paying agent (the "Paying Agent"). Interest on the Bonds (calculated based on a 360-day year consisting of twelve 30-day months) is payable semiannually on May 1 and November 1, commencing May 1, 2012. The principal and the final installment of interest shall be payable to the owner of each Bond upon presentation and surrender thereof at maturity or upon prior redemption by check or draft sent to the owner at the address appearing on the registration books of the City maintained by Zions First National Bank, Denver, Colorado, or its successor, as registrar (the "Registrar") or by wire transfer to such bank or other depository as the owner shall designate in writing to the Paying Agent. Except as hereinbefore and hereinafter provided, the interest shall be payable to the owner of each Bond determined as of the close of business on the fifteenth day (whether or not a business day) of the calendar month immediately preceding such interest payment date (the "Record Date") irrespective of any transfer of ownership of the Bond subsequent to the Record Date and prior to such interest payment date by check or draft or wire transfer directed to such owner as aforesaid. Any principal or interest not paid when due and any interest accruing after maturity shall be payable to the owner of each Bond entitled to receive such principal or interest determined as of the close of business on a Special Record Date, irrespective of any transfer of ownership of the Bond subsequent to the Special Record Date and prior to the date fixed by the Paying Agent for the payment of such principal or interest, by check or draft or wire transfer directed to such owner as aforesaid. Notice of the Special Record Date and of the date fixed for the payment of such interest shall be given by sending a copy thereof by first-class postage prepaid mail at least fifteen (15) days prior to the Special Record Date to the owner of each Bond upon which principal or interest will be paid determined as of the close of business on the day preceding such mailing at the address appearing on the registration books of the City. Any premium shall be payable to the owner of each Bond being redeemed upon presentation and surrender thereof upon prior redemption by check or draft or wire transfer directed to such owner as aforesaid. So long as the owner of any Bond is the Securities Depository or a nominee therefor, the Securities Depository shall disburse any payments received, through Participants or otherwise, to the Beneficial Owners. If the date for making any payment or giving notice is not a business day, such payment or notice shall be made or given on the next succeeding business day.

Neither the City nor the Paying Agent has any responsibility or obligation for the payment to the participants of the Securities Depository ("Participants"), any Beneficial Owner or any other person (except a registered owner of Bonds) of the principal of, interest on and any premium due in connection with the Bonds.

Neither the City nor the Registrar has any responsibility or obligation with respect to the accuracy of the records of the Securities Depository or its Participants regarding any ownership interest in the Bonds or the delivery to any Participant, Beneficial Owner or any other person (except a registered owner of Bonds) of any notice with respect to the Bonds.

Notwithstanding the foregoing, so long as the Bonds are held in book-entry form, the payment, registration, exchange, transfer and redemption provisions of the Bonds shall conform to the requirements of the Securities Depository.

## Redemption

The Bonds maturing on or prior to November 1, \_\_\_\_\_ are not subject to optional redemption prior to their respective maturity dates. The Bonds maturing on and after November 1, \_\_\_\_\_, are subject to redemption prior to their respective maturities, at the option of the City, in whole or in part, in integral multiples of \$5,000, from such maturities as are selected by the City, and if less than all of the Bonds of a maturity are to be redeemed, by lot within a maturity, on November 1, \_\_\_\_\_, or on any date thereafter at a redemption price equal to the principal amount so redeemed plus accrued interest to the redemption date without a redemption premium.

Unless waived by the owners of any Bonds to be redeemed, 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 the Securities Depository, not less than thirty (30) days or more than sixty (60) days prior to the redemption date to the owner of each of the 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 send any notice as aforesaid or any defect in any notice so sent with respect to any Bond shall not affect the validity of the redemption proceedings with respect to any other 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 Bonds called for redemption.

## Debt Service Requirements

Table 1 sets forth the debt service requirements to maturity of the Bonds.

**Table 1**

<u>Year</u>	<u>Principal<sup>(1)</sup></u>	<u>Interest</u>	<u>Total</u>
Total	\$ _____	\$ _____	\$ _____

(1) Assumes that no optional redemptions are made prior to maturity.

Source: The Financial Advisor.

## **Transfer and Exchange**

The Bonds are transferable only upon the registration books of the City by Zions First National Bank, Denver, Colorado, or its successor, as transfer agent (the “Transfer Agent”), at the request of the registered owner or his, her or its duly authorized attorney-in-fact or legal representative. The Transfer Agent is not required to transfer ownership of any Bond during the fifteen (15) days prior to the first mailing of any notice of redemption for any Bond or to transfer ownership of any Bond selected for redemption on or after the date of such mailing. The registered owner of any Bonds may also exchange such Bonds for another Bond or Bonds of authorized denominations. Transfers and exchanges are to be made without charge, except that the Transfer Agent may require payment of a sum sufficient to defray any tax or other governmental charge that may hereafter be imposed in connection with any transfer or exchange of Bonds. No transfer of any Bond shall be effective until entered on the registration books of the City. In the case of every transfer or exchange, the Registrar is to authenticate and the Transfer Agent is to deliver to the new registered owner a new Bond or Bonds of the same aggregate principal amount, maturing in the same year and bearing interest at the same per annum rate as the Bonds surrendered. Transfers by Beneficial Owners are to be made as described under “THE BONDS – Book-Entry Form.”

Neither the City nor the Transfer Agent has any responsibility or obligation with respect to the accuracy of the records of the Securities Depository or its Participants regarding any ownership interest in the Bonds or transfers thereof.

## **Book Entry Form**

*The information in this section concerning DTC and DTC’s book-entry system has been obtained from DTC. The City takes no responsibility for the accuracy or completeness of such information. Prospective investors in the Bonds, the Beneficial Owners and any other interested person should confirm with DTC or the Direct Participants, as the case may be, all standards and procedures applicable to the book-entry only system.*

DTC acts as securities depository for the Bonds. The Bonds are to 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.

DTC, the world’s largest depository, is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934, as amended. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non U.S. equity, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post trade settlement among Direct Participants of sales and other securities transactions, in deposited securities, through electronic computerized book-entry transfers and pledges between 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, the National Securities Clearing Corporation and Fixed Interest 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 Participant”). 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](http://www.dtcc.com).

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

To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co. or such other name as may be requested by an authorized representative of DTC. The deposit of Bonds with DTC and their registration in the name of Cede & Co. or such other nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds; DTC’s records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct or Indirect Participants 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 are governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of the Bonds may wish to take certain steps to augment transmission to them of notices of significant events with respect to the Bonds, such as redemptions, tenders, defaults, and proposed amendments to the underlying documents. For example, Beneficial Owners of the Bonds may wish to ascertain that the nominee holding the Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the Paying Agent and request that copies of notices be provided directly to them.

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

Neither DTC nor Cede & Co. (nor such other DTC nominee) will consent or vote with respect to Bonds unless authorized by a Direct Participant in accordance with DTC's MMI procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the City as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal, interest and redemption payments on the Bonds are to 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 payment date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners are 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 are the responsibility of such Participants and not of DTC (or its nominee), the City or the Paying Agent, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal, interest and redemption payments 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 is the responsibility of DTC, and disbursement of such payments to the Beneficial Owners is the responsibility of Direct and Indirect Participants.

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

## **SECURITY FOR THE BONDS**

### **Pledge and Flow of Funds**

The "Net Pledged Revenues" consist of all Income (as defined below) remaining after the deduction of operating and maintenance expenses, as defined in the Bond Ordinance ("Operation and Maintenance Expenses"). The Bond Ordinance defines Income as "all income from rates, fees and charges for the services furnished by, the direct or indirect connection with, or use of, the Storm Drainage Facilities or the Sanitary Sewerage Facilities, including without limitation the storm drainage service charges imposed under Secs. 56-112 and 56-113 of the City Code, the sanitary sewage service charges, industrial waste surcharges and carriage, treatment and disposal charges imposed under Secs. 56-93, 56-94, 56-98 and 56-99 of the City Code and all income or other gain, if any, from investment of the Income, but excluding sanitary sewer connection fees, sanitary sewer services availability fees, storm drainage or sanitary sewer impact fees, special assessments for storm drainage or sanitary sewer purposes, grants or reimbursements from any local, State or federal government or agency thereof and any tap fees collected for or on

behalf of the Metro Wastewater Reclamation District or any other local government or agency thereof.” See “FINANCIAL INFORMATION CONCERNING THE STORM DRAINAGE AND SANITARY SEWERAGE FACILITIES - Storm Drainage and Sanitary Sewerage Fee Structures.” The Bond Ordinance requires all Income, upon receipt, to be set aside and credited to the Wastewater Management Enterprise Fund created pursuant to the Enterprise Ordinance and held by the Enterprise. The Wastewater Management Enterprise Fund is to be administered and the moneys therein are required to be deposited and applied in the following order of priority:

1. Operation and Maintenance Fund
2. Debt Service Fund
3. Reserve Account
4. Construction Fund
5. Subordinate Securities
6. Any Lawful Purpose

Operation and Maintenance Fund. As a first charge on the Wastewater Management Enterprise Fund, there are to be credited from time to time to the Operation and Maintenance Fund heretofore created within the Wastewater Management Enterprise Fund moneys sufficient to pay the Operation and Maintenance Expenses of the Storm Drainage Facilities and the Sanitary Sewerage Facilities as they become due.

Debt Service Fund. After the required payments to the Operation and Maintenance Fund have been made in each month, the City is to transfer or credit to the Debt Service Fund held by the City from the Net Pledged Revenues, the following amounts:

(1) Interest Payments. Monthly and concurrently on a pari passu basis with any payments required to be made to any separate debt service funds for any additional parity bonds hereafter issued, an amount in equal monthly installments necessary, together with any other moneys from time to time available therefor from whatever source, and monthly thereafter, commencing on each interest payment date, one-sixth of the amount necessary, together with any other moneys from time to time available therefor and on deposit therein from whatever source, to pay the next maturing installment of interest on the Bonds then outstanding and any additional parity bonds secured by the Debt Service Fund.

(2) Principal Payments. Monthly and concurrently on a pari passu basis with any payments required to be made to any separate debt service funds for any additional parity bonds hereafter issued, an amount in equal monthly installments necessary, together with any other moneys from time to time available therefor from whatever source, to pay the next installment of principal of the Bonds, and any additional parity bonds secured by the Debt Service Fund, coming due at maturity or upon mandatory redemption, and monthly thereafter, commencing on each principal payment date, one-twelfth of the amount necessary, together with any other moneys from time to time available therefore and on deposit therein from whatever source to pay the next installment of principal of the Bonds, and any additional parity bonds secured by the Debt Service Fund, coming due at maturity, or upon mandatory redemption.

Amounts on deposit in the Debt Service Fund are to be transferred by the City to the Paying Agent as follows:

(a) Semiannually, on or before three business days prior to each interest payment date, an amount which will be sufficient to pay the installment of interest next due on the Bonds, and any additional parity bonds secured by the Debt Service Fund; and

(b) Annually, on or before three business days prior to each maturity date, an amount which will be sufficient to pay the installment of principal or mandatory sinking fund payment next due on the Bonds, and any additional parity bonds secured by the Debt Service Fund.

Reserve Account. There is to be deposited in the Reserve Account held by the City, forthwith upon receipt of the proceeds of the Bonds, an amount equal to 50% of the combined maximum annual debt service requirements of the Bonds (the "Reserve Requirement"). See "USE OF PROCEEDS." Thereafter, there are to be credited to the Reserve Account, from any moneys remaining in the Wastewater Management Enterprise Fund after the payment of Operation and Maintenance Expenses and after the monthly payments have been made to the Debt Service Reserve Fund, as set forth above, sums sufficient to accumulate and maintain in the Reserve Account the Reserve Requirement and, if any separate reserve accounts are established in connection with the issuance of any additional parity bonds, there is to be credited or deposited, on a pari passu basis, any amounts necessary to fund or replenish any such reserve accounts in accordance with the ordinances or other instruments authorizing such additional parity bonds. The moneys credited to the Reserve Account are to be held as a continuing reserve for the prevention of deficiencies in the payment of the principal of or interest on the Bonds and any outstanding parity securities to which the Reserve Account is pledged. In the alternative, the City may substitute for such cash deposit a letter of credit, surety bond, insurance policy, agreement guaranteeing payment, or other undertaking by a financial institution.

Construction Fund. Proceeds of the Bonds deposited in the Construction Fund are to be used to pay debt service requirements on the Bonds to the extent moneys in the Debt Service Fund and the Reserve Account or other moneys are insufficient to make such payments, unless such proceeds are needed to defray obligations accrued and to accrue under contracts then existing pertaining to the "2012 Project," as defined under "USE OF PROCEEDS-The 2012 Project." After fully providing for the foregoing monthly payments, any remaining Net Pledged Revenues are to be deposited by the City in the Construction Fund in order to restore such amounts to the Construction Fund.

Subordinate Securities. After fully providing for the foregoing monthly payments in connection with the Bonds and any outstanding parity securities then due, remaining Net Pledged Revenues may be used by the City for the payment of debt service requirements of subordinate securities payable from the Net Pledged Revenues including reasonable reserves for such subordinate securities. The City currently has no outstanding subordinate securities payable from the Net Pledged Revenues.

Any Lawful Purpose. After all foregoing monthly payments required to be made by the Bond Ordinance have been made in the current month, any remaining Net Pledged Revenues may be used for any lawful purposes pertaining to the Storm Drainage Facilities or the Sanitary Sewerage Facilities.

## **Rate Maintenance**

The City is obligated to prescribe, revise and collect storm drainage and sanitary sewerage rates, fees and charges that shall produce Income sufficient, together with any other moneys legally available therefor and credited to the Wastewater Management Enterprise Fund, to make the payments and accumulations required by the Bond Ordinance and to produce Income sufficient, together with all other moneys legally available therefor and credited to the Wastewater Management Enterprise Fund after payment of Operation and Maintenance Expenses, to pay an amount at least equal to 125% of the combined average annual debt service requirements of the outstanding Bonds and other outstanding parity securities plus any amounts required to meet then existing deficiencies pertaining to any fund or account relating to the Net Pledged Revenues or any securities payable therefrom plus 100% of all payments, costs and other amounts due under an insurance or surety policy or other similar instrument that ensures payment under the Ordinance.

## **Additional Bonds**

The City and the Enterprise may issue additional bonds payable from, and that have a lien on, all or a portion of the Net Pledged Revenues on a parity with the Bonds upon compliance with the following terms and conditions:

Absence of Default. At the time of the issuance of such additional parity bonds the City shall not be in default in making any payments required by the Bond Ordinance.

Historic Revenues Test. Except as hereinafter provided, the Net Pledged Revenues for the last complete fiscal year prior to the issuance of the proposed additional parity bonds must have been equal to at least 125% of the combined average annual debt service requirements of the outstanding Bonds, any other outstanding parity securities and any additional parity bonds proposed to be issued plus 100% of all amounts due under an insurance and surety policy or other similar instruments. If any adjustment in storm drainage or sanitary sewerage rates, fees and charges is made by the City during such fiscal year or prior to the issuance of such additional parity bonds, the calculation of the Net Pledged Revenues may be adjusted to reflect the amount that would have been received if such adjustment had been in effect throughout such fiscal year. The foregoing requirement does not apply to the issuance of additional parity bonds refunding less than all of the Bonds and other parity securities then outstanding so long as the debt service requirements payable on all Bonds and other parity securities outstanding after the issuance of such additional parity bonds in each bond year does not exceed the debt service requirements payable on all Bonds and other parity securities outstanding prior to the issuance of such additional parity bonds in each such bond year.

Reserve Account. Additional parity bonds may be issued that have a lien on the Net Pledged Revenues on a parity with the lien thereon of the Bonds even if no reserve fund is established for such additional parity bonds or a reserve fund is established but with a different requirement as to the amount of moneys (or the value of a reserve fund insurance policy with respect to such additional parity bonds) required to be on deposit therein or the manner in which such reserve fund is funded or the period of time over which such reserve fund is funded. Provided, however, that if the Reserve Account is to be pledged to the payment of the debt service requirements of such additional parity bonds, the Reserve Account is required to be fully funded



in accordance with the Bond Ordinance (as described above under “SECURITY FOR THE BONDS – Pledge and Flow of Funds – Reserve Account”), and the proceedings under which any such additional parity bonds are issued must provide for the deposit of moneys to the Reserve Account on substantially the same terms as provided in the Bond Ordinance and contain a covenant to maintain the Reserve Account in an amount equal to the Reserve Requirement. The proceedings under which any such additional parity bonds are issued may also provide for the deposit of moneys to a separate reserve account (other than Reserve Account) established and maintained for such additional parity bonds on the terms and provisions set forth in such proceedings. Any such separate reserve account shall have a claim to the Net Pledged Revenues equal to and on a parity with that of the Reserve Account.

Neither the City nor the Enterprise may issue bonds or securities payable from the Net Pledged Reserves having a lien thereon superior or senior to the lien thereon of the Bonds. The City and the Enterprise may issue bonds or securities payable from Net Pledged Revenues having a lien thereon subordinate or junior to the lien thereon of the Bonds.

### **Bond Owners' Remedies**

Upon the happening and continuation of an “event of default,” as defined in the Bond Ordinance, the owners of not less than 25% in aggregate principal amount of the Bonds then outstanding (including a trustee or trustees therefor) may proceed against the City and its agents, officers and employees to protect and to enforce any Bond owner's rights under the Bond Ordinance.

In the event of a default in the payment of principal of or interest on the Bonds, there is no acceleration of maturity of principal of the Bonds. Consequently, following an event of default, the Bond owners' remedies (consisting primarily of a mandatory injunction requiring the City to perform the terms of the Bond Ordinance) may have to be enforced from time to time. The Bond owners may not foreclose on property of the City or sell such property in order to pay the principal of or interest on their Bonds. In addition, the enforceability of the rights of the owners of the Bonds may be subject to limitation pursuant to the federal Bankruptcy Code and powers delegated to the United States of America by the federal Constitution, and the obligations incurred by the City in issuing the Bonds may also be subject to the exercise of the police power of the State. See “LEGAL MATTERS.” Bankruptcy proceedings or the exercise of other powers of the federal government or the exercise of the police power of the State, if initiated, could subject the owners of the 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 or the unenforceability of their security interest in future revenues.

## USE OF PROCEEDS

### Generally

Table 2 shows the estimated sources and uses of funds in connection with the issuance of the Bonds:

**Table 2**

### SOURCES AND USES OF FUNDS

<u>Sources of Funds</u>	
Principal Amount of Bonds	\$ _____ *
Premium	\$ _____
Total	\$ _____
 <u>Uses of Funds</u>	
Construction Fund Deposit	\$ _____
Escrow Account Deposit	
Costs of Issuance <sup>(1)</sup>	\$ _____
Total	\$ _____

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(1) Includes Underwriter's compensation.

Source: Financial Advisor.

### The 2012 Project

The City expects to use proceeds of the Bonds to finance improvements to the Storm Drainage Facilities. The expected improvements include design, equipping, land acquisition, construction and rehabilitation of certain major drainageways, major outfall systems and local storm sewers, as well as renovation and replacement of curbs, gutters and cross-pans (collectively, the "2012 Project"). The 2012 Project is being conducted in coordination with the Six-Year Capital Needs Assessment. See "THE STORM DRAINAGE AND SANITARY SEWERAGE FACILITIES – Storm Drainage Facilities -- Planning."

### Refunding Project

The City is undertaking an advance refunding and defeasance of the Refunded Bonds in order to realize economic savings (the "Refunding Project"). A portion of the net proceeds of the Bonds are to be deposited in an Escrow Account established under the Bond Ordinance to refund, pay and discharge all of the outstanding Refunded Bonds. The Bond Ordinance authorizes the execution and delivery of an Escrow Agreement, dated as of the date of delivery of the Bonds (the "Escrow Agreement"), between the City and Zions First National Bank, Denver, Colorado, as escrow bank. The Escrow Agreement directs that net proceeds of the Bonds, together with other legally available funds of the City, be deposited in the Escrow Account in an

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\* Preliminary, subject to change.

amount sufficient, together with any earnings on such deposit, to pay the principal of and interest on the Refunded Bonds at maturity or prior redemption. The Refunded Bonds are to be redeemed on November 1, 2012 at a price equal to the principal amount thereof plus accrued interest thereon, without premium. Amounts on deposit in the Escrow Account may not be used to pay debt service on the Bonds.

An independent certified public accountant will verify that the deposit made to the Escrow Account, together with the earnings thereon, will be sufficient to pay all the principal of and interest on the Refunded Bonds as the same become due. See "VERIFICATION OF CERTAIN CALCULATIONS."

### **THE ENTERPRISE**

The City by ordinance has designated the Enterprise as an "enterprise" within the meaning of the State Constitution. See "LEGAL MATTERS – Constitutional Revenue, Spending and Debt Limitations." The assets of the Enterprise are owned by the City and the power to operate, maintain and control the Enterprise is vested in the City's Department of Public Works (the "Department"). The Enterprise is not authorized to levy any taxes in connection with the Storm Drainage Facilities or the Sanitary Sewerage Facilities, and changes to the rates, fees and charges collected by the Enterprise are set by City Council acting by ordinance. The covenants and undertakings of the City with respect to the Bonds are covenants and undertakings of the City, for and on behalf of the Enterprise.

The Enterprise has the authority to issue its own revenue bonds or other financial obligations in the name of the City. The Bonds are being issued as special, limited obligations of the City, for and on behalf of the Enterprise.

### **THE STORM DRAINAGE AND SANITARY SEWERAGE FACILITIES**

The Storm Drainage Facilities function separately from the Sanitary Sewerage Facilities, and storm drainage rates, fees and charges are billed and collected separately from sanitary sewerage rates, fees and charges.

#### **Storm Drainage Facilities**

*General.* The purpose of the City's Storm Drainage Facilities is to promote the general public health, safety and welfare by assuring that the movement of emergency vehicles is not prohibited or inhibited during storm or flooding periods and by minimizing storm and flood losses, inconvenience and damage resulting from uncontrolled storm runoff in the City.

The City began charging a fee for managing stormwater runoff in 1981. The Storm Drainage Facilities serve the entire City, and, as of November 2, 2011, the Enterprise billed 150,015 residential and 10,262 non-residential accounts for storm drainage service.

The existing Storm Drainage Facilities include more than 750 miles of mainline pipe, over 525 siphon sets, over 20,000 catch basins, 32 detention ponds as well as over 48 miles of regional channels and 86 miles of other ditches and channels. No principal portion of Storm

Drainage Facilities are leased, held subject to significant encumbrances or otherwise not held in fee.

Operation and maintenance of the Storm Drainage Facilities consist primarily of keeping the mains, catch basins and channels free of debris, mowing drainage-ways and detention ponds, shaping channels and ditches and making periodic repairs to damaged or eroded parts or structures.

**Planning.** The Manager of the Department has developed a master drainage plan to coordinate capital improvements and manage the operation and maintenance of the Storm Drainage Facilities. The projects identified in the master drainage plan are annually prioritized and programmed by the Manager of the Department and the Wastewater Improvement Team, comprised of several subject matter experts, into a capital needs assessment relating to the Enterprise for the following six years (the “Six-Year Capital Needs Assessment”). The Six-Year Capital Needs Assessment is submitted to the City Council which considers it, as well as revenue projections, in adopting a six-year capital improvement plan (the “Six-Year Capital Improvement Program.”) The City continues to improve the current level of service of the Storm Drainage Facilities by planning, designing and constructing the projects identified in the master drainage plan.

The portion of the Six-Year Capital Improvement Program concerning the Storm Drainage Facilities is coordinated with the master drainage plan and forms the basis for the Project. For additional information concerning capital improvement needs and Planning, see “FINANCIAL INFORMATION CONCERNING THE ENTERPRISE – Management’s Comments Concerning Performance of the Enterprise – Capital Improvements Plan.”

**Cooperation with Other Agencies.** The Enterprise plans certain improvements to the Storm Drainage Facilities in cooperation with the Urban Drainage and Flood Control District (the “Flood Control District”), a political subdivision of the State. The Flood Control District assists local governments in the metropolitan Denver area with multi-jurisdictional drainage and flood control problems through master planning and reimbursement of a portion of expenses incurred in connection with approved projects and other services. The Flood Control District obtains its funds through property tax mill levies imposed on property within the boundaries of the Flood Control District and has periodically reimbursed the Enterprise for improvements to the Storm Drainage Facilities. However, no reimbursements received from the Flood Control District or any other government agency are included in Income. See “SECURITY FOR THE BONDS – Pledge and Flow of Funds.”

**Regulation.** The water contained in the Storm Drainage Facilities is either absorbed into the ground, evaporated or discharged into the South Platte River and its tributaries through the City’s municipal storm system. In order to discharge stormwater into the South Platte River and its tributaries, the City is required under provisions of the federal Clean Water Act and the Colorado Water Quality Control Act to maintain a discharge permit. The City’s current five-year discharge permit was issued by the State, effective January 30, 2009. The discharge permit requires the City to undertake and enforce a Stormwater Management Program to reduce pollutants and protect water quality requirements under the Colorado Water Quality Control Act

and the Colorado Discharge Permit Regulations, which requirements may be subject to change in the future based on the federal and state regulatory climate.

### **Sanitary Sewerage Facilities**

*General.* The City operates Sanitary Sewerage Facilities for public health and environmental quality purposes. As of November 2, 2011 the Sanitary Sewerage Facilities served 141,942 residential and 15,568 non-residential accounts. The City began charging a fee for these services in 1966.

The Sanitary Sewerage Facilities serve the entire City. The City has not specifically estimated the number of sanitary sewage service accounts which will be created as areas of the City are developed further, but the Enterprise estimates that between 2012 and 2022 approximately 12,000 additional residential units will be developed within the City. The City is planning for additional Sanitary Sewerage Facilities accordingly.

The existing Sanitary Sewerage Facilities consist entirely of facilities used for the collection and carriage of sewage because the City's sewage is treated pursuant to an intergovernmental agreement with the Metro Wastewater Reclamation District. The existing Sanitary Sewerage Facilities include nearly 1,500 miles of conduit ranging in size from eight inches to more than 48 inches in diameter. Sewage is collected and transported through gravity-flow lines operated together with five lift stations. The average age of the Sanitary Sewerage Facilities is approximately 60 years. The oldest Sanitary Sewerage Facilities still in service are over 100 years old. The City Engineer represents that the condition of the Sanitary Sewerage Facilities is generally good. No principal portion of the Sanitary Sewerage Facilities are leased, held subject to significant encumbrances or otherwise not held in fee.

The City also provides certain persons located outside the geographical boundaries of the City with the use of the Sanitary Sewerage Facilities for carriage, treatment and disposal services for a charge pursuant to intergovernmental or other agreements.

*Metro Wastewater Reclamation District.* The sewage carried by the Sanitary Sewerage Facilities is delivered to Metro Wastewater Reclamation District ("Metro"), a political subdivision of the State organized to manage and finance facilities for the carriage, treatment and disposal of wastewater throughout the metropolitan Denver area. The City entered into a Sewage Treatment and Disposal Agreement (the "Metro Agreement") with Metro in March, 1964. The Metro Agreement has subsequently been republished to include prior amendments most currently in June 2008 with further amendments, most recently in January of 2011. There are currently over 40 other municipalities, districts and industrial entities contracting with Metro for sewage treatment and disposal services. Under the Metro Agreement, Metro promulgates an annual charge to each signatory, which annual charge is payable quarterly. The annual charge is required by the terms of the Metro Agreement to be reasonable and in an amount adequate to fund Metro's operation and maintenance expenses as well as debt service on Metro's outstanding debt obligations and certain other obligations. The annual charge is calculated with the intention that each signatory pays in proportion to its use of Metro's services. The Metro Agreement may not be terminated until such time as all Metro debt obligations are no longer outstanding (currently April,

2029). At such time, the Metro Agreement will be extended to the extent permitted by law from year to year until the City or Metro elects to terminate the Metro Agreement.

The following table presents historical data between 2006 and 2010 relating to Metro's total annual charges to the Enterprise (the "Metro Annual Charge"), the Metro Annual Charge as a percentage of the Enterprise's total operating expenses, the annual increase (decrease) in the Metro Annual Charge and the cumulative increase (decrease) in the Metro Annual Charge for the past five years.

**Table 3**  
**Historical Metro Annual Charges**

	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011<sup>(1)</sup></u>
Total Enterprise Operating Expense	\$76,199,464	\$75,146,180	\$81,003,177	\$84,489,828	\$92,200,000
Metro Annual Charge	28,777,458	25,994,957	29,316,360	33,566,435	45,000,000
Metro Annual Charge as a Percentage of Total Operating Expense	37.77%	34.59%	36.19%	39.73%	48.81%
Year-to-Year Metro Annual Charge Increase (Decrease)	14.07%	(9.67%)	12.78%	14.50%	34.06%

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(1) Estimated.

Source: Enterprise Department of Finance.

The Metro Annual Charge for 2011 is approximately \$45.0 million. For a discussion of the reasons underlying this significant increase, see "Storm Drainage and Sanitary Sewer – Metro Wastewater Reclamation District (Metro) Treatment Charges" in "APPENDIX B – Report of the Wastewater Consultant."

**Planning.** The Enterprise periodically adds capital improvements to the Sanitary Sewerage Facilities in coordination with the Six-Year Capital Needs Assessment. For additional information concerning capital improvement needs and financing, see “FINANCIAL INFORMATION CONCERNING THE ENTERPRISE – Management’s Comments Concerning Performance of the Enterprise – Capital Improvements Plan.”

## **Management**

The Enterprise is administered as a part of the Department, the Manager of which is appointed by the Mayor. Authority to manage the Enterprise is vested by the City in the Manager of the Department. The Manager of the Department delegates administration of operations and finance of the Storm Drainage Facilities and the Sanitary Sewerage Facilities to the Deputy Manager of Public Works for Operations and the Deputy Manager of Public Works for Finance and Administration. The Manager of the Department delegates administration of engineering, permitting and oversight of Storm Drainage Facilities and Sanitary Sewerage Facilities capital projects to the Deputy Manager of Public Works/City Engineer.

**George H. Delaney** was appointed Manager of Public Works in January of 2011. Prior to his appointment he worked as Deputy Manager of Public Works for nearly six years. Before joining the Department, Mr. Delaney spent 32 years working for the State of Colorado in a variety of positions mostly focused on public finance.

**Robert A. Kochevar** is the Deputy Manager of Public Works for Operations. Mr. Kochevar has been employed by the City for 21 years, serving for the past three years as Deputy Manager of Operations. He previously served as a Director of Traffic Engineering Services and City Traffic Engineer for the Department. Prior to his work at the City, Mr. Kochevar has worked in Colorado front range communities in Transportation/Traffic Engineering and Public Works for both the public and private sector since the mid 1970’s.

**Lesley B. Thomas** is the Deputy Manager of Public Works for Engineering/City Engineer. Ms. Thomas has been employed by the City for 21 years, serving 11 years as City Engineer. She has also served as a Director and Supervisor for the Department. Prior to her work at the City, Ms. Thomas was employed for nine years by a local civil engineering consulting firm. Ms. Thomas is a State-registered professional engineer.

The day-to-day operations of the Enterprise and capital projects management are conducted by the Enterprise and other employees of the Department. As of November 2, 2011, 240 City employees worked almost exclusively for the Enterprise. Additional City employees also fulfill certain functions within the Enterprise on an as-needed basis.

## Account Information

The number of accounts served by the Storm Drainage Facilities and Sanitary Sewerage Facilities during the past ten years are as follows:

**Table 4**  
**Historical Account Information**

<b>Years (December 31)</b>	<b>Storm Drainage Accounts</b>	<b>Sanitary Sewerage Accounts</b>
2001	146,413	144,115
2002	146,694	145,120
2003	148,755	146,901
2004	150,738	148,165
2005	152,127	149,266
2006	154,605	150,304
2007	156,795	150,637
2008	158,176	153,720
2009	158,955	154,230
2010	159,932	156,392
2011	160,277	157,510

Source: Enterprise Department of Finance.

In 2011 approximately 93.6% of storm drainage accounts were attributable to residential lots or parcels, with the remaining 6.4% attributable to non-residential lots or parcels. The average residence paid an annual storm drainage service charge of approximately \$85.64 in 2011. Of the total dollars billed in 2011, residential accounts accounted for 49.7% of the total amount of storm drainage service charges and non-residential accounts accounted for the remaining 50.3%. In 2011, the City paid to the Enterprise 2.8% of the total storm drainage service charges billed for such year. No other entity accounted for more than 1% of the total amount of storm drainage service charges billed in 2011. See "FINANCIAL INFORMATION CONCERNING THE ENTERPRISE - Storm Drainage Fee Structure."

In 2011 approximately 90.0% of the sanitary sewerage accounts were residential and the remaining 10.0% were non-residential. Of the total dollars billed in 2011, residential accounts accounted for approximately 38% of the total amount of sanitary sewerage service charges billed for that year and non-residential accounts accounted for the remaining 62%. In 2011, the City paid to the Enterprise 1% of the total sanitary sewerage service charges billed for such year. No other entity accounted for more than 2% of the total amount of sanitary sewer service charges billed in 2011. See "FINANCIAL INFORMATION CONCERNING THE ENTERPRISE - Sanitary Sewerage Fee Structures."



## FINANCIAL INFORMATION CONCERNING THE ENTERPRISE

The City imposes rates, fees and charges to pay for the operation, maintenance, improvement and replacement of the Storm Drainage Facilities and the Sanitary Sewerage Facilities based on the use made of, the need for and the service provided by the Storm Drainage Facilities and the Sanitary Sewerage Facilities. See “APPENDIX B – Report of the Wastewater Consultant.”

### **Storm Drainage Fee Structure**

The storm drainage service charges imposed by the City are included in Income. The City is also authorized to impose a storm drainage impact fee with regard to the Gateway development area. This impact fee, if collected, is not included in Income.

*Storm Drainage Service Charge.* The City imposes a storm drainage service charge on every lot or parcel of land within the City and the owners thereof, with the exception of property at Denver International Airport. The storm drainage service charge is structured so that the owner of each lot or parcel pays for the Storm Drainage Facilities to the extent its lot or parcel contributes stormwater runoff to the Storm Drainage Facilities. The amount of stormwater runoff attributed to a lot or parcel is directly related to the amount of impervious surface area (e.g., roofs, driveways, parking lots, etc.) on the property. The storm drainage service charge is based on the percentage of impervious area to the total property area. The Manager of the Department determines the annual storm drainage service charge for each lot or parcel by dividing the lot or parcel’s impervious area by its total area. The ratio of these figures is then matched to the appropriate ratio group determined by the City, with each ratio group assigned a corresponding rate.

In June 2011, the City adopted by ordinance the fee schedule set forth in Table 5 below for the storm drainage service charges whereby such storm drainage service charges were increased 20% effective as of July 1, 2011 and are to be increased an additional 2% effective as of July 1, 2012 and an additional 2% effective as of July 1, 2013. After the initial rate increase described above, it is expected that the average residence will pay a storm drainage service charge of approximately \$78.60 in 2011.

**Table 5**  
**Current and Future Stormwater Rates**

<b>Ratio Group</b>	<b>Rate July 2011</b>	<b>Rate July 2012</b>	<b>Rate July 2013</b>
0 to .10	\$1.73	\$1.76	\$1.80
.11 to .20	2.17	2.21	2.25
.21 to .30	2.62	2.67	2.72
.31 to .40	3.10	3.16	3.22
.41 to .50	3.54	3.61	3.68
.51 to .60	3.77	3.85	3.93
.61 to .70	4.01	4.09	4.17
.71 to .80	4.46	4.55	4.64
.81 to .90	4.91	5.01	5.11
.91 to 1.00	5.38	5.49	5.60

Source: Enterprise Department of Finance

On July 1, 2014 and thereafter, the annual storm drainage service charge is to be adjusted annually based on the percentage change from the previous year in the United States Consumer Price Index.

The rate for the lot or parcel's ratio group is multiplied by the square footage of the lot or parcel's impervious area and then divided by 100. The resulting quotient is equal to the annual storm drainage service charge. For example, a 5,000 square foot lot with 3,000 square feet of impervious area would be included in the .51 to .60 ratio group and therefore would be charged an annual storm drainage service charge of \$113.10 ( $\$3.77 \times 3,000/100$ ). However, the minimum annual storm drainage service charge will not be less than \$12.31, \$12.56 and \$12.81 for the rate periods effective July 1<sup>st</sup> of 2011, 2012 and 2013, respectively. Thereafter, the minimum charge will increase according to the percentage change from the previous year in the United States Consumer Price Index. The power and authority of home rule municipalities such as the City to impose storm drainage service charges computed as described above has been affirmed by the State Supreme Court.

**Gateway Area Impact Fees.** Since 2001, the City has been authorized to impose storm drainage impact fees on developers of land located in the Gateway area of the City. The City Code requires that expenditure of storm drainage impact fees be restricted to financing capital improvements for such development area. The City Code allows developers to credit certain of their expenditures against the storm drainage impact fee. To the extent the City does receive storm drainage impact fees, such fees are deposited into a segregated fund, and such fees must be applied to costs connected to storm drainage capital improvements constructed for the particular development area. **These storm drainage impact fees are not included in Income.** See "SECURITY FOR THE BONDS – Pledge and Flow of Funds."

## **Sanitary Sewerage Fee Structures**

The City imposes the following fees and charges in connection with its Sanitary Sewerage Facilities: a sanitary sewage service charge (and an additional industrial waste surcharge for certain industrial users located within the City); a carriage, treatment and disposal charge for users located outside the City (and an additional industrial waste surcharge for certain industrial users located outside the City); and a sanitary sewer services availability fee. These fees and charges, with the exception of the sanitary sewer services availability fee, are included in Income.

***Sanitary Sewage Service Charge.*** The sanitary sewage service charge is imposed on all real property within the City which discharges or has the opportunity to discharge sewage into the Sanitary Sewerage Facilities of the City. The City Code prescribes a methodology for calculation of these charges. Depending on the circumstances of the particular user, the user will be charged the fee on a flat rate, a rate correlated to the user's use of potable water, a rate based on the characteristics of the subject property (e.g., number of rooms and bath facilities, etc.), or a rate based on use measured by a meter or other method approved by the Manager of the Department. Industrial waste accounts are also assessed a sewer service surcharge based on the amount and composition of their sewage, with such surcharges calculated to match the aggregate surcharge payable to Metro under the Metro Agreement. This surcharge is billed to and paid by industrial waste accounts in the same frequency as the sanitary sewage service charge.

In June 2011, the City adopted by ordinance the fee schedule set forth in Table 6 below for sanitary sewage service charges whereby such sanitary sewage service charges were increased 45% effective as of July 1, 2011 and are to be increased an additional 15% effective as of July 1, 2012 and an additional 10% effective as of July 1, 2013. After the initial rate increase described above, it is expected that the average residence will pay a monthly sanitary sewage service charge of approximately \$16.40 in 2011.

**Table 6  
Current and Future Sewage Rates**

For each residential unit: Monthly charge of \$7.74 effective July 1, 2011; monthly charge of \$8.90 effective July 1, 2012; monthly charge of \$9.79 effective July 1, 2013.

For other than residential units:

<b>Size (inches)</b>	<b>Rate July 2011</b>	<b>Rate July 2012</b>	<b>Rate July 2013</b>
5/8	\$ 7.74	\$ 8.90	\$ 9.79
3/4	11.61	13.35	14.69
1	19.34	22.24	24.46
1 1/4	29.06	33.42	36.76
1 1/2	38.73	44.54	48.99
2	61.93	71.22	78.34
3	116.10	133.52	146.87
4	193.55	222.58	244.84
6	387.09	445.15	489.67
8	619.60	712.54	783.79
10	890.29	1,023.83	1,126.21
12	1,664.44	1,914.11	2,105.52

For users whose potable water is metered or measured: The sanitary sewage service charge is computed by multiplying the volume of potable water into the premises during the billing period by \$2.83 per thousand gallons effective July 1, 2011; \$3.25 per thousand gallons effective July 1, 2012; and \$3.58 per thousand gallons effective July 1, 2013.

For users whose potable water is not metered or measured: The charge shall be one-twelfth of the annual charge which shall be computed by multiplying the annual equivalent sewage contribution by \$2.83 per thousand gallons effective July 1, 2011; \$3.25 per thousand gallons effective July 1, 2012; and \$3.58 per thousand gallons effective July 1, 2013. The annual equivalent sewage contribution shall be the total of the annual equivalent sewage contributions in relation to the number of rooms and water-using devices in the premises of the users as follows:

<u>Equivalency Factors</u>	<u>Annual Unit Equivalent Sewage Contribution (in thousands of gallons)</u>
Room (1-4, each)....	8.030
Room (all rooms over 4, each)...	1.736
First bath facility...	16.425
Each additional bath facility...	10.950
First water closet...	21.000
Each additional water closet...	14.600
Each water-using device...	5.475

For users whose sewage is measured: The charge shall be computed by multiplying the volume of sewage during the billing period by \$2.83 per thousand gallons effective July 1, 2011; \$3.25 per thousand gallons effective July 1, 2012; and \$3.58 per thousand gallons effective July 1, 2013.

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Source: Enterprise Department of Finance.

On July 1, 2014 and thereafter, the sanitary sewage service charge is to be adjusted annually based on the percentage change from the previous year in the United States Consumer Price Index.

***Carriage, Treatment and Disposal Agreements.*** The City is authorized to enter into contracts for the carriage, treatment and disposal of sewage by the Sanitary Sewerage Facilities with persons and various municipal districts outside the geographical limits of the City. The carriage, treatment and disposal charge is 150% of the amount that would be charged for areas inside the boundaries of the City per residential connection or residential equivalent. In addition to the carriage, treatment and disposal charge, a sewer surcharge calculated in accordance with the formula applicable to industrial sewage users within the City is to be billed to customers outside the City in the same frequency as the carriage, treatment and disposal charge. During the last five years these carriage, treatment and disposal services agreements contributed less than 0.2% of the total revenues deposited in the Wastewater Management Enterprise Fund.

***Sanitary Sewer Service Availability Fee.*** The sanitary sewer services availability fee is a one-time charge required for new or altered connections to the Sanitary Sewerage Facilities. The City Code fixes this fee at \$410 for each single family residence. The City charges residential duplexes and multi-tenant residential housing facilities the fee based on a methodology whereby the particular residential attributes of the facility are used to approximate an equivalent number of single family residences. This number is then multiplied by \$410. The City charges non-residential users the fee based on the size of the non-residential facility's water utility service tap line or, in the case of large water users, certain specified criteria of the individual user's sewage output is used to approximate an equivalent number of single family residences. This number is then multiplied by \$410. **Receipts from the sanitary sewer services availability fee are committed pursuant to the City Code to a segregated account within the Construction Fund and are not included in Income.** See "SECURITY FOR THE BONDS – Pledge and Flow

of Funds.” Such funds are, however, available at the discretion of the Enterprise to pay for Sanitary Sewerage Facilities or Storm Drainage Facilities capital improvements and for debt service on any debt obligations issued to finance Sanitary Sewerage Facilities or Storm Drainage Facilities, including the Bonds. See “FINANCIAL INFORMATION CONCERNING THE ENTERPRISE – Management’s Comments Concerning Financial Performance of the Enterprise – Capital Improvements Plan.”

### **Billing and Collections**

Historically, the storm drainage service charge is billed and collected annually by the Manager of Public Works. These charges may be billed more frequently to ease the impact of the 2011 fee increases adopted by City Council. Accounts are billed on a cyclical basis which results in revenues from annual storm drainage service charges being collected by the Enterprise throughout the year. The Enterprise’s collection of storm drainage service charges historically has been in excess of 99% of all storm drainage service charges billed.

The sanitary sewage service charge for each account is calculated by the Manager of Public Works and transmitted to the Board of Water Commissioners of the City (the “Water Board”) pursuant to a contractual relationship between the Water Board and the Manager of Public Works for billing, payment and collection in the same manner as the Water Board charges for its water utility service. The Manager of the Department has contracted this function to the Water Board for administrative efficiency reasons, including the fact that the sanitary sewer service charge is calculated for most accounts on the amount of potable water delivered by the Water Board to an account. This Agreement has been in effect since 1966. The Water Board bills accounts monthly. The Enterprise’s collection of sanitary sewage service charges historically has been in excess of 99% of all sanitary sewage service charges billed.

If a storm drainage service charge or a sanitary sewage service charge is delinquent with respect to any particular lot or parcel, the Manager of the Department, through the City’s Manager of Revenue, is authorized to place a lien on such lot or parcel and may collect the delinquent charge in the same manner as the City collects delinquent real property taxes. See “FINANCIAL INFORMATION CONCERNING THE CITY – Property Taxation – Property Taxes.”

### **Wastewater Management Enterprise Fund Budget**

The following table sets forth the major items of revenues and expenditures included in the 2011 budget of the Wastewater Management Enterprise Fund and the adjusted budget for 2010. Budgeted amounts are not intended to project actual results.

**Table 7**  
**Enterprise Budgets**

	<u>2011</u> <u>Approved Budget</u>	<u>2012</u> <u>Approved Budget</u>
Operating Revenue		
Charges for Services	\$ 76,674,000	\$ 96,483,000
Other	<u>          --</u>	<u>          --</u>
 Total Operating Revenue	 <u>76,674,000</u>	 <u>\$96,483,000</u>
 Operating Expenses		
Personnel Services	23,048,000	23,243,000
Contractual Services	17,420,000	21,220,000
Supplies and Materials	1,725,000	1,373,000
Other Operating Expenses	--	511,000
Payments To Metro Wastewater and Other Districts	<u>45,600,000</u>	<u>45,000,000</u>
 Total Operating Expenses	 <u>87,793,000</u>	 <u>91,347,000</u>
 Operating Income (loss)	 (11,119,000)	 5,136,000
 Other Income (Expense)		
Earnings on investments	300,000	200,000
Return of contributed capital		
Debt service payments	(1,108,800)	(1,047,400) <sup>(1)</sup>
Bond principal payments	(1,365,000)	(1,430,000) <sup>(1)</sup>
Purchase of capital equipment	<u>(637,746)</u>	<u>(4,384,500)</u>
Total Other Income	<u>(2,811,546)</u>	<u>(6,661,900)</u>
 Modified Net Income	 (13,930,546)	 (1,525,900)

(1) These amounts will be amended to reflect the debt service on the Bonds. See "THE BONDS - Debt Service Requirements."

Source: Enterprise Department of Finance.

### Operating History

The following table sets forth the revenues, expenses and changes in retained earnings of the Wastewater Management Enterprise Fund for the five years ended December 31, 2010:

**Table 8**  
**Comparative Statement of Wastewater Management Enterprise Fund Activity**

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Operating revenues – charges for services					
Sanitary sewer	\$47,895,998	\$47,804,094	\$46,936,074	\$46,060,753	\$45,556,406
Storm drainage	<u>25,855,498</u>	<u>27,946,403</u>	<u>29,654,347</u>	<u>29,451,253</u>	<u>29,806,256</u>
Total	<u>73,751,496</u>	<u>75,750,497</u>	<u>76,590,421</u>	<u>75,512,006</u>	<u>75,362,662</u>
Operating expenses					
Personnel services	18,967,146	18,923,901	20,454,009	21,202,815	19,340,219
Contractual services	9,644,898	15,251,496	14,400,684	14,714,438	14,577,854
Supplies	2,231,597	1,918,909	1,579,397	1,275,296	1,180,098
Utilities	92,858	130,958	114,198	125,198	142,815
Depreciation and amortization	10,654,696	11,196,742	12,602,935	14,369,070	15,682,407
Payments To Metro Wastewater Reclamation District	<u>25,227,259</u>	<u>28,777,458</u>	<u>25,994,957</u>	<u>29,316,360</u>	<u>33,566,435</u>
Total	<u>66,818,454</u>	<u>76,199,464</u>	<u>75,146,180</u>	<u>81,003,177</u>	<u>84,489,828</u>
Operating Income	6,933,042	(448,967)	1,444,241	(5,491,171)	(9,127,166)
Nonoperating revenue (expenses)					
Investment income	5,292,272	4,240,078	1,961,110	377,512	2,185,741
Investment expense	4,927	4,927	4,927	4,927	4,927
Gain (loss) on disposition of assets	<u>68,837</u>	<u>33,233</u>	<u>5,483</u>	<u>56,321</u>	<u>101,906</u>
Total nonoperating revenues	\$5,366,036	\$4,278,238	\$1,971,520	438,760	2,292,574
Income before capital contributions and transfers	12,299,078	3,829,271	3,415,761	(5,052,411)	(6,834,592)
Capital contributions	37,772,915	9,906,473	7,689,684	15,017,821	13,983,763
Transfers out	(8,000)	(11,400)	(14,500)	(18,800)	(25,200)
Change in net assets	50,079,993	13,724,344	11,090,945	9,946,610	7,123,971
Net assets, beginning of year	<u>416,681,158</u>	<u>466,745,151</u>	<u>480,469,495</u>	<u>491,560,440</u>	<u>501,507,050</u>
Net assets, end of year	<u>\$466,761,151</u>	<u>\$480,469,495</u>	<u>\$491,560,440</u>	<u>\$501,507,050</u>	<u>\$508,631,021</u>

Source: Enterprise audited financial statements 2006 – 2010.



## Historic Net Pledged Revenues

Based upon the revenues and expenditures of the Wastewater Management Enterprise Fund for the past five years and using the Debt Service Requirements of the Bonds (as estimated by the Financial Advisor to the City), the amounts which would have constituted Net Pledged Revenues available for debt service in each of the past five years would have covered the maximum Debt Service Requirements of the Bonds as follows:

**Table 9**  
**Historic Debt Service Coverage Ratios**

Years	Net Pledged Revenues	Maximum Annual Debt Service Requirement	Debt Service Coverage Ratio
2006	\$22,884,937		
2007	14,992,780		
2008	16,013,213		
2009	9,260,338		
2010	8,745,909		

Source:

## Management's Comments Concerning Financial Performance of the Enterprise

**Operating Revenues.** Operating revenues attributable to sanitary sewer service decreased 4.9% from 2006 to 2010 and during the same period operating revenues attributable to storm drainage service charges increased 15.3%. The primary reason for the decrease in sanitary sewer operating revenues was lower water consumption driven by conservation efforts in the City. The growth in storm drainage operating revenues can be attributed primarily to a 20% rate increase in 2006 coupled with growing impervious surface areas.

Management expects operating revenues to increase significantly during the next five years as a result of the sewer and storm drainage rate increases described in "FINANCIAL INFORMATION CONCERNING THE ENTERPRISE – Storm Drainage Fee Structure and – Sanitary Sewerage Fee Structures."

**Operating Expenses.** Operating expenses have increased 26.4% from 2006 to 2010. The Metro Annual Charge increased 33.1% over such five year period. See "THE STORM DRAINAGE AND SEWERAGE FACILITIES – Sanitary Sewerage Facilities -- Metro Wastewater Reclamation District." Expenses associated with contractual services also increased 51.1% over such five year period. Management's cost savings efforts have benefited the Enterprise through various personnel spending restrictions which constricted personnel services growth to only 2% from 2006 to 2010.

**Nonoperating Revenues.** Net investment earnings (investment income less investment expense) decreased from approximately \$5.3 million in 2006 to approximately \$2.2

million in 2010. A decrease in cash and investment balances of \$99.4 million in 2006 to \$36.0 million in 2010 coupled with lower return on investment was the main cause of the decline.

**Capital Improvement Plan.** The Enterprise continuously reviews its future capital needs to be identified in the master drainage plan through staff observation and customer and community feedback. Recommended projects are incorporated into the Six-Year Capital Improvement Plan. See “THE STORM DRAINAGE AND SANITARY SEWERAGE FACILITIES – Storm Drainage Facilities – Planning,” and “Sanitary Sewerage Facilities - Planning.” The timing and priority for implementation of recommended projects within the Six-Year Capital Improvement Plan are based upon certain factors including the master plan, study findings, health and safety matters, legal and contractual obligations, completion of existing projects, coordination with other projects, mitigation of damages, cost and operational efficiency, public/private cooperation and regional benefits. The Enterprise is continuously implementing the results of this process in its capital improvements plan. The following schedule provides the Enterprise’s currently proposed capital improvements plan expenditures for the years 2012-2017:

**Table 10**  
**Proposed Capital Expenditures<sup>(1)</sup>**

<b>Project Description</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Storm Drainage	\$23,047,592	\$22,141,721	\$22,621,351	\$23,391,334	\$20,766,472	\$21,350,529
Sanitary Sewerage	<u>6,139,191</u>	<u>6,474,146</u>	<u>6,669,554</u>	<u>6,011,832</u>	<u>7,366,708</u>	<u>6,665,069</u>
Total	\$29,186,784	\$28,615,867	\$29,290,905	\$29,403,166	\$28,133,180	\$28,015,598

(1) 2011 dollars have been inflated at an annual rate of 3%.

Source: Enterprise Department of Finance.

The Enterprise currently expects to issue additional Wastewater Enterprise Revenue Bonds approximately every other year for the next six years to maintain a 50-50 ratio between the capital improvements it finances through debt and those it finances from available receipts. Management of the Enterprise believes this is a well-balanced approach allowing for increased capital financing capacity and a conservative debt structure. The increases in annual storm drainage rates were calculated with the assistance of the Wastewater Consultant to provide additional revenues for “pay-as-you-go” projects, debt service coverage on the Bonds and other debt obligations to be issued in connection with the capital improvements program and projected increases in operations and maintenance expenses. See APPENDIX B “-Report of the Wastewater Consultant.”

Certain portions of the Enterprise’s future Storm Drainage Facilities may also be financed with reimbursements received from the Flood Control District. See “THE STORM DRAINAGE AND SANITARY SEWERAGE FACILITIES - Storm Drainage Facilities - Cooperation with Other Agencies.” Based on historical Flood Control District reimbursements and planned capital improvements, the Enterprise estimates that the Flood Control District will contribute \$2.0 million per year to the Enterprise for the next six years. Additionally, certain

Storm Drainage Facilities capital improvements in the Gateway development area are expected to be financed from developer contributions and impact fees. See “FINANCIAL INFORMATION CONCERNING THE CITY – Storm Drainage Fee Structure – Gateway Area Impact Fees.” Sanitary sewer service availability fees are expected to defray the cost of some of the Enterprise’s future Sanitary Sewerage Facilities capital improvements. The balance of Sanitary Sewerage Facilities are expected to be financed on a “pay as you go” basis primarily from proceeds of the sanitary sewage service charge.

## **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 2.8 million people, representing more than half of the population of the State currently reside in the Denver metropolitan area.

### **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 thirteen members, two of whom are elected on an at-large basis and eleven of whom are elected by districts, all for four-year terms with a three-consecutive-term limit. Seven members constitute a 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.

Officials of the City are as follows:

Michael B. Hancock	Mayor
Dennis J. Gallagher	Auditor
Albus Brooks	Councilmember – District 8
Charles V. Brown, Jr.	Councilmember – District 6
Jeanne Faatz	Councilmember – District 2
Christopher Herndon	Councilmember – District 11
Robin Kneich	Councilmember – At-Large
Peggy A. Lehmann	Councilmember – District 4
Paul Lopez	Councilmember – District 3
Judy H. Montero	Councilmember – District 9
Chris Nevitt	Councilmember and President – District 7
Deborah Ortega	Councilmember – At-Large
Jeanne Robb	Councilmember – District 10
Susan Shepherd	Councilmember – District 1
Mary Beth Susman	Councilmember – District 5
Debra Johnson	Clerk and Recorder, <i>Ex-Officio</i> Clerk

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. The Auditor is elected every four years and is limited to three terms. The current City Auditor is Dennis J. Gallagher.

On November 7, 2006, the electors of the City passed amendments to the City Charter which authorized the creation of a Department of Finance and the appointment of a Manager of Finance to serve as the chief financial officer of the City. Under the amendments and effective January 1, 2008, the Manager of Finance replaced the Manager of Revenue on the Mayor's cabinet and became responsible for the management of the City's debt and financial obligations and the appointment of the treasurer and assessor. Responsibilities for issuance of payments, payroll and other general accounting functions historically provided by the City Auditor were transferred to the Department of Finance. Cary Kennedy is the Manager of Finance and Ex Officio Treasurer, acting as the chief financial officer of the City. Powers to conduct financial and now performance audits are carried out by the City Auditor in the office's strengthened audit capacity.

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 terms. The current Clerk and Recorder is Debra Johnson.

As of December 1, 2011, the appointed members of the Mayor's cabinet were the following individuals:

Cary Kennedy	Deputy Mayor, Manager of Finance/Chief Financial Officer/ <i>Ex-Officio</i> Treasurer
Adrienne Benavidez	Manager of the Department of General Services
Laurie Dannemiller	Manager of the Department of Parks and Recreation
Kim Day	Manager of the Department of Aviation
George Delaney	Manager of the Department of Public Works
Doug Linkhart	Manager of the Department of Environmental Health
Alex Martinez	Manager of the Department of Safety
Penny May	Manager of the Department of Human Services
Molly Urbina	Manager of Community Planning and Development
Douglas J. Friednash, Esq.	City Attorney

In addition to the members of the cabinet, Janice Sinden, the Chief of Staff, has a significant advisory role in formulating policy.

The City Charter provides that a vacancy in the office of Mayor is to be filled by a special election except that, if the vacancy occurs within the final six months of a term of office, the acting Mayor, determined as described below, is to discharge the duties of the Mayor for the unexpired portion of the term. Prior to the special election or for the remainder of the unexpired portion of the term, in the event a vacancy occurs in the office of the Mayor, the City Charter provides for succession to such office by the Deputy Mayor, who is to resign and become acting Mayor. If the Deputy Mayor refuses or is unable to serve as acting Mayor, the President of the City Council is to resign as President and become acting Mayor. If the President of the Council refuses or is unable to serve as acting Mayor, the City Council is to elect one of their number as acting Mayor.

The City Charter also establishes the Denver Water Department, which is under the control of a five-member, nonpartisan Board of Water Commissioners (the "Water Board"), and vests the complete charge and control of the City's water system and plant in the Water Board. All revenues of the water system are accounted for in the Water Works Fund, disbursements from which are controlled by the Water Board. Members of the Water Board are appointed by the Mayor for six-year overlapping terms.

## **FINANCIAL INFORMATION CONCERNING THE CITY**

### **Budget Policy**

The City 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 City Council for its approval. The City 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 City Council fails to

adopt a budget by the required date, the proposed budget, together with any amendments approved by the City 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 City Charter to include a year-end closing balance, which may only be expended upon a two-thirds majority vote of the City Council during that Fiscal Year but may be considered income for the ensuing Fiscal Year. A contingency reserve of no less than 2% of total estimated General Fund expenditures is also required to be included in the budget. In addition, a constitutionally mandated emergency reserve equal to 3% of fiscal year spending excluding debt service is also required to be included in the budget. Revenues in excess of those projected, or an opening balance larger than projected, is added to the contingency reserve. See "General Fund Reserve Policy" below.

## **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 2010 and 2011 and information prepared by the Department of Finance.

Major Revenue Sources. The major revenue sources for the City's General Fund are sales and use taxes and the City's property tax. Other revenue sources include intergovernmental revenues, charges for services, franchise fees and other taxes.

As of December 2011, the general sales tax was a fixed-rate (3.62%) tax imposed on the sale of all tangible personal property not specifically exempted and on certain services. In November 2006, the voters of the City approved an increase of the City's sales tax of 0.12% to fund increased access to and quality of preschool programs for City residents. The revenue from this increase is only available for such purpose and cannot be used for General Fund revenue. Collection of the 0.12% sales tax increase commenced January 1, 2007. Additionally, there are separate sales tax surcharges for short-term car rental, prepared food and beverages and aviation fuels. A portion of these charges is used for debt service payments. The general use tax is a fixed-rate (3.62%) 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.

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. The General Fund net property tax mill levy was as follows for the related tax collection years: 9.323 mills for 2007; 6.306 mills for 2008; 6.389 mills for 2009; 5.867 mills for 2010; and 6.174 mills for taxes being collected in 2011. In collection years 2008, 2009, 2010 and 2011, the City applied additional mills of 2.285, 2.350, 2.170 and 2.281, respectively, to the City's Capital Improvement Project Fund (the "CIP Fund") instead of its General Fund. The City has in turn redirected the occupational privilege tax (the "OPT") previously credited to the CIP Fund to the General Fund. These actions were designed to create greater stability in General Fund Revenues due to the historically more predictable OPT revenues.

Further, these actions take into account the temporary mill levy rate reductions as needed to comply with State Constitutional revenue and spending limitations. See “LEGAL MATTERS-- Constitutional Revenue, Spending and Debt Limits.”

The OPT is levied on each employee earning \$500 or more per month who performs services within the City for an employer for any period of time and on each non-exempt employer operating within the City for any period of time. Proceeds are used to partially compensate for the City’s services as an employment center. Prior to 2008, 50% of the revenues from the OPT were credited to the General Fund and 50% of such revenues were credited to the CIP Fund. Effective Fiscal Year 2008, 100% of the revenues from the OPT are credited to the General Fund in exchange for a portion of property taxes that historically were deposited to the General Fund, being reallocated to the CIP Fund. OPT revenues accounted for approximately 2.7% of total General Fund revenues in 2007 and accounted for approximately 5.0% of total General Fund revenues in 2008, 2009 and 2010, due to this change.

Other amounts collected by the City and accounted for in the General Fund include the lodgers’ tax, the automobile ownership tax, franchise fees and the telecommunications business tax. The lodgers’ tax is levied on the purchase price of hotel, motel and similar temporary accommodations in 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. Franchise fees include the utility franchise fee 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. The telecommunications business tax is imposed on providers of local exchange telecommunication service based upon the number of customer accounts.

Charges for services is 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. The State-imposed cigarette tax is also shared with the City and included in intergovernmental revenues.

General Fund Reserve Policy. The City’s overall objective is to achieve structural balance between operating revenues and expenditures. Due to the fluctuating nature of both revenues and service demands without advance notice, the City believes it is financially prudent to have reserve funds and maintains a policy for their use. The City has several reserves in the General Fund to address unforeseen revenue shortfalls or unanticipated expenditures. The specific reserves include: (a) an annual contingency reserve of 2% of total expected General Fund expenditures; (b) unrestricted fund balance targeted at 15% (but required to be at least 10%) of annual General Fund expenditures; and (c) the state TABOR emergency reserve, which is 3% of all covered funds. For more information regarding TABOR, see “LEGAL MATTERS-- Constitutional Revenue, Spending and Debt Limitations.”

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, culture and entertainment and community development. The largest portion of the 2011 budget (49.5%) was allocated to public safety, which is primarily responsible for administering police, fire and sheriff's department services.

### **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 over one-half of the General Fund revenues. As of January 1, 2010, the fixed-rate general sales tax of 3.62% was imposed on the sale of all tangible personal property not specifically exempted and on certain services and a general use tax of 3.62% is imposed on the storage, use and consumption of tangible personal property not specifically exempted. Included within such sales and use tax rates are 0.12% increases approved by the City's voters on November 7, 2006 to fund increased access to and quality of preschool programs for City residents, and the revenues from this increase in the sales and use tax are only available for such purpose. This rate increase became effective on January 1, 2007 and will expire on December 31, 2016. The City's practice is to account for sales and use taxes on a combined basis.

### **Property Taxation**

Assessed Valuation. The assessed value of real property for tax purposes is computed using statutory actual values as determined from manuals published by the Administrator of the State Division of Property Taxation and from data developed by the Manager of Finance, Ex Officio Assessor, based on evidence collected from the marketplace. Table 8 sets forth the State property appraisal method for assessment years 2002 through 2011.



**Table 11**  
**STATE PROPERTY APPRAISAL METHOD**

<u>Collection Year</u>	<u>Assessment Year</u>	<u>Value Calculated as of</u>	<u>Based on the Market Period</u>
2002	2001	July 1, 2000	January 1, 1999 to June 30, 2000
2003	2002	July 1, 2000	January 1, 1999 to June 30, 2000
2004	2003	July 1, 2002	January 1, 2001 to June 30, 2002
2005	2004	July 1, 2002	January 1, 2001 to June 30, 2002
2006	2005	July 1, 2004	January 1, 2003 to June 30, 2004
2007	2006	July 1, 2004	January 1, 2003 to June 30, 2004
2008	2007	July 1, 2006	January 1, 2005 to June 30, 2006
2009	2008	July 1, 2006	January 1, 2005 to June 30, 2006
2010	2009	July 1, 2008	January 1, 2007 to June 30, 2008
2011	2010	July 1, 2008	January 1, 2007 to June 30, 2008

As of January 1, 1985, the State General Assembly was required to determine the percentage of the aggregate Statewide valuation for assessment that is attributable to residential real property. For each subsequent year, the General Assembly was and is required to redetermine the percentage of the aggregate Statewide valuation for assessment that is attributable to each class of taxable property, after adding any increased valuation for assessment attributable to new construction and increased oil and gas production. For each year in which there is a change in the level of value, the General Assembly is required to adjust the assessed valuation ratio for residential real property as necessary to maintain the previous year's percentage of aggregate Statewide valuation attributable to residential real property. The Colorado General Assembly set the residential real property assessed valuation ratio at 7.96% of its statutory actual value for assessment years 2003 through 2009. In December 2009, the Colorado Legislative Council (the research division of the Colorado General Assembly) projected that the residential assessment rate will remain at 7.96% through levy year 2012. This projection is only an estimate, however, and is subject to change. For assessment years 2001 and 2002, residential real property was valued for assessment at 9.15% of its statutory actual value. For assessment years 1997 through 2000, residential real property was valued for assessment at 9.74% of its statutory actual value. All other taxable property (with certain specified exceptions) has had an assessed valuation ratio throughout these tax years of 29% of statutory actual value.

The City's assessed valuation is established by the Assessor of the City, except for public utility property which is assessed by the Administrator of the State Division of Property Taxation. Property taxes are levied on all real and personal property, except certain categories of exempt property. Classes of property not subject to property taxes include, but are not limited to: property of the United States of America; property of the State and its political subdivisions; property of school districts; property used as an integral part of a licensed school childcare center; inventories of merchandise and supplies that are held for consumption by a business or are held primarily for sale; agricultural and livestock products; agricultural equipment; property used for religious or charitable purposes; and noncommercial personal property.

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 (except that the exemption was suspended for collection years 2009 and 2010), 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 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.

Property Taxes. 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 February 28 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.

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.

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.

## **Financial Statements**

The basic financial statements of the City for the year ending December 31, 2010, 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 has not performed any procedures on any financial statements or other financial information of the City, including without limitation any of the information contained in this Official Statement, since the date of this report and BKD should not be considered to be associated with the Official Statement in any manner.

Financial statements of the City for fiscal years ending on or prior to December 31, 2009 are available for inspection at the Department of Finance, 201 West Colfax, Department 1004, Denver, Colorado 80202, or on the City's website (denvergov.org) under the Controller's webpage. 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 Bonds.

### **Retirement Plans**

Substantially all of the general employees of the City are covered under the Denver Employees Retirement Plan ("DERP"); however, employees of the police department, fire department, and the Denver Water Board are covered by separate retirement systems. The information included in this section relating to DERP and other retirement plans covering City employees relies on information produced by such plans and their independent accountants and actuaries. Actuarial assessments are "forward-looking" information that reflect the judgment of the fiduciaries of the retirement plans and are based upon a variety of assumptions, one or more of which may prove to be inaccurate or may be changed in the future. See "FORWARD LOOKING STATEMENTS" and "Notes H and I to the City's Basic Financial Statements of the City, for the Fiscal Year Ended December 31, 2010 attached hereto as APPENDIX A.

City Employees. DERP is a defined benefit plan. Its purpose is to provide retirement benefits to qualified members of the City and County of Denver and 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 post-retirement health benefits to eligible members.

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 employees who were members of DERP.

DERP membership consisted of the following as of December 31, 2009 and 2010:

**Denver Employees Retirement Plan Membership**

	<u>2009</u>	<u>2010</u>
Retirees and beneficiaries currently receiving benefits	7,416	7,606
Terminated employees entitled to benefits but not yet receiving such benefits	3,326	3,343
Current employees:		
Vested	5,864	5,912
Non-vested	<u>2,750</u>	<u>2,491</u>
<b>TOTAL</b>	<u><b>19,356</b></u>	<u><b>19,352</b></u>

DERP provides retirement benefits plus death and disability benefits. Employees who retire at or after age 65 (or age 55 if the sum of age plus credited service is 75 or more for employees hired prior to July 1, 2011) (or age 60 if the sum of age plus credited service is 85 or more from employees hired after July 1, 2011) entitled to a retirement benefit in an amount equal to from 1.5% to 2.0% of their average monthly salary, for each year of credited service, payable monthly for life. The average salary is based on the employee's highest salary in a 36-consecutive-month period of credited service. Employees with five years of credited service may retire at or after age 55 and receive a reduced retirement benefit. Benefit and contribution provisions are established by the City Council which acts upon the recommendation of DERP's governing board as accompanied by an independent actuarial analysis.

DERP's funding policy provides for annual employer contributions at rates determined by an independent actuary, which, when expressed as percentages of annual covered payroll, are sufficient to accumulate assets to pay benefits when due. Beginning January 1, 2005, the City employees' contribution was changed from 2.0% to 2.5% and the City's contribution was changed from 8.0% to 8.5% of the salary of covered employees. As of January 1, 2011, the combined total contribution rate increased to 15.0% of salary. The City's contribution increased to 9.5% and the City employees' contribution increased to 5.5%. As of December 31, 2010, the total net plan assets were 1,802,143,029.<sup>1</sup> Per DERP's independently audited 2010 Comprehensive Annual Financial Report, as of January 1, 2010, the most recent valuation, 88.4% of the plan's accrued liabilities were covered by valuation assets.

Other Post Employment Benefits. In addition to the retirement benefits cited above, 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 benefit for the retirees. The City's contribution toward the implicit rate subsidy is based on pay-as-you-go financing for the retirees.

DERP retirees are responsible for 100% of the blended premium rate. They may choose to use their health benefit toward the premium costs. The health benefit associated with

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(1) Source: Denver Employees Retirement Plan (unaudited).

the DERP pension 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 65 and older. Per DERP's independently audited 2010 Comprehensive Annual Financial Report, as of January 1, 2010, the most recent valuation, 63.8% of the plan's accrued liabilities were covered by valuation assets.

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 ("New Hires") 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 Fire and Police Pension Association ("FPPA"). 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 Pension Plans, unless the Old Hires elected to become covered by the New Hire Plan before March 1, 1981. Both the Old Hire Police Pension Plan (the "Old Hire Police Plan") and the Old Hire Firefighters Pension Plan (the "Old Hire Fire Plan" and collectively with the Old Hire Police Plan, the "Old Hire Plans") are affiliated with FPPA, and the FPPA manages investments, and administers the contributions to, and distributions from, these Old Hire Plans. Denver's Police Pension and Relief Board and the Trustees of the Firefighters Pension Fund administer various other matters relating to the Old Hire Plans.

New Hire City police officers and firefighters in the classified service contribute to the plans at a rate of 8% of base salary, and the City contributes a matching 8% of salary to the New Hire Police and Firefighters Pension Plan. For the years ending December 31, 2010, 2009, and 2008 the City contributed a combined amount of \$13,367,000, \$13,387,000 and \$12,443,683 respectively, in connection with the New Hire Plan. As of the January 1, 2010 actuarial report, under current law benefits and assuming no cost of living adjustments, the New Hire Plan is funded at 100%.

The City is required to pay a minimum of \$27,894,000 to the Old Hire Plans each year until there is no longer any actuarial liability. The City's contributions to the Old Hire Plans for the years ended December 31, 2010, 2009 and 2008 were \$22,384,000, \$16,417,000 and \$30,135,266, respectively. Contributions in 2009 and 2010 were under the required amount because the funding level for the Old Hire Fire Plan had been met. Because of the economic slowdown, contributions to the Old Hire Fire Plan will again be required in 2011. As of January 1, 2010, the Old Hire Police Plan and Old Hire Fire Plan were funded at 85% and 76%, respectively.

The Water Board Retirement Plan. The Water Board Retirement Plan (the "Water Board Plan") is a defined benefit, single-employer, and non-contributory plan covering substantially all permanent full-time employees of the Water Board. The Water Board Plan benefits are integrated with Social Security benefits.

## **DEBT STRUCTURE OF THE CITY**

### **Authorization for General Obligation Bonds**

As of December 31, 2011 the City will have outstanding general obligation bonds in the aggregate principal amount of \$941,484,000 which does not include accrued interest of \$4,734,478 on compound interest bonds. In addition, there will be outstanding general obligation bonds issued by the Denver Water Board in the aggregate principal amount of \$23,825,000. The Water Board bonds are paid solely from the revenues of the utility and do not apply to the City's general obligation bonded debt limit.

At the Better Denver Election, the City's voters approved a 2.5 mill levy increase for capital maintenance and the eight general obligation Better Denver Ballot Questions authorizing debt in the aggregate amount of \$549,730,000. The City has issued debt in the aggregate principal amount of \$492,606,795 pursuant to the Better Denver Election and \$60,660,000 of authorization under the Better Denver Election remains. The City anticipates issuing additional bonds over the next few years in order to fund the projects authorized at the Better Denver Election.

Under the City Charter general obligation bonded debt, excluding bonds issued by the Denver Water Board, is subject to a limitation of 3% of the actual value of taxable property within the City.

At a special municipal election held in the City on November 5, 2002, a majority of the registered electors of the City approved an amendment to the City Charter that would remove the authority of the Denver Water Board to issue general obligation bonds secured by property taxes within the City. Under the amendment to the City Charter, the Denver Water Board may issue revenue bonds that are payable solely from the net revenues of the Denver Water Board. The Charter amendment allows for Denver Water Board revenue bonds to be used to refund outstanding general obligation bonds issued for the benefit of the Denver Water Board, but does not require them to be used for such purpose.

### **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.

COPs have been executed and delivered in conjunction with various lease purchase agreements discussed in the paragraph above. Anticipated Principal outstanding on these transactions as of December 31, 2011 is summarized in Table 12.

**Table 12**  
**SCHEDULE OF CERTIFICATED LEASE PURCHASE TRANSACTIONS**  
**AND RELEASE DATES<sup>1</sup>**

Series	Outstanding Principal Amount (as of December 31, 2011)	Leased Property	Date Lease Property Scheduled to be Acquired
1995A	\$160,000	City Office Building for Information and other City Departments	January 1, 2014
2002A-B	10,575,000	Denver Cultural Center Parking Garage	December 1, 2021
2003A	2,570,000	Cherry Creek North Parking Garage	December 1, 2017
2003B	42,925,000	Buell Theatre, Jail Dorm Building	December 1, 2023
2005A	32,240,000	Human Services Campus	May 1, 2020
2008A1-A3	254,145,000	Wellington E. Webb Office Building	December 1, 2031
2008B	17,510,000	Denver Botanic Gardens Parking Facility	December 1, 2028
2010A	21,855,000	Central Platte Campus	December 1, 2030
2010B	<u>31,530,000</u>	Wastewater Office Building/Roslyn Maintenance Facility	December 1, 2021
TOTAL	\$413,510,000		

Source: Department of Finance.

Non-Certificated Lease Purchase Agreements. As of December 31, 2011 the City will be the lessee under various other capitalized lease obligations for the lease purchase of real property and equipment outstanding in the principal amount of \$15,911,900. At the end of the final term of such leases, the City expects to own the real property and equipment that is the subject of such leases.

### **Local Public Improvement Bonds**

Certain alley paving, street paving, sidewalk paving, sanitary sewer, and storm sewer improvements in various areas of the City are financed through the issuance of local public improvement bonds. Local public improvement districts are created by ordinance, and on completion all or a portion of the cost of the public improvements is assessed proportionately against all property benefited.

<sup>1</sup> Source: Department of Finance.

The City Charter provides that any money remaining to the credit of a local improvement district after payment of all outstanding bonds shall be transferred to a special surplus and deficiency fund, and whenever there is a deficiency in any local improvement district to meet payment of outstanding bonds, it is to be paid out of said fund. The City has also contributed to the surplus and deficiency fund from time to time. As of December 31, 2010 there were no local public improvement bonds outstanding, and the balance in the Surplus and Deficiency Fund was \$431,362.

## **Revenue Bonds**

The City has outstanding certain enterprise and excise tax revenue bonds payable from specifically pledged revenues, excluding ad valorem taxes. As of December 31, 2011, the City's Airport Enterprise (the "Airport Enterprise") will have \$3,778,695,000 of airport system revenue bonds outstanding, including capital appreciation bonds. Of this total, there are fixed-payment swaps hedging variable rate mode debt totaling \$1,516,670,000.

In April 2002, the City, on behalf of the Wastewater Management Division of its Department of Public Works (the "Wastewater Enterprise"), issued enterprise revenue bonds in the aggregate principal amount of \$30,700,000. As of December 31, 2011, \$20,350,000 will remain outstanding. The proceeds of the issue were used to fund certain projects identified in the Wastewater Enterprise's six-year needs assessment for its Stormwater Division. These bonds are to be refunded, paid and discharged with a portion of the proceeds of the Bonds.

As of December 31, 2011, the City will have outstanding excise tax revenue and excise tax refunding bonds in the amount of \$249,140,000 the majority of which proceeds were used for the expansion of the Colorado Convention Center which was completed in December, 2004. All excise tax revenue bonds, except for refunding bonds at a lower interest rate, require prior elector approval under the State Constitution.

In March 2006, the City created a Golf Enterprise as a Division of its Department of Parks and Recreation (the "Golf Enterprise"), and issued on behalf of the Enterprise revenue bonds in the aggregate principal amount of \$7,365,000. As of December 31, 2011, \$4,900,000 of such bonds will remain outstanding. The proceeds of the issue were used to acquire, improve and equip certain of the City's public golf facilities.

## **ECONOMIC AND DEMOGRAPHIC OVERVIEW**

APPENDIX C contains an economic and demographic overview of the Denver Metropolitan Area as of June 2011.

## **FORWARD LOOKING STATEMENTS**

This Official Statement and particularly the information contained under the caption "FINANCIAL INFORMATION CONCERNING THE CITY – Retirement Plans" 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," "intend," "expect" and similar expressions identify forward-looking statements. Any forward-looking statement is subject to uncertainty and 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.

## **LEGAL MATTERS**

### **Constitutional 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 requires voter approval prior to the creation by the City of any multiple-fiscal year debt or other financial obligation, subject to certain exceptions including refinancing at a lower interest rate.

TABOR limits the total amount of property taxes that may be levied, collected and retained by the City for all purposes to the total amount of such property taxes collected in the preceding year, adjusted for inflation and local growth, unless a “revenue change” is approved by the voters. TABOR also requires voter approval in advance of any property tax mill levy above that for the prior year. The voter approval also permits 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 below.

The voter approval received by the City at the Better Denver Election permits 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 below.

TABOR also limits the total amount of expenditures and reserve increases (excluding changes in debt service payments) that may be made by the City for all purposes to the total amount thereof made in the preceding year, adjusted for inflation and local growth, unless the voters approve a “revenue change.” Under TABOR, the creation of bonded debt increases and retiring or refinancing bonded debt lowers, fiscal year spending. If revenues collected by the City in excess of the spending limit are required to be refunded, they must be refunded during the next calendar year. TABOR contains the provision that voters may approve an entity to retain excess revenues.

TABOR contains the provision that voters may authorize a public entity to retain excess revenues that would otherwise need to be repaid to the taxpayers. In November 2000, Denver voters authorized an exemption from the TABOR revenue limits for all non-tax revenues received by the City in fiscal year 1999 and thereafter. Denver voters approved an additional TABOR waiver in November 2005, which authorizes the City to retain and spend non-property tax revenues in excess of the TABOR “excess revenues cap” for ten fiscal years beginning in 2005 and ending in 2015. The “excess revenue cap” is determined by the highest excess revenue for any given year during the preceding ten fiscal year period for years 2005 through 2015. In

November 2007, Denver voters also authorized an exemption from the TABOR revenue limits for the revenues collected from a 2.5 mill levy increase approved for capital maintenance expenditures.

Ballot questions seeking voter approval for such TABOR matters may be submitted only at State general elections, biennial local district elections or on the first Tuesday in November of odd-numbered years.

As revenue bonds of an enterprise, the Bonds may be issued without voter approval in advance under TABOR.

### **Litigation**

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 and the City's theaters and arena facilities. For Fiscal Year 2011, the City Attorney's office has received an appropriation of approximately \$5.56 million, for payment of claims and judgments for items not covered by existing insurance. The City considers these amounts sufficient to provide for the disposition of matters which are anticipated to be finalized in 2011.

A lawsuit has also been filed against the City in the United States District Court for the District of Colorado on behalf of 850 Denver police officers. The suit alleges damages in excess of \$200 million and includes (1) claims of unpaid overtime compensation for activities performed outside scheduled work hours such as donning and doffing police uniforms and equipment, (2) late payment of overtime, (3) improper calculation of overtime rates and (4) denial of compensatory time usage. The trial which began in November 2010 is to be conducted in phases, with the liability portion of the case anticipated to be completed some time in 2012. The City is vigorously defending against all claims. However, as with any litigation, the outcome of this complex case is impossible to predict with any accuracy.

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.

### **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, 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 \$150,000; (b) for an injury to two or more persons in any single occurrence, the sum of \$600,000; except in such instance, no person may recover in excess of \$150,000. 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. In addition, the City may be enjoined from engaging in anti-competitive practices which violate federal and State antitrust laws. 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 Bonds are subject to the approving legal opinions of Sherman & Howard L.L.C., Denver, Colorado and GCR, LLP, Denver, Colorado, as Co-Bond Counsel. The opinions of Co-Bond Counsel are expected to state in substance that the Bonds are valid and binding general obligations of the City, subject to the application of equitable principles, to the reasonable exercise in the future by the State and its governmental bodies of the police power inherent in the power of the State, and to the exercise by the United States of America of the powers delegated to it by the federal Constitution, including without limitation, bankruptcy powers.

In addition to acting as Co-Bond Counsel, Sherman & Howard L.L.C and GCR, LLP have also been retained to advise the City concerning and have assisted in the preparation of this Official Statement. Sherman & Howard L.L.C. and GCR, LLP have not participated in any independent verification of the information concerning the financial condition or capabilities of the City contained in this Official Statement.

### **TAX MATTERS**

In the opinion of Co-Bond Counsel, assuming continuous compliance with certain covenants described below, interest on the Bonds is excluded 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 Bonds (the "Tax Code"), interest on the Bonds is excluded from alternative minimum taxable income as defined in Section 55(b)(2) of the Tax Code except that such interest is required to be included in calculating the "adjusted current earnings" adjustment applicable to corporations for purposes of computing the alternative minimum taxable income of corporations as described below and interest on the Bonds is excluded from Colorado taxable income and Colorado alternative minimum taxable income under Colorado income tax laws in effect on the date of delivery of the Bonds.

The Tax Code and Colorado law impose several requirements which must be met with respect to the Bonds in order for the interest thereon to be excluded from gross income, alternative minimum taxable income (except to the extent of the aforementioned adjustment applicable to corporations), Colorado taxable income and Colorado alternative minimum taxable income. Certain of these requirements must be met on a continuous basis throughout the term of Bonds. These requirements include: (a) limitations as to the use of proceeds of Bonds; (b) limitations on the extent to which proceeds of Bonds may be invested in higher yielding investments; and (c) a provision, subject to certain limited exceptions, that requires all investment earnings on the proceeds of Bonds above the yield on Bonds to be paid to the United States Treasury. The City will covenant and represent in the Bond Ordinance that it will take all steps to comply with the requirements of the Tax Code and Colorado law (in effect on the date of delivery of the Bonds) to the extent necessary to maintain the exclusion of interest on the Bonds from gross income and alternative minimum taxable income (except to the extent of the aforementioned adjustment applicable to corporations) under such federal income tax laws and Colorado taxable income and Colorado alternative minimum taxable income under such Colorado income tax laws. Co-Bond Counsel's opinion as to the exclusion of interest on the Bonds from gross income, alternative minimum taxable income (to the extent described above), Colorado taxable income and Colorado alternative minimum taxable income is rendered in reliance on these covenants, and assumes continuous compliance therewith. The failure or inability of the City to comply with these requirements could cause the interest on the Bonds to be included in gross income, alternative minimum taxable income, Colorado taxable income or Colorado alternative minimum taxable income, or a combination thereof, from the date of issuance. Co-Bond Counsel's opinion also is rendered in reliance upon certifications of the City and other certifications furnished to Co-Bond Counsel. Co-Bond Counsel has not undertaken to verify such certifications by independent investigation.

Section 55 of the Tax Code contains a 20% alternative minimum tax on the alternative minimum taxable income of corporations. Under the Tax Code, 75% of the excess of a corporation's "adjusted current earnings" over the corporation's alternative minimum taxable income (determined without regard to this adjustment and the alternative minimum tax net operating loss deduction) is included in the corporation's alternative minimum taxable income for purposes of the alternative minimum tax applicable to the corporation. "Adjusted current earnings" includes interest on the Bonds.

The Tax Code contains numerous provisions which may affect an investor's decision to purchase the Bonds. Owners of the Bonds should be aware that the ownership of tax-exempt obligations by particular persons and entities, including, without limitation, financial institutions, insurance companies, recipients of Social Security or Railroad Retirement benefits, taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry

tax-exempt obligations, foreign corporations doing business in the United States and certain “subchapter S” corporations may result in adverse federal tax consequences. Under Section 3406 of the Tax Code, backup withholding may be imposed on payments on Bonds made to any owner who fails to provide certain required information, including an accurate taxpayer identification number, to certain persons required to collect such information pursuant to the Tax Code. Backup withholding may also be applied if the owner underreports “reportable payments” (including interest and dividends) as defined in Section 3406, or fails to provide a certificate that the owner is not subject to backup withholding in circumstances where such a certificate is required by the Tax Code. Certain of the Bonds may be sold at a premium, representing a difference between the original offering price of those Bonds and the principal amount thereof payable at maturity. Under certain circumstances, an initial owner of such bonds (if any) may realize a taxable gain upon their disposition, even though such bonds are sold or redeemed for an amount equal to the owner’s acquisition cost. Co-Bond Counsel’s opinion relates only to the exclusion of interest on the Bonds from gross income, alternative minimum taxable income, Colorado taxable income and Colorado alternative minimum taxable income, as described above, and will state that no opinion is expressed regarding other federal or Colorado tax consequences arising from the receipt or accrual of interest on or ownership of the Bonds. Owners of the Bonds should consult their own tax advisors as to the applicability of these consequences.

The opinions expressed by Co-Bond Counsel are based on existing law as of the delivery date of the Bonds. No opinion is expressed as of any subsequent date nor is any opinion expressed with respect to pending or proposed legislation. Amendments to the federal or state tax laws may be pending now or could be proposed in the future that, if enacted into law, could adversely affect the value of the Bonds, the exclusion of interest on the Bonds from gross income or alternative minimum taxable income or both from the date of issuance of the Bonds or any other date, the tax value of that exclusion for different classes of taxpayers from time to time, or that could result in other adverse tax consequences. In addition, future court actions or regulatory decisions could affect the market value of the Bonds. Owners of the Bonds are advised to consult with their own tax advisors with respect to such matters.

The Internal Revenue Service (the “Service”) has an ongoing program of auditing tax-exempt obligations to determine whether, in the view of the Service, interest on such tax-exempt obligations is includable in the gross income of the owners thereof for federal income tax purposes. No assurances can be given as to whether or not the Service will commence an audit of the Bonds. If an audit is commenced, the market value of the Bonds may be adversely affected. Under current audit procedures, the Service will treat the City as the taxpayer and the owners may have no right to participate in such procedures. The City has covenanted in the Bond Ordinance not to take any action that would cause the interest on the Bonds to lose its exclusion from gross income for federal income tax purposes or lose its exclusion from alternative minimum taxable income except to the extent described above for the owners thereof for federal income tax purposes. None of the City, the Underwriters or Co-Bond Counsel is responsible for paying or reimbursing any owner for any audit or litigation costs relating to the 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 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 of the Bonds.

## **VERIFICATION OF CERTAIN CALCULATIONS**

Causey Demgen & Moore Inc., independent certified public accountants, will verify from the information provided to them the mathematical accuracy of the computations contained in the provided schedules as of the delivery date of the Bonds to determine that the anticipated receipts from the securities and cash deposits to be held in escrow will be sufficient to pay, when due, the principal, interest and redemption premium, if any, with respect to the Refunded Bonds. The independent certified public accountants will express no opinion on the assumptions provided to them, nor as to the exemption from taxation of the interest on the Bonds.

## **CONTINUING DISCLOSURE**

The City will execute and deliver a continuing disclosure undertaking (the "Disclosure Undertaking") at the time of the closing for the Bonds. The Disclosure Undertaking will be executed for the benefit of the Beneficial Owners of the Bonds and in order to assist the Underwriters 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 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 enumerated events to the MSRB, in compliance with the Disclosure Undertaking. The form of the Disclosure Undertaking is attached hereto as APPENDIX D. The City has never failed to materially comply with any prior undertaking entered into pursuant to the Rule. The City has continually complied with the requirements set forth in all previous continuing disclosure undertakings for issues that have been subject to the Rule.

## **FINANCIAL ADVISOR**

Piper Jaffray & Co. (the "Financial Advisor") has been retained as financial advisor in connection with the issuance of the 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 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 Bonds, as reflected in the footnotes to certain tables herein.

### UNDERWRITING

The Bonds were purchased at competitive sale on January \_\_, 2012, by \_\_\_\_\_ at a purchase price equal to \$\_\_\_\_\_ (which is equal to the par amount of the Bonds, less Underwriters' compensation of \$\_\_\_\_\_ and plus net original issue premium of \$\_\_\_\_\_).

### MISCELLANEOUS

The appendices are integral parts of this Official Statement and must be read together with all other parts of this Official Statement.

Any statements made in this Official Statement involving matters of opinion or estimates, whether or not expressly so stated, are set forth as such and not as representations of fact, and no representation is made that any such estimates will be realized. This Official Statement shall not be construed as a contract between the City and any person.

CITY AND COUNTY OF DENVER, COLORADO

By: \_\_\_\_\_  
Mayor

By: \_\_\_\_\_  
Manager of Finance, *Ex Officio* Treasurer

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**APPENDIX A**

**BASIC FINANCIAL STATEMENTS OF THE CITY  
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2010**

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**APPENDIX B**  
**REPORT OF THE WASTEWATER CONSULTANT**



November 29, 2011

Mr. George Delaney  
Manager of Public Works  
City and County of Denver  
Department of Public Works  
201 W Colfax Ave  
Department 611  
Denver, Colorado 80202

Dear Mr. Delaney:

On behalf of Red Oak Consulting (Red Oak), an ARCADIS group, I am pleased to submit this report on the *2011 Bond Feasibility Summary of Significant Assumptions and Findings* for the City and County of Denver, Department of Public Works, Wastewater Management Division (“WMD” or “Enterprise”). This report was prepared pursuant to our contract with the City. Our report contains projected cash flow statements and debt service coverage calculations for the Enterprise and separately for the Storm Drainage and Sanitary Sewer Enterprise subfunds.

The accompanying cash flow projections and debt service coverage calculations (see schedules 1 through 6) are for use in the Official Statement prepared in support of the Wastewater Enterprise Revenue Bonds, Series 2012 (the “Series 2012 Bonds”).

The format and manner in which the projected cash flow statements and debt service coverage calculations (both historic and projected) are presented, is consistent with the disposition of bond proceeds and income as described in the Official Statement. While it is the income of the Enterprise (storm drainage and sanitary sewer income combined) that provides the repayment pledge for the Series 2012 Bonds, the three-year rate plan adopted by Council was premised on the two component parts of the Enterprise – the Storm Drainage and Sanitary Sewer subfunds, functioning as stand-alone and self-supporting entities. For this reason, the accompanying cash flow schedules and debt service coverage calculations are presented first for the entire Enterprise, followed by similar schedules for the Storm Drainage and Sanitary Sewer Enterprise subfunds.

This report is a summary of our analyses and review of the operating, capital and financial records of the WMD. We have calculated historic debt service coverage from WMD financial statements for calendar years 2006 through 2010. Projections are for the seven-year period 2011 through 2017 and also present expected results on a calendar year basis.

Projected revenues reflect increases in both sanitary sewer and storm drainage service charges (rates) as adopted by the City for 2011 through 2013.

Expenditures as projected in the attached report, are based on the City's Capital Needs Assessment for Storm Drainage and Sanitary Sewerage Facilities, as adjusted by the City (the "CIP") and historic trends in other WMD non-CIP expenses.

The cash flow projections and debt service coverage calculations (both historic and projected) are not intended to present overall financial position, results of operation, and cash flows for the periods indicated, in conformity with guidelines for presentation of a forecast established by the American Institute of Certified Public Accountants.

Our major conclusions are as follows:

1. The Series 2012 Bonds are necessary to fund, in part, the 2012 and 2013 projected storm drainage capital improvements. It is anticipated that sanitary sewer revenues will be sufficient to fully fund sanitary capital improvement over the seven-year study period; the Series 2012 Bonds are not expected to be needed to fund sanitary sewer capital improvements. However, additional bond issues are expected to be needed over the balance of the seven-year study period to fund storm drainage capital improvements. In combination with the Series 2012 Bonds, future year bond issues will fund approximately 59% of the projected storm drainage capital improvements. The balance of the funding requirement will be generated through storm drainage service charges and to a much lesser extent, other sources.
2. To support the storm drainage CIP and related operational needs, the City Council has adopted a schedule of annual rate increases for each year through 2013, with automatic consumer price index ("CPI") adjustments for 2014 and beyond<sup>1</sup>. This rate plan is expected to produce income sufficient to repay the Series 2012 Bonds. However, additional bond issues are projected to finance the WMD storm drainage CIP. Increases to storm drainage service charges (beyond the plan adopted by the Council), will be required to support these future bond issues. While rate increases are also projected for 2014 through 2017, Council has not adopted rate changes other than those that may be indicated through the CPI adjustment process adopted by Council for these years. Over the next several years, WMD should evaluate the financial performance of the Enterprise Storm Drainage subfund to determine if future rate adjustments are necessary beyond those that might be indicated by the CPI process adopted by Council.
3. The City Council has adopted sanitary sewer rates for 2011 through 2013, and an annual automatic CPI adjustment process for 2014 and beyond. The attached plan projects the need for rate increases for 2014 through 2017 greater than

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<sup>1</sup> Ordinance No. 340-11§5, 6-20-11, Series 2011, passed by the Council June 13, 2011.

those that may result from the anticipated CPI process. As was the case for Storm Drainage, WMD should evaluate the financial performance of the Enterprise Sanitary Sewer subfund to determine if future rate adjustments are necessary. With the rate increases included in the plan and requiring future Council action (increases greater than what might be indicated from the automatic CPI process) the sanitary sewer capital improvement program for the seven-year study period will be funded entirely through service charge revenues – bond issues are not anticipated during the study period.

4. We have calculated the debt service coverage for the years 2006 through 2010 in a manner consistent with the Historic Revenues Test described in the Official Statement. This calculation was done to illustrate the degree to which historic net pledged revenues have been sufficient to pay the average annual debt service requirements on the Wastewater Revenue Bonds, Series 2002 (the “Series 2002 Bonds”). (Although not required, we have also calculated debt service coverage on the maximum annual debt service requirement.) The net pledged revenues of the Enterprise for the years 2006 through 2010 were from 352% to 921% of the maximum annual debt service requirements on the Revenue Bonds, Series 2002.
5. Pursuant to the Rate Maintenance covenant specified in the Official Statement, the projected (2011 through 2017) rates, fees and charges of the Enterprise are expected to produce income sufficient to pay an amount (after payment of operation and maintenance expenses) at least equal to 125% of the average annual debt service requirements of Series 2012 Bonds, and the average annual debt service requirements of any other Enterprise bond issues for financing the CIP over the seven-year study period. The net pledged revenues of the Enterprise for the years 2011 through 2017 are projected to range from 192% to 514% of the average annual debt service requirements on future bond issuances.

The accompanying cash flow projections and debt service coverage calculations (both historic and projected) are presented on the basis described in the summary of significant assumptions, and the assumptions provide a reasonable basis for the cash flow projections and debt service coverage calculations. However, there will usually be differences between forecasted and actual results, because events and circumstances frequently do not occur as expected and those differences may be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

During the course of this project the City provided Red Oak with a variety of data and information relative to the Enterprise. We have relied on this data and information in the preparation of the accompanying cash flow projections and debt service coverage

Mr. George Delaney  
City and County of Denver  
Department of Public Works

November 29, 2011  
Page 4

calculations (both historic and projected), but have not independently verified the data and information and accordingly, take no responsibility for its accuracy.

We wish to extend our appreciation to the City and its staff for their cooperation during the progress of this work. We are prepared to respond to any questions regarding the information contained in this report. Questions should be directed to me at (303) 316-6505.

Very truly yours,

RED OAK CONSULTING  
an ARCADIS group

A handwritten signature in black ink, appearing to read "Rick Giardina". The signature is written in a cursive, flowing style.

Richard D. Giardina, CPA  
Director of Financial Services, Senior Vice President



**City and County of Denver**

201 W Colfax Ave • Denver, CO 80206

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# **2012 Bond Feasibility Summary of Significant Assumptions and Findings**

November 2011

Report Prepared By:



100 Fillmore St  
Suite 200  
Denver, CO 80206  
(303) 316-6500

05212008.0000



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# 1. Introduction

---

## 1.1. Background

Red Oak Consulting (“Red Oak”), an ARCADIS group, was retained by the City and County of Denver to prepare a projection of cash flows and related calculation of debt service coverage for the City’s Wastewater Management Division (“WMD” or “Enterprise”). The projections and calculations are intended for use in the Wastewater Enterprise Revenue Bonds, Series 2012, Official Statement. The study period for this project includes the years 2010 (audited actual), 2011 forecasted budget with 7 months of actual data and projected data for 2012 through 2017 (collectively referred to as the “Study Period”).

The transmittal letter, accompanying schedules and this summary of significant assumptions represent our report to the City and should be reviewed in their entirety.

As a TABOR designated enterprise fund WMD operates with financial support from service charges and other miscellaneous fees, rates, etc. Following the enterprise concept WMD is financially self-sufficient and does not receive funding from the City’s General Fund. The Enterprise does, however, provide support to or reimburse the City’s General Fund for shared expenses. This support is discussed in greater detail in the storm drainage section. The Storm Drainage and Sanitary Sewer systems or “subfunds”, while a part of the Enterprise are separate and distinct from both an operational and financial perspective. Within the WMD, separate accounting is completed for storm drainage and sanitary sewer operations.

WMD collects and transmits sanitary sewage for the City and County of Denver. The Division maintains the storm and sanitary sewer systems and is responsible for the planning, design and construction of improvements to the City’s over 750 miles of storm drainage system and nearly 1,500 miles of sanitary sewer system. WMD evaluates financial needs for both the operational and capital constructions programs and develops billing or service rates for the various uses of the storm and sanitary sewer systems. WMD prepares bills and collects revenues for storm drainage services. Customers are billed annually although bills are issued throughout the year. Denver Water provides the billing and collection service for sanitary sewer services on behalf of WMD. Sanitary sewer bills are issued every month.

The accompanying projected cash flow statements and debt service coverage calculations have been completed in accordance with applicable sections of the Bond Ordinance supporting the “Series 2012 Bonds”. The discussion in the balance of this report describes each schedule and various supporting assumptions.

## 2. Enterprise

---

### 2.1. Enterprise Debt Service Coverage – Historic (Schedule 1)

This schedule is prepared pursuant to the Historic Revenues Tests described in Section 7.B.(2) of the Bond Ordinance. The historical data is from data contained in financial statements for WMD for 2006 through 2010.

Operating revenues are primarily comprised of service charge or rate-related revenues and also include relatively small amounts of miscellaneous charges, e.g., plan review fees, billing-related charges. Operation and Maintenance (O&M) expenses include only non-capital expenses as defined in the Bond Ordinance definitions section.

As can be seen from Schedule 1 the Net Pledged Revenues (operating revenues less Operations and Maintenance Expenses) of the Enterprise exceeded the 125% requirement for the average annual debt service on the Wastewater Series 2002 Bonds. The debt service amounts were taken from the Official Statement prepared in connection with the issuance of the Series 2002 Bonds. Maximum annual debt service coverage ranged from a low 352% to a high of 921% over the period of 2006 through 2010.

The historic debt service coverage schedule can be found in Appendix A.

### 2.2. Enterprise Debt Service Coverage – Projected (Schedule 2)

Pursuant to the Rate Maintenance covenant specified in Section 8A of the Bond Ordinance, we have calculated debt service coverage ratios based on the projected cash flow statements (see Schedules 3, 5 and 6 in Appendix C). The calculations are consistent with those illustrated in Schedule 1 and have been prepared for the Enterprise as well as individually for the Storm Drainage and Sanitary Sewer subfunds (see Section 3 for the sanitary sewer and storm drainage discussion). Based on the projected cash flow statements the rates, fees, and charges of the Enterprise and the component Storm Drainage and Sanitary Sewer subfunds are expected to achieve average annual debt service coverage ratios in excess of the 125% threshold required by the Rate Maintenance covenant.

Appendix B contains the projected debt service coverage ratios for 2011 through 2017.

### 2.3. Enterprise Cash Flow Statement (Schedule 3)

The Enterprise Cash Flow Statement (Schedule 3 in Appendix C) is the summation of the individual statements prepared for the Storm Drainage and Sanitary Sewer subfunds (see

Schedules 4, 5 and 6 in Appendix C). Accordingly, the next section of this discussion (Report Section 3) will address the manner in which Schedules 5 and 6 were prepared. Where material differences exist between the two operations they will be discussed.

## 3. Storm Drainage and Sanitary Sewer

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### 3.1. Storm Drainage

#### 3.1.1. Service Revenue

This revenue source represents the assessment and collection of storm drainage service charges. The last increase for this revenue source (prior to the rate increase effective July 1, 2011) was a 20% increase effective January 1, 2006. Storm drainage customers are assessed fees based on the impervious area of their property. The rate that is assessed is dependent upon the ratio of impervious area total area of the property (see Table 3-1 for rates). A property's percentage of impervious area dictates which "ratio group" the customer falls under. Audited revenues for 2010 were \$29.3 million. Projected service revenues relied on impervious area data by ratio group as provided by WMD and projected to increase at the average rate of 0.96% per year. The growth rate in both accounts and impervious area for 2012 was projected to be 1.23% decreasing every year to 0.59% in 2016. The compound average annual growth rate between 2005 and 2010 was 1.07%. An average annual growth rate of 0.96% is comparable to what the City has experienced in the last several years. This information was then applied to budget year 2011 data and used to estimate revenues for the years 2012 through 2017.

#### 3.1.1.1. Current Rates

Table 3-1 lists the City's 2011 fee structure (with the rate increase) and number of accounts and impervious area in each ratio group. This structure has been in place in one form or another since the storm drainage fee was first implemented in 1981<sup>1</sup>. Adoption in 1981 of a new storm drainage fee was done, at least in part, to establish an independent and secure funding source for storm drainage activities. Prior to 1981 storm drainage activities were funded through sanitary sewer revenues and quite possibly other City General Fund revenue sources.

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<sup>1</sup> Adopted rates were based on the *Storm and Sanitary Cost of Service Methodologies* report prepared by Economic and Engineering Services, Inc., September 1980.

**Table 3-1:  
Storm Drainage Current Rate, Account and Area Data**

<u>Ratio Group</u>	<u>Rate per 100 Square Feet of Impervious Area</u>	<u># of Accounts</u> <sup>(1)</sup>	<u>Impervious Area</u> <sup>(1)</sup> (sq. ft.)
.00 to .10	\$1.73	1,119	9,503,716
.11 to .20	2.17	8,803	43,293,040
.21 to .30	2.62	34,857	82,205,414
.31 to .40	3.10	44,028	130,457,572
.41 to .50	3.54	31,092	112,053,856
.51 to .60	3.77	17,153	90,906,274
.61 to .70	4.01	8,397	85,739,190
.71 to .80	4.46	4,354	86,670,057
.81 to .90	4.91	3,564	111,555,583
.91 to 1.00	5.38	<u>6,565</u>	<u>148,931,372</u>
Total		159,932	901,316,074

(1) As of December 31, 2010

Multiplying the applicable rate times the number of square feet of impervious area and then dividing by 100, yields the annual service charge for each individual parcel. If the annual service charge is less than \$12.31, the current \$12.31 minimum bill would apply.

### 3.1.1.2. Proposed Rates

Proposed rates were calculated based on the estimated increase in revenue necessary to meet certain financial objectives. For this plan four objectives or thresholds have been defined:

- (1) storm drainage revenues should be sufficient to pay for current and projected costs of the storm drainage system
- (2) maintenance of a cash reserve equal to 15% of annual O&M by 2013 and 25% by 2016
- (3) O&M expenses as a percent of service charge revenue should be less than 100%
- (4) attainment of a debt service coverage (DSC) ratio of 125% of combined average annual debt service.

The cash reserve is calculated by dividing the end-of-year cash balance by annual O&M expenses.

To compute the DSC ratio, net pledged revenues are divided by the combined average annual debt service (principal and interest) payments. Income less O&M expenses equals



Net Pledged Revenues or the amount available to pay debt service. Income and O&M expenses are defined as consistent with the Bond Ordinance definition. Income includes service revenue, interest earnings and other revenues. This determination of Net Pledged Revenues does not include the Urban Drainage Flood Control District (“UDFCD”) Reimbursement, transfers between the Sanitary Sewer and Storm Drainage subfunds, or any required bond reserve deposits (should such deposits be required in the future).

The proposed financial plan takes advantage of both cash and debt funding. City Council adopted specific rate increases, expressed in dollar amounts, for 2011 through 2013. Red Oak has converted the dollar amount rate increases into percentage increases for use in this report. Under this plan, rates were increased 20% effective July 1, 2011. Service or rate revenue is estimated to increase from \$29.3 million in 2010, to \$32.8 million in 2011 and to \$33.5 million in 2012<sup>2</sup>. Coupled with an existing (estimated January 1, 2011) cash balance of \$39.6 million, UDFCD contributions of \$6.0 million and net bond proceeds of \$32.5 million bond issue, \$59.6 million of capital projects are expected to be funded between 2011 and 2013. In total the adopted rate and financing plan anticipates that debt will be used to finance 59% of the 2012 to 2017 capital improvement program (“CIP”) (59% of the total inflation adjusted CIP of \$133.3 million), with bond issues occurring every other year starting in 2014. Table 3-2 is a summary of the three-year plan adopted by Council (through 2013) as well as results projected for the following three years. Like the 2011 increase, all future increases were assumed to be effective July 1.

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<sup>2</sup> Based on a 2% rate increase effective July 1, 2012.

**Table 3-2:  
Storm Drainage Financial Plan - Summary**

<u>Year</u>	<u>Rate Increase</u> <sup>(1)</sup>	<u>Annual Residential Bill</u> <sup>(2)</sup>	<u>Bond Issue</u> (millions)	<u>DSC</u> <sup>(4)</sup>	<u>Cash Reserve Ratio</u> <sup>(5)</sup>
2011	20%	\$78.60	\$ 0	192%	0%
2012	2%	80.10	54 <sup>(3)</sup>	448%	23%
2013	2%	81.60	0	507%	29%
2014	2%	83.23	22	517%	82%
2015	2%	84.90	0	423%	19%
2016	2%	86.59	26	387%	63%
2017	2%	88.32	0	328%	26%

- (1) Percentage increases shown for 2011-2013 were derived using the actual dollar rates adopted by City Council. 2014-2017 increases represent projected annual CPI increases.
- (2) Average annual single family residential bill.
- (3) The Wastewater Enterprise Series 2012 bonds include \$19.8 million in refunding for the Wastewater Revenue Bonds 2002 series.
- (4) 125% DSC based on combined average annual debt service payments (Sanitary Sewer and Storm Drainage subfunds).
- (5) Target 15% by 2013 and 25% by 2016.

Table 3-2 illustrates that each of the DSC and cash reserve ratio targets are met through the study period ending in 2017. In addition to the three-year rate increase plan (2011 through 2013) adopted by City Council, a provision was included to annually adjust storm drainage rates by the annual change in the consumer price index (“CPI”) beginning in 2014. The CPI will be calculated by the City each year and can be applied to rates at the discretion of the Manager of Public Works. No Council action is required for the rate adjustment, however if rates greater than the annual calculated CPI are warranted, the adoption of higher than CPI rate increases requires Council authorization. For purposes of this report, the financial plan assumes the annual change in the CPI will be at least 2% per year (see Subsection 3.1.3.3.). The rates for all subsequent years are computed based on the previous year’s rate multiplied by the indicated rate increase (Table 3-2).

### 3.1.2. Other Revenue

#### 3.1.2.1. Miscellaneous Revenue

Miscellaneous storm drainage revenue such as late payment fees and other non-service related revenue is projected at \$508,851 in 2011 and is projected to remain constant throughout the study period.

#### 3.1.2.2. Interest Earnings

Interest on the end-of-year cash balance is assumed to be 1.5% per year. Interest in 2012 is conservatively projected at an amount of \$41. With debt funds projected to be received

in 2012 it is likely that actual interest earnings will be higher than is currently projected. As the end-of-year cash balance increases so too does the interest earnings revenue. Interest earnings are projected to reach a high of \$281,349 in 2017.

### 3.1.3. Operating Expenditures

There are two components to the storm drainage O&M expenses. The first is joint sanitary sewer and storm drainage costs; the second is street maintenance and parks maintenance. Each cost component is discussed individually.

#### 3.1.3.1. Joint Sanitary Sewer and Storm Drainage Costs

The Wastewater Enterprise incurs administrative/overhead costs that are related to both sanitary sewer services and storm drainage services. The O&M expenses that are shared between sanitary sewer and storm drainage and include: Public Works administrative costs such as salaries, benefits and supplies for the finance and system maintenance costs as well as all other WMD departments. It also includes purchase of equipment and vehicle related costs. These expenses are not budgeted at a more detailed level than aggregate value. Historically it has been assumed that the Storm Drainage subfund's annual share of joint O&M costs was \$6.52 million per year. In 2009, WMD staff undertook a cost analysis and analyzed employee time and resources spent on sanitary sewer related resource needs versus storm drainage related resource needs. The result was that beginning in 2010 the joint O&M expense allocation to storm drainage increased to \$13.35 million a year.

Table 3-3 summarizes the storm drainage allocation of joint sanitary sewer and storm drainage costs for the last five years. As shown in Table 3-3, 2010 reflects the first year of the increased allocation of expenses to the Storm Drainage subfund.

**Table 3-3:  
Historic Storm Drainage Joint O&M Costs 2006-2010**

<u>Year</u>	<u>O&amp;M</u> (Millions)
2006	\$ 6.52
2007	6.48
2008	6.52
2009	6.52
2010	13.35

Using the 2009 analysis by WMD, staff for time and expenditures for sanitary sewer related activities versus storm drainage activities project the 2011 storm drainage share of joint O&M costs to increase to \$15.97 million. The budgeted allocation for 2012 is

reduced to \$14.18 million due to savings from not filling vacant staff positions and equipment and vehicle deferrals. The storm drainage share of joint expenses was assumed to increase at an inflationary rate of 3% per year for 2013 through 2017.

**3.1.3.2. Street and Parks Maintenance Costs**

The second O&M component for storm drainage is an allocation of the City’s street maintenance and park maintenance costs paid to the City’s General Fund from the Storm Drainage subfund. The costs included in the street expense category are costs associated with street sweeping, snow removal and ice scraping. Historically the cost for street and parks maintenance varies depending upon the amount of snowfall in the City. Years with more snowfall result in a higher cost to the City and in turn the Enterprise, whereas years with less snowfall experience lower costs. Table 3-4 summarizes the cost to the Enterprise for streets and parks maintenance for the previous five years.

**Table 3-4:  
Historic Street and Parks Maintenance Costs 2006-2010**

<u>Year</u>	<u>Expense</u> (Millions)
2006	\$5.65
2007	8.60
2008	6.06
2009	5.70
2010	5.10

The 2011 projection for these expenses is \$5.1 million and is projected to increase at an estimated inflationary rate of 3% per year. By 2017 the annual cost to the Storm Drainage subfund for streets maintenance and parks maintenance is \$6.4 million.

**3.1.3.3. Inflationary Adjustment**

An inflationary escalation rate of 3% per year is approximately 1% higher than the five-year average (2006 – 2010 CPI for Denver, providing a more conservative financial plan projection for the Storm Drainage subfund. Table 3-5 illustrates the CPI for Denver for the last five years.

**Table 3-5:  
Denver CPI**

<u>Year</u>	<u>Index</u>	<u>% Change</u>
2005	190.9	-
2006	197.7	3.6%
2007	202.0	2.2%
2008	209.9	3.9%
2009	208.5	-0.9%
2010	211.3	1.3%
Average		2.0%

Source: Bureau of Labor Statistics: Denver-Boulder-Greeley, Co, All items

### 3.1.4. Capital Improvement Program (CIP)

The City provided CIP costs in 2011 dollars which were inflated by Red Oak for financial planning purposes at a rate of 3% per year. The 2012 through 2017 period projects storm drainage capital expenditures of between \$20.8 million and \$23.4 million a year in inflated dollars. The study period (2012 – 2017) CIP is projected to total \$133.3 million (in inflated dollars) or an average of \$22.2 million per year. 2011 capital expenditures include projects that have in some cases already been bid, and existing funds have been encumbered.

The average inflated capital expenditures of \$22.2 million per year represents an increase in what has been historically spent (\$18.7 million on average) as illustrated in Figure 3-1.

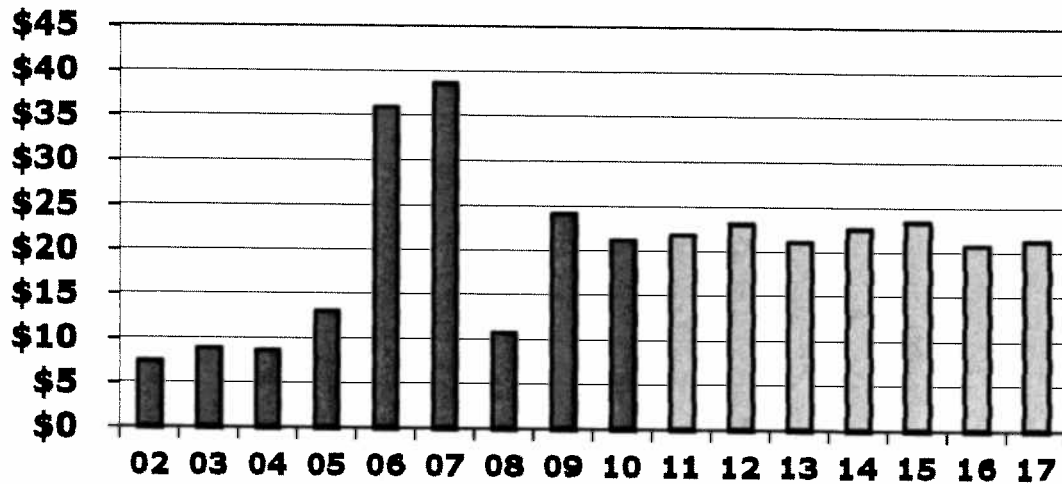


Figure 3-1: Historic and Projected Storm Drainage Capital Expenditures

The City participates in a program with UDFCD to partner on the development of storm drainage capital projects. The financial plan anticipates that there will be an annual \$2 million reimbursement to the Storm Drainage subfund from UDFCD for eligible capital projects in each year of the study period.

### 3.1.5. Bond Debt Service

The Storm Drainage subfund currently has outstanding debt associated with the issuance of the Series 2002 Bonds. Annual debt service payments on this issue are approximately \$2.5 million per year. The required debt service coverage on the Series 2002 Bonds is 125%. While coverage is measured on the Enterprise (both Sanitary Sewer and Storm Drainage subfunds) basis as a whole, the storm drainage financial plan meets the debt service coverage requirement from the Storm Drainage subfund alone, since the original bond funds were used for storm drainage capital projects. There is \$80.5 million of new debt proposed (\$19.8 million for refunding of the Wastewater Revenue Bonds Series 2002 is not included) to be issued for future storm drainage capital projects.

**Table 3-6:  
Projected Storm Drainage Debt Issuances and DSC – For the Storm  
Drainage Fund Only**

<u>Year</u>	<u>Bond Issue</u> (millions)	<u>Debt Service</u> <u>Coverage Ratio</u> <u>2002 Bonds</u>	<u>Combined Average</u> <u>Annual Debt</u> <u>Service Coverage</u> <u>Ratio Future Debt</u>
2011	\$ 0	515%	N/A
2012	54 <sup>(1)</sup>	N/A	351%
2013	0	N/A	326%
2014	22	N/A	292%
2015	0	N/A	241%
2016	26	N/A	217%
2017	0	N/A	183%

(1) The Wastewater Enterprise Series 2012 bonds include \$19.8 million in refunding for the Wastewater Revenue Bonds 2002 series.

As can be seen from Table 3-6, Net Pledged Revenues for the Storm Drainage subfund are sufficient to meet the legal requirement of average annual DSC of 120% on existing debt (in 2011) and the addition of \$80.5 million (\$32.5 million in 2012, \$22.0 million in 2014 and \$26.0 million in 2016) in new debt. The calculation is shown in attached Schedule 4 of Appendix C.

### 3.1.6. Beginning-of-Year Cash

The consolidated trial balance sheet for the year ended December 31, 2010 (provided by WMD) was used in the derivation of the 2011 beginning-of-year cash balance for the Storm Drainage subfund. The beginning balance includes cash and cash equivalents, as well as accounts receivables and receivables due from other funds. From the subtotal of these sources, vouchers payable as well as payments due to other funds were subtracted to determine the beginning of year cash balance.

Schedule 5 (in Appendix C) provides the full cash flow schedule for the Storm Drainage subfund.

## 3.2. Sanitary Sewer

### 3.2.1. Service Revenue

This revenue source represents the assessment and collection of sanitary sewer service charges. The last increase for this revenue source (prior to the rate increase effective July 1, 2011) was prior to 1996. Audited revenues for 2010 were \$44.2 million. Rates for

sanitary sewer are based on metered water use<sup>3</sup>. The current rates (with the July 1, 2011 45% rate increase) are shown in Table 3-7.

**Table 3-7:  
Current Sanitary Sewer Rates**

<u>Class</u>	<u>Meter Size</u> (inches)	<u>Minimum Charge</u> (Monthly)	<u>Volume Rate</u> (per 1,000 gallons)
Residential <sup>(1)</sup>	All	\$ 7.74	\$2.83
Non-Residential <sup>(1)</sup>	5/8	\$ 7.74	\$2.83
	3/4	11.61	2.83
	1	19.34	2.83
	1 1/4	29.06	2.83
	1 1/2	38.73	2.83
	2	61.93	2.83
	3	116.10	2.83
	4	193.55	2.83
	6	387.09	2.83
	8	619.60	2.83
	10	890.29	2.83
	12	1,664.44	2.83

(1) The greater of the monthly minimum charge or the volume rate is assessed to the customer.

Flow data for the most recent five-year period (2005 – 2009) has shown fluctuations from year-to-year, but an overall increasing trend as illustrated in Table 3-8.

**Table 3-8:  
Sanitary Sewer Flows 2005 -2009**

<u>Year</u>	<u>Flow</u> <sup>(1)</sup>
2005	18,619.62
2006	18,586.25
2007	19,397.30
2008	18,367.95
2009	19,345.05

(1) Millions of gallons per year

<sup>3</sup> Billable flow is equal to February water use for residential and 100% of water use for non-residential.



The overall change in flows from 2005 through 2009 is an increase in flows of approximately 3.9%. The financial plan is premised upon a more conservative average increase in growth in accounts and flows of 0.69% as provided by WMD staff.

### 3.2.1.1. Proposed Rates

Proposed rates were calculated based on the estimated increase in revenue necessary to meet certain financial goals. For this plan four targets or thresholds have been defined:

- (1) sanitary sewer revenues should be sufficient to pay for current and projected costs of the sanitary sewer system
- (2) achieve a cash reserve equal to 25% by 2017, not a legal requirement, but rather self imposed;
- (3) O&M expenses as a percent of service charge revenue should be less than 100% and
- (4) attainment of a debt service coverage (DSC) ratio of 125% of combined average annual debt service (legal requirement).

The cash reserve is calculated by dividing the end-of-year cash balance by annual O&M expenses.

To compute the DSC ratio net pledged revenues are divided by the combined average annual debt service (principal and interest) payments. Income less O&M expenses equals Net Pledged Revenues or the amount available to pay debt service. Income and O&M expenses are defined as consistent with the Bond Ordinance definition. Income includes service revenue, interest earnings and other revenues. This determination of Net Pledged Revenues does not include transfers between the Sanitary Sewer and Storm Drainage subfunds, or any required bond reserve deposits (should such deposits be required in the future).

The adopted plan does not rely on debt, but rather all O&M expenses and CIP needs are cash funded. City Council adopted specific rate increases, expressed in dollar amounts, for 2011 through 2013. Red Oak has converted the dollar amount rate increases into percentage increases for use in this report. Under this plan, current rates reflect the 45% effective July 1, 2011. Service or rate revenue is estimated to increase from \$44.2 million in 2010, to \$53.7 million in 2011 and to \$68.3 million in 2012<sup>4</sup>. It is projected that \$21.6 million of capital projects will be funded between 2011 and 2013. Table 3-9 is a summary of the three-year plan adopted by Council (through 2013) as well as results projected for the following three years. Like the 2011 increase, all future increases were assumed to be effective July 1.

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<sup>4</sup> Based on a 15% rate increase effective July 1, 2012.

**Table 3-9:  
Sanitary Sewer Financial Plan - Summary**

<u>Year</u>	<u>Rate Increase</u> <sup>(1)</sup>	<u>Annual Residential Bill</u> <sup>(2)</sup>	<u>Bond Issue</u> (millions)	<u>DSC</u> <sup>(3)</sup>	<u>Cash Reserve Ratio</u> <sup>(4)</sup>
2011	45%	\$16.40	\$0	N/A	0%
2012	15%	16.25	0	N/A	3%
2013	10%	17.90	0	N/A	5%
2014	10%	19.69	0	N/A	10%
2015	6%	20.87	0	N/A	16%
2016	6%	22.12	0	N/A	19%
2017	6%	23.45	0	N/A	23%

- (1) Percentage increases shown for 2011-2013 were derived using the actual dollar rates adopted by City Council. 2014-2017 increases have been projected to be required meet O&M expenses and move towards the self imposed cash reserve target.
- (2) Average monthly single family bill
- (3) On combined average annual debt service; 125% is required
- (4) Target 15% by 2013, 25% by 2016

Table 3-9 illustrates that the cash reserve ratio targets are projected to be 5% in 2013 and nearly achieves the self imposed standard of 25% by 2017. As there was not any outstanding debt or any new debt issued for the Sanitary Sewer subfund, the DSC is shown as not applicable. In addition to the three-year rate increase plan (2011 through 2013) adopted by City Council a provision was included to annually adjust sanitary sewer rates by annual change in CPI beginning in 2014. The CPI will be calculated by the City each year and can be applied to rates at the discretion of the Manager of Public Works. No Council action is required for the rate adjustment. If rate adjustments such as those projected in Table 3-9, or rate increases greater than the annual calculated CPI, Council adoption would be required for the increases to become effective.

The main factor resulting in the need for rate increases outlined in Table 3-9, is the charges assessed by the Metro Wastewater Reclamation District (discussed further in Section 3.2.3.2). The illustrated increases are deemed to be needed to ensure that service charge revenue exceeds annual O&M expenses and the City continues to move towards the self imposed cash reserve ratio of 25%. In light of the cost increases from the Metro Wastewater reclamation District and other financial factors, WMD should evaluate the financial performance of the Sanitary Sewer subfund to determine if future rate adjustments are necessary. With the rate increases included in the plan and requiring future Council action (increases greater than what might be indicated from the automatic CPI process). The rates for all subsequent years are computed based on the previous year's rate multiplied by the indicated rate increase (Table 3-9).

### **3.2.2. Other Revenue**

#### **3.2.2.1. Miscellaneous Revenue**

Miscellaneous sanitary sewer revenue such as later charges and sewer turn on/off fees was budgeted at \$1,354,821 in 2011 and is projected to remain constant throughout the study period.

#### **3.2.2.2. Denver Water Billing System Surcharge**

As part of the storm drainage and sanitary sewer rate increases adopted by City Council, a monthly surcharge for the last six months of 2011 of \$2.25 per account per month was also approved. The surcharge is projected to generate \$2.1 million. The surcharge is intended to recover the 2011 cost to WMD for their share of Denver Water's billing system costs. The average annual cost to the sanitary sewer fund for 2011 through 2014 is approximately \$2.1 million. For the 2015 through 2017 period costs increase due to the repayment of the note payable and the average annual cost increases to \$4.3 million.

#### **3.2.2.3. Interest Earnings**

Interest on the end-of-year cash balance is assumed to be 1.5% per year. Interest in 2012 is projected at an amount of \$2,232. As the end-of-year cash balance increases so too does the interest earnings revenue. Interest earnings are projected to reach a high of \$253,462 in 2017.

### **3.2.3. Operating Expenditures**

There are three main cost components to the sanitary sewer O&M expenses. The first is joint sanitary sewer and storm drainage costs, the second is treatment charges paid to the Metro Wastewater Reclamation District (Metro) and the third is billing system costs. Each cost component is discussed in the following sections.

#### **3.2.3.1. Joint Sanitary Sewer and Storm Drainage Costs**

The Wastewater Enterprise incurs administrative/overhead costs that are related to both sanitary sewer services and storm drainage services. The O&M expenses that are shared between sanitary sewer and storm drainage and include: Public Works administrative costs such as salaries, benefits and supplies for the finance and system maintenance costs as well as all other WMD departments. These costs also include the purchase of equipment and vehicle-related costs. A summary of the Sanitary Sewer subfund costs are shown in Table 3-10.

**Table 3-10:  
Historic Sanitary Sewer Joint O&M Costs 2006 - 2010**

<u>Year</u>	<u>O&amp;M</u> (Millions)
2006	\$25.01
2007	25.02
2008	23.90
2009	24.28
2010	16.75

Historically it has been assumed that the Storm Drainage subfund's annual share of joint O&M expenses was \$6.52 million per year. In 2009, WMD staff undertook an analysis of employee time and resources spent on sanitary sewer related resource needs versus storm drainage related resource needs. The result of that analysis is that beginning in 2010 the joint O&M allocation to storm drainage (for sanitary sewer system benefit) increased to \$13.35 million a year. The storm drainage allocation for 2012 represents a decrease from 2011, but for 2013 on is projected to increase at a rate of 3% per year. The overall trend illustrated in Table 3-10, is a decrease in O&M costs, which is further accelerated by the shift of additional responsibility for the Storm Drainage subfund of joint costs in 2010.

The 2011 budget for the Sanitary Sewer subfund share of the joint O&M expenses is \$16.00 million. The projected figure for 2012 used in the development of the financial plan was \$19.19 million. By 2017 this expense is projected to increase by \$3.1 million to \$22.24 million. An inflationary rate of 3% per year was applied to the sanitary sewer costs. The 3% inflationary factor is approximately 1% higher than the average CPI increase for the Denver area (as illustrated in Table 3-5) and provides a more conservative financial plan projection with regard to projection of O&M expenses.

### **3.2.3.2. Metro Wastewater Reclamation District (Metro) Treatment Charges**

The second main O&M expense is treatment charges assessed by Metro. Metro assesses the City a fee based on projected flows and wastewater strength or loadings. Measured loadings include biochemical oxygen demand (BOD), suspended solids (SS) and total kjeldahl nitrogen (TKN). Table 3-11 summarizes the charges assessed by Metro for the last five years.

**Table 3-11:  
Historic Metro Charges 2006 - 2010**

<u>Year</u>	<u>O&amp;M</u> (Millions)
2006	\$25.23
2007	28.78
2008	25.99
2009	29.32
2010	33.57

On an annual basis, WMD receives a bill from Metro based on the City’s prior year flows and loadings to Metro. The bill arrives prior to the year in which the associated flows are sent to Metro for treatment. As such the bill is an estimate of what Metro believes they will receive from the City in terms of flows and loadings. In any given year the annual bill will reflect adjustments (either higher charges or a reduced charge) based on the actual flows and loadings sent to Metro in the prior year. For example the 2011 Metro charge reflects a “catch up” of \$2.9 million from 2009 and \$3.1 million for 2010, for actual flows and loadings that were greater than had been projected. The increase in charges between 2009 and 2010 are in part a reflection of this annual adjustment and in part a reflection of an increase in Metro rates.

The City’s contractual obligations to Metro are \$45.0 million in 2011; a significant increase from 2010. It is anticipated that this charge will decrease to \$44.4 million in 2012 and then increase at 9% per year to \$68.2 million in 2017. The reason for the increase in 2011 charges and the decrease in 2012 is that Metro’s charges are assessed using an estimate of flows and loadings. The 2010 estimate made by Metro assumed lower flows and loadings than were actually provided by the City in that same year. The 2011 bill was therefore based on a higher assumed flow and loading contribution than had been estimated in 2010 as well as an additional charge for the additional 2010 flows and loadings that were not anticipated on the 2010 bill. While both flows and loadings contribute to the treatment charge Metro assesses to the City, it is the loadings component of the charge that has resulted in higher treatment cost assessments or charges from Metro. An annual escalation factor of 9% is applied to the Metro costs projected in the financial plan. Metro is projecting large capital expansions and replacements/upgrades of their system in the near future. The 9% increase is the best estimate of Metro’s projected rate increases to fund their capital projects. On average Metro costs represent 70% of the Sanitary Sewer subfund O&M expenses for the 2011 through 2017 period.

**3.2.3.3. Billing System**

WMD maintains an agreement with Denver Water for the billing of sanitary sewer customers. Sanitary sewer bills are sent to customers by Denver Water. As such WMD pays Denver Water for the costs incurred in providing billing service. Denver Water recently upgraded their customer billing system with WMD’s share of the upgrade totaling approximately \$6.9 million. This is a new expense for the Sanitary Sewer subfund. The expense anticipates not only the cost of creating the new billing system, but also an annual cost to Denver Water for maintaining the billing system and providing annual billing service for sanitary sewer customers.

**3.2.4. Capital Improvement Program (CIP)**

As was the case for storm drainage, the City provided sanitary sewer CIP costs in 2011 dollars which were inflated by Red Oak for financial planning purposes at a rate of 3% per year. The 2012 through 2017 period projects sanitary sewer capital expenditures between \$6.0 million and \$7.4 million a year in inflated dollars. The study period (2012 – 2017) CIP is projected to total \$39.3 million (in inflated dollars) or an average of \$6.6 million per year. The 2011 capital expenditures includes projects have already been bid, and funds have been encumbered.

The average inflated capital expenditures of \$6.6 million per year represents a decrease in what has been historically spent (\$8.0 million a year on average) as illustrated in Figure 3-2.

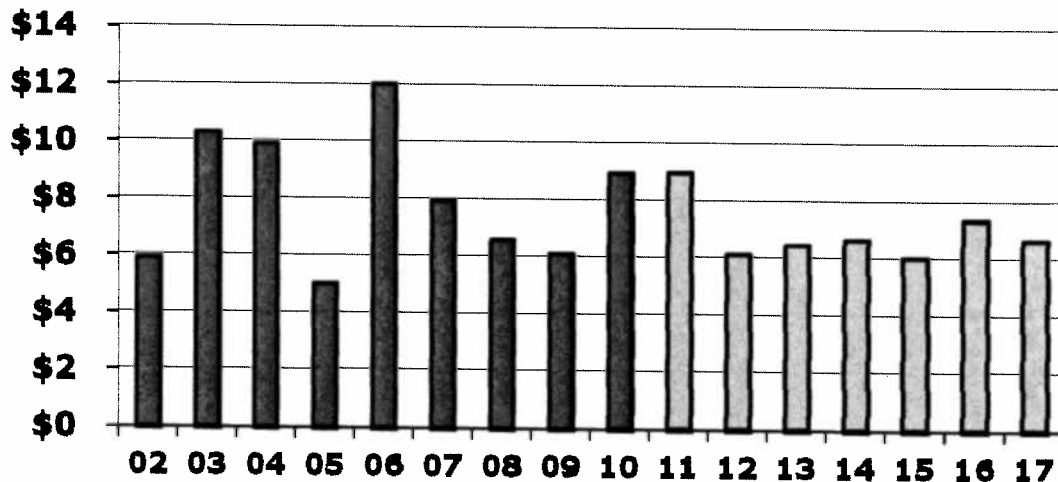


Figure 3-2: Historic and Projected Sanitary Sewer Capital Expenditures

**3.2.5. Equipment Replacement**

Equipment replacement is historically budgeted and paid for from the Sanitary Sewer subfund. The 2010 expenditures were 1.3 million decreasing to \$638,000 in 2011. 2012

is budgeted to have increased expenditures to \$4.4 million before decreasing to \$1.3 million a year for the remainder of the study period.

### 3.2.6. Sanitary Sewer Service Availability Fee

The sanitary availability fee (SAFE) is collected based on the number of single family residential equivalent connections. For accounting purposes sanitary availability fees are recorded as donated capital from developers. Table 3-12 shows the amount of sanitary availability fees collected from 2006 through 2010.

**Table 3-12:  
Historic Sanitary Sewer Availability Fee Collections**

<u>Year</u>	<u>Fee Revenue</u>	<u>Calculated Residential Equivalents</u> <sup>(1)</sup>
2006	\$1,546,459	3,772
2007	1,563,909	3,814
2008	1,163,090	2,867
2009	671,408	1,638
2010	571,629	1,394

(1) Annual fees divided by \$410.

Based on conversations with WMD sanitary availability fees of \$577,345 are projected for 2011. Since sanitary availability fees are based on connection fees, revenues from this source are escalated at the same rate as the growth rate of accounts.

### 3.2.7. Beginning-of-Year Cash

The consolidated trial balance sheet for the year ended December 31, 2010 (provided by WMD) was used in the derivation of the 2011 beginning-of-year cash balance for the Sanitary Sewer subfund. The beginning balance includes cash and cash equivalents, as well as accounts receivables and receivables due from other funds. From the subtotal of these sources, vouchers payable as well as payments due to other funds were subtracted to determine the beginning-of-year cash balance.

Schedule 6 (in Appendix C) provides the full cash flow schedule for the Sanitary Sewer subfund.

## 4. Findings

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### 4.1. Summary of Findings

Through the cash flow projections and debt service calculations and associated assumptions discussed in sections 1 through 3 of this report, Red Oak has made the following 5 findings:

1. The Series 2012 Bonds are necessary to fund, in part, the 2012 and 2013 projected storm drainage capital improvements. It is anticipated that sanitary sewer revenues will be sufficient to fully fund sanitary capital improvement over the seven-year study period; the Series 2012 Bonds are not expected to be needed to fund sanitary sewer capital improvements. However, additional bond issues are expected to be needed over the balance of the seven-year study period to fund storm drainage capital improvements. In combination with the Series 2012 Bonds, future year bond issues will fund approximately 59% of the projected storm drainage capital improvements. The balance of the funding requirement will be generated through storm drainage service charges and to a much lesser extent, other sources.
2. To support the storm drainage CIP and related operational needs, the City Council has adopted a schedule of annual rate increases for each year through 2013, with CPI adjustments for 2014 and beyond<sup>5</sup>. This rate plan is expected to produce income sufficient to repay the Series 2012 Bonds. However, additional bond issues are projected to finance the WMD storm drainage CIP. Increases to storm drainage service charges (beyond the plan adopted by the Council), will be required to support these future bond issues. While rate increases are also projected for 2014 through 2017, Council has not adopted rate changes other than those that may be indicated through the CPI adjustment process adopted by Council for these years. Over the next several years, WMD should evaluate the financial performance of the Enterprise Storm Drainage subfund to determine if future rate adjustments are necessary beyond those that might be indicated by the CPI process adopted by Council.
3. The City Council has adopted sanitary sewer rates for 2011 through 2013, and an annual automatic CPI adjustment process for 2014 and beyond. The attached plan (Appendix C) projects the need for rate increases for 2014 through 2017 greater than those that may result from the anticipated CPI process. As was the case for Storm Drainage, WMD should evaluate the financial performance of the Enterprise Sanitary Sewer subfund to determine if future rate adjustments are necessary. With the rate increases included in the plan and requiring future Council action (increases greater than what might be indicated from the automatic CPI process) the sanitary sewer

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<sup>5</sup> Ordinance No. 340-11§5, 6-20-11, Series 2011, passed by the Council June 13, 2011.





capital improvement program for the seven-year study period will be funded entirely through service charge revenues – bond issues are not anticipated during the study period.

4. We have calculated the debt service coverage for the years 2006 through 2010 in a manner consistent with the Historic Revenues Test described in the Official Statement and Bond Ordinance.. This calculation was done to illustrate the degree to which historic net pledged revenues have been sufficient to pay the average annual debt service requirements on the Wastewater Revenue Bonds, Series 2002 (the “Series 2002 Bonds”). (Although not required, we have also calculated debt service coverage on the maximum annual debt service requirement.) The net pledged revenues of the Enterprise for the years 2006 through 2010 were from 352% to 921% of the maximum annual debt service requirements on the Revenue Bonds, Series 2002.
5. Pursuant to the Rate Maintenance covenant specified in the Official Statement and Bond Ordinance, the projected (2011 through 2017) rates, fees and charges of the Enterprise are expected to produce income sufficient to pay an amount (after payment of operation and maintenance expenses) at least equal to 125% of the average annual debt service requirements of Series 2012 Bonds, and the average annual debt service requirements of any other Enterprise parity bond issues for financing the CIP over the seven-year study period. The net pledged revenues of the Enterprise for the years 2011 through 2017 are projected to range from 192% to 514% of the average annual debt service requirements on future bond issuances.



**City and County of Denver**  
2011 Bond Feasibility Summary of Significant Assumptions and Findings

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# Appendix A: Historic Enterprise Debt Service Coverage



# SCHEDULE 1

**City and County of Denver  
Department of Public Works  
Wastewater Management Division**

***Enterprise  
Debt Service Coverage - Historic  
(accrual basis)***

	2006	2007	2008	2009	2010
Operating Revenues (1)	\$73,751,496	\$75,750,497	\$76,590,421	\$75,512,006	\$75,362,662
Interest	5,297,199	4,245,005	1,966,037	382,439	2,190,668
Total Income	79,048,695	79,995,502	78,556,458	75,894,445	77,553,330
Less: O&M Expenses (excluding depreciation and amortization)	56,163,758	65,002,722	62,543,245	66,634,107	68,807,421
Net Pledged Revenues	\$22,884,937	\$14,992,780	\$16,013,213	\$9,260,338	\$8,745,909
Debt Service Requirements					
Combined Average Annual Maximum	\$2,448,931	\$2,450,331	\$2,449,931	\$2,454,781	\$2,467,294
	\$2,484,444	\$2,484,444	\$2,484,444	\$2,484,444	\$2,484,444
Debt Service Coverage Ratio					
Combined Average Annual	934%	612%	654%	377%	354%
Maximum	921%	603%	645%	373%	352%

(1) Includes storm drainage and sanitary sewer service revenues, industrial waste surcharge, and other miscellaneous operating revenues.



**City and County of Denver**  
2011 Bond Feasibility Summary of Significant Assumptions and Findings

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## **Appendix B: Projected Enterprise Debt Service Coverage**

**SCHEDULE 2**

**City and County of Denver  
Department of Public Works  
Wastewater Management Division**

***Enterprise  
Debt Service Coverage - Projected  
(cash basis)***

	<i>Projected</i>						
	2011	2012	2013	2014	2015	2016	2017
Operating Revenues (1) (2)	\$88,350,526	\$103,683,271	\$113,334,281	\$122,243,313	\$130,238,466	\$136,987,618	\$144,157,581
Interest	602,329	2,273	242,345	139,767	369,614	253,946	534,810
Total Income	88,952,855	103,685,544	113,576,626	122,383,080	130,608,079	137,241,564	144,692,391
Less: O&M Expenses (excluding depreciation and amortization)	84,207,421	85,029,504	90,096,917	95,554,902	103,481,440	109,876,792	116,759,768
Net Pledged Revenues	\$4,745,434	\$18,656,040	\$23,479,709	\$26,828,178	\$27,126,639	\$27,364,772	\$27,932,623
Debt Service Requirements							
Combined Average Annual Maximum	\$2,473,794	\$4,162,603	\$4,631,200	\$5,189,325	\$6,413,733	\$7,067,733	\$8,523,718
	\$2,478,244	\$4,617,250	\$4,617,250	\$6,404,333	\$6,404,333	\$8,516,318	\$8,516,318
Debt Service Coverage Ratio							
Combined Average Annual Maximum	192%	448%	507%	517%	423%	387%	328%
	191%	404%	509%	419%	424%	321%	328%

(1) Includes storm drainage and sanitary sewer service revenues, industrial waste surcharge, and other miscellaneous operating revenues; all meeting the definition of Income.

(2) Based upon adopted storm drainage and sanitary sewer increases for 2011-2013, projected CPI changes for storm drainage and Red Oak projected sanitary sewer increases for 2014-



**City and County of Denver**  
2011 Bond Feasibility Summary of Significant Assumptions and Findings

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**Appendix C: Enterprise, Storm  
Drainage Sanitary Sewer Cash Flows  
and Storm Drainage Debt Service  
Coverage**

SCHEDULE 3

City and County of Denver  
Department of Public Works  
Wastewater Management Division

Enterprise  
Cash Flow Statement  
(cash basis)

	Projected						
	2011	2012	2013	2014	2015	2016	2017
Revenue Adjustment – Storm Drainage	20.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Revenue Adjustment – Sanitary Sewer	45.0%	15.0%	10.0%	10.0%	6.0%	6.0%	6.0%
Income							
Storm Drainage Service Revenue	\$32,757,826	\$33,491,360	\$34,236,289	\$34,889,239	\$35,551,824	\$36,118,562	\$36,694,334
Sanitary Sewer Service Revenue	53,729,028	68,328,239	77,234,320	85,490,402	92,822,970	99,005,385	105,599,575
Other Revenue	1,863,672	1,863,672	1,863,672	1,863,672	1,863,672	1,863,672	1,863,672
Denver Water Billing System Surcharge	2,082,105	-	-	-	-	-	-
Interest	602,329	2,273	242,345	139,767	369,614	253,946	534,810
Total Income	91,034,960	103,685,544	113,576,626	122,383,080	130,608,079	137,241,564	144,692,391
Total O&M Expenses	84,207,421	85,029,504	90,096,917	95,554,902	103,481,440	109,876,792	116,759,768
Net Revenue Available for Debt Service	6,827,539	18,656,040	23,479,709	26,828,178	27,126,639	27,364,772	27,932,623
Debt Service							
Bond Debt Service	2,473,794	4,162,603	4,631,200	5,189,325	6,413,733	7,067,733	8,523,718
Bond Reserve Deposit	-	2,316,275	-	357,417	357,417	779,814	779,814
Total Debt Service	2,473,794	6,478,878	4,631,200	5,546,742	6,771,149	7,847,546	9,303,531
Capital Expenditures							
Capitalized Salaries	-	-	-	-	-	-	-
Equipment Replacement	637,746	4,384,500	1,257,559	1,257,559	1,257,559	1,257,559	1,257,559
CIP Projects	30,923,396	29,187,000	28,616,000	29,291,000	29,403,000	28,133,000	28,016,000
Total Capital Expenditures	31,561,142	33,571,500	29,873,559	30,548,559	30,660,559	29,390,559	29,273,559
Capital Funding							
Net Bond Proceeds	-	32,500,000	-	22,000,000	-	26,000,000	-
2012 Debt Service Reserve Funded From Bond Issuance	-	2,316,275	-	-	-	-	-
2002 Refunding Bond Proceeds	-	21,389,173	-	-	-	-	-
Refunding of Series 2002 Revenue Bonds	-	(19,630,000)	-	-	-	-	-
Series 2002 Revenue Bonds Costs	-	(841,730)	-	-	-	-	-
2002 Refunding Bond Debt Service Reserve from Proceeds	-	(917,443)	-	-	-	-	-
Land Purchase Reimbursement	-	-	-	-	-	-	-
UDFC Reimbursement	-	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Transfer in from RTD	-	1,600,000	-	-	-	-	-
Sanitary Availability Fee	577,345	582,861	586,538	590,216	593,893	597,593	601,317
Total Capital Funding Sources	577,345	37,399,136	4,186,538	24,590,216	2,593,893	28,597,593	2,601,317
Transfer to Other City Funds	-	-	-	-	-	-	-
Gain on Disposition of Capital Assets	-	-	-	-	-	-	-
Net Cash Flow	(26,630,052)	16,004,798	(6,838,511)	15,323,093	(7,711,176)	18,724,261	(8,043,151)
Beginning of Year Cash	26,781,596	151,544	16,156,342	9,317,831	24,640,924	16,929,748	35,654,009
End of Year Cash	\$151,544	\$16,156,342	\$9,317,831	\$24,640,924	\$16,929,748	\$35,654,009	\$27,610,858
Cash Reserve - Target 15%	0%	8%	10%	26%	16%	32%	24%
Target Reserve (15% of O&M)	\$ 12,631,000	\$ 12,754,000	\$ 13,515,000	\$ 14,333,000	\$ 15,522,000	\$ 16,482,000	\$ 17,514,000
DSC – Maximum Annual Debt Service - Target 100%	191%	404%	509%	419%	424%	321%	328%
DSC – Combined Average Annual Debt Service - Target 125%	192%	448%	507%	517%	423%	387%	328%

**SCHEDULE 4**

**City and County of Denver  
Department of Public Works  
Wastewater Management Division**

**Storm Drainage  
Debt Service Coverage – Projected  
(cash basis)**

	<b>Projected</b>						
	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
	<b>Forecasted Budget w/ 7 Months Actuals</b>						
Income							
Service Revenue (1)	\$32,757,826	\$33,491,360	\$34,236,289	\$34,889,239	\$35,551,824	\$36,118,562	\$36,694,334
Other Revenue	508,851	508,851	508,851	508,851	508,851	508,851	508,851
Interest	602,329	41	208,545	87,246	251,639	60,949	281,349
Total Income	33,869,006	34,000,253	34,953,686	35,485,336	36,312,313	36,688,362	37,484,534
O&M Expenses	21,129,907	19,389,383	19,867,094	20,358,097	20,862,781	21,381,544	21,914,799
Net Pledged Revenue	\$12,739,099	\$14,610,870	\$15,086,591	\$15,127,239	\$15,449,533	\$15,306,818	\$15,569,735
Debt Service Requirements - 2002 Revenue Bonds							
Annual	\$2,473,794	\$0	\$0	\$0	\$0	\$0	\$0
Maximum	\$2,478,244	\$0	\$0	\$0	\$0	\$0	\$0
Debt Service Coverage Ratio - 2002 Revenue Bonds							
Average	515%	NA	NA	NA	NA	NA	NA
Maximum	514%	NA	NA	NA	NA	NA	NA
Net Pledged Revenue Available After Payment of 2002 Bonds Maximum Debt Service	\$10,260,855	\$14,610,870	\$15,086,591	\$15,127,239	\$15,449,533	\$15,306,818	\$15,569,735
Debt Service All Other Bonds							
Combined Average Annual	\$0	\$4,162,603	\$4,631,200	\$5,189,325	\$6,413,733	\$7,067,733	\$8,523,718
Maximum	\$0	\$4,617,250	\$4,617,250	\$6,404,333	\$6,404,333	\$8,516,318	\$8,516,318
Debt Service Coverage Ratio - All Other Bonds							
Combined Average Annual	NA	351%	326%	292%	241%	217%	183%
Maximum	NA	316%	327%	236%	241%	180%	183%

(1) Includes service revenues and other miscellaneous operating revenues; all meeting the definition of Income.



**SCHEDULE 5**

**City and County of Denver  
Department of Public Works  
Wastewater Management Division**

**Storm Drainage  
Cash Flow Statement  
(cash basis)**

	Projected						
	2011	2012	2013	2014	2015	2016	2017
	<b>20.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>
Revenue Adjustment							
Income							
Service Revenue	\$32,757,826	\$33,491,360	\$34,236,289	\$34,889,239	\$35,551,824	\$36,118,562	\$36,694,334
Other Revenue	508,851	508,851	508,851	508,851	508,851	508,851	508,851
Interest	602,329	41	208,545	87,246	251,639	60,949	281,349
Total Income	33,869,006	34,000,253	34,953,686	35,485,336	36,312,313	36,688,362	37,484,534
Total O&M Expenses	21,129,907	19,389,383	19,867,094	20,358,097	20,862,781	21,381,544	21,914,799
Net Revenue Available for Debt Service	12,739,099	14,610,870	15,086,591	15,127,239	15,449,533	15,306,818	15,569,735
Debt Service							
Bond Debt Service	2,473,794	4,162,603	4,631,200	5,189,325	6,413,733	7,067,733	8,523,718
Bond Reserve Deposit	-	2,316,275	-	357,417	357,417	779,814	779,814
Total Debt Service	2,473,794	6,478,878	4,631,200	5,546,742	6,771,149	7,847,546	9,303,531
Capital Expenditures							
Capitalized Salaries	-	-	-	-	-	-	-
Equipment Replacement	-	-	-	-	-	-	-
CIP Projects	21,924,433	23,048,000	22,142,000	22,621,000	23,391,000	20,766,000	21,351,000
Total Capital Expenditures	21,924,433	23,048,000	22,142,000	22,621,000	23,391,000	20,766,000	21,351,000
Capital Funding							
Net Bond Proceeds	-	32,500,000	-	22,000,000	-	26,000,000	-
2012 Debt Service Reserve Funded From Bond Issuance	-	2,316,275	-	-	-	-	-
Land Purchase Repayment	-	-	-	-	-	-	-
Transfer in from RTD	-	-	1,600,000	-	-	-	-
UDFC Reimbursement	-	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Total Capital Funding Sources	-	36,816,275	3,600,000	24,000,000	2,000,000	28,000,000	2,000,000
Transfer From/(To) Sanitary Sewer for CIP	-	-	-	-	-	-	-
Transfer to Sewer Operations Subfund	28,000,000	8,000,000	-	-	-	-	-
Net Cash Flow	(39,659,128)	13,900,266	(8,086,609)	10,959,497	(12,712,617)	14,693,272	(13,084,796)
Beginning of Year Cash	39,661,886	2,758	13,903,024	5,816,416	16,775,913	4,063,296	18,756,568
End of Year Cash	\$2,758	\$13,903,024	\$5,816,416	\$16,775,913	\$4,063,296	\$18,756,568	\$5,671,772
Cash Reserve - Target 15%		0%	23%	82%	19%	63%	26%
DSC - Combined Average Annual Debt Service (All Deb		515%	351%	292%	241%	217%	183%

SCHEDULE 6

City and County of Denver  
Department of Public Works  
Wastewater Management Division

Sanitary Sewer  
Cash Flow Statement  
(cash basis)

	Projected						
	2011	2012	2013	2014	2015	2016	2017
Forecasted Budget w/ 7 Months Actuals							
Revenue Adjustment	45.0%	15.0%	10.0%	10.0%	6.0%	6.0%	6.0%
Income							
Service Revenue	\$53,729,028	\$68,328,239	\$77,234,320	\$85,490,402	\$92,822,970	\$99,005,385	\$105,599,575
Other Revenue	1,354,821	1,354,821	1,354,821	1,354,821	1,354,821	1,354,821	1,354,821
Denver Water Billing System Surcharge	2,082,105	-	-	-	-	-	-
Interest	-	2,232	33,800	52,521	117,975	192,997	253,462
Total Income	57,165,954	69,685,292	78,622,940	86,897,744	94,295,766	100,553,202	107,207,858
Total O&M Expenses	63,077,514	65,640,121	70,229,822	75,196,805	82,618,659	88,495,248	94,844,970
Net Revenue Available for Debt Service	(5,911,560)	4,045,171	8,393,118	11,700,939	11,677,107	12,057,954	12,362,888
Debt Service	-	-	-	-	-	-	-
Bond Debt Service	-	-	-	-	-	-	-
Bond Reserve Deposit	-	-	-	-	-	-	-
Total Debt Service	-	-	-	-	-	-	-
Capital Expenditures	-	-	-	-	-	-	-
Capitalized Salaries	637,746	4,384,500	1,257,559	1,257,559	1,257,559	1,257,559	1,257,559
Equipment Replacement	8,998,963	6,139,000	6,474,000	6,670,000	6,012,000	7,367,000	6,665,000
CIP Projects	9,636,709	10,523,500	7,731,559	7,927,559	7,269,559	8,624,559	7,922,559
Total Capital Expenditures	-	-	-	-	-	-	-
Capital Funding	-	-	-	-	-	-	-
Net Bond Proceeds	577,345	582,861	586,538	590,216	593,893	597,593	601,317
Sanitary Availability Fee	577,345	582,861	586,538	590,216	593,893	597,593	601,317
Total Capital Funding Sources	28,000,000	8,000,000	-	-	-	-	-
Transfer from Storm Operations Subfund	-	-	-	-	-	-	-
Gain on Disposition of Capital Assets	-	-	-	-	-	-	-
Net Cash Flow	13,029,076	2,104,532	1,248,097	4,363,596	5,001,441	4,030,989	5,041,646
Beginning of Year Cash	(12,880,290)	148,786	2,253,318	3,501,415	7,865,011	12,866,452	16,897,441
End of Year Cash	\$148,786	\$2,253,318	\$3,501,415	\$7,865,011	\$12,866,452	\$16,897,441	\$21,939,086
Cash Reserve - Target 15%	0%	3%	5%	10%	16%	19%	23%
DSC - Maximum Annual Debt Service	NA	NA	NA	NA	NA	NA	NA

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**APPENDIX C**

**AN ECONOMIC AND DEMOGRAPHIC OVERVIEW OF THE  
DENVER METROPOLITAN REGION**

# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

## INTRODUCTION

The nation's economy continues to recover from the longest and deepest recession since the Great Depression. The recession that officially started in December 2007 – termed the “Great Recession” – quickly spread from primarily housing-related sectors to all areas of the economy by late 2008. The financial market turmoil jolted the already weak economy in the fall of 2008, with monthly job losses spiking to the highest level on record. Reflected in the key gauge of the nation's economic health, U.S. GDP declined four consecutive quarters beginning in late 2008 through the end of the recession in June 2009. Economic conditions generally improved by the end of 2010, led by expanded economic output and improved consumer confidence. However, the nation's rising debt levels, uncertain tax environment, and tight credit market has left consumers and businesses challenged. This continued uncertainty could keep growth at a slower pace than pre-recession levels as the nation's overall economic outlook improves.

While growth slowed in Colorado coincidentally with the nation, the state's later-than-average entry into the recession contributed to accelerated job losses that outpaced the nation. In 2009, Colorado lost 4.5 percent of its employment base, slightly more severe than the national employment decline of 4.4 percent. Although Colorado continued to shed jobs in 2010, the number of jobs gradually increased throughout the year and returned to its 2009 level in late 2010.

The Denver metropolitan area is comprised of seven counties – Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson – and strongly influences Colorado's economy, accounting for about 56 percent of the state's total population and 60 percent of its jobs. Similar to Colorado's economy, the Denver metropolitan area entered the recession later than other markets across the country and experienced significant job losses throughout the recession. The pace of job losses in 2010 was higher than the national average, declining 0.7 percent

over-the-year and was nearly 60,000 jobs shy of the pre-recession employment total. Despite significant job losses during the recession, several industry groups posted gains in average employment, including cleantech, educational services, healthcare, and government.

## POPULATION

### Colorado

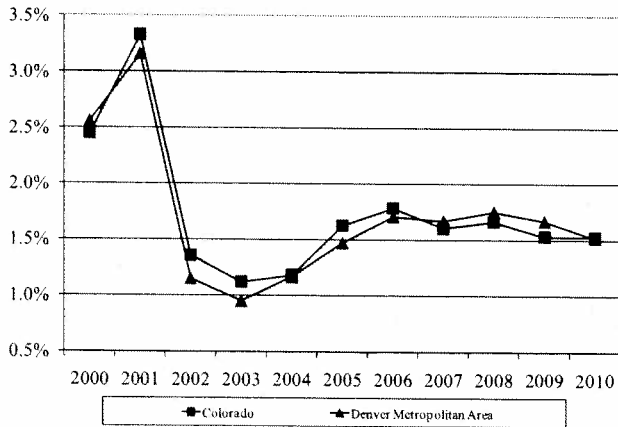
Since 1950, Colorado's population has nearly quadrupled from 1.3 million to an estimated five million in 2010. Between 2000 and 2010, Colorado added over 727,900 residents and currently ranks as the 22nd most populous state in the nation. The state's average population increase of 1.6 percent per year was over one-half percentage point above the U.S. population growth rate (0.9 percent) over the same period and ranked ninth-fastest in the nation.

Population growth depends on two components – natural increase and net migration. The first component – natural increase – is the difference between the number of births and the number of deaths. The state's rate of natural increase typically follows a stable trend, although population gains from natural increase gradually slow as the population ages. Natural increase accounted for 48 percent of the state's total population growth between 2000 and 2010.

The second component of population change is net migration and is the number of people moving into the state minus the number leaving. This component tends to be more volatile and reflects structural factors including job growth and quality of life. Between 2000 and 2010, net migration accounted for 52 percent of the state's ten-year population change.

# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

## POPULATION GROWTH RATES



Source: U.S. Census Bureau; Colorado Division of Local Government, State Demography Office.

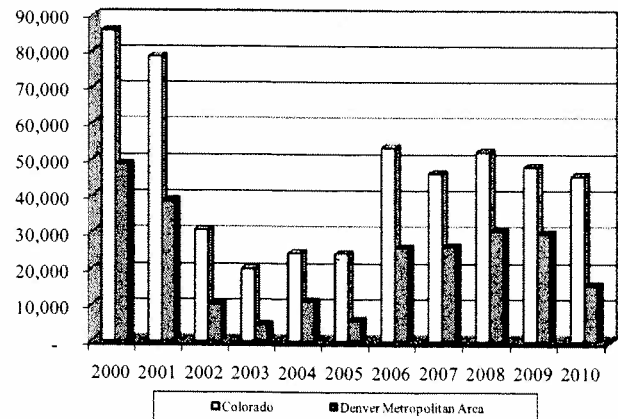
Migration trends are largely driven by economic factors such as labor market conditions, cost of living, and housing prices. Because net migration is strongly correlated with job growth, fluctuations in migration patterns are synchronized with business cycles.

Through the 2002-2003 recession, net migration represented as little as 33 percent of total population growth as limited job growth and economic pressures restricted mobility. However, as job growth returned in 2006 and 2007, the state experienced positive net migration accounting for about 57 percent of the state's population growth. The most recent net migration patterns suggest that Colorado remains an attractive destination for households and families hoping to relocate, however job markets and housing conditions continue to be a concern given the impacts of the Great Recession. As a result, net migration is currently about 53 percent of the state's total population gain.

Colorado's geographic patterns of population migration have remained relatively consistent over the last few years and have originated mainly from states with a higher cost of living and higher total job losses than Colorado. Former California residents have typically accounted for about 14 percent to 20 percent of new Colorado residents. Additionally, Texas, Arizona, Florida, and Illinois

provide Colorado with a significant number of new residents.

## NET MIGRATION



Source: Colorado Division of Local Government, State Demography Office.

## Denver Metropolitan Area

More than half of Colorado's new residents settle in the Denver metropolitan area. The Denver metropolitan area net migration represented 45 percent of the region's total population change between 2000 and 2010. As previously mentioned, net migration is closely linked to job growth. Such growth is particularly notable given the two nationwide recessions that occurred during the decade.

Following the statewide trend, the Denver metropolitan area's rate of natural increase has been relatively stable. Between 2000 and 2010, natural increase accounted for 55 percent of the Denver metropolitan area's total population increase over the ten-year period. Combining natural increase and net migration, the Denver metropolitan area's population growth averaged 1.5 percent per year between 2000 and 2010. The region's population growth has long surpassed the U.S. growth rate over the same period of slightly less than one percent.

Population in the Denver metropolitan area reached an estimated 2.8 million in 2010. The area's population is fairly well-distributed across all age

# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

groups, but is still relatively younger than the national average. According to the U.S. Census Bureau, the median age in the Denver metropolitan area is 36.2 compared with the national median age of 36.8. Similarly, about 9.6 percent of the Denver metropolitan area's population is 65 years and older, while persons in that age group account for 12.9 percent of the population nationwide. With the aging of the "baby boom" population (those born between 1946-1964), the age group with the largest percentage increase between 2000 and 2010 was the 55-64 year-old group, growing 6.4 percent per year over the decade. The younger boomer group, ages 45-54, also grew at a strong pace.

## COUNTY POPULATION (in thousands)

Area	2000	2005	2010	Avg. Annual % Change	
				2000-05	2005-10
Adams	363,857	395,384	441,603	1.7%	2.2%
Arapahoe	487,967	528,214	572,003	1.6%	1.6%
Boulder	291,288	282,910	294,567	-0.6%	0.8%
Broomfield	N/A	48,251	55,889	N/A	3.0%
Denver	554,636	559,459	600,158	0.2%	1.4%
Douglas	175,766	244,442	285,465	6.8%	3.2%
Jefferson	527,056	523,517	534,543	-0.1%	0.4%
<b>Denver Metropolitan Area</b>	<b>2,400,570</b>	<b>2,582,177</b>	<b>2,784,228</b>	<b>1.5%</b>	<b>1.5%</b>
<b>Colorado</b>	<b>4,301,261</b>	<b>4,662,534</b>	<b>5,029,196</b>	<b>1.6%</b>	<b>1.5%</b>

*Note: The City and County of Broomfield was established in 2001.*

*Source: Colorado Division of Local Government, State Demography Office.*

Within the Denver metropolitan area, Douglas and Adams Counties reported the strongest population growth rates between 2000 and 2010. According to the U.S. Census Bureau, Douglas County was the fastest-growing county in the nation during the 1990s, growing an average of 11 percent per year over the decade. While Douglas County still remains the fastest-growing county in Colorado – increasing an average of five percent per year between 2000 and 2010 – the growth rate has slowed as the county matures. Between 2000 and 2010, Douglas County population growth ranked 16th fastest among all U.S. counties.

## City and County of Denver

The City and County of Denver has experienced slow, but steady growth since the early 1990s. Colorado's most populous city reached 600,200 in 2010 and grew an average of 1.4 percent per year between 2005 and 2010, after growing at a slower pace of 0.2 percent per year between 2000 and 2005. Historically, population growth rates for the City and County of Denver have been slower than its surrounding metropolitan area. Over the last decade, for example, Denver's average annual growth rate was slightly under one percent compared with 1.5 percent across the Denver metropolitan area.

Population growth rates in the City and County of Denver surpassed those of the Denver metropolitan area in 2008 and 2009. Between 2007 and 2010, the City and County of Denver added 9,900 new residents each year as its attractive educational and cultural opportunities, recreational amenities, and revitalization of many downtown neighborhoods resulted in faster-than-average migration patterns.

## EMPLOYMENT

The U.S. Department of Labor prepares two monthly reports on employment. The first is a survey of households known as the Current Population Survey (CPS) that is used to estimate employment characteristics by place of residence. This "household survey" is the source of estimates for labor force, employment (including self-employment), and unemployment by county. This data is discussed in the Labor Force & Unemployment section of this report.

The second report is a survey of businesses and government agencies known as the Current Employment Statistics (CES) data series. This "establishment survey" is one of the most frequently cited, providing detailed employment, hours, and earnings data of workers by industry. Although the survey does not count the self-employed, the survey data are still some of the most closely watched and widely used economic indicators.

# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

Industry employment data in the CES series are grouped according to North American Industry Classification System (NAICS) codes. This coding structure includes 11 industry “supersectors” which can be further divided into 20 broad industry groups.

## Colorado

According to the CES data, Colorado nonfarm employment growth averaged 3.8 percent per year between 1990 and 2000. Annual average employment growth remained consistently high throughout the decade, adding over 690,000 jobs. Beginning in 2001, the employment situation changed due to the national recession and the fallout of the telecommunications and high-tech industries. In 2002, the state’s 1.9 percent rate of job loss represented the sharpest drop in employment since the 1940s. Over 74,000 jobs were lost during the state’s 2002-2003 recession, driven by employment declines in Colorado’s high-tech, telecommunications, and tourism-related industry sectors.

The state began a moderate economic recovery in 2004 and Colorado’s employment situation improved over the next few years. Total employment growth in the state reached 2.4 percent in 2006, its largest employment gain since 2000, and recovered the majority of jobs lost during the 2002-2003 recession. Between 2006 and 2007, Colorado’s 2.3 percent job growth rate ranked ninth among the 50 states for fastest job growth. As the national economy entered recession in late 2007, Colorado continued to add jobs and employment growth reached 0.8 percent between 2007 and 2008.

By mid-2009, Colorado job losses outpaced that of the nation, declining 4.5 percent compared with 4.4 percent, respectively. Colorado’s economy continued to shed jobs in 2010, declining 1.1 percent between 2009 and 2010. Colorado entered and exited the recession somewhat later than other states, but ultimately lost over 130,000 jobs between 2008 and 2010.

## Denver Metropolitan Area

CES data are also compiled for a number of the Metropolitan Statistical Areas (MSAs) defined by the U.S. Office of Management and Budget. The Denver-Aurora-Broomfield MSA consists of ten counties: Adams, Arapahoe, Broomfield, Clear Creek, Denver, Douglas, Elbert, Gilpin, Jefferson, and Park Counties. The following data are for the Denver-Aurora-Broomfield MSA and Boulder MSA (Boulder County) combined, or an 11-county area that best represents the seven-county Denver metropolitan area discussed throughout this report.

The 11-county Denver metropolitan area has a nonfarm employment base of nearly 1.4 million workers. Similar to Colorado’s experience, the recession that began in 2001 followed a period of rapid growth in the area, as the high-tech industry flourished. The area’s total nonfarm wage and salary employment growth reached over four percent in the 1990s decade, driven by double-digit growth rates in the area’s information sector. The nationwide recession then took hold, and the Denver metropolitan area, like other high-tech MSAs across the nation, was plagued with job losses.

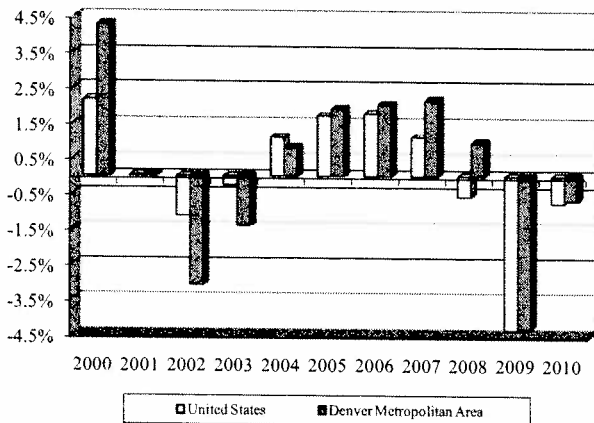
Between 2001 and 2003, the Denver metropolitan area lost over 61,000 jobs. Economic conditions improved in 2004 and the area grew 0.8 percent over 2003 employment levels. Job growth accelerated between 2005 and 2007, peaking at 2.2 percent in 2007.

Weaknesses in the housing market and financial failures drew the Denver metropolitan area into the longest and deepest downturn since the Great Depression, slightly later than the nation. Beginning in mid-2009, the area experienced significant job losses that continued at a faster-than-average pace through the end of the year – declining 4.3 percent over the year. While the area’s employers started adding jobs through late 2010, the area still posted a 0.7 percent loss in employment in 2010. The severity of the employment declines during the Great Recession contributed to an average annual decline of 0.2 percent from 2000 to 2010.



# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

## NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT GROWTH RATES



Sources: U.S. Department of Labor, Bureau of Labor Statistics; Colorado Department of Labor and Employment.

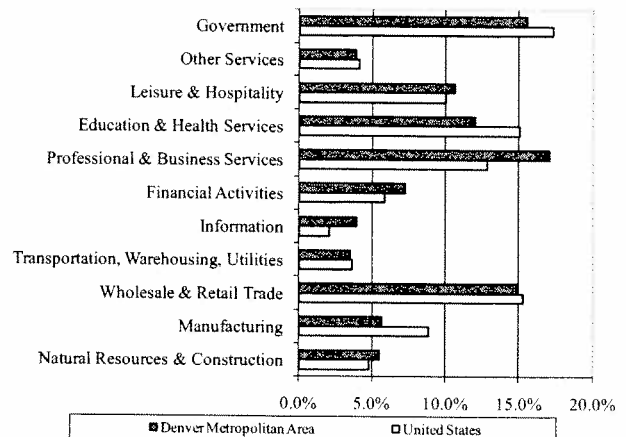
The Denver metropolitan area's job base of nearly 1.4 million workers includes large concentrations of workers in professional and business services (17.1 percent), government (15.5 percent), and wholesale and retail trade (15 percent). Employment among these three major industry supersectors comprises nearly half of the jobs in the Denver metropolitan area. The largest of the three industries – professional and business services – includes a broad segment of businesses ranging from temporary employment and facilities services to accounting and legal services. Many of these workers are employed as consultants or contractors, and as a result, the sector's employment tends to reflect business activity across the entire industry base.

The Denver metropolitan area nonfarm employment is divided into 11 industry supersectors, or groups of related industries as defined by the NAICS codes. Four of the 11 supersectors that posted gains in employment between 2009 and 2010 were those that tend to be population driven. The education and health services sector reported the largest percentage increase in employment (2.9 percent) followed by government (one percent). Employment in the leisure and hospitality and other services sectors increased less than one percent from 2009 to 2010.

In contrast, seven of the Denver metropolitan area's 11 supersectors reported job losses between 2009

and 2010. Natural resources and construction employment suffered the largest percentage decline of 9.1 percent. This sector and the financial activities sector (-2.5 percent) were beset by the credit crunch and challenged real estate markets. Employment in the area's manufacturing sector dropped 2.8 percent in 2010, driven by substantial losses in the larger durable goods sector – comprised of cars, electronics, and other long-lasting items – compared with the nondurable sector. Combined, the three sectors lost over 12,100 jobs between 2009 and 2010.

## 2010 EMPLOYMENT BY INDUSTRY



Sources: U.S. Department of Labor, Bureau of Labor Statistics; Colorado Department of Labor and Employment.

Among the remaining supersectors, transportation, warehousing, and utilities and information experienced job losses of 3.4 percent over-the-year, with job losses less than one percent in wholesale and retail trade and professional and business services.

## City and County of Denver

The City and County of Denver is the employment center for the Denver metropolitan area and accounts for about 32 percent of the region's total jobs. Downtown Denver's central business district has one of the area's largest concentrations of office space and is home to telecommunications and information technology companies, financial and

# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

legal firms, and a variety of other businesses. The most recent local data show Denver had the state's largest job base – 423,500 workers – in the third quarter of 2010. The employment base in Denver decreased an estimated 1.3 percent from 2009 to 2010 based on data for the first three quarters of each year, a loss of 5,400 jobs.

The largest employment supersectors in Denver include professional and business services (18.6 percent), government (16.4 percent), education and health services (12.5 percent), and wholesale and retail trade (11.9 percent). Five of Denver's 11 supersectors reported job growth between the third quarter of 2009 and the third quarter of 2010. Similar to the region, the largest percentage declines occurred in natural resources and construction (-6.5 percent), transportation, warehousing, utilities (-4.6 percent), and financial activities (-3.1 percent). The supersectors that added employment the fastest over this period of time include leisure and hospitality (3.9 percent), education and health services (3.9 percent), and other services (3.3 percent).

## LABOR FORCE & UNEMPLOYMENT

The U.S. unemployment rate climbed for the third consecutive year in 2010, reaching its highest annual average level since 1983. Prior to entering the most recent recession, the annual unemployment rate declined steadily between 2004 and 2006, but slower job growth in 2007 kept the unemployment rate flat at 4.6 percent. As the nation's economy again entered recession in 2007, the U.S. unemployment rate averaged 5.8 percent in 2008, 9.3 percent in 2009, and 9.6 percent in 2010.

### Colorado

Similar to the nation, Colorado's 2010 average annual unemployment rate reached its highest level since the early 1980s. Following the 2002-2003 recession, the state's unemployment rate surpassed six percent in 2003 and declined over the next two years. The state's unemployment rate fell below the U.S. average from 2006 through 2008, partly

because of job growth in educational and health services and the professional business services sectors. Throughout the most recent recession, Colorado's labor market remained stronger than many other markets, averaging below the national average in 2009 and 2010. Despite Colorado's job losses, the state's 2010 unemployment rate (8.9 percent) was 0.7 percentage points below the national average (9.6 percent). Still, this represented nearly 240,000 people seeking jobs.

### Denver Metropolitan Area

The Denver metropolitan area's average annual unemployment rate was considerably lower than the state and national averages prior to the 2002-2003 recession and remained slightly above through 2005. From 2006 through 2008, the area's unemployment rate trended between the national and statewide averages before the recession weakened labor markets and forced many industries to trim their current workforce. As the recession took hold, the area's unemployment rate rose from 8.3 percent in 2009 to 8.8 percent in 2010. Although rates have reached some of the highest levels seen in decades, the area's unemployment rate remains below the statewide and national averages.

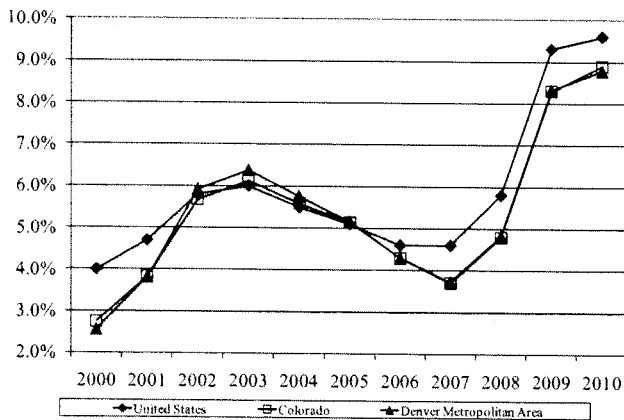
Colorado's quality of life and desirable living conditions attract workers. The movement of these workers into the state results in one of the most highly educated labor forces in the nation. This competitive advantage is important to maintaining the state's economic base, while attracting and retaining the workforce needed by businesses during challenging economic times. According to the U.S. Census Bureau's 2009 American Community Survey, Colorado has the second-highest percentage of college graduates in the nation behind Massachusetts. Educational attainment has risen in the Denver metropolitan area, where 89.3 percent of the total adult population graduated high school in 2009 compared with 89 percent in 2008. Similarly, the total adult population that has a bachelor's degree or higher increased to 39.7 percent in 2009, compared with 39.5 percent in 2008.

# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

## City and County of Denver

The City and County of Denver is an urban center, so its unemployment rate tends to be above that of the greater Denver metropolitan area. During the 2002-2003 recession, the area's annual average unemployment rate peaked at 7.2 percent in 2003 and returned to its pre-recession level by 2007. Driven by weak labor market conditions, the area's unemployment rate surged to 9.2 percent in 2009 and reached its highest level in decades in 2010. Denver's unemployment rate increased to 9.7 percent in 2010, or a rate nearly one percentage point above the Denver metropolitan area and statewide rates.

UNEMPLOYMENT RATES



Sources: U.S. Department of Labor, Bureau of Labor Statistics; Colorado Department of Labor and Employment.

## MAJOR EMPLOYERS

Colorado's small businesses serve as an engine of economic growth and job creation. According to the U.S. Small Business Administration, 97.7 percent of the state's employer firms in 2008 were classified as small businesses, or businesses having fewer than 500 employees. Self-employment is an increasingly important source of jobs in Colorado, as the number of firms classified as non-employers which are – which are businesses with no paid employees – increased an average of 2.8 percent per year from 2000 to 2008.

Self employment and small business are vitally important to the Denver metropolitan area, though large firms have a considerable presence and offer a geographic balance in employment centers. Approximately 120 firms with 1,000 or more employees were operating in Colorado in 2008 according to the latest County Business Patterns by the U.S. Census Bureau. The majority of these large businesses were located in the Denver metropolitan area.

## LARGEST PRIVATE EMPLOYERS

Company	Products/Services	Employees
1. King Soopers Inc.	Grocery	12,280
2. Wal-Mart	General Merchandise	10,770
3. HealthONE Corporation	Healthcare	9,640
4. Safeway Inc.	Grocery	9,440
5. CenturyLink	Telecommunications	7,380
6. Exempla Healthcare	Healthcare	7,320
7. Lockheed Martin Corporation	Aerospace & Defense Related Systems	7,220
8. Centura Health	Healthcare	6,370
9. Kaiser Permanente	Healthcare	5,870
10. Target Corporation	General Merchandise	5,350
11. DISH Network	Satellite TV & Equipment	4,690
12. United Airlines	Airline	4,500
13. Wells Fargo Bank	Financial Services	4,400
14. University of Denver	University	4,310
15. The Children's Hospital	Healthcare	4,270
16. IBM Corporation	Computer Systems & Services	4,200
17. University of Colorado Hospital	Healthcare, Research	4,000
18. Republic Airways Holdings, Inc. (Frontier Airlines)	Airline Holding Company	3,760
19. United Parcel Service	Parcel Delivery	3,620
20. Comcast Corporation	Telecommunications	3,500

Source: Development Research Partners, April 2011.

Nine companies headquartered in Colorado were included on the 2011 *Fortune 500* list. The companies are DISH Network (193rd), Qwest Communications (209th), Liberty Media (224th), Liberty Global (255th), Newmont Mining (260th), Ball (300th), DaVita (359th), CH2M Hill (422nd), and Western Union (431st). It should be noted that Qwest Communications no longer operates as a separate company since recently closing its merger with Louisiana-based CenturyLink Inc. While

# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

Denver will remain a regional headquarters for the combined company, the company's headquarters will be in Monroe, Louisiana, the current home of CenturyLink. The employment impacts in the Denver metropolitan area as a result of the merger are currently unknown.

Air Methods was recognized on *Forbes'* October 2010 list of the 100 best small public companies. To qualify for the list, companies must have 12-month sales between \$5 million and \$1 billion and a stock price of at least \$5 per share. Overall rankings were based on companies' return on equity plus several measures of profit and sales growth in the past 12 months and over the past five years.

Sixteen Colorado companies made the 2010 *Inc.* list of the 500 fastest-growing private companies nationwide and an additional 112 companies made the 2010 *Inc.* list of the 5,000 fastest-growing private companies. The companies included on the list represent a cross-section of industries, from telecommunications to financial services, advertising, construction, and clean energy.

Private sector businesses account for a majority of employment in the Denver metropolitan area, but 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 14,200 federal government employees, 23,400 state government employees, and 31,800 employees in local government entities including Denver Public Schools (13,600 employees) and the City and County of Denver (12,000 employees).

## INTERNATIONAL TRADE

Denver International Airport serves as a catalyst for economic growth, linking the Denver metropolitan area to businesses nationwide and around the world. The airport is home to about 15 commercial airlines – the largest of which are United Airlines, Southwest, and Frontier Airlines – that provide scheduled nonstop service from Denver to more than

160 domestic and international destinations. The airport posted record-level passenger traffic totaling 52.2 million in 2010, making it the fifth-busiest airport in North America and 10th busiest worldwide based on total passenger counts.

The Denver metropolitan area is located 346 miles west of the geographic center of the nation, serving as a natural hub for cargo operations. The area's location on the 105th meridian – the exact midpoint between Tokyo and Frankfurt – allows local companies the ability to conduct business with both countries in the same business day. Additionally, the area's unique geographic location in the Mountain time zone makes it the largest area in the U.S. to offer one-bounce satellite uplinks, providing companies with real-time connections to six of seven continents in one business day. About eight cargo airlines and more than 15 major and national carriers provide an extensive freight network at Denver International Airport, which offers close proximity to I-70, one of the country's primary east/west commerce routes. The airport's cargo assets are well-equipped, handling nearly 690 tons of cargo per day in 2010.

The Denver metropolitan area is also well positioned midway between Canada and Mexico, which are partners under the North American Free Trade Agreement (NAFTA). Shipments to Canada and Mexico accounted for about 33 percent of the state's total exports in 2010. While Canada and Mexico remain the state's largest trading partners, several other countries including China, Japan, and traditional Western European markets – the Netherlands, Germany, and the United Kingdom – accounted for over 26 percent of Colorado's total exports in 2010.

The global economy had considerable momentum between 2004 and 2006, which led to strong increases in the growth of U.S. and Colorado exports. Despite an overall rise in U.S. exports prompted by favorable global market conditions, the value of Colorado's exports began to decline as the next recession fast approached. Colorado exports fell 23.9 percent between 2008 and 2009, slightly worse

# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

than the 18 percent drop in U.S. exports for the same period. However, improved economic activity in 2010 led to a 13.7 percent growth in the state's exports.

Colorado's export portfolio relies heavily on computers, electronics, and semiconductors, all goods that are more likely to be manufactured overseas. The following five industries account for more than two-thirds of Colorado's total exports:

- ◆ Computers and electronic products (27 percent of total export value; up 14 percent between 2009 and 2010).
- ◆ Processed foods (15 percent of total export value; up 30 percent in 2010).
- ◆ Chemicals (12 percent of total export value; down 7 percent in 2010).
- ◆ Machinery (10 percent of total export value; up 19 percent in 2010).
- ◆ Miscellaneous manufactured commodities (6 percent of total export value; up 18 percent in 2010).

It is important to note that the composition of Colorado's export portfolio has shifted over time. The largest component of the state's export portfolio – computers and electronic products – accounts for about 27 percent of the state's total export dollars, thus the status of the high-tech industry has a major influence on Colorado's international trade. In years prior to the 2001 recession, the computers and electronics manufacturing industry accounted for as much as 60 percent of Colorado's total exports to the world. The declining contribution of Colorado's computers and electronic products sector reflects both the tech-bust of the early-2000s and the nation's shrinking manufacturing base.

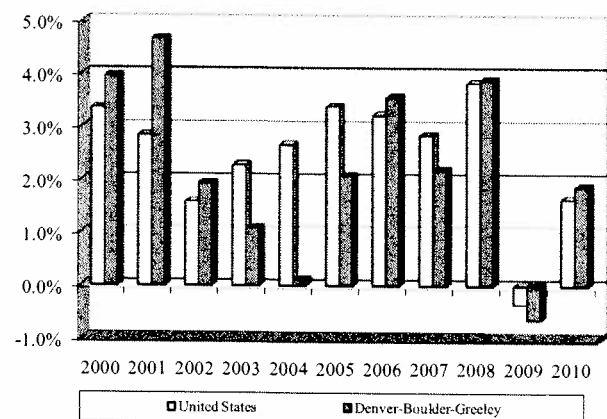
## INFLATION

Inflation in the Denver metropolitan area has often exceeded the national average. In 2001, a surge in energy prices and stronger-than-average job and wage growth resulted in a 4.7 percent increase in the Denver metropolitan area inflation rate as measured

by the Denver-Boulder-Greeley Consumer Price Index (CPI). Following the 2001 recession, inflation tracked national trends more closely as job growth in the Denver metropolitan area occurred at a more restrained pace. In 2008, rising energy prices pushed inflation in the Denver metropolitan area to its highest point since 2001, rising 3.9 percent compared with the U.S. average annual inflation rate of 3.8 percent.

The national economy began to deflate in 2009 for the first time in more than half a century as a slump in demand pushed energy and food prices lower. Following the national downtrend, the Denver-Boulder-Greeley CPI fell 0.6 percent, the first decline reported since data collection for this region began in 1965. However, concerns about inflation returned in 2010. The Denver-Boulder-Greeley CPI increased 1.9 percent in 2010, driven by home and fuel price increases from their recessionary lows. At the national level, prices increased an average of 1.6 percent in 2010.

INFLATION RATES



Source: U.S. Department of Labor, Bureau of Labor Statistics.

The CPI is a measure of the average change in prices for a representative basket of goods and services purchased by households. The U.S. Bureau of Labor Statistics classifies the CPI basket of goods and services into eight major categories consisting of food and beverages, housing, apparel, transportation, medical care, recreation, education and

# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

communication, and other goods and services. Prices for housing, recreation, transportation, and other goods and services grew at a faster pace in the Denver metropolitan area than the national average in 2010. Prices for apparel, education and communication, food and beverages, and medical care increased at a slower pace compared with the U.S. average.

## INCOME

### Colorado

Colorado personal income growth rates have fluctuated considerably over the past decade. Prior to the 2001 recession, growth rates exceeded the U.S. average, driven by strong growth in the state's telecommunications and technology sectors. Following the nationwide trend, Colorado personal income growth slowed dramatically as the nation entered recession in 2001. Annual personal income growth improved through 2007, reaching a peak growth rate of 8.2 percent in 2006 driven by expansions in the state's energy sector. After rising 4.7 percent in 2008, Colorado personal income fell 2.1 percent in 2009 while income nationwide fell 1.7 percent as a result of wage cuts, job losses, and declining asset values. This was the first full-year decline in personal income in Colorado since 1938 and the first full-year decline in national personal income since 1949.

Colorado's higher-than-average population growth and other demographic factors have influenced the state's total personal income and per capita personal income trends. Statewide personal income posted moderate gains in 2010, increasing 2.3 percent compared with three percent growth nationwide. Even after slower growth, Colorado's 2010 per capita personal income of \$42,802 still represented 105 percent of the U.S. average.

### Denver Metropolitan Area

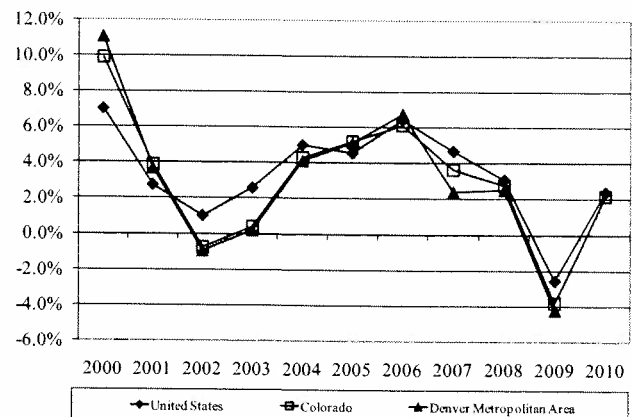
Data on the Denver metropolitan area's personal income and per capita personal income are only available through 2009. The 2002-2003 slowdown in

per capita personal income was more pronounced for the Denver metropolitan area than for the nation. Consistent with statewide trends, growth in per capita personal income resumed between 2003 and 2007, averaging 4.6 percent per year. Between 2007 and 2008, per capita personal income growth (\$48,940) slowed to 2.5 percent; more so than in Colorado (2.8 percent) or the nation (3.1 percent). The Denver metropolitan area's later entry into the recession resulted in a 4.2 percent decline in per capita personal income to \$46,868 in 2009. Per capita personal income was still about 120 percent of the national average.

### City and County of Denver

At \$51,630, 2009 per capita personal income in the City and County of Denver ranked second highest in the Denver metropolitan area in 2009. Across the Denver metropolitan area, per capita personal income declined in all counties in 2009 as a result of the region's recession. After increasing 4.2 percent in 2008, per capita personal income in the City and County of Denver declined 4.6 percent in 2009. Despite declining per capita personal income, the area's per capita personal income was still 130 percent of the national average.

PER CAPITA PERSONAL INCOME GROWTH  
RATES



Source: U.S. Department of Commerce, Bureau of Economic Analysis.



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The Denver metropolitan area average annual salary was \$52,675 for the four quarters ending the third quarter of 2010, a 2.5 percent increase from the average for the same period in 2009. The average annual salary in the City and County of Denver for the period ending in the third quarter of 2010 was \$57,105, representing a 2.1 percent increase from the same period in 2009.

## RETAIL TRADE

Personal consumption expenditures account for about 70 percent of the total value of all goods and services produced in the U.S. Commonly referred to as consumer spending, these expenditures are a key component of retail activity. During the 2001 recession, consumer spending remained strong – a pattern unlike most past recessions when consumer spending typically declined – driven by investment in the housing sector and spending in non-automotive housing durables. Beginning in 2006, rising fuel and grocery costs contributed to a slowdown in retail sales. After growing 2.2 percent in 2006, U.S. retail sales slowed to 0.4 percent in 2007 after adjustment for inflation.

As one of the deepest recessions gripped the nation, consumers and small businesses cut spending dramatically. Between the peak in retail activity in December 2007 and the bottom in April 2009, U.S. retail sales decreased by over \$40 billion, or 10.8 percent. However, the combination of “cash-for” incentives, tax credits, and an improved job market revived U.S. retail sales in late 2009 and early 2010. The increase in U.S. retail sales of 4.9 percent in 2010 after adjustment for inflation was primarily driven by growth in durable goods such as automobiles, electronics, home furnishings, and furniture. While consumers spent more in 2010, U.S. retail sales did not return to the levels reported prior to the recession.

### Colorado

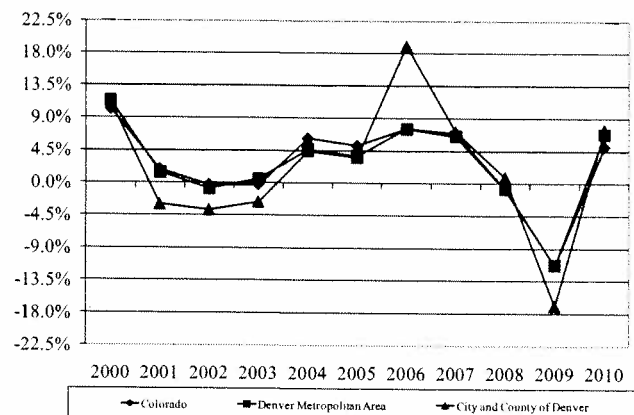
Wage growth and steady employment buoyed Colorado retail trade sales through 2007. After increasing a nominal 7.6 percent (not inflation-

adjusted) in 2006, retail trade sales slowed to 6.9 percent in 2007. Retail trade sales began to fall in mid-2008 as consumers cut spending due to high debt levels and increasing fuel and food prices trimmed household budgets for other items. Still, a steep decline did not occur until early 2009 as the credit crisis and declining consumer confidence tempered spending. That year, Colorado retail trade sales declined 11.3 percent from 2008, the steepest annual decline on record. Retail trade sales started to grow through 2010, increasing 5.1 percent over 2009; however, gains were relatively modest and driven by federal stimulus in some months.

### Denver Metropolitan Area

Similar to Colorado, declining consumer confidence and limited job and income growth during the recession had significant impacts on retail trade sales in the Denver metropolitan area. Mirroring statewide trends, Denver metropolitan area retail trade sales fell 0.8 percent in 2008 and 11.3 percent in 2009, reflecting sluggish consumer activity and a deteriorating job market. Although consumers remained concerned about incomes and jobs, retail trade sales increased 6.8 percent in 2010.

RETAIL TRADE SALES GROWTH



Note: The large increase in retail trade sales in the City and County of Denver in 2006 was due to geographic revisions in the data series and may not accurately reflect actual activity.

Source: Colorado Department of Revenue.

# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

Retail trade sales include business and consumer purchases from retailers and from food and drink establishments. The largest category of retail trade sales in the Denver metropolitan area is food and beverage stores. Sellers of motor vehicle and auto parts, general merchandisers/warehouse, and restaurants and drinking establishments were the next largest contributors to the region's total retail trade sales.

Sales in each of the categories across the region rose in 2010, ranging from +1.4 percent in general merchandisers/warehouse and furniture and furnishings retailers to +15.6 percent for service stations. Similar to the nation, the region's higher gasoline prices led to the 15.6 percent increase in service station sales in 2010.

## DENVER METROPOLITAN AREA RETAIL TRADE SALES BY CATEGORY (in \$millions)

Industry	2009	2010	Change**
<b>Retail Trade:</b>			
Motor Vehicle and Auto Parts	\$6,203	\$6,868	10.7%
Furniture and Furnishings	\$1,224	\$1,241	1.4%
Electronics and Appliances	\$1,166	\$1,306	12.0%
Building Materials / Nurseries	\$2,397	\$2,510	4.7%
Food/Beverage Stores	\$7,274	\$7,708	6.0%
Health and Personal Care	\$1,264*	\$1,346*	-----
Service Stations	\$1,934	\$2,236	15.6%
Clothing and Accessories	\$1,949	\$2,111	8.3%
Sporting/Hobby/Books/Music	\$1,329	\$1,372	3.3%
General Merchandise/Warehouse	\$5,860	\$5,944	1.4%
Misc. Store Retailers	\$1,369	\$1,448	5.8%
Non-Store Retailers	\$1,079*	\$1,182*	-----
<b>Total Retail Trade</b>	<b>\$34,137</b>	<b>\$36,517</b>	<b>7.0%</b>
Food / Drinking Services	\$4,743	\$4,995	5.3%
<b>TOTAL</b>	<b>\$38,880</b>	<b>\$41,512</b>	<b>6.8%</b>

\*Retail trade sales by industry do not add to total retail trade sales due to data suppression.

\*\*Data not inflation-adjusted.

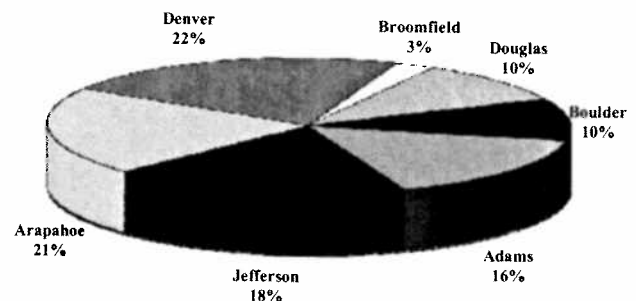
Source: Colorado Department of Revenue.

Additionally, the combination of consumers' willingness to spend and stronger consumer confidence contributed to rising sales for retailers of electronics and appliances (+12.0 percent) and clothing and accessories (8.3 percent). In spite of rising gas prices, the region's automobile sales increased (10.7 percent) over-the-year as deep discounts contributed to an increase in new car sales.

## City and County of Denver

Retail trade sales in the City and County of Denver comprised the largest share (22 percent) of total Denver metropolitan area sales in 2010. All counties in the Denver metropolitan area reported an increase in retail trade sales between 2009 and 2010, with the largest increases occurring in Arapahoe County (+8.6 percent), followed by Douglas County (+8.0 percent), the City and County of Denver (+7.5 percent), and Adams County (+7.3 percent). The increase in retail sales activity suggests stronger consumer confidence.

## DISTRIBUTION OF 2010 RETAIL TRADE SALES BY COUNTY



Source: Colorado Department of Revenue.

## RESIDENTIAL REAL ESTATE

The housing market has historically been a significant contributor to economic recovery. Indeed, the housing component of U.S. GDP has positively contributed to economic growth within



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two years following economic recessions over the last 30 years. Following the ebb and flow of business cycles, U.S. homeownership rates increased five percentage points from the mid-1990s to its peak of almost 70 percent in 2004 and 2005 as a result of a strong real estate market. Beginning in 2006, a nationwide housing correction caused homeownership rates to decline through 2010 (66.9 percent), the lowest reported since 1999. Similar to the nation, Colorado's rate fell from 71.3 percent in 2003 to 68.5 percent in 2010 as slow home sales and foreclosures forced a number of households into rental properties.

## Residential Home Prices

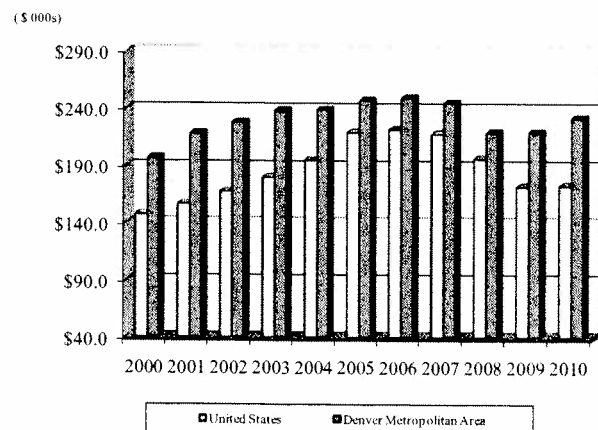
Colorado – like many other states – was exposed to the collapse of the housing market, rising unemployment, and tight credit. However, the state fared better than other markets across the nation as housing price fluctuations were less rampant in the years preceding the recession. Additionally, the aftermath of the “tech-boom” during the late 1990s kept home price growth subdued. These factors kept prices more stable in Colorado. Similar to statewide trends, the Denver metropolitan area's strong population growth and diverse industry mix led to relatively stable housing prices compared with other metropolitan areas across the nation.

Median home prices reflect the point where half of the existing homes sold for more and half sold for less. Data released by the National Association of Realtors reports that between 2007 and 2009, the U.S. median home price depreciated an average of 11.1 percent per year. By contrast, median home prices in the Denver metropolitan area depreciated an average of 5.3 percent per year over the same period. While the fall in home prices during the recession placed a significant burden on homeowners, lower prices and interest rates boosted affordability in the Denver metropolitan area. Additionally, the first-time homebuyers' tax credits boosted 2010 housing activity. In 2010, Denver's median home price was \$232,400, up 5.7 percent from the 2009 median and about five percentage points above the U.S. home price growth rate over

the same period. The Denver-Aurora-Broomfield MSA was one of 78 markets – just over half of total metropolitan areas surveyed – reporting an increase in median home price between the fourth quarters of 2009 and 2010.

A number of other indices show similar trends in the Denver metropolitan area's housing market. Data from Metrolist show the Denver metropolitan area's average sales price for existing single-family homes rose to \$235,000 in 2010, an increase of 7.3 percent over 2009. The Federal Housing Finance Agency's Home Price Index suggests that fourth quarter 2010 home prices in the Denver metropolitan area had increased 3.7 percent over-the-year.

### MEDIAN HOME PRICES



Source: National Association of REALTORS.

While a variety of sources suggest that home prices in the Denver metropolitan area improved in 2010, other price measures show a different trend. The S&P Case-Shiller Home Price Index for Denver trended downward beginning in July 2010 and remained negative for the rest of the year. This figure varies considerably from the price appreciation evident in the median home prices data previously mentioned, partly because the price measures themselves are fundamentally different. The S&P Case-Shiller Indices, for example, match each home sold with a previous sale for that property. Additionally, the S&P Indices include the resale of foreclosed homes which tend to sell at a

# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

significant discount relative to other properties. As a result, the S&P Indices may be somewhat biased on the downside.

## Foreclosures

Foreclosures in the Denver metropolitan area hit historically high levels during the recession. During the years leading up to the recession, foreclosures were primarily driven by the failure of sub-prime loans. The Denver metropolitan area's foreclosure inventory – while declining – remained near historic highs in 2010. The region's public trustees reported a total of 23,393 filings for the year, or an 11.8 percent decrease from 2009 filings. The 2010 total, however, was 23 percent higher than 2006 foreclosure filings and nearly double the 2004 foreclosure filings. Across the region, Adams County, Broomfield County, and the City and County of Denver reported the largest declines in 2010 foreclosure activity. Notably, foreclosures in the City and County of Denver declined nearly 18 percent over the year, and filings in Adams and Broomfield Counties declined 13.4 percent and 13.2 percent, respectively.

While foreclosure activity seems to be stabilizing, the lack of credit availability and weak labor market continue to weigh heavily on the housing market. Additionally, banks' continued legal challenges in the foreclosure process and the looming shadow inventory of distressed properties has kept the housing market extremely fragile. A number of foreclosure mitigation efforts, however, are in place to prevent another surge in foreclosures. According to *Bloomberg Businessweek*, the Denver metropolitan area ranked among 10 of the nation's most improved housing markets. The rankings of the 50 largest metropolitan statistical areas reflected first quarter 2010 home price data and measured foreclosures, delinquent mortgages, total home sales, and unemployment.

## Residential Home Sales

Although home sales levels are improving, current levels are still significantly lower than the peak of

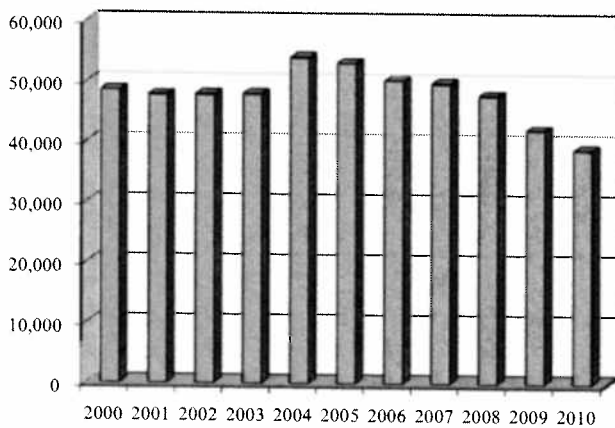
54,012 in 2004. In the years that followed, home sales trended downward as declining home values, rising inventories, and the increase in the number of unique mortgage products weakened the residential housing market. By 2007, existing home sales in the Denver metropolitan area had fallen 7.8 percent below the 2004 peak and the onset of the recession spurred further declines. In 2009, home sales reached their lowest levels in decades, declining 12.1 percent over 2008 levels.

Like home sales figures reported for many other areas nationwide, home sales in the Denver metropolitan area rose noticeably in the spring of 2010 as buyers responded to the extended homebuyers' tax credits and favorable affordability conditions. Following the expiration of the homebuyers' tax credits, home sales in June 2010 fell roughly three percent over-the-year and resulted in a softening of the market for the remainder of 2010. Between July and November, Denver metropolitan area home sales fell an average of 25 percent below year-ago levels. Likewise, nationwide existing home sales fell 20 to 25 percent below 2009 levels beginning in July 2010. While the late-year decline in home sales was partly attributed to the expiration of tax credits, rising unemployment and restrictive lending conditions also kept buyers out of the market even as mortgage rates remained favorable.

Total existing home sales in the Denver metropolitan area numbered 38,818 throughout 2010, a 7.7 percent decline from 2009 and 28.1 percent below the 2004 peak. Following existing home sales trends, total sales volume rose 18 percent in 2004 and peaked in 2005, reaching nearly \$15 billion. Between 2006 and 2010, distressed sales and low-priced homes contributed to declining sales volume. In 2010, total sales volume fell 2.2 percent from roughly \$10.2 billion in 2009 to nearly \$10 billion in 2010.

# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

**DENVER METROPOLITAN AREA  
HOME SALES**



Source: Metrolist Inc.

## Residential Building Permits

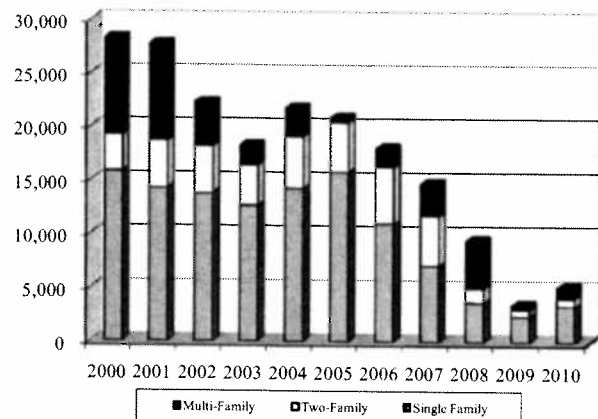
Residential home construction has been on a downward trend since 2005 due to slower home sales in the market. Between 2005 and 2009, residential permits declined an average of 36.3 percent per year. Signaling a housing correction in 2010, the region's counties and municipalities issued just over 5,100 residential building permits, a 49.9 percent increase from 2009 and a 76.4 percent decrease in residential permits issued from the 2004 peak. Construction activity in 2010 increased from the prior year for all Denver metropolitan counties, with the largest increases in Jefferson County (77 percent), the City and County of Denver (67.1 percent), and Arapahoe County (63.2 percent). It is important to note that the magnitude of 2010 permit gains are somewhat distorted given the large declines in permit activity reported in 2009. Compared with historic levels, 2010 residential permit activity was still sluggish as the 30-year average is about 17,000 permits per year.

The total number of residential building permits includes permits for single-family detached homes, single-family attached homes – or condominiums, townhomes, and duplexes – and multi-family. Permit activity for single-family detached homes in 2010 was up 39.7 percent over 2009, representing the largest component (65 percent) of residential

building permits. In 2010, permits for single-family attached homes rose 32.8 percent.

Between 2006 and 2008, the multi-family (apartment) market proved its resilience, with permit activity growing an average of 60 percent per year compared with a decline of 44 percent in the single-family market over this time period. In 2009, apartment construction all but halted and permits fell 90.1 percent, driven by slow job growth and difficult lending conditions. The gain in multi-family permit activity posted the most significant advances in 2010 as permits grew more than twice the number permitted in 2009. Driven by the growing population moving from distressed, single-family homes to apartments, tight credit, and fewer potential buyers, total permits for apartment construction in 2010 surpassed 1,000 units compared with just over 430 units in 2009. In 2010, the City and County of Denver and Arapahoe County contributed the largest gains to multi-family construction activity.

**NEW HOME CONSTRUCTION**



Source: Home Builders Association of Metro Denver.

The combination of limited apartment construction, restricted mortgage credit, and steady population growth contributed to lower-than-average apartment vacancy rates in the Denver metropolitan area in 2010. In fact, the apartment vacancy rate in the Denver metropolitan area averaged 5.9 percent in 2010 according to the *Denver Metro Apartment Vacancy and Rent Survey*. This was the lowest

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annual vacancy reported since 2000, when vacancy averaged 4.6 percent. The vacancy rate peaked at 6.5 percent during the first quarter of 2010, but declined to 5.5 percent by the end of the year. Vacancy rates within the Denver metropolitan area in 2010 ranged from an average of 4.3 percent in the Boulder/Broomfield area to 6.7 percent in Arapahoe County.

Average apartment rental rates reflect a stable local market. The Denver metropolitan area average apartment rental rate ended 2010 at \$909 per month, a 3.8 percent increase from the prior year. Similarly, average rents increased over-the-year in all but one county – Jefferson County – with rent increases ranging from 0.9 percent in the City and County of Denver to 10.3 percent in Adams County.

## COMMERCIAL REAL ESTATE

Following the 2001 recession, the Denver metropolitan area's reputation for relatively inexpensive commercial real estate attracted large numbers of investors and developers. Development continued at a modest pace with rapidly rising lease rates and declining vacancy rates through 2006, when investors spent a record \$5 billion on the region's commercial real estate.

Development, sales, and leasing activity moderated in 2007, but the region's commercial markets did not show sustained signs of weakness until 2008. By 2009, rising vacancy, falling lease rates, and perpetual job losses contributed to weakened market fundamentals and limited development activity in the Denver metropolitan area. Financial market uncertainty and tight credit markets contributed to significant downturns in commercial real estate construction. Despite sluggish building and leasing activity in 2010, the Denver metropolitan area's commercial market is poised to rebound with many of the area's property types outperforming other markets across the nation.

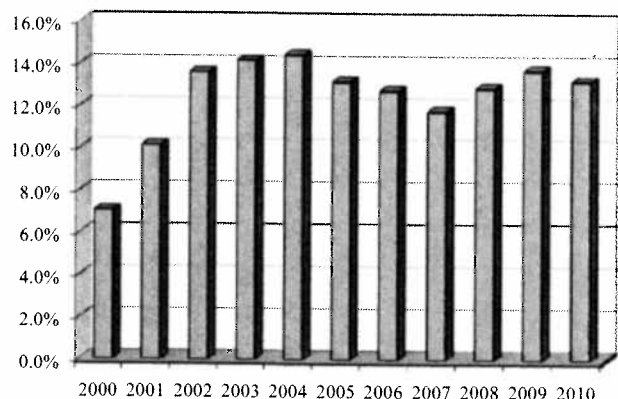
## Office Activity

The Denver metropolitan area's office market stabilized during 2010 after a sharp downturn in 2009. The combination of a weak labor market, tenants downsizing, and tight credit markets restrained building activity and contributed to rising vacancy and falling lease rates in recent years. The general reluctance among property owners to invest and expand resulted in modest demand for office property.

Data from CoStar Realty Information, Inc. suggest the Denver metropolitan area office market improved in 2010. The region's direct vacancy rate ended the year at 13.2 percent, up 1.4 percent from the 11.8 percent recorded at the end of 2007 before the recession intensified. More stable vacancy rates helped slow the decline in lease rates throughout 2010. Direct office market lease rates ended the year at \$19.89 per square foot, a decline of 1.5 percent over-the-year and 6.3 percent lower than the rate reported at the end of 2007.

Even though office market fundamentals seemed to stabilize in 2010, uncertain tenant demand and decreasing rental rates limited development activity throughout the year. Builders completed 1.1 million square feet of space in 13 buildings in 2010 compared with more than 1.5 million square feet of space in 22 buildings completed in 2009.

OFFICE DIRECT VACANCY RATE



Source: CoStar Realty Information, Inc.

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While a handful of large office projects were delivered in 2010 – 1800 Larimer in downtown Denver, Central Park Tower in Broomfield, and the FBI Denver Division Headquarters – development activity remained sluggish throughout the year. Notably, 1800 Larimer, a new LEED Platinum-certified office building, received particular accolades as one of the largest office projects in the nation to be started and finished during the economic downturn. The building is also the only office high-rise constructed in Denver's central business district within the past 25 years.

Nearly 445,300 square feet of office space in eight buildings was in the pipeline as the year ended, and two of the largest projects include Fitzsimons Village 100 in Aurora and the Red Rocks Medical Center in Golden.

### **Industrial and Flex Activity**

Similar to construction in the office market, building activity in the Denver metropolitan area's industrial market slowed dramatically in 2009 and remained idle in 2010. Despite sluggish conditions in 2010, the Denver metropolitan area's industrial market outperformed other property types across the area and industrial markets nationwide due to a favorable balance of supply and demand and a comparatively smaller debt burden. Additionally, bulk warehouse leasing activity and third-party logistics companies reinforced the market throughout 2010. According to CoStar Realty Information, Inc., the direct vacancy rate in the fourth quarter of 2010 was 5.7 percent, a decrease of one percentage point over-the-year and the lowest rate reported since the end of 2001. Even though the area's industrial market stabilized quicker than other property types, industrial lease rates declined throughout 2010. Direct average lease rates stood at \$4.67 at the end of 2010, down 3.1 percent over-the-year.

Industrial market construction in the Denver metropolitan area remained relatively anemic in 2010, with just over 70,000 square feet completed in three buildings, down from 1.7 million square feet of space in 29 buildings at the start of the recession.

The largest project completed in 2010 was the nearly 38,000-square-foot Restaurant Depot – located on the former Country Dinner Playhouse site – in the City and County of Denver. The remainder of industrial activity was located in Boulder and Adams Counties. The pipeline of industrial projects nearly emptied at the end of 2010 with one industrial building – the Cummins Rocky Mountain Master Rebuild Center in Adams County – under construction.

Like other commercial markets in the Denver metropolitan area, the flex market appeared to have stabilized toward the end of 2010. However, weak fundamentals, scarce financing, and tenant consolidations dampened tenant demand in the area's flex market. This overall lack of tenant demand contributed to rising vacancy rates since the start of the recession. According to CoStar Realty Information, Inc., the Denver metropolitan area's direct flex vacancy rate ended the year at 14.1 percent, slightly below the 14.2 percent vacancy rate from one year ago, but nearly three percentage points above the lowest rate reported before the recession. The slight decline in vacancy rates in 2010 was not enough to support higher lease rates. As a result, the fourth quarter 2010 lease rate was \$9.38 per square feet, down 1.7 percent over-the-year. Flex market construction activity through 2010 remained stalled as builders completed just over 45,000 square feet of flex space in two buildings. No flex space was under construction at year-end 2010.

Some projects are moving forward as planned, despite a sluggish economy that has curtailed new development. Denmark-based Vestas will construct a second blade factory in Brighton by the end of 2011. In addition to the company's Windsor blade factory and nacelle factory in Brighton, the world's largest tower factory in Pueblo opened in 2010 and the company located a research and development center to Louisville. ConocoPhillips' is moving forward with plans to redevelop the former 432-acre StorageTek campus in Louisville for a Global Technology and Corporate Learning Center to research hydrogen fuel cells, solar, wind power, and

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clean diesel fuel. Construction on the project's first phase is scheduled to begin in 2011 with completion of all three phases of development planned by 2032.

## Retail Activity

Retail construction in the Denver metropolitan area continued in 2010, however overall construction volume was down in comparison to prior years. The recession spurred low levels of consumer confidence caused by pressure on both consumers' income and wealth. In particular, a new frugality among consumers reshaped consumption patterns and shifted expenditures towards discount stores and away from luxury retailers. Additionally, low lease rates and weak levels of home building were partly behind the diminished need for new retail facilities. Still, the Denver metropolitan area's retail market remains competitive. The Denver metropolitan area's retail market ranked 19th among 44 U.S. markets in Marcus and Millichap's 2010 National Retail Index. The index is based on criteria including job growth, vacancy rates, rent growth, retail sales, and other factors. The region's retail market moved up three places from 22nd-place in 2009.

The slowdown in retail construction activity in the Denver metropolitan area contributed to declining vacancy and average lease rates in 2010. According to CoStar Realty Information, Inc., the Denver metropolitan area's direct retail market vacancy rate ended the year at 7.5 percent, down about one-half of a percentage point from the eight percent vacancy reported in the fourth quarter of 2009. The region's direct average lease rate for the retail market declined 8.7 percent over-the-year to \$14.87 per square foot in the fourth quarter of 2010 and was almost 14 percent lower than the highest rate reported (\$17.28 per square foot) before the downturn in late-2008.

Despite difficult retail market conditions and challenging financing, some retail development activity continued in 2010. About 413,200 square feet of retail space in 22 buildings was completed by the end of 2010 including the Walmart Supercenter in Broomfield – the largest retail project completed

in 2010 – followed by a 24 Hour Fitness in Douglas County. Specifically, the Walmart and 24 Hour Fitness accounted for over half of all Denver metropolitan area retail property completed in 2010. Other notable projects completed throughout the year included the Sprouts Farmer's Market and Redstone Bank in Arapahoe County. By the fourth quarter of 2010, retail property under construction totaled nearly 569,100 square feet in six buildings. As 2010 ended, the 415,000-square-foot IKEA building in Centennial was the largest retail project still under construction and is scheduled to open in mid-2011.

These facilities contribute to a larger community of retail establishments across the Denver metropolitan area. The region offers 15 retail and lifestyle centers of 700,000 square feet or more and numerous smaller shopping districts. These retail centers are geographically dispersed throughout the region, ranging from the open-air shopping options including the Streets at Southglenn and Twenty Ninth Street in Boulder to a combination of open-air and indoor facilities such as Park Meadows Retail Resort in Douglas County and FlatIron Crossing in Broomfield. These suburban malls complement the 1.1 million-square-foot Cherry Creek Shopping Center located in the City and County of Denver. Several of the region's retail centers – including Belmar in Lakewood and Downtown Denver's 16th Street Mall – have undergone or will soon begin expansions and renovations.

## Medical Facilities

While development among other property types was relatively limited in 2010, hospital and medical properties bucked the trend due to ongoing demand for medical services and specialized patient treatments. Plans for the former Fitzsimons Army Medical Center area are moving forward. Located adjacent to the Anschutz Medical Campus, the \$300 million Department of Veterans Affairs (VA) Hospital is under construction and scheduled to open in early 2014. The Children's Hospital broke ground on a 350,000-square-foot, \$228 million patient tower that will add over 120 beds and clinical space for



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intensive care, rehabilitation, and cancer treatment. The tower is scheduled to open in 2013.

The University of Colorado Hospital recently broke ground on a \$400 million expansion that will add a new emergency department and critical care wing, additional beds and operating rooms, diagnostic treatment centers, and additional parking facilities. Similarly, builders recently began work on the University of Colorado Hospital's Anschutz Cancer Pavilion's \$20 million expansion project. More than 11,000 square feet of the existing center will undergo renovations, and builders will add an additional 40,000 square feet to accommodate radiation treatment and chemotherapy. The University of Colorado broke ground on its 94,000-square-foot Health and Wellness Center at the Anschutz Medical Campus that will house research facilities focused on holistic health and facilities dedicated to fitness, nutrition, and community wellness. Builders expect to complete the project in early 2012.

The St. Anthony Medical Campus will soon open its new location at the Federal Center in Jefferson County. The 50-acre campus includes the 560,000-square-foot St. Anthony Hospital, Orthocare Hospital (an orthopedic specialty hospital opened in June 2010), two medical buildings, and a parking garage. Work continues at the Exempla Saint Joseph Hospital redevelopment which includes construction of a new, 325-bed hospital, office space, parking structures, and senior residences. The new hospital is expected to be completed in 2014. Parker Adventist Hospital recently opened a new three-story wing which features nearly 60 additional beds and a conference center as part of the \$76 million two-phase expansion and renovation. In nearby Castle Rock, Centura Health recently broke ground on its new campus that features an emergency facility with radiology, lab, helicopter transport capabilities, and a medical office building that could be complete in the fall of 2011.

Further north, The Children's Hospital recently broke ground on its Broomfield Therapy Center that will offer physical and occupational therapy and

audiology, speech, and learning therapies. The center is scheduled to open in 2012. Nearby, St. Anthony North recently broke ground on its \$26 million Medical Pavilion in Westminster that will house an emergency department, imaging center and laboratory services, and helicopter transport facilities. The 48,000-square-foot facility should be completed by spring 2012.

### **Redevelopment Activity**

Evolving plans for the former Fitzsimons Army Medical Center will continue to transform the site into one of the nation's largest scientific and medical-related assets in the Rocky Mountain region. The 578-acre site in Aurora remains one of the most concentrated redevelopment projects in the Denver metropolitan area and is the home of the Anschutz Medical Campus and the Fitzsimons Life Science District. Included at the site is the 184-acre Colorado Science + Technology Park at Fitzsimons, which offers 15 pre-built labs and access to over 80 core laboratories, 21 executive office suites, and many shared services and amenities.

Another key partner at Fitzsimons is the \$1.5 billion Anschutz Medical Campus, which includes the University of Colorado Hospital and facilities for University Physicians, Inc. The campus is also home to the future Denver Veterans Affairs Medical Center and is adjacent to The Children's Hospital. Upon completion, the entire district and medical campus will account for approximately 18 million square feet of health- and science-related facilities. Now that the former University of Colorado Denver campus at Colorado Boulevard and East Ninth Avenue is essentially vacant, plans are underway for a mixed-use development. Recently, Sembler Atlanta entered into an agreement to redevelop the campus that could begin in early 2012.

Denver International Airport's planned South Terminal Redevelopment Program includes the development of a 500-room, on-site airport hotel to be located above the FasTracks light rail station. Completion of the hotel is anticipated for 2014 and will feature nearly 26,000 square feet of conference

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and meeting space, a health club, restaurants, a swimming pool, and parking garage.

A number of other redevelopment projects across the Denver metropolitan area are following a mixed-use model. In downtown Denver, one of LoDo's last historic warehouse buildings – the Colorado Saddlery building at 15th and Wynkoop Streets – will receive a mixed-use overhaul that will include retail and restaurant space, mid-level office space, and penthouse-style residential space. Plans were also announced to revamp the Olinger Mortuary Complex in the Lower Highland neighborhood. Once completed, the development will include a restaurant, an outdoor plaza, and perhaps a jazz club. Further north, Westminster is in the early stages of the 108-acre redevelopment of the Westminster Mall. The development – Westminster Center – will include office, residential, and entertainment space plus connections to transit. Groundbreaking is anticipated for 2012.

Further south, the Lumberyards will be converted to a mixed-use project to be located along South Broadway that could include restaurants and residential space. The project could break ground in 2011 when the reconstruction of South Broadway that is currently in progress is completed. The Kent Place project is undergoing development in Englewood, and could break ground in 2011. The 11.4-acre, mixed-use project at University Boulevard and Hampden Avenue will feature 300 residential units and commercial space.

## **Transit-Oriented Development**

Other mixed-use projects in the region are considered transit-oriented developments. The majority of these projects are centered on FasTracks, the \$6.7 billion transit expansion project approved by voters in 2004. According to the Denver Regional Council of Governments, over 60 projects located within one-half mile of a transit station are in planning phases, are already under construction, or were completed in 2010. The largest projects are related to the Fitzsimons Life Science District and Union Station redevelopment.

Other notable transit-oriented projects were announced in 2010. Builders started work on a 300-unit luxury residential apartment project at Orchard Town Center in Westminster. The Denver Housing Authority is working to establish a public-private funding arrangement for a transit-oriented development in Denver called the South Lincoln Homes. The development will add more than 450 affordable and market-rate apartment units at West 10th Avenue and Osage Street. The Clear Creek Transit Village – a 21-acre development that could locate along the FasTracks Gold Line in Adams County – would include residential, retail, and office space. Plans to move the light rail station for the area to the west side of Federal Boulevard from the east side are underway. Further south, development activity is taking place near the Aspen Grove Shopping Center and the Mineral Avenue light rail stop in Littleton. The project – Alta Aspen Grove – will include 280-units and should be completed in the spring of 2011. Construction is moving forward on the Apartments at Yale Station. The 50-unit development is located adjacent to the Yale Station light rail stop and was designed as affordable senior housing. The development will include retail space and is slated for completion in fall 2011.

## **TRANSPORTATION**

The Denver metropolitan area is one of the country's major transportation hubs, with extensive access to national and international routes by rail, road, and air. The region's transportation network combines with its central location and dynamic economy to compete favorably in the global marketplace.

### **Highways**

Colorado's expansive 9,140-mile road network and nearly 3,430 bridges accommodate approximately 28 billion vehicle travel miles each year. The Interstate highway system covers about 913 miles, or about 10 percent of total mileage across the state, and accommodates about 40 percent of all highway travel in Colorado. This integrated network provides residents and non-residents alike with a high level of



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mobility for routine destinations, daily trips to work, and vacation travel.

The Denver metropolitan area is at the crossroads of three major Interstate highways. Motorists can access I-25 for north-south travel and both I-70 and I-76 for east-west routes. More than three-quarters of the Denver metropolitan area beltway – E-470, C-470, and the Northwest Parkway – has been completed to date. In 2008, Jefferson County, the City and County of Broomfield, and the City of Arvada formed the Jefferson Parkway Public Highway Authority to complete the remaining portion of the beltway.

Improvement and maintenance of a high quality, local transportation system contributes to the state's long-term economic well-being. In 2009, Colorado legislators approved a broad-based transportation improvement package called FASTER that is expected to generate \$252 million annually for repairs and maintenance on Colorado roads and bridges, including improvements to more than 100 structurally deficit and functionally obsolete bridges. Specifically, the program encourages state, local, and private collaboration for financing strategies, partnerships, concession agreements, and contracting for road projects. At year-end 2010, more than \$90 million in FASTER funding contributed to improved highways and bridges across Colorado.

In 2010, 32 active highway construction projects were underway by the Colorado Department of Transportation – totaling over \$390 million – in the Denver metropolitan area. About 10 of projects were funded under the American Recovery and Reinvestment Act (ARRA). In total, Colorado will receive over \$500 million in ARRA funding for numerous resurfacing projects, bridge rehabilitation, and safety improvement projects. The Denver Regional Council of Governments (DRCOG) received roughly \$56 million of the Colorado Department of Transportation's ARRA funds. The DRCOG allocation resurfaced, replaced, and upgraded streets, highways, and pedestrian facilities throughout the Denver metropolitan area.

Notably, three large-scale improvements finished in 2010. These included a \$32 million ARRA project that repaired and replaced concrete slabs and resurfaced the nine-mile stretch of C-470 between I-25 and Santa Fe Drive, an \$11 million ARRA project which replaced four structurally deficient bridges on I-76 over State Highway 224 and the Union Pacific Railroad, and a \$2.4 million project that added a through lane in both directions of Arapahoe Road at I-25 to improve mobility.

### Mass Transit

The Regional Transportation District (RTD) serves the mass transit needs of the Denver metropolitan area. RTD operates 1,029 buses on 148 fixed routes and 153 light rail vehicles on 35 miles of track. The District operates 75 Park-n-Rides for commuters using any of its 37 light rail stations and more than 10,140 bus stops. RTD also operates 36 hybrid-electric buses along the 16th Street Mall in downtown Denver and transports visitors from one end of the mile-long pedestrian mall to the other free of charge. System-wide ridership for 2010 resulted in about 98 million boardings.

The Denver metropolitan area's mass transit system is progressing towards an interconnected, coordinated system of transportation. In 2004, Colorado voters approved FasTracks, a \$6.7 billion plan for the planning, design, and construction of high-quality transit service and facilities in the Denver metropolitan area. Light rail in the Denver metropolitan area currently consists of the Central, Central Platte Valley, Southwest, and the Southeast Corridors. When completed, FasTracks will add 122 miles of new light rail and commuter rail, 18 miles of bus rapid transit service, more than 21,000 new parking spaces at transit facilities, and additional suburban bus service. FasTracks will also provide convenient bus and rail connections and will add 57 new transit stations throughout the Denver metropolitan area. Ultimately, FasTracks will consist of nine rail corridors, one bus rapid transit corridor, redevelopment of Denver Union Station, an expanded light rail maintenance facility, and a new Commuter Rail Maintenance Facility.

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Despite the economic recession, FasTracks propelled ahead with planned construction and redevelopment activity in the Denver metropolitan area. The West Corridor – a 12.1-mile line between Denver Union Station (DUS) and the Jefferson County Government Center in Golden – is approximately 50 percent complete. Upon completion, three light rail and pedestrian bridges, one pedestrian tunnel, drainage improvements, and utilities relocation will further increase passenger mobility to downtown Denver by 2013. Construction began on the Eagle P3 Project – the first public-private partnership for commuter rail in the nation to include financing, design-build, and long-term operations – in August 2010 that includes the East Corridor commuter rail line from DUS to Denver International Airport, the Gold Line from Union Station to Wheat Ridge, a commuter rail maintenance facility, and a segment of the Northwest Rail Corridor that will eventually connect Longmont with downtown Denver. The project should be complete in 2016. Notably, FasTracks Eagle P3 project was named the 2010 Southwest Large Issuer Deal of the Year by *The Bond Buyer* newspaper and was also named the 2010 North American Transport Deal of the Year by *Project Finance* magazine. The project was recognized for its innovative bond deal that issued nearly \$398 million of tax-exempt private-activity bonds.

The DUS Project continues to make considerable progress. The completed project will transform the historic site into a 19.5-acre multi-modal transportation hub integrating light rail, commuter rail, regional rail, and bus service with office, retail, and residential space. The project's light rail station is expected to open in 2011, and work will continue on the underground bus facility. Construction of the entire DUS development is scheduled to be completed in 2015.

Other FasTracks corridors are in their final approval stages and poised to move ahead. The I-225 Corridor – a 10.5-mile light rail route that will connect the existing Nine Mile Station in Aurora with the planned East Corridor's Peoria/Smith Station –

received design approval in late 2010. The Corridor will be built in two phases and will include eight stations along the proposed route. Additionally, all other FasTracks corridors – the North Metro, Northwest Rail, Southeast expansion, and Southwest expansion – have completed the environmental planning phase and are construction-ready.

### Air

Denver International Airport accommodates over 50 million passengers each year with six runways, three concourses, 95 gates, and 62 regional aircraft positions. Located approximately 24 miles northeast of downtown Denver, Denver International Airport occupies 53-square-miles which allows for longer runways and future expansion. Denver International Airport's sixth runway – the longest commercial runway in North America – opened in 2003 and accommodates increased international flights.

Denver International Airport is one of the world's greenest airports and was the first airport in the U.S. to receive ISO 14001 Environmental Management System certification in 2004. Denver International Airport's environmental management program includes protocol for storm and wastewater management, environmental planning, and compliance. Close to 10,000 solar panels generate up to 50 percent of the power needed to operate the airport each year and reduce the airport's carbon emissions by more than five million pounds per year. Green Park Denver opened in November 2010 – the airport's first sustainably designed parking garage – which offers 4,200 parking spaces, climate-controlled indoor parking spaces, and charging stations for electric cars, all powered by an on-site wind and solar farm. Additionally, the airport received more than \$5.6 million in grant awards from the Federal Aviation Administration for runway rehabilitation, a study of best practices in sustainability, and other projects.

Denver International Airport averaged more than 1,700 flight operations and roughly 143,000 passengers every 24 hours in 2010, making it the fifth-busiest airport in the nation and 10th busiest in

## AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

the world. Total passenger traffic at Denver International Airport reached an all-time high of 52.2 million in 2010, up 4.1 percent from 2009. The previous passenger record was set in 2008, which was the first year more than 50 million passengers traveled through the airport.

Faced with the need for greater airport capacity, Denver International Airport is preparing for expansion over the next five to 15 years that will likely include new gates on existing concourses, upgrades to the baggage system, expanded security and parking areas, and a FasTracks commuter rail station. In addition, a series of independent, integrated development projects will occur at the airport in the area directly south of Jeppesen Terminal. The initial phase of the South Terminal Redevelopment Program is expected to include a new on-site airport hotel, an open-air plaza above the station providing connections to the main terminal, and a FasTracks bridge over Peña Boulevard. The development also includes a 23-mile commuter rail line that connects the airport with Denver Union Station which broke ground in August 2010. In an effort to maintain the airport's efficient design, a series of technology systems improvements, environmental and energy management studies, and upgrades to light and equipment storage facilities will also occur over the next few years.

Denver International Airport serves as a major hub for United, Southwest, and Frontier Airlines. Since commencing service in January 2006, Southwest Airlines occupies the second-largest market share behind United Airlines at the airport. Denver remains the fastest-growing city in Southwest's network and Southwest is expected to occupy 17 airport gates with 148 daily departures to 46 destinations by June 2014. In total, 15 commercial carriers offer scheduled nonstop service from Denver to more than 160 domestic and international destinations.

Eight cargo airlines and more than 15 major and national airlines also provide an extensive freight network between Denver and other cities. Since

2000, cargo and freight operations have decreased an average of eight percent per year at Denver International Airport. In 2009, the overall drop in manufacturing contributed to a 15 percent decrease in cargo loads. Denver International Airport handled 555 million pounds of cargo in 2010, which represents a 12.2 percent increase from cargo loads in 2009. This correction in declining cargo operations over the last decade is a result of rebounding global trade and improving economic conditions. Of the 2010 shipments, about 93 percent were freight and express while seven percent were classified as mail.

Three reliever airports also serve business, recreational, and municipal users throughout the Denver metropolitan area. Centennial Airport serves the southeast metro area; Front Range Airport is located six miles southeast of Denver International Airport 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

Passenger and freight rail is a critical component of the nation's transportation system and is vital to the Denver metropolitan area's economic health and global competitiveness. Colorado is home to 14 freight railroads operating on over 2,660 miles of track, moving primarily coal, agricultural products, and consumer goods. Additionally, the Denver metropolitan serves as a major hub for Burlington Northern Santa Fe and Union Pacific.

The rail industry has a significant impact on Colorado's economy. The most recent U.S. Bureau of Transportation Statistics Commodity Flow Survey reports Colorado companies ship over \$125 billion and nearly 154 million tons of commodities throughout the U.S. Additionally, the rail industry contributed \$769 million in gross state product to

## AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

Colorado's economy in 2008. The rail industry also positively contributes to the state's job base. The Association of American Railroads estimates that over 2,990 freight rail employees work in Colorado with an average wage and benefits per freight employee of \$103,100.

Passenger service provides viable transportation alternatives, convenient travel options, and economic vitality to surrounding communities. Amtrak's California Zephyr route offers Denver metropolitan area residents transportation through the Rocky Mountains west of Denver and connects Chicago to San Francisco. In 2010, rail passenger travel regained strength due to the moderately improved economic environment allowing increased business travel, sustained high gasoline prices, and increased appeal of rail travel. Across Colorado, Amtrak carried over 219,650 passengers in 2010, up nearly 10 percent from a year ago. The majority of passengers traveled through Denver, increasing 6.8 percent in 2010 to 128,410 riders from 120,240 riders from a year earlier.

### TOURISM

Denver is home to numerous recreational opportunities, cultural attractions, sports teams, entertainment venues, and convention activities, offering a popular destination for business and leisure travelers alike. According to the most recent study by Longwoods International, Denver tourism activity rebounded in 2010 as the number of overnight visitors and visitor spending surpassed pre-recession levels. Visitor spending in the Denver metropolitan area rose 6.5 percent from 2009 to \$3.3 billion, while the total number of overnight visitors to Denver increased five percent to a record 12.7 million. Top attractions for visitors in 2010 included the 16th Street Mall and the Cherry Creek Shopping District as well as the LoDo Historic District, the Colorado Rockies, and numerous other cultural facilities.

The Denver metropolitan area offers a full range of cultural activities including numerous museums,

wildlife attractions, theatres, and concert venues. Citizens support arts and culture through a 0.1 percent retail sales tax distributed through the Scientific and Cultural Facilities District. The special regional tax district provides a consistent source of funding to over 300 scientific and cultural organizations across the Denver metropolitan area. According to the Colorado Business Committee for the Arts biennial report, cultural institutions generated \$1.46 billion in economic activity in the Denver metropolitan area in 2009 and visits to cultural organizations totaled 11.2 million. Notably, total giving to the arts in the Denver metropolitan area rose between 2007 and 2009 despite the difficult economy.

The Denver Performing Arts Complex – the largest arts complex in the world – is home to the Colorado Symphony Orchestra, the Colorado Ballet, Opera Colorado, and the Denver Center for the Performing Arts and features ten performance spaces connected by an 80-foot-tall glass roof. The 356,000-square-foot Denver Art Museum complex includes collection gallery space, the Lewis I. Sharp Auditorium, and three temporary exhibition venues. In 2010, "Tutankhamun: The Golden King and the Great Pharaohs" exhibit attracted a record-number 270,000 visitors to the Denver Art Museum from July through September 2010. The exhibit tripled museum attendance compared with 96,000 visitors during the same period in 2009.

The 500,000-square-foot Denver Museum of Nature and Science is a resource of science education and houses more than one million objects in its collections such as anthropological materials, natural history, and archival and library resources. Notably, the museum served 1.42 million visitors in 2010, a 13 percent increase from 2009. Nearby, the Denver Zoo spans 80-acres within Denver's historic City Park and attracts over 1.6 million visitors annually. In late 2009, builders at the Denver Zoo broke ground on the \$50 million Asian Tropics exhibit. Scheduled to open in the spring of 2012, the 10-acre exhibit will also serve as a conservation center for endangered Asian animals. The \$15.8 million,

# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

LEED Gold-certified Museum of Contemporary Art/Denver is located in downtown Denver and houses five galleries, three educational spaces, a research art library, and a lecture hall. The Denver metropolitan area is also home to the Clyfford Still Museum, the Children's Museum, and the Downtown Aquarium.

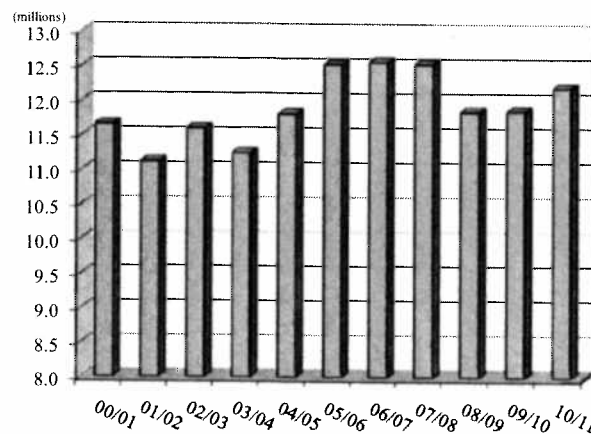
In addition to excellent cultural attractions and amenities, the Denver metropolitan area also hosts a variety of professional sports teams with some of the newest sports venues in the nation. Denver is one of only five U.S. cities with seven professional sports franchises – the NFL Denver Broncos, the NBA Denver Nuggets, the MLB Colorado Rockies, the NHL Colorado Avalanche, the MLS Colorado Rapids, the NLL Colorado Mammoth, and the MLL Denver Outlaws.

These sports teams are an integral part of the Denver metropolitan area's economy and their presence has led to major investments in new sports venues constructed within the past 15 years. Coors Field – a 76-acre, \$215 million ballpark – hosted two sold-out games of the 2007 World Series. Nearby, the \$364 million, 76,125-seat INVESCO Field at Mile High football stadium hosts Denver Broncos football and Denver Outlaws games as well as large public events. Located nine miles northeast of downtown Denver, Dick's Sporting Goods Park opened in spring 2007 and hosts the Colorado Rapids soccer team. This \$131 million, 18,000-seat stadium and surrounding fully-lit, 24-field complex is considered the largest and most state-of-the-art professional stadium and field complex in the world. Finally, the \$180 million Pepsi Center hosts three professional sports teams and numerous sporting, cultural, and special events throughout the year.

Professional athletics in the Denver metropolitan area are well complemented by the multitude of year-round outdoor recreation opportunities. The Denver metropolitan area is the gateway to the Rocky Mountains and offers hiking, biking, rafting, and climbing during the warmer months. The Denver metropolitan area is near 41 state parks, four national parks, and many of the state's official

14,000-foot peaks. Colorado offers some of the nation's most popular ski destinations. Of the 26 operating ski resorts in Colorado, 12 of them can be reached within about a two-hour drive of the Denver metropolitan area. Preliminary results from Colorado Ski Country USA indicate that skier visits at Colorado resorts during the 2010/2011 season likely topped 12 million for the first time since the 2007/2008 season as near-record snowfall attracted ski enthusiasts. Colorado skier visits – or the count of persons skiing or snowboarding for any part of one day – increased about 3.3 percent from the 2009/2010 season to approximately 12.2 million in the 2010/2011 season.

**COLORADO SKIER VISITS**



Source: Colorado Ski Country USA.

The Denver metropolitan area's tourism engine fueled a rebound in convention activity in 2010. Officials with the Colorado Convention Center estimate that the entire 2010 convention season brought 75 out-of-town meetings and events to the Colorado Convention Center and an additional 423 meetings to Denver that attracted 371,000 visitors and generated \$653 million in local spending. According to data from the Denver Metro Convention and Visitors Bureau, 2010 was Denver's second-best convention year and was just 7,000 visitors less than the record number reported in 2008. Nine conventions booked during the fourth quarter of 2010 boosted Denver's near-record year

## AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

and was driven by the largest event in the city's history – Snow Sports Industries America Snow Show – with 19,000 visitors. Other notable events in 2010 included the National League of Cities “Congress of Cities & Exposition,” the National Association for Rural Mental Health Annual Conference, and the American Public Health Association Annual Meeting.

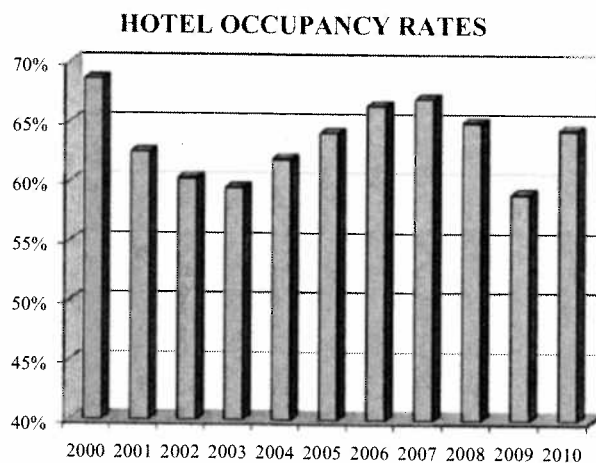
The Colorado Convention Center is one of the largest public meeting facilities in the west with 584,000 square feet of exhibit space and 100,000 square feet of meeting space. As Denver's premier convention facility, the Colorado Convention Center pioneered greening efforts through its sustainability programs and renewable energy project. The City and County of Denver partnered with the Colorado Convention Center in 2008 in a city-wide anti-idling campaign to improve air quality and reduce greenhouse gas emissions. In addition, the Colorado Convention Center and Ecologic Designs partnered to recycle non-reusable vinyl banners. In 2009, the Colorado Convention Center unveiled the region's newest 300-kilowatt solar power system which reduces carbon emissions by 435 tons per year. The combination of these efforts makes the Colorado Convention Center an ideal location for “green” meetings.

The Denver metropolitan area remains competitive to attract high-profile conventions and events. According to the *Toronto Globe and Mail*, Denver was recently named the world's best location for a convention. Notably, the 2008 Democratic National Convention gave the Denver metropolitan area exposure that will support convention activity for years to come. In 2011, high-profile convention events planned in Denver include the Association of American Medical Colleges Annual Meeting, IT Roadmap Conference and Expo, American College of Sports Medicine Annual Meeting, and the American Council on the Teaching of Foreign Languages Annual Convention and World Languages Expo.

The improving hospitality sector and rebound of convention and visitor activity continues to fuel

hotel development in the Denver metropolitan area. The Four Seasons Hotel and Private Residences recently opened its downtown Denver location at 14th and Arapahoe that includes 230 hotel rooms and 100 condominiums. Along the 14th Street corridor, the Embassy Suites Denver-Downtown/Convention Center – a 17-floor suite hotel – opened in December 2010 and became the sixth-largest hotel in downtown Denver. The new Embassy Suites replaces another downtown Embassy Suites that closed in 2006 and reopened as the Ritz-Carlton. Builders broke ground on Metropolitan State College of Denver's Hotel Learning Center, which will include a 150-room hotel that will operate under the school's hospitality and tourism training program. The hotel will be branded as a SpringHill Suites by Marriott and should be complete by fall of 2012.

Consumers that had postponed travel plans during the recession are now taking trips, but they are searching for deals and discounts. According to the Rocky Mountain Lodging Report, the average annual Denver metropolitan area hotel occupancy rate increased to 64.4 percent in 2010 from 59 percent in 2009. Across the region, 2010 occupancy rates ranged from 52.1 percent in the North Denver market to 70.3 percent in the Downtown market.



*Source: Rocky Mountain Lodging Report.*

Responding to the post-recession consumer trends, hotels and restaurants refrained from significantly



# AN ECONOMIC & DEMOGRAPHIC OVERVIEW OF THE DENVER METROPOLITAN AREA

raising rates and prices in 2010. The Denver metropolitan area average room rate increased slightly to \$107.77 in 2010 from \$106.85 in 2009. The meager gain in room rates reflected the weak trends in consumer spending early in the year, but rates through the second half of the year picked up as consumer spending increased.

## SUMMARY

Although the impacts of the recession continued to linger in 2010, the Denver metropolitan area is poised for a gradual economic recovery. While the recent recession impacted nearly all industries, employers began to add jobs later in 2010. Four of the 11 industry “supersectors” in the Denver metropolitan area added jobs in 2010, led by education and health services. Still, average annual employment remained 0.7 percent below the 2009 level. The region’s housing market has been more stable compared with other markets across the nation and home prices are slowly starting to rise.

With unemployment reaching some of the highest levels in decades, consumer spending fell to the lowest levels the region has ever experienced during 2009. Fortunately, consumer confidence is on the mend and retail sales increased 6.8 percent in 2010.

Job losses also had an adverse impact on the commercial real estate market, however many of the region’s property types outperformed other markets across the nation. The region’s diversified industry base and healthy balance of market supply and demand led to generally declining vacancy rates. Still, new development activity will remain constrained until existing inventory declines further and lease rates begin to rise.

The Denver metropolitan area continues to attract businesses and headquarters to the region because of its high quality of life, comparatively low costs of doing business, and well-educated workforce. In particular, education and health services and government employment increased in 2010. The combination of self-employment, small business, and large firms form a solid economic base to foster the region’s economic recovery. Additionally, the region’s transportation network combined with its central location and dynamic economy compete favorably in the global marketplace.

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# DATA APPENDIX

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>POPULATION (July 1)<sup>1</sup></b>											
United States (thousands)	281,422	285,050	287,746	290,242	292,936	295,618	298,432	301,394	304,177	306,656	308,746
Colorado	4,301,261	4,444,513	4,504,709	4,555,084	4,608,811	4,662,534	4,745,660	4,821,784	4,901,938	4,976,853	5,029,196
Denver Metropolitan Area	2,400,580	2,476,410	2,504,883	2,528,665	2,558,106	2,582,177	2,626,197	2,670,038	2,716,819	2,762,164	2,784,228
City and County of Denver	554,636	563,300	559,090	560,348	560,230	559,459	562,862	570,437	581,903	595,573	600,158
<b>POPULATION GROWTH RATE</b>											
United States	1.1%	1.3%	0.9%	0.9%	0.9%	1.0%	1.0%	1.0%	0.9%	0.8%	0.9%
Colorado	2.4%	3.3%	1.4%	1.1%	1.2%	1.6%	1.8%	1.6%	1.7%	1.5%	1.5%
Denver Metropolitan Area	2.6%	3.2%	1.1%	0.9%	1.2%	1.5%	1.7%	1.7%	1.8%	1.7%	1.5%
City and County of Denver	1.8%	1.6%	-0.7%	0.2%	0.0%	0.2%	0.6%	1.3%	2.0%	2.3%	1.4%
<b>NET MIGRATION</b>											
Colorado	86,069	78,677	30,831	20,138	24,460	24,301	53,545	46,382	52,335	48,208	45,736
Denver Metropolitan Area	48,806	38,904	10,349	4,687	11,144	5,805	26,002	26,390	30,377	29,811	15,514
City and County of Denver	6,066	3,476	(7,747)	(2,569)	(3,737)	(4,576)	(107)	4,233	8,296	10,620	3,467
<b>NONAGRICULTURAL EMPLOYMENT</b>											
United States (millions)	131.8	131.8	130.3	130.0	131.4	133.7	136.1	137.6	136.8	130.8	129.8
Colorado (thousands)	2,213.8	2,226.9	2,184.2	2,152.8	2,179.6	2,226.0	2,279.1	2,331.3	2,350.3	2,245.6	2,220.1
Denver Metropolitan Area (thousands)	1,374.9	1,375.2	1,332.8	1,314.0	1,324.7	1,350.1	1,377.5	1,407.4	1,420.9	1,359.4	1,350.1
City and County of Denver <sup>2</sup>	469,144	461,996	438,891	425,474	423,446	424,641	432,416	442,750	449,257	423,329	417,950
<b>NONAGRICULTURAL EMPLOYMENT GROWTH RATE</b>											
United States	2.2%	0.0%	-1.1%	-0.3%	1.1%	1.7%	1.8%	1.1%	-0.6%	-4.4%	-0.8%
Colorado	3.8%	0.6%	-1.9%	-1.4%	1.2%	2.1%	2.4%	2.3%	0.8%	-4.5%	-1.1%
Denver Metropolitan Area	4.3%	0.0%	-3.1%	-1.4%	0.8%	1.9%	2.0%	2.2%	1.0%	-4.3%	-0.7%
City and County of Denver	3.0%	-1.5%	-5.0%	-3.1%	-0.5%	0.3%	1.8%	2.4%	1.5%	-5.8%	-1.3%



# DATA APPENDIX

## 2010 EMPLOYMENT DISTRIBUTION BY INDUSTRY

	United States		Colorado		Denver Metropolitan Area		City & County of Denver (Q3 2010)	
	2000	2001	2002	2003	2004	2005	2006	2007
Natural Resources & Construction	4.8%	4.7%	6.3%	6.0%	5.5%	5.1%	4.9%	4.6%
Manufacturing	8.9%	3.8%	5.6%	6.1%	5.6%	5.1%	4.5%	3.7%
Wholesale & Retail Trade	15.3%	3.8%	14.7%	6.4%	5.8%	5.2%	11.9%	3.7%
Transportation, Warehousing, Utilities	3.6%	4.4%	3.2%	7.2%	6.6%	5.8%	5.4%	4.1%
Information	2.1%		3.2%				3.2%	
Financial Activities	5.9%		6.5%				7.9%	
Professional & Business Services	12.9%		14.8%		17.1%		18.6%	
Education & Health	15.1%		11.9%		12.0%		12.5%	
Leisure & Hospitality	10.0%		11.9%		10.7%		11.3%	
Other Services	4.1%		4.2%		3.9%		3.4%	
Government	17.3%		17.7%		15.5%		16.4%	

## UNEMPLOYMENT RATE

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
United States	4.0%	4.7%	5.8%	6.0%	5.5%	5.1%	4.6%	4.6%	5.8%	9.3%	9.6%
Colorado	2.7%	3.8%	5.7%	6.1%	5.6%	5.1%	4.3%	3.7%	4.8%	8.3%	8.9%
Denver Metropolitan Area	2.6%	3.8%	5.9%	6.4%	5.8%	5.2%	4.3%	3.7%	4.8%	8.3%	8.8%
City and County of Denver	3.0%	4.4%	6.7%	7.2%	6.6%	5.8%	4.8%	4.1%	5.4%	9.2%	9.7%

## CONSUMER PRICE INDEX (CPI-U, 1982-84=100)

United States	172.2	177.1	179.9	184.0	188.9	195.3	201.6	207.3	215.3	214.5	218.1
Denver-Boulder-Greeley	173.2	181.3	184.8	186.8	187.0	190.9	197.7	202.0	209.9	208.5	212.4

## INFLATION RATE

United States	3.4%	2.8%	1.6%	2.3%	2.7%	3.4%	3.2%	2.8%	3.8%	-0.4%	1.6%
Denver-Boulder-Greeley	4.0%	4.7%	1.9%	1.1%	0.1%	2.1%	3.6%	2.2%	3.9%	-0.6%	1.9%

# DATA APPENDIX

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>TOTAL PERSONAL INCOME (millions, except as noted)</b>											
United States (billions)	\$8,555	\$8,879	\$9,055	\$9,369	\$9,929	\$10,477	\$11,257	\$11,901	\$12,380	\$12,168	\$12,530
Colorado	\$147,056	\$156,468	\$157,752	\$159,918	\$168,587	\$179,695	\$194,390	\$205,242	\$214,977	\$210,513	\$215,259
Denver Metropolitan Area	\$93,832	\$99,605	\$99,903	\$100,934	\$106,176	\$113,046	\$123,018	\$128,512	\$134,426	\$131,293	N/A
City and County of Denver	\$22,008	\$23,469	\$23,834	\$23,933	\$25,031	\$26,593	\$29,534	\$30,036	\$32,085	\$31,512	N/A
<b>TOTAL PERSONAL INCOME GROWTH RATE</b>											
United States	8.2%	3.8%	2.0%	3.5%	6.0%	5.5%	7.4%	5.7%	4.0%	-1.7%	3.0%
Colorado	12.5%	6.4%	0.8%	1.4%	5.4%	6.6%	8.2%	5.6%	4.7%	-2.1%	2.3%
Denver Metropolitan Area	13.8%	6.2%	0.3%	1.0%	5.2%	6.5%	8.8%	4.5%	4.6%	-2.3%	N/A
City and County of Denver	13.3%	6.6%	1.6%	0.4%	4.6%	6.2%	11.1%	1.7%	6.8%	-1.8%	N/A
<b>PER CAPITA PERSONAL INCOME<sup>3</sup></b>											
United States	\$30,318	\$31,145	\$31,461	\$32,271	\$33,881	\$35,424	\$37,698	\$39,461	\$40,674	\$39,635	\$40,584
Colorado	\$33,977	\$35,296	\$35,023	\$35,156	\$36,652	\$38,555	\$40,898	\$42,386	\$43,560	\$41,895	\$42,802
Denver Metropolitan Area	\$38,827	\$40,245	\$39,863	\$39,940	\$41,572	\$43,695	\$46,636	\$47,747	\$48,940	\$46,868	N/A
City and County of Denver	\$39,576	\$41,581	\$42,480	\$42,863	\$44,817	\$47,376	\$51,934	\$51,895	\$54,098	\$51,630	N/A
<b>PER CAPITA PERSONAL INCOME GROWTH RATE</b>											
United States	7.0%	2.7%	1.0%	2.6%	5.0%	4.6%	6.4%	4.7%	3.1%	-2.6%	2.4%
Colorado	9.9%	3.9%	-0.8%	0.4%	4.3%	5.2%	6.1%	3.6%	2.8%	-3.8%	2.2%
Denver Metropolitan Area	11.0%	3.7%	-0.9%	0.2%	4.1%	5.1%	6.7%	2.4%	2.5%	-4.2%	N/A
City and County of Denver	11.9%	5.1%	2.2%	0.9%	4.6%	5.7%	9.6%	-0.1%	4.2%	-4.6%	N/A
<b>RETAIL TRADE SALES</b>											
United States (billions)	\$3,290	\$3,386	\$3,467	\$3,618	\$3,841	\$4,093	\$4,313	\$4,454	\$4,409	\$4,129	\$4,396
Colorado (billions)	\$57,955	\$59,014	\$58,850	\$58,689	\$62,288	\$65,492	\$70,437	\$75,329	\$74,760	\$66,302	\$69,695
Denver Metropolitan Area (billions)	\$35,159	\$35,657	\$35,355	\$35,548	\$37,197	\$38,589	\$41,491	\$44,177	\$43,829	\$38,880	\$41,512
City and County of Denver (billions)	\$8,105	\$7,860	\$7,564	\$7,364	\$7,691	\$7,963	\$9,480	\$10,162	\$10,252	\$8,518	\$9,154

# DATA APPENDIX

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>RETAIL TRADE SALES GROWTH RATE</b>											
United States	6.4%	2.9%	2.4%	4.3%	6.2%	6.5%	5.4%	3.3%	-1.0%	-6.4%	6.5%
Colorado	10.2%	1.8%	-0.3%	-0.3%	6.1%	5.1%	7.6%	6.9%	-0.8%	-11.3%	5.1%
Denver Metropolitan Area	11.3%	1.4%	-0.8%	0.5%	4.6%	3.7%	7.5%	6.5%	-0.8%	-11.3%	6.8%
City and County of Denver <sup>4</sup>	11.0%	-3.0%	-3.8%	-2.6%	4.4%	3.5%	19.1%	7.2%	0.9%	-16.9%	7.5%
<b>MEDIAN HOME PRICE</b>											
United States (thousands)	\$147.3	\$156.6	\$167.6	\$180.2	\$195.2	\$219.0	\$221.9	\$217.9	\$196.6	\$172.1	\$173.2
Denver Metropolitan Area (thousands)	\$196.8	\$218.3	\$228.1	\$238.2	\$239.1	\$247.1	\$249.5	\$245.4	\$219.3	\$219.9	\$232.4
<b>EXISTING HOME SALES</b>											
Denver Metropolitan Area	48,611	47,832	47,919	47,966	54,012	53,106	50,244	49,789	47,837	42,070	38,818
<b>NEW RESIDENTIAL UNITS</b>											
<b>DENVER METROPOLITAN AREA</b>											
Single Family	15,873	14,262	13,793	12,656	14,260	15,778	10,952	7,082	3,686	2,397	3,349
Two-Family	3,321	4,442	4,425	3,755	4,843	4,642	5,311	4,632	1,330	601	798
Multi-Family	9,116	9,090	4,085	1,858	2,681	459	1,727	3,015	4,413	438	1,002
Total Units	28,310	27,794	22,303	18,269	21,784	20,879	17,990	14,729	9,429	3,436	5,149
<b>OFFICE VACANCY RATE</b>											
Denver Metropolitan Area	7.0%	10.1%	13.6%	14.2%	14.4%	13.2%	12.7%	11.8%	12.9%	13.7%	13.2%
<b>HOTEL OCCUPANCY RATE</b>											
Denver Metropolitan Area	68.6%	62.5%	60.3%	59.5%	61.9%	64.1%	66.4%	67.0%	65.0%	59.0%	64.4%
<b>SKIERS VISITS</b>											
Colorado (millions)	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11
	11.7	11.1	11.6	11.3	11.8	12.5	12.6	12.5	11.9	11.9	12.2
N/A: Not Available											

<sup>1</sup>: The State Demography Office recently released updated intercensal population estimates (2001-2009) to incorporate the recently released 2010 Census population counts. However, these data should be interpreted with caution as they are not consistent with the detailed estimates and forecasts also currently available from the State Demography office which were prepared in the fall of 2010 prior to the release of the 2010 Census counts.

<sup>2</sup>: Employment data estimated based on job growth rate for the period Q1-Q3 2010 compared with Q1-Q3 2009.

<sup>3</sup>: The Bureau of Economic Analysis' 2010 per capita personal income data was computed using 2010 Census population counts. Income figures for prior years are based on population data that are not consistent with Census 2010 as a consistent series was not available at the time of publication. As a result, the change in per capita personal income between 2010 and prior years should be interpreted with caution. In September 2011, the Bureau plans to release revised per capita income for 2001-2010 that will be fully consistent with Census 2010.

<sup>4</sup>: The large increase in retail trade sales in the City and County of Denver in 2006 was due to geographic revisions in the data series and may not accurately reflect actual activity.

Sources: U.S. Department of Commerce, Bureau of Economic Analysis; Colorado Department of Revenue; National Association of REALTORS; Metrolist, Inc.; Home Builders Association of Metro Denver; CoStar Realty Information, Inc.; Rocky Mountain Lodging Report; and Colorado Ski Country USA.

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## 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”), for and on behalf of the Wastewater Management Division of its Department of Public Works in connection with the issuance of its \$\_\_\_\_\_ Wastewater Enterprise Revenue Bonds, Series 2012 ( the “Bonds”). The Bonds are issued pursuant to Ordinance No.\_\_\_\_, Series of 2011 (the “Bond Ordinance”) finally adopted on \_\_\_\_ \_\_, 2011, by the City Council. The proceeds of the Bonds will be used to finance and refinance improvements to the City’s storm drainage and sanitary sewerage facilities and to pay costs of the issuing the Bonds.

In consideration of the purchase of the 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 Bonds and, so long as the 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 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 senior managing underwriter of the Bonds required to comply with Rule 15c2-12 in connection with the offering of the Bonds or any successor known to the City Representative.

“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 January, 2012, together with any supplements thereto prior to the date on which the 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, 2012, and annually while the 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 Bonds reflecting financial difficulties.

4. Unscheduled draws on any credit enhancement relating to the 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 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.<sup>1</sup>

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.

(b) Such notice shall be deemed an official notice from the City only upon approval by the City Representative.

(c) At any time the 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 Financial Information and Audited Financial Statements as specified in Section 3 hereof. Such

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<sup>1</sup> For the purposes of the event identified in subparagraph 4(a)(12), the event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for 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.

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 Bonds and shall extend to the earlier of (a) the date all principal and interest on the 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 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 Co-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 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 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 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 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 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 Bonds, and shall create no rights in any other person or entity.

Date: January \_\_, 2012

CITY AND COUNTY OF DENVER, COLORADO

(CITY)  
(SEAL)

By: \_\_\_\_\_  
Mayor

ATTEST:

By: \_\_\_\_\_  
Clerk and Recorder, *Ex Officio*  
Clerk of the City and County of  
Denver

Approved as to Form:

Registered and Countersigned:

By: \_\_\_\_\_  
City Attorney

By: \_\_\_\_\_  
Manager of Finance, *Ex Officio* Treasurer

By: \_\_\_\_\_  
Auditor

## Schedule 1

“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 3, 4, 5, 6, 7, 8 and 9.

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**APPENDIX E**  
**FORM OF OPINION OF CO-BOND COUNSEL**

PUBFIN/1402924.4