

2016 | COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the years ended December 31, 2016 and 2015
Denver, Colorado

Cheesman Reservoir

2016 | COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the years ended December 31, 2016 and 2015
Denver, Colorado

Prepared by
Finance Division

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April 28, 2017

To the Board of Water Commissioners and Our Customers:

We are pleased to transmit the “Comprehensive Annual Financial Report” (CAFR) of Denver Water for the year ended December 31, 2016.

Management assumes full responsibility for the completeness and reliability of the information contained in this report, based upon a comprehensive framework of internal control that it has established for this purpose. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements.

CliftonLarsonAllen LLP, Certified Public Accountants, has issued an unmodified opinion on Denver Water’s financial statements for the years ended December 31, 2016 and 2015. The independent auditor’s report is located at the front of the Financial Section of this report.

“Management’s discussion and analysis” (MD&A) immediately follows the independent auditors’ report and provides a narrative introduction, overview, and analysis of the basic financial statements. The MD&A complements this letter of transmittal and should be read in conjunction with it.

The Report

This report is presented in three sections as follows:

- I. **Introductory Section**, which includes this letter of transmittal, principal officials, organization chart, and the Certificate of Achievement for Excellence in Financial Reporting for the previous year’s report.
- II. **Financial Section**, which includes the independent auditors’ report on the financial statements, Management’s Discussion and Analysis, the basic financial statements, and supplemental bond schedules.
- III. **Statistical Section**, which includes financial trends information, revenue capacity information, debt capacity information, demographic and economic information, and operating information generally presented on a multi-year basis.

Profile of Denver Water

The privately owned Denver City Water Company was organized in 1870. It was merged into the Denver Union Water Company in 1894, along with several smaller companies serving various parts of a growing Denver. In 1918, Denver residents voted to create a five-member Board of Water Commissioners and buy the Denver Union Water Company’s water system for about \$14 million,

creating Denver Water. A five-member Board of Water Commissioners (the “Board”) structure is still in existence, governed under the Charter of the City and County of Denver Article X.

Denver Water is a public entity funded by water rates and new tap fees, not taxes. Today, its service area covers more than 335 square miles, including the City and several suburban distributors. The majority of Denver’s water comes from rivers and streams fed by mountain snowmelt. The South Platte River, Blue River, Williams Fork River and Fraser River watersheds are Denver Water’s primary water sources, but it also uses water from the South Boulder Creek, Ralston Creek, and Bear Creek watersheds. A system of reservoirs networked by tunnels and canals provide water to more than a million people. Three major treatment plants – Marston, Moffat, and Foothills - maintain water quality under the watchful eye of the Denver Water Quality Control Laboratory.

The mission of Denver Water is as follows:

Denver Water will be a responsible steward of the resources, assets and natural environments entrusted to us in order to provide a high-quality water supply, a resilient and reliable system, and excellent customer service.

Although Denver Water is not legally required to adopt budgetary accounting and reporting, the annual budget serves as the foundation for Denver Water’s financial planning and control. The budget process involves:

- Long Range Planning
Denver Water maintains long-range capital, operation and maintenance, and financial plans that are updated annually. The Capital Plan projects additions, improvements, and replacements to water system facilities, based on projected demands for water, federal and state regulations, and ongoing system requirements. The Operation and Maintenance Plan includes the ongoing costs of operating and maintaining the water system and the impact of the Capital Plan on operations. The Financial Plan considers compliance with debt covenants and the year-end target cash reserve.
- Annual Work Plan Budgets
The detailed annual work plan budgets for operation and maintenance activities, debt, and capital projects are developed during the budget process each year. These budgets are substantially based on the budget year projections provided by the long-range plans. These work plans itemize the cost of activities and projects within each program.
- Annual Budget Preparation
The annual budget is prepared on a program budget basis that follows the flow of water from the sources of raw water to customers’ taps and cuts across organizational boundaries. The focus is first on what Denver Water as a whole is doing (what our resources are used for), then on organizational structure (the divisions and sections expending the resources), and then by type of expenditures (what types of resources – payroll, services, etc., are being used). The intent of this particular format is to facilitate the reader's understanding of how we are accomplishing our mission to serve our customers’ needs in the past, present and future.

Factors Affecting Economic Condition

The information displayed in the financial statements presents Denver Water’s current *financial position*, i.e., its *existing* resources and claims on those resources. The following information is provided to help assess Denver Water’s *economic condition*, i.e., both existing and *future* resources and claims on those resources. Stated differently, economic condition reflects not only today’s financial position, but also the prospects that today’s financial position will improve or decline.

Local Economy

Denver is the center of economic activity in the region, serving as a business, recreational, higher educational and cultural hub. Major features of the economy include the central business district, state capital, Denver International Airport, extensive library facilities, several professional sports teams, institutions of higher learning, and numerous museums and other cultural facilities. The economy of the metropolitan area generally mirrors that of the state. An overview of the general demographic and economic conditions in the Denver metropolitan area can be found in Section D, *Demographic and Economic Information*, in the Statistical Section.

Long-Term Financial Planning – Future Initiatives

A representation of capital projects included in the long range planning process are as follows:

- Approximately \$380 million in total project costs for Denver Water’s Gross Reservoir Expansion Project, previously known as the Moffat Collection System Project, for the evaluation, permitting, mitigation, and construction process to augment our supply to the northern service area.
- The Operations Complex Redevelopment (OCR) project will include construction of a new consolidated trades shop, a warehouse, fleet maintenance and operations, a parking structure, and a new administration building. In addition to the new construction, the Three Stone Building, the T & D Warehouse and Credit Union, and Building 5 will be remodeled. It is expected the project will be completed in the 1st quarter of 2020. The projected budget impact for this project is \$195.8 million.
- Approximately \$400 million is budgeted in capital cost for Denver Water’s Northwater Treatment Plant (NTP), for the planning, design, and construction of a new 150-million gallon per day Water Treatment Plant (WTP). Upon completion, the NTP will replace the existing Moffat WTP with a state-of-the-art facility designed to improve redundancy and operational flexibility. The project includes improvements at the Moffat WTP site to convert the facility to a treated water storage site.

Revenue adjustments identified in the 2017 Financial Plan are set at levels to meet annual revenue requirements, debt service coverage, and target reserves. Revenue requirements include annual operation and maintenance expenses, payments on existing and proposed debt service, and rate-funded capital projects. Denver Water uses a combination of debt and cash reserves to maintain leveled annual revenue adjustments to meet these requirements. The use of debt to fund specific capital projects distributes the annual cost of facilities over time rather than requiring the full amount in any one year. The adopted revenue adjustment for 2017 was effective beginning April 1, 2017. This adjustment is expected to produce 3.0% of additional revenue over a 12-month period, assuming normal weather and consumption. In addition, annual revenue adjustments of 3.0% are projected in 2018 through 2026. The financial plan is updated annually.

Relevant Financial Policies and Practices – Investment Balance

Denver Water established a comprehensive set of financial policies and practices as a basic framework for the financial management of Denver Water and its planning and budgeting process. These policies and practices are listed in the Budget Book. Two investment balance related policies and practices are as follows:

Balanced Budget

The Denver Board of Water Commissioners has not adopted an official policy on a balanced budget. Our practice is to balance the budget by the planned use or contribution to investment balances.

Cash Reserves

The Charter of the City and County of Denver specifically allows the accumulation of reserves “sufficient to pay for operation, maintenance, reserves, debt service, additions, extensions, and betterments, including those reasonably required for anticipated growth of the Denver Metropolitan area and to provide for Denver’s general welfare.”

Denver Water began 2017 with an actual cash and investment balance of \$287 million, at cost. The 2017 budget projects this balance to increase by receipts of \$529 million and decrease by expenditures of \$432 million, resulting in a projected 2017 ending balance of \$385 million (see page III-58 for details).

Note 2, *Deposits and Investments*, in the Financial Section provides more information on Denver Water’s investments. Investment balances in published financial statements are not directly comparable to the budgeted investment balance because different valuation methods are used.

Major Initiatives

- **Improve top-box customer satisfaction score by 10 percent from 2013 scores.**
 - Customer Care’s top-box satisfaction has increased eight points over the last two years. Not only are these satisfied customers, but top-box satisfaction indicates these are customers who are willing to advocate on behalf of Denver Water.

- Street Maintenance’s overall satisfaction on work performed was 74 percent, a 1-percentage-point decrease from the same time frame in 2015. We expanded outreach into specific neighborhoods through the “NextDoor” online application to include engineering and pipe replacement projects. We added maps of our pipe replacement projects to DenverWater.org to keep customers informed of project schedules.
- Field Interaction’s overall satisfaction on work performed was 95 percent, a 7-percentage-point increase from the same time frame in 2015. We began to distribute small toilet repair kits to customers who could benefit from repairing leaks. We are also improving the dispatch process so technicians can better meet commitments for customer appointments.
- We established a 2016 stretch-goal for customer outage hours of less than 30,000 hours. Actual outage hours were 43,524. This is consistent with the downward trend from 2011 outage hours of 54,144. We continue to evaluate processes to reduce customer outage hours.
- **Achieve full alignment of budget development and execution with strategic priorities and True North metrics; incorporate processes to control spending.**
 - Denver Water deployed Phase One of the Organizational Reporting and Communications Alignment (ORCA) project to provide consistent, accurate, timely budget and actual financial information to everyone at Denver Water who is accountable for budgeting and spending. We now have budget and accounting data that uses a consistent data structure, in one system.
 - We continue making improvements to budget development and management processes, using visual management, weekly standup meetings, budget calendars published early in the year, standard formatting for financial reporting and revisions to budget development and management standard work.
- **Become the Employer of the Future**, one that retains and attracts top talent through integrated procedures, policies, benefits and philosophies that create a unique, diverse and energizing culture.
 - **Compensation:** We completed a compensation study, which aligns jobs to the market and creates a salary structures conducive to a pay-for-performance model.

We completed the conversion to a Paid Time Off (PTO) benefit program, saving Denver Water \$5 million in liability moving forward.

We amended changes to our pension plan for 2018, to support full funding of the plan in 15 years.
 - **Community outreach and diversity/inclusion:** HR focused efforts in improving diversity in our candidate pools. Denver Water strives for equal opportunity in all hiring practices. HR has also partnered with multiple external stakeholders to improve our hiring diversity.
- **Transform to a true culture of safety with no lost-work-day injuries by 2017.**
 - Many of the injuries in 2016 were caused by slips/falls, strain/overexertion and injuries getting in and out of vehicles. We hired an industrial ergonomist to work with field crews and provide recommendations to reduce injuries throughout 2017.

- We are also working to reduce vehicle accidents by hosting safety-immersion sessions focusing on safe driving.
- **Redevelop the Operations Complex** in a way that is fiscally responsible, integrates field and administrative staff, creates a public presence, celebrates water and the history of Denver Water, is sustainable, allows for future flexibility, is safe and efficient and promotes retention and recruitment.
 - The project is on time and on budget, with construction on a new Warehouse, Meter Shop, Fleet and Trades buildings. We plan to occupy those buildings in mid-2017
- **Create a water supply, treatment and delivery strategy for the future.** Initiate a new Integrated Resource Plan (IRP) that expands on the prior IRP by integrating the planning of our entire system with all stakeholders, driving capital spending and embracing a vision for urban water efficiency, including drinking water, wastewater and stormwater.
 - We completed research of other utility planning methods. We also formulated the IRP's two-year planning process, project objectives and formed a scope of work, budget and project schedule. We also contracted with a technical consultant and a strategy consultant. The project is on schedule and on budget.
 - The project team has nearly completed the first four major tasks of the IRP including work-plan development, service-level assumptions documentation, planning-futures creation and current system-assessment documentation. The next step is to develop a gaps-and-opportunities analysis for each planning future.
- **Become a sustainable organization** by managing and reducing our environmental impact, measured by becoming a Gold Leader in Colorado's Environmental Leadership Program.
 - Denver Water hired a sustainability program manager to develop Denver Water's first Sustainability Plan. We also helped with development of an Environmental Stewardship Statement, Denver Water's 2015 Greenhouse Gas Inventory, and coordinated with our Green Team and Environmental Compliance to study best sustainability practices at other organizations.
 - We also developed new policies to support LEED and WELL goals associated with the OCR project, wrote language for Green Bonds that will be issued in 2017 and evaluated contracts with sustainability implications.
 - The Environmental Compliance team developed environmental management systems for the four water treatment plants and trained staff at those locations. In addition, Denver Water achieved Silver Partner certification from the Colorado Department of Public Health and Environment's Environmental Leadership Program.

Conclusion

Denver Water adopted our current Strategic Plan five years ago, and we achieved many of our key priorities. Now we have refreshed our Strategic Plan for the next five years to help the organization set 2018 organizational initiatives and divisional goals.

This is another example of how we must be nimble and adaptable in an ever-changing environment full of challenges. You can count on our organization of passionate, dedicated experts to meet those challenges head on in 2017.

SEC Periodic Disclosure Requirements

Rule 15c2-12 requires Participating Underwriters to determine that the issuer of municipal securities has undertaken in a written agreement for the benefit of holders of such securities to provide annual financial information in a timely manner to the Municipal Securities Rulemaking Board's Electronic Municipal Market Access (EMMA[®]) system. The Government Finance Officers' Association of the United States and Canada ("GFOA") recommends that the disclosure be contained in the CAFR. The disclosure that Denver Water has undertaken to provide in order that participating underwriters may comply with this rule can be found on the following pages:

Budgetary Controls	Page I-2
Audited Financial Statements	Section II - Financial Section
Total Outstanding Indebtedness	Section II - Notes 6, 7, 9, Exhibits II-A through II-D
The Service Area	Page III-13
Number of Customer Accounts	Page III-24
System Development Charges and Participation Receipts	Page III-35
Receipts and Expenditures	Page III-58
Total Treated Water Delivered/Consumption	Page III-80

Information for prior years and information related to the City and County of Denver is available on the Municipal Securities Rulemaking Board's Electronic Municipal Market Access website at <http://www.emma.msrb.org>.

Awards, Recognition and Acknowledgements

Awards

Comprehensive Annual Financial Report. The GFOA awarded a Certificate of Achievement for Excellence in Financial Reporting to Denver Water for its CAFR for the fiscal year ended December 31, 2015. This was the 28th consecutive year that Denver Water has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized CAFR. This report must satisfy both generally accepted accounting principles and applicable legal requirements.


A Certificate of Achievement is valid for a period of one year only. We believe that our current CAFR continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

Annual Budget. In addition, Denver Water also received the GFOA's Distinguished Budget Presentation Award for its annual budget document for the fiscal year beginning January 1, 2016. This is the 25th consecutive year Denver Water has received this award. In order to qualify for this award, Denver Water's budget document had to be judged proficient as a policy document, a financial plan, an operations guide, and a communications device.

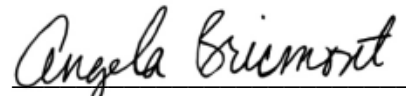
Acknowledgments

We wish to express our appreciation to all members of Denver Water who assisted and contributed to the preparation of this report. Credit must also be given to the Board of Water Commissioners for their unfailing support for maintaining the highest standards of professionalism in the management of Denver Water's finances.

Sincerely,



James S. Lochhead
CEO/Manager



Angela C. Bricmont
Chief Finance Officer

BOARD OF WATER COMMISSIONERS



**Top from left, Paula Herzmark, John R. Lucero;
Bottom from left, Greg Austin, Thomas A. Gougeon, Penfield W. Tate III**

Paula Herzmark, President
Executive Director, Denver Health Foundation

*Commissioner since April 2009;
Term expires July 2019.*

John R. Lucero, First Vice President
Formerly Deputy Director, Mayor's Office of Economic Dev.
Currently Principal, Lucero Development Services

*Commissioner since July 2007;
Term expires July 2021.*

Greg Austin, Vice President
Former partner, Holland & Hart LLP.

*Commissioner since July 2009;
Term expires July 2019.*

Thomas A. Gougeon, Vice President
President, Gates Family Foundation

*Commissioner since August 2004;
Term expires July 2017.*

Penfield W. Tate III, Vice President
Attorney, Kutak Rock LLP

*Commissioner since October 2005;
Term expires July 2017.*

LAST 20 COMMISSIONERS

Charles G. Jordan	Sep 1983 to Jun 1985	Ronald L. Lehr	Jul 1993 to Apr 1999
D. Dale Shaffer	Aug 1978 to Jul 1985	Joe Shoemaker	Jul 1995 to Jul 2001
John A. Yelenick	Jul 1969 to Aug 1987	Andrew D. Wallach	Jul 2001 to Aug 2003
Marguerite S. Pugsley	May 1978 to Aug 1987	Daniel E. Muse	Feb 2000 to Nov 2003
Elizabeth A. Hennessey	Nov 1985 to Jul 1989	Richard A. Kirk	Jul 1993 to Oct 2005
Malcolm M. Murray	Aug 1987 to Jul 1993	William R. Roberts	Jul 1997 to Oct 2005
Donald L. Kortz	Aug 1987 to Jul 1993	Harris D. Sherman	Dec 2005 to Feb 2007
Monte Pascoe	Sep 1983 to Jul 1995	Denise S. Maes	Jul 1995 to Jul 2007
Romaine Pacheco	Jul 1989 to Jul 1995	Susan D. Daggett	Nov 2007 to Jan 2009
Hubert A. Farbes, Jr.	Jul 1985 to Jul 1997	George B. Beardsley	Feb 2004 to Mar 2009

MANAGER AND STAFF



Top: Jim Lochhead, CEO/Manager;
Second row from left: Julie Anderson, Chief of Staff; Angela Bricmont, Chief Finance Officer;
Sally Covington, Chief Public Affairs Officer; Christopher R. Dermody, Chief Information Officer;
Gail Cagle, Chief Human Resources Officer; Third row from left: Brian Good, Chief Administrative Officer;
Mike King, Chief Planning Officer; Robert J. Mahoney, Chief Engineering Officer; Tom Roode,
Chief Operations & Maintenance Officer; Patricia L. Wells, General Counsel

DISCRETIONARY PERSONNEL

(Employees Serving in Executive Discretionary Positions Solely at the Pleasure of the Board)

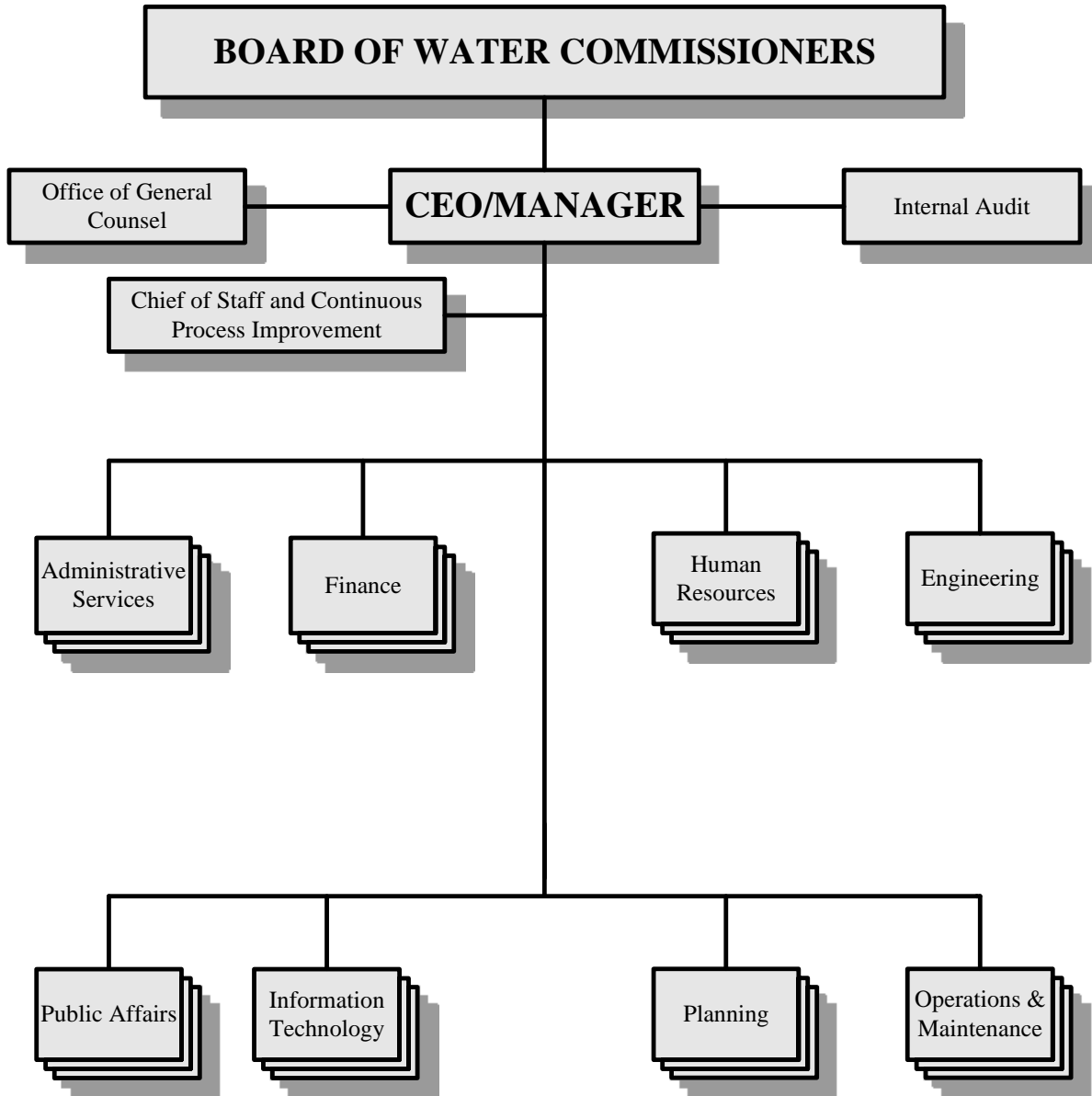
Manager and Senior Staff

Jim Lochhead, CEO/Manager
Julie Anderson, Chief of Staff
Angela Bricmont, Chief Finance Officer
Sally Covington, Chief Public Affairs Officer
Christopher R. Dermody, Chief Information Officer
Gail Cagle, Chief Human Resources Officer
Brian Good, Chief Administrative Officer
Mike King, Chief Planning Officer
Robert J. Mahoney, Chief Engineering Officer
Tom Roode, Chief Operations & Maintenance Officer
Patricia L. Wells, General Counsel

Other Staff

Terri Bryant CPA, Controller
Prescott B. Coleman, Chief Internal Auditor
Melissa E. Elliot, Director of Stakeholder Relations
Trina L. McGuire-Collier, Director of Comm & Marketing
Stephen Reum, Director of Engineering
Usha Sharma, Treasurer
Stephanie M Abram, Budget Manager
Fletcher Davis, Rates Manager

ORGANIZATION CHART





Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

**Denver Water
Colorado**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

December 31, 2015

Executive Director/CEO

FINANCIAL SECTION

**BOARD OF WATER COMMISSIONERS
CITY AND COUNTY OF DENVER, COLORADO**

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CliftonLarsonAllen

INDEPENDENT AUDITORS' REPORT

Board of Water Commissioners
Denver Water
Denver, Colorado

Report on the Financial Statements

We have audited the accompanying financial statements of the Board of Water Commissioners, City and County of Denver, Colorado (the Board), as of and for the years ended December 31, 2016 and 2015, and the related notes to the financial statements, which collectively comprise the Board's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Board of Water Commissioners, City and County of Denver, Colorado as of December 31, 2016 and 2015, and the changes in its financial position and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Board Pension Contributions, and Schedule of OPEB Funding Progress as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Board's basic financial statements. The Other Supplemental Information and the Introductory and the Statistical Sections, as listed in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The Other Supplemental Information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Other Supplemental Information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The Introductory Section and Statistical Section have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.



CliftonLarsonAllen LLP

Greenwood Village, Colorado
April 28, 2017

**BOARD OF WATER COMMISSIONERS
CITY AND COUNTY OF DENVER, COLORADO**

Management's Discussion and Analysis (Unaudited)

December 31, 2016 and 2015

The following is management's discussion and analysis ("MD&A") of the financial activities of the Board of Water Commissioners (the "Board") for the years ended December 31, 2016 and 2015. This information should be read in conjunction with the basic financial statements which follow.

FINANCIAL HIGHLIGHTS

The Board's financial position, measured by the change in net position, improved 5% during 2016, compared to 5% during 2015. The 2014 financial statements were restated from published due to the implementation of GASB Statement No. 68 *Accounting and Financial Reporting for Pensions*.

- **Operating income** was \$36.9 million in 2016 compared to \$36.2 million in 2015, an increase of 2%.
- **Income before capital contributions** was \$26.3 million in 2016 compared to \$23.0 million in 2015, an increase of 14%.
- **Capital contributions** were \$61.1 million in 2016 and \$69.4 million in 2015, a decrease of 12%.
- **Net position** increased \$87.4 million, or 5%, in 2016 compared to \$92.4 million, or 5%, in 2015.
- **Capital asset additions** were \$152.5 million in 2016 compared to \$131.1 million in 2015, an increase of 16%.

OVERVIEW OF THE BASIC FINANCIAL STATEMENTS

This MD&A is intended to serve as an introduction to the Board's basic financial statements, which are comprised of five components: 1) statements of net position, 2) statements of revenues, expenses, and changes in net position, 3) statements of cash flows, 4) notes to the basic financial statements, and 5) required supplementary information. The Board also provides certain supplemental information which is presented for additional analysis and is not a required part of the basic financial statements.

The **statements of net position** present information on all of the Board's (a) assets and deferred outflows of resources, and (b) liabilities and deferred inflows of resources, with the difference between the two reported as **net position**. "Deferred outflows of resources" is defined as consumption of net assets that is applicable to a future reporting period rather than the current reporting period. "Deferred inflows of resources" is defined as an acquisition of net assets that is applicable to a future reporting period rather than the current reporting period. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Board is improving or declining.

The **statements of revenues, expenses, and changes in net position** present information showing how the Board's net position changed during the years presented. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. This is known as the accrual basis of accounting. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in the future (e.g., unbilled water revenue and earned but unused vacation leave) or that may have occurred in the past (e.g., amortization of debt premiums or discount and prepaid contributed capital). This statement measures the financial outcomes of the Board's

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activities and can be used to determine whether the Board has successfully recovered all its economic costs through its water rates, capital contributions, and other charges.

The **statements of cash flows** report cash receipts, cash payments, and net changes in cash resulting from operating activities, capital and related financing activities, and investing activities for the years presented.

The **notes to the basic financial statements** provide additional information that is essential to a full understanding of the data provided in the basic financial statements, such as the Board's accounting policies, significant account balances and activities, material risks, obligations, commitments, contingencies and subsequent events, if any.

Required supplementary information provides the detail in support of the changes in the net pension liability and information pertaining to the Board's actuarially determined contributions to the pension plan and other post-employment benefits (OPEB).

Supplemental information provides details of the Board's bonded debt.

FINANCIAL ANALYSIS

In 2016, the Board re-implemented the financial system and overhauled the accounting structure to improve financial reporting and management. The restructure of the accounts resulted in reclassifications within the financial statements, variations in certain comparative data, and a shift in how indirect costs are allocated to functions.

NET POSITION

As discussed above, net position may serve over time as a useful indicator of the Board's financial position. The Board's net position was \$2.0 billion at December 31, 2016, an increase of \$87.4 million, or 5%, from December 31, 2015. The Board's net position was \$1.9 billion at December 31, 2015, an increase of \$92.4 million, or 5%, from December 31, 2014 (see Figures 1 and 2 and Table 1).

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Figure 1 - Net Position

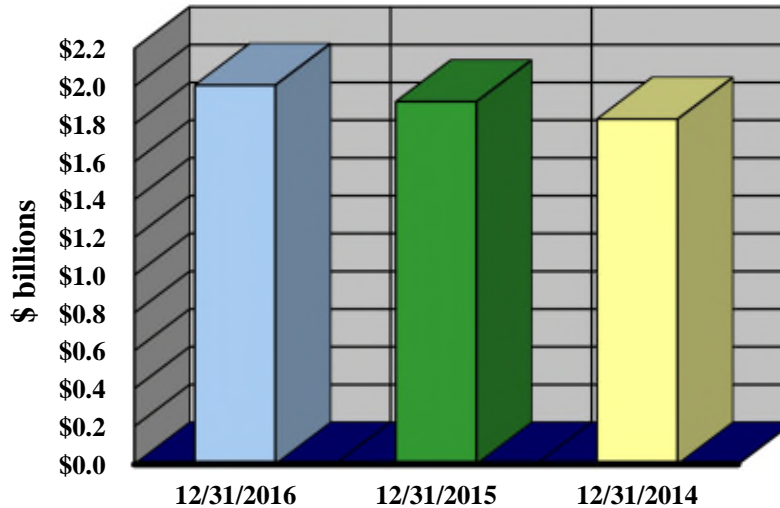


Table 1 - Condensed Statements of Net Position

(amounts expressed in thousands)

	As of December 31,			2016 - 2015		2015 - 2014	
	2016	2015	2014	Increase (Decrease)	% Change	Increase (Decrease)	% Change
	Current and other assets	\$ 333,653	\$ 285,587	\$ 280,894	\$ 48,066	17%	\$ 4,693
Capital assets, net	2,244,862	2,146,900	2,069,581	97,962	5	77,319	4
Total assets	2,578,515	2,432,487	2,350,475	146,028	6	82,012	3
Deferred outflows of resources	41,109	20,295	20,910	20,814	103	(615)	(3)
Total assets and deferred outflows	2,619,624	2,452,782	2,371,385	166,842	7	81,397	3
Current liabilities	76,467	57,181	67,949	19,286	34	(10,768)	(16)
Noncurrent liabilities	537,710	467,905	461,733	69,805	15	6,172	1
Total liabilities	614,177	525,086	529,682	89,091	17	(4,596)	(1)
Deferred inflows of resources	-	9,666	16,079	(9,666)	(100)	(6,413)	(40)
Total liabilities and deferred outflows	614,177	534,752	545,761	79,425	15	(11,009)	(2)
Net position:							
Net investment in capital assets	1,788,250	1,735,020	1,641,601	53,230	3	93,419	6
Restricted	14,505	12,047	12,375	2,458	20	(328)	(3)
Unrestricted	202,692	170,963	171,648	31,729	19	(685)	(0.4)
Total net position	\$ 2,005,447	\$ 1,918,030	\$ 1,825,624	\$ 87,417	5%	\$ 92,406	5%

The largest portion of the Board's net position reflects its investment in capital assets; less any related debt used to acquire those assets. The Board uses these capital assets to provide water; consequently,

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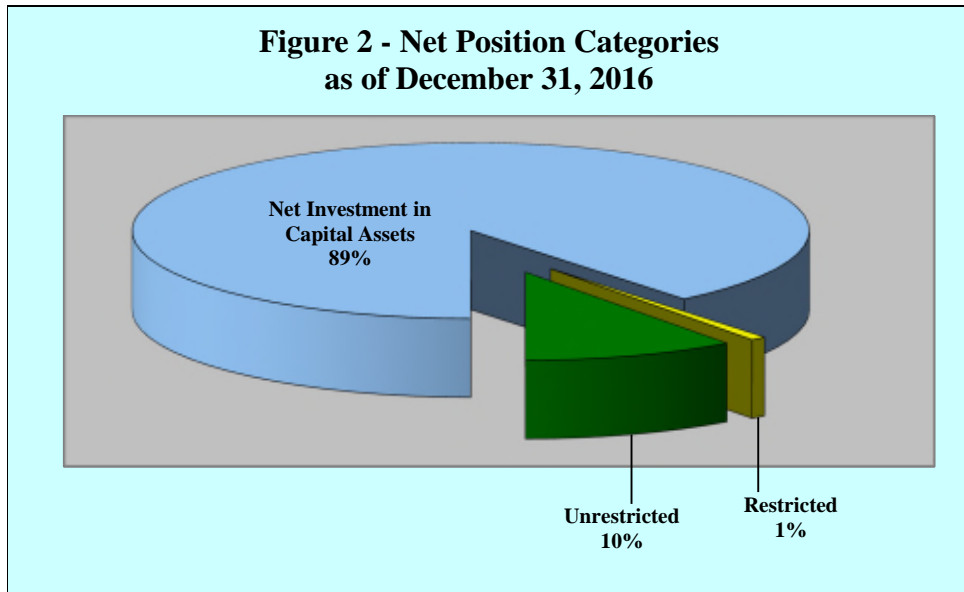
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these assets are not available for future spending. Although the Board's investment in its capital assets is reported net of related debt, the resources to repay this debt must be provided from other sources, since the capital assets themselves are not intended to be liquidated to repay these liabilities.

A small portion of the Board's net position represents resources that are subject to external restrictions on how they may be used. The Board's 2016, 2015, and 2014 restricted net positions consisted of debt service reserve and debt reserve funds for revenue bonds. In 2016, amounts were also restricted for grants supporting the System Conservation Pilot Program.

The remaining balance of the Board's net position represents unrestricted net position and may be used to meet the Board's ongoing obligations to creditors.



The Board's increase in net position during 2016 of \$87.4 million or 5% indicates an improved financial position.

Other changes in the statements of net position were as follows:

- **CURRENT AND OTHER ASSETS** in 2016 increased \$48.1 million, or 17% from 2015. They increased \$4.7 million, or 2% between 2015 and 2014 (see Table 1). The increase in 2016 was primarily due to an increase in investments from the 2016 bond issuance funds reimbursing 2015 capital project costs and the related increase in restricted investments from that issuance, and funds being held for the Walton Family Foundation grant. The increase in 2015 was primarily due to prepaid capacity use and an increase in investments.
- **CAPITAL ASSETS, NET** in 2016 increased \$98.0 million, or 5% from 2015. They increased \$77.3 million, or 4% between 2015 and 2014. The increase in both years was due to additions, offset by increased accumulated depreciation and asset retirements. See Table 8 for current year additions.

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- **DEFERRED OUTFLOWS OF RESOURCES** represents the difference between the reacquisition price and the net carrying amount of defeased debt (“deferred amount on refunding”) resulting from the Series 2012B, Series 2014A and Series 2016B water refunding bonds, and pension related outflows including economic/demographic losses, changes in the pension plan assumptions, net investment losses associated with differences between the expected and actual earnings on pension plan investments and amounts contributed to the pension plan after the net pension liability measurement date. They increased \$20.8 million or 103% in 2016. \$2.6M of this increase is a result of the 2016B refunding and \$18.2M is due to pension related deferred outflows associated with economic/demographic losses, changes in plan assumptions, and the change in the net between projected and actual plan earnings, offset by the amortization of pension plan economic /demographic losses into pension expense and the amortization of the deferred amount on refunding as a component of interest expense. They decreased \$0.6 million or 3% in 2015 as a result of the amortization of pension plan economic /demographic losses into pension expense and the amortization of the deferred amount on refunding as a component of interest expense.
- **CURRENT LIABILITIES** in 2016 increased \$19.3 million, or 34% from 2015. They decreased \$10.8 million, or 16% between 2015 and 2014. The increase in 2016 was primarily a result of an increase in construction contract accruals, increased accounts payable accruals, and an increase in the payroll and other benefits accrual due to the paid time off (PTO) conversion payout scheduled for 2017. The decrease in 2015 was primarily a result of a reduction in construction contract accruals and changes in the current portion of revenue bonds payable due to varying debt maturities, offset by an increase in accrued payroll.
- **NONCURRENT LIABILITIES** in 2016 increased \$69.8 million, or 15% from 2015. They increased \$6.2 million, or 1% between 2015 and 2014. The increase in 2016 was primarily the result of the 2016A and 2016B bond issuance and the recalculation of the pension liability incorporating changes in plan assumptions and investment experience, offset by the 2007A refunding and payment of the line of credit. The increase in 2015 was primarily a result of a line of credit draw offset by a reduction in long-term debt.
- **DEFERRED INFLOWS OF RESOURCES** represents net investment gains associated with differences between the expected and actual earnings on pension plan investments used in the calculation of the net pension liability. They decreased \$9.6 million or 100% in 2016 and \$6.4 million or 40% in 2015 as a result of pension related investment losses from differences between actual and expected plan earnings and the amortization of pension investment gains or losses as a component of pension expense.

CHANGE IN NET POSITION

While the statements of net position display the Board's assets, liabilities and net position at year-end, the statements of revenues, expenses, and changes in net position provide information on the source of the change in net position during the year. Net position increased \$87.4 million in 2016 consisting of income before capital contributions of \$26.3 million and capital contributions of \$61.1 million. Net position increased \$92.4 million in 2015 consisting of income before capital contributions of \$23.0 million and capital contributions of \$69.4 million (see Table 2).

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	Years Ended December 31,			2016 - 2015		2015 - 2014	
	2016	2015	2014	Increase (Decrease)	% Change	Increase (Decrease)	% Change
	Operating revenues	\$ 284,454	\$ 252,060	\$ 250,668	\$ 32,394	13%	\$ 1,392
Nonoperating revenues	9,029	7,074	7,695	1,955	28	(621)	(8)
Total revenues	<u>293,483</u>	<u>259,134</u>	<u>258,363</u>	<u>34,349</u>	<u>13</u>	<u>771</u>	<u>0.3</u>
Operating expenses	247,520	215,825	225,061	31,695	15	(9,236)	(4)
Nonoperating expenses	19,655	20,268	20,310	(613)	(3)	(42)	(0.2)
Total expenses	<u>267,175</u>	<u>236,093</u>	<u>245,371</u>	<u>31,082</u>	<u>13</u>	<u>(9,278)</u>	<u>(4)</u>
Income before capital contributions	26,308	23,041	12,992	3,267	14	10,049	77
Capital contributions	61,109	69,365	55,926	(8,256)	(12)	13,439	24
Increase in net position	87,417	92,406	68,918	(4,989)	(5)	23,488	34
Beginning net position	1,918,030	1,825,624	1,822,128	92,406	5	3,496	0.2
GASB 68 implementation			(65,422)				
Restated beginning net position			<u>1,756,706</u>				
Ending net position	<u>\$ 2,005,447</u>	<u>\$ 1,918,030</u>	<u>\$ 1,825,624</u>	<u>\$ 87,417</u>	<u>5%</u>	<u>\$ 92,406</u>	<u>5%</u>

There was *operating income* (operating revenues less operating expenses—not reflected in Table 2, see *Statements of Revenues, Expenses and Changes in Net Position*) of \$36.9 million in 2016, compared to \$36.2 million in 2015 and \$25.6 million in 2014 (see Figure 3).

There was *income before capital contributions* of \$26.3 million in 2016 compared to \$23.0 million in 2015 and \$13.0 million in 2014 (see Figure 4).

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Figure 3 - Operating Income

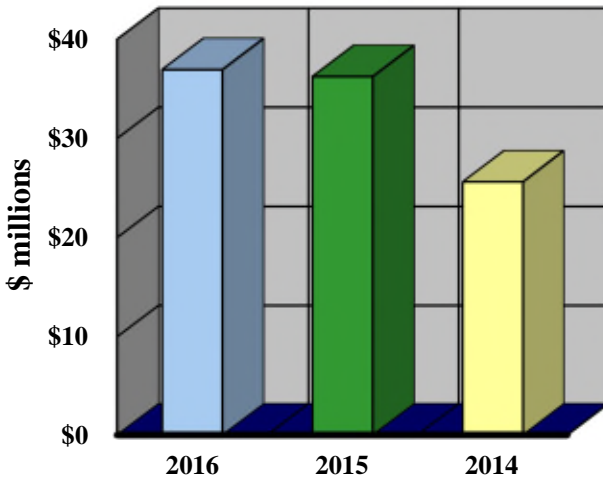
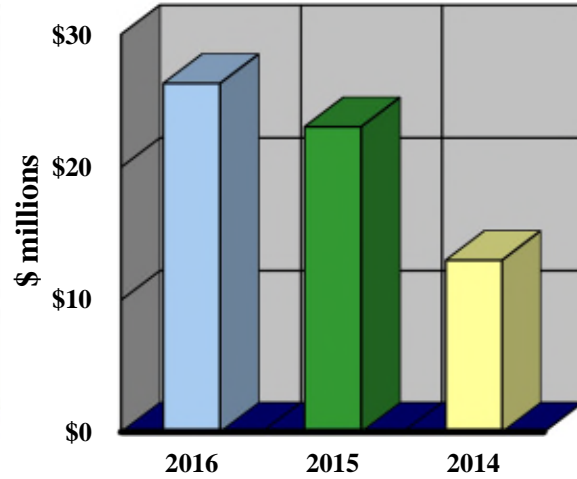


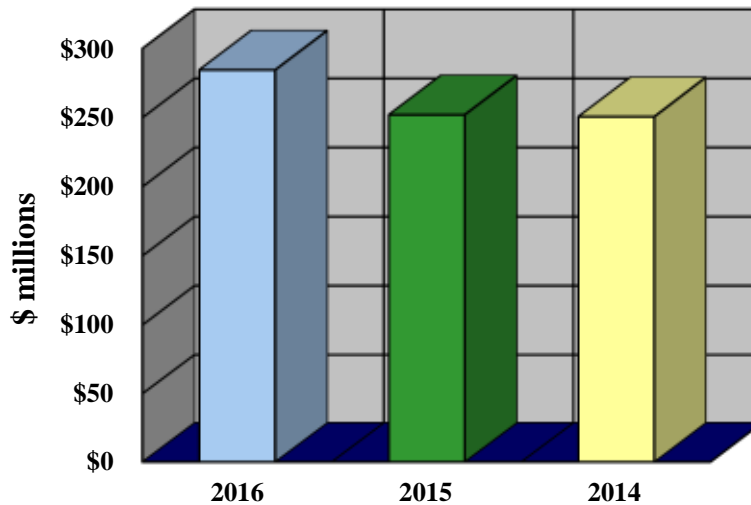
Figure 4 - Income before Capital Contributions



Specifically, major changes in the statements of revenues, expenses and changes in net position were as follows:

- **OPERATING REVENUES** in 2016 increased \$32.4 million, or 13% from 2015. They increased \$1.4 million, or 1% between 2015 and 2014 (see Figure 5 and Table 3).

Figure 5 - Operating Revenues



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	Years Ended December 31,			2016 - 2015		2015 - 2014	
	2016	2015	2014	Increase (Decrease)	% Change	Increase (Decrease)	% Change
	Water:						
Water sales	\$ 273,238	\$ 241,836	\$ 239,288	\$ 31,402	13%	\$ 2,548	1%
Power generation and other:							
Power sales	4,009	3,606	4,390	403	11	(784)	(18)
Special assessments	6,844	3,839	4,320	3,005	78	(481)	(11)
Other	363	2,779	2,670	(2,416)	(87)	109	4
	<u>11,216</u>	<u>10,224</u>	<u>11,380</u>	<u>992</u>	<u>10</u>	<u>(1,156)</u>	<u>(10)</u>
Total operating revenues	<u>\$ 284,454</u>	<u>\$ 252,060</u>	<u>\$ 250,668</u>	<u>\$ 32,394</u>	<u>13%</u>	<u>\$ 1,392</u>	<u>1%</u>

Water sales in 2016 increased due to a rate increase effective April 1, 2016, designed to increase overall system water rate revenue by 3.8% as well as an increase in water sold (71.7 billion gallons sold in 2016 compared to 65.6 billion gallons sold in 2015). Changes in water consumption from year to year are generally directly related to changes in temperature, and inversely related to changes in precipitation, except for mandatory drought restrictions. Longer term changes in consumption are the result of changes in conservation habits on the part of consumers and changes in the customer base.

Water sales in 2015 increased due to a rate increase effective February 1, 2015, designed to achieve a 2.2% increase in revenue and a slight increase in water sold (65.6 billion gallons sold in 2015 compared to 65.5 billion gallons sold in 2014).

Power Sales consist of sales of electricity to Xcel Energy and Tri-State Generation and Transmission Associates from seven power generating facilities: Dillon, Foothills, Gross, Hillcrest, Roberts Tunnel, Strontia Springs, and Williams Fork. Because power is generated by use of water turbines, differences in power sales from year to year are caused primarily by increases or decreases in water flows due to weather conditions or interruptions of power generating operations for repairs and maintenance.

Special assessments consist primarily of delinquent bill charges, hydrant meter revenue, turn-off/turn-on charges, and charges for water violations and exemption permits. Differences from year to year are caused by increases or decreases in one or more of these components.

Other consists of refunds, project reimbursements, and miscellaneous fees.

- **NONOPERATING REVENUES** in 2016 increased \$2.0 million, or 28% from 2015. They decreased \$0.6 million, or 8% between 2015 and 2014 (see Table 4).

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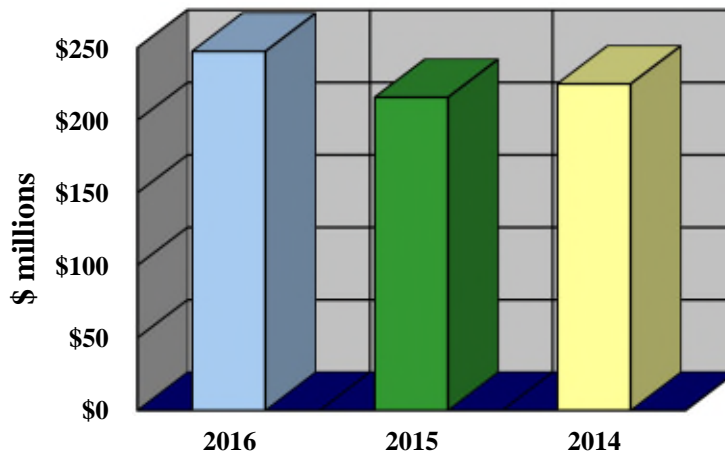
	Years Ended December 31,			2016 - 2015		2015 - 2014	
	2016	2015	2014	Increase (Decrease)	% Change	Increase (Decrease)	% Change
	Investment income	\$ 1,603	\$ 1,479	\$ 1,552	\$ 124	8%	\$ (73)
Other nonoperating income	7,426	5,595	6,143	1,831	33	(548)	(9)
Total nonoperating revenues	<u>\$ 9,029</u>	<u>\$ 7,074</u>	<u>\$ 7,695</u>	<u>\$ 1,955</u>	<u>28%</u>	<u>\$ (621)</u>	<u>(8)%</u>

Investment income changes from year to year are due to a combination of changes in interest rates earned on assets, changes in fair market values of financial assets, and changes in average investment balances.

Other nonoperating income varied from year to year primarily due to external grant funds which were higher in 2016 and 2014.

- **OPERATING EXPENSES** in 2016 increased \$31.7 million, or 15% from 2015. They decreased \$9.2 million, or 4% between 2015 and 2014 (see Figures 6, 7, 8 and Table 5).

Figure 6 - Total Operating Expenses



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Table 5 - Operating Expenses by Category							
(amounts expressed in thousands)							
	Years Ended December 31,			2016 - 2015		2015 - 2014	
	2016	2015	2014	Increase (Decrease)	% Change	Increase (Decrease)	% Change
	SOS, Treatment, T&D	\$ 82,418	\$ 75,972	\$ 83,091	\$ 6,446	8%	\$ (7,119)
General and administrative	103,380	81,994	85,347	21,386	26	(3,353)	(4)
Customer service	11,370	9,962	10,851	1,408	14	(889)	(8)
Depreciation and amortization	50,352	47,897	45,772	2,455	5	2,125	5
Total operating expenses	\$ 247,520	\$ 215,825	\$ 225,061	\$ 31,695	15%	\$ (9,236)	(4)%

Major changes were as follows:

2016

Operating expenses increased in 2016 as compared to 2015. The increase was primarily due to operating costs associated with several large projects including flood repairs from the 2013 flood, cathodic protection expenses, the Aquifer Storage and Recovery Pilot, the reimplementation of the financial system, the Integrated Resource Plan (IRP), and costs associated with pollution remediation identified in the Operations Complex Redevelopment project. Operating expenses were also higher than 2015 as a result of a higher pension expense and the compensation study.

2015

Operating expenses decreased in 2015 as compared to 2014 primarily as a result of higher 2014 expenses for repairs at Dillon Reservoir and Cheesman Lake, expenses associated with the removal of sedimentation at Strontia Springs, and other repair costs associated with the 2013 flood. Additionally, expenses in 2014 were higher than 2015 because of repairs and maintenance at the Foothills Treatment Plant, an adjustment to the closure and postclosure care costs for the landfill and drying beds resulting from an updated cost study, and payments made as part of the Colorado River Cooperative Agreement.

The overall decrease in 2015 operating expenses was offset slightly by higher engineering and labor expenses associated with ongoing conduits, mains, and hydrants maintenance and repair, costs associated with the tear down of equipment at the Hillcrest Hydro Plant, and an increased payroll accrual for 2015.

- **NONOPERATING EXPENSES** in 2016 decreased \$0.60 million, or 3% from 2015. They decreased \$0.04 million, or 0.2% between 2015 and 2014 (see Table 6).

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Table 6 - Nonoperating Expenses (amounts expressed in thousands)							
	Years Ended December 31,			2016 - 2015		2015 - 2014	
	2016	2015	2014	Increase (Decrease)	%	Increase (Decrease)	%
					Change		Change
Interest expense	\$ 11,446	\$ 13,049	\$ 12,664	\$ (1,603)	(12)%	\$ 385	3%
Loss on disposition of capital assets	6,348	4,720	5,394	1,628	34	(674)	(12)
Other nonoperating expense	1,861	2,499	2,252	(638)	(26)	247	11
Total nonoperating expenses	<u>\$ 19,655</u>	<u>\$ 20,268</u>	<u>\$ 20,310</u>	<u>\$ (613)</u>	<u>(3)%</u>	<u>\$ (42)</u>	<u>(0.2)%</u>

Interest expense changes from year to year are due to a combination of differences in the amount of debt, interest rates paid on the debt, and interest expense capitalized for construction projects. When interest is capitalized, the interest is added to the cost of the project and deducted from interest expense.

Loss on disposition of capital assets in 2016 was primarily due to fleet equipment sold, write-offs of assets associated with the OCR project, and assets previously recorded in construction work in progress deemed to be not capital. The loss in 2015 was primarily due to fleet equipment sold and write-offs of mains, hydrants, and assets associated with the Ashland Reservoir tank replacement project.

Other nonoperating expense decreased \$0.6 million, or 26% in 2016 primarily as a result of the reallocation of indirect costs between operating and nonoperating expenses offset by the write off of a prepaid long-term disability asset maintained under a self-insured plan that was sold to Unum. It increased \$0.2 million, or 11% in 2015 primarily as a result of increased maintenance along the Highline Canal.

- **CAPITAL CONTRIBUTIONS** in 2016 decreased \$8.3 million, or 12% from 2015. They increased \$13.4 million, or 24% between 2015 and 2014 (see Table 7).

Table 7 - Capital Contributions (amounts expressed in thousands)							
	Years Ended December 31,			2016 - 2015		2015 - 2014	
	2016	2015	2014	Increase (Decrease)	%	Increase (Decrease)	%
					Change		Change
Contributions in aid of construction	\$ 22,147	\$ 33,256	\$ 23,190	\$ (11,109)	(33)%	\$ 10,066	43%
System development charges	38,962	36,109	32,736	2,853	8	3,373	10
Total capital contributions	<u>\$ 61,109</u>	<u>\$ 69,365</u>	<u>\$ 55,926</u>	<u>\$ (8,256)</u>	<u>(12)%</u>	<u>\$ 13,439</u>	<u>24%</u>

Contributions in aid of construction represent facilities, or cash payments for facilities, conveyed to the distribution system from property owners, governmental agencies, and customers who receive

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benefit from such facilities. Normally, differences from year to year are caused by the general level of construction activity in the Denver metropolitan area.

System development charges ("SDC") represent fees charged to customers to connect to the water system. Normally, differences from year to year are also caused by the general level of construction activity in the Denver metropolitan area.

CAPITAL ASSET ACTIVITY

The Board's capital assets at December 31, 2016 and 2015 amounted to \$2.2 billion and \$2.1 billion, net of accumulated depreciation and amortization, respectively. Capital asset additions in 2016 and 2015 were \$152.5 million and \$131.1 million, respectively, an increase of \$21.4 million or 16%. Major projects were as follows (see Table 8):

<u>Table 8 - Capital Additions</u>	
<u>Year Ended December 31, 2016</u>	
<u>(amounts expressed in thousands)</u>	
Operations Complex Redevelopment Project	\$ 47,158
Distribution Mains & Hydrants	31,903
Hillcrest Pump Station	16,341
North Water Treatment Plant	7,647
Motor Vehicles and Heavy Equipment	7,442
Ashland Pump Station	7,132
Antero Reservoir	6,651
Strontia Springs	4,349
Downstream Reservoirs	3,958
Treated Water Conduits	2,521
Moffat Tunnel	2,218
Highline Canal	1,890
Gross Reservoir	1,889
Other New Facilities	1,684
Recycled Water Conduits	1,672
Harvard Gulch	1,180
Foothills Treatment Plant	1,133
Treated Water Conduits	1,124
Cherry Hills Pump Station	1,013
Other	3,623
Total	<u>\$ 152,528</u>

Information on the Board's capital assets can be found in Note 4 to the basic financial statements.

LONG-TERM DEBT ACTIVITY

On November 20, 2013, the Board executed a credit agreement with Bank of America, N.A., to provide a variable rate revolving line of credit for a maximum initial principal amount of \$30.0 million as an interim source of financing for capital improvements to the water works system. The agreement has the option to increase the commitment amount to a maximum of \$50.0 million, subject to lender approval. The revolving agreement was amended in 2016 extending the termination date to November 15, 2018. In addition, certain terms of the agreement were amended to reflect market conditions present at the time of the amendment.

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The Board drew \$30.0 million on the line of credit in 2015 and paid the balance outstanding with proceeds from the Series 2016A bond issuance.

In 2016, the Board issued the Master Resolution Water Revenue Bonds Series 2016A and Series 2016B with principal amounts of \$94.8 million and \$63.5 million, respectively. After the payoff of the line of credit, the remaining proceeds from the Series 2016A bonds were used to fund capital improvements to the water works system. Proceeds from the Series 2016B bonds were placed in escrow with U.S. Bank, N.A. to advance refund \$66.2 million in principal of the Master Resolution Water Revenue Bonds Series 2007A issue and to achieve a present value savings.

RATE CHANGE

Denver Water's previous rate structure had been in place for 20 years and in 2016 was updated to balance three objectives: affordability, conservation and revenue stability. The rate changes went into effect April 1, 2016. The new structure will begin to shift the Board's revenue from such a heavy reliance on usage to a more stable fixed fee over the next few years, which means that future rate increases will be less subject to bigger jumps because of unpredictable weather.

REQUESTS FOR INFORMATION

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

Chief Finance Officer
Denver Water
1600 W. 12th Ave.
Denver, CO 80204-3412

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Statements of Net Position
December 31, 2016 and 2015
(Amounts expressed in thousands)

<u>ASSETS</u>	<u>2016</u>	<u>2015</u>
CURRENT ASSETS:		
Cash	\$ 21,277	\$ 21,490
Short-term investments, at fair value, including accrued interest	232,590	172,065
Restricted investments - debt service	14,005	12,047
Restricted investments - other	500	-
Accounts receivable	21,261	20,633
Materials and supplies inventory, at weighted average cost	5,668	5,793
Prepaid expenses	456	543
Total current assets	<u>295,757</u>	<u>232,571</u>
NONCURRENT ASSETS:		
Capital assets:		
Capital depreciable	2,593,735	2,553,862
Capital non-depreciable	204,893	204,883
	<u>2,798,628</u>	<u>2,758,745</u>
Less accumulated depreciation and amortization	(844,614)	(806,830)
	<u>1,954,014</u>	<u>1,951,915</u>
Utility plant under capital lease, less accumulated amortization of \$11,822 and \$11,261, respectively	31,158	31,719
Construction in progress	259,690	163,266
Net capital assets	<u>2,244,862</u>	<u>2,146,900</u>
Other noncurrent assets:		
Long-term investments	19,022	33,558
Prepaid expenses and other assets	4,684	4,084
Long-term receivable	14,190	15,374
Total other noncurrent assets	<u>37,896</u>	<u>53,016</u>
Total noncurrent assets	<u>2,282,758</u>	<u>2,199,916</u>
Total assets	<u>2,578,515</u>	<u>2,432,487</u>
 <u>DEFERRED OUTFLOWS OF RESOURCES</u>		
Deferred amount on refunding	6,941	4,316
Pension-related deferred outflows of resources	34,168	15,979
Total deferred outflows of resources	<u>41,109</u>	<u>20,295</u>
Total assets and deferred outflow of resources	<u>2,619,624</u>	<u>2,452,782</u>

**BOARD OF WATER COMMISSIONERS
CITY AND COUNTY OF DENVER, COLORADO**

Statements of Net Position
December 31, 2016 and 2015
(Amounts expressed in thousands)

	2016	2015
<u>LIABILITIES</u>		
CURRENT LIABILITIES:		
Accounts payable	\$ 20,313	\$ 11,936
Payroll and other employee benefits	17,344	14,017
Construction contracts (including retainages of \$5,224 and \$2,911 respectively)	13,951	6,243
Accrued interest on long-term debt	2,620	1,157
Unearned revenue	226	-
Current portion of revenue bonds payable	19,595	21,565
Current portion of obligation under capital lease	2,418	2,263
	76,467	57,181
NONCURRENT LIABILITIES:		
Notes payable	-	30,000
Revenue bonds payable, net	434,743	353,153
Obligation under capital lease	6,797	9,215
Customer advances for construction	3,402	7,676
Compensated absences	3,463	4,577
Net pension liability	72,856	46,255
Other postemployment benefits	10,149	10,799
Waste disposal closure and postclosure care	6,300	6,230
	537,710	467,905
Total noncurrent liabilities	537,710	467,905
Total liabilities	614,177	525,086
<u>DEFERRED INFLOWS OF RESOURCES</u>		
Pension-related deferred inflows of resources	-	9,666
Total deferred inflows of resources	-	9,666
Total liabilities and deferred inflows of resources	614,177	534,752
<u>NET POSITION</u>		
Net investment in capital assets	1,788,250	1,735,020
Restricted for debt service	14,005	12,047
Other Restricted	500	-
Unrestricted	202,692	170,963
	\$ 2,005,447	\$ 1,918,030

See accompanying notes to basic financial statements.

**BOARD OF WATER COMMISSIONERS
CITY AND COUNTY OF DENVER, COLORADO**

Statements of Revenues, Expenses, and Changes in Net Position
Years Ended December 31, 2016 and 2015
(Amounts expressed in thousands)

	2016	2015
OPERATING REVENUES:		
Water	\$ 273,238	\$ 241,836
Power generation and other	11,216	10,224
Total operating revenues	284,454	252,060
OPERATING EXPENSES:		
Source of supply, pumping, treatment and distribution	82,418	75,972
General and administrative	103,380	81,994
Customer service	11,370	9,962
Depreciation and amortization	50,352	47,897
Total operating expenses	247,520	215,825
OPERATING INCOME	36,934	36,235
NONOPERATING REVENUES (EXPENSES):		
Investment income	1,603	1,479
Interest expense, less capitalized interest of \$4,193 and \$3,084, respectively	(11,446)	(13,049)
Loss on disposition of capital assets	(6,348)	(4,720)
Other income	7,426	5,595
Other expense	(1,861)	(2,499)
Total nonoperating expenses, net	(10,626)	(13,194)
INCOME BEFORE CAPITAL CONTRIBUTIONS	26,308	23,041
CAPITAL CONTRIBUTIONS:		
Contributions in aid of construction	22,147	33,256
System development charges	38,962	36,109
Total capital contributions	61,109	69,365
INCREASE IN NET POSITION	87,417	92,406
NET POSITION:		
Beginning of year	1,918,030	1,825,624
End of year	\$ 2,005,447	\$ 1,918,030

See accompanying notes to basic financial statements.

**BOARD OF WATER COMMISSIONERS
CITY AND COUNTY OF DENVER, COLORADO**

Statements of Cash Flows

Years Ended December 31, 2016 and 2015

(Amounts expressed in thousands)

	2016	2015
CASH FLOWS FROM OPERATING ACTIVITIES:		
Receipts from customers	\$ 285,261	\$252,149
Payments to employees	(120,539)	(100,210)
Payments to suppliers	(68,298)	(71,434)
Other receipts	7,401	5,622
Other payments	(5,869)	(4,382)
Net cash provided by operating activities	97,956	81,745
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Proceeds from contributions in aid of construction ("CIAC") and prepaid CIAC	2,335	8,713
Proceeds from system development charges ("SDC") and prepaid SDC	38,752	36,109
Proceeds from sales of capital assets	2,143	1,117
Proceeds from notes payable	-	30,000
Proceeds from long-term revenue bonds, plus premium, less issuance costs	70,363	-
Acquisition of capital assets	(124,842)	(106,672)
Principal payments for long-term bonds	(21,565)	(27,000)
Principal payments for capital lease obligations	(2,263)	(2,117)
Interest paid (includes capitalized interest of \$4,193 and \$3,084, respectively)	(16,248)	(18,802)
Net cash used for capital and related financing activities	(51,325)	(78,652)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Proceeds from sales and maturities of investments	250,540	122,892
Interest received from investments	1,373	1,648
Purchases of investments	(298,757)	(134,255)
Net cash used for investing activities	(46,844)	(9,715)
NET INCREASE (DECREASE) IN CASH	(213)	(6,622)
CASH, AT BEGINNING OF YEAR	21,490	28,112
CASH, AT END OF YEAR	\$ 21,277	\$ 21,490

**BOARD OF WATER COMMISSIONERS
CITY AND COUNTY OF DENVER, COLORADO**

Statements of Cash Flows
Years Ended December 31, 2016 and 2015
(Amounts expressed in thousands)

	2016	2015
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:		
Operating income	\$ 36,934	\$ 36,235
Adjustments to reconcile operating income to net cash provided by operating activities-		
Other revenues	7,426	5,595
Other expenses	(5,869)	(2,499)
Depreciation and amortization of capital assets	50,352	47,897
Change in assets and liabilities-		
Accounts receivable and long-term receivable	556	116
Materials and supplies inventory	88	605
Prepaid expenses - current	87	(109)
Prepaid expenses and other assets - noncurrent	(600)	(1,009)
Deferred outflows of resources - pension related	(18,189)	279
Accounts payable	8,377	1,380
Payroll and other employee benefits	2,213	1,532
Unearned revenue	226	-
Net pension liability	26,601	(1,764)
Other postemployment benefits	(650)	(191)
Waste disposal closure and postclosure care	70	91
Deferred inflows of resources - pension related	(9,666)	(6,413)
Net cash provided by operating activities	\$ 97,956	\$ 81,745
 NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES:		
Assets acquired through contributions in aid of construction	\$ 19,812	\$ 24,543
Assets acquired through system development charges	\$ 210	\$ -
Increase (decrease) in fair value of investments	(34)	(106)
Loss on disposition of capital assets	(6,348)	(4,720)
Deferred loss on refunding	2,625	(336)

See accompanying notes to basic financial statements.

**BOARD OF WATER COMMISSIONERS
CITY AND COUNTY OF DENVER, COLORADO**

Notes to Basic Financial Statements
December 31, 2016 and 2015

Note

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 - B. Measurement Focus and Basis of Accounting
 - C. Accounting Standards
 - D. Use of Estimates
 - E. Restricted Net Position and Flow Assumption for Restricted Net Position
 - F. Cash
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 - I. Capital Assets
 - J. Capital Contributions
 - K. Employee Compensated Absences
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 - M. Operating Revenues and Expenses
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- 3 Accounts Receivable

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- 5 Risk Management

- 6 Notes and Bonds Payable

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(1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Reporting Entity

The Board of Water Commissioners (the “Board”) was created under the Charter of the City and County of Denver, Colorado (the “City”) as an independent, nonpolitical board. The Board has complete charge and control of a water works system and plant, which supplies water to customers located within the City and to entities serving other customers located in certain outlying areas in the Denver metropolitan area. Also, as a byproduct of water operations, the Board operates seven hydropower plants which generate power for sale to Xcel Energy and Tri-State Generation and Transmission Association, for internal consumption, and for repayment to the U.S. Department of Energy for power interference.

The Board has a five-member governing body, which is appointed by the Mayor of the City for overlapping six-year terms. In accordance with Governmental Accounting Standards Board (“GASB”) Statements No. 14, *The Financial Reporting Entity*, No. 39, *Determining Whether Certain Organizations Are Component Units, an amendment of GASB Statement No. 14*, and No. 61, *The Financial Reporting Entity: Omnibus*, the Board is classified as a special-purpose “other stand-alone government.” A special-purpose other stand-alone government is defined as a legally separate governmental organization that (a) does not have a separately elected governing body and (b) does not meet the definition of a component unit because it does not have a financial benefit or burden relationship with a primary government.

The Board is a “related organization” in the City’s financial reporting entity. A related organization is defined as an organization for which a primary government is not financially accountable (because it does not impose its will or have a financial benefit or burden relationship) even though the primary government appoints a voting majority of the organization’s governing board.

The Board has no component units as defined in GASB Statements No. 14, 39, and 61.

B. Measurement Focus and Basis of Accounting

The Board, as a business type activity, is accounted for in an enterprise fund, which is used to report any activity for which a fee is charged to external users for goods or services. The Board’s basic financial statements are accounted for on the flow of economic resources measurement focus, using the accrual basis of accounting. Under this method, all assets and liabilities associated with operations are included on the statements of net position, revenues are recorded when earned, and expenses are recorded at the time liabilities are incurred. Under the terms of grant agreements, the Board funds certain programs using a combination of cost-reimbursement grants and general revenues. It is the Board’s policy to first apply cost-reimbursement grant resources to such programs, followed by general revenues.

C. Accounting Standards

The Board applies all applicable pronouncements of the GASB.

D. Use of Estimates

The preparation of basic financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions. These estimates may affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the basic financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

E. Restricted Net Position and Flow Assumption for Restricted Net Position

Restricted net position consists of both the revenue bonds debt reserve fund, the revenue bonds debt service account and amounts restricted for grants included in cash and short-term investments. The revenue bonds debt service account is used to pay principal and interest on the revenue bonds as they become due. The revenue bonds debt reserve fund is set aside to pay bondholders in the event that funds are not available at the time the debt payment is due. These restricted funds are used for their intended purpose before unrestricted funds.

F. Cash

The definition of cash for purposes of the statements of cash flows is cash on deposit in the Water Works Fund, cash in lock box, and cash on hand.

G. Investments

The Board's investments consist of money market investments (commercial paper and money market mutual funds), local government investment pools, U.S. Treasury, U.S. agency, commercial paper, and corporate notes and bonds. The money market investments and local government investment pools are measured at net asset value which is generally equivalent to fair value. U.S. Treasury, U.S. agency, commercial paper, and corporate notes and bonds investments are fair value based on quoted market prices (see Note 2, *Deposits and Investments*).

H. Materials and Supplies Inventory

Materials and supplies inventory is valued at weighted average cost, which approximates lower of cost or market.

I. Capital Assets

Purchased and constructed capital assets are recorded at cost. Donated capital assets are recorded at their estimated fair market value on the date received. Assets are capitalized if they have a cost of \$50,000 or more and have a useful life of more than one year.

Land and water rights are also recorded at cost. Land is not depreciated and water rights are granted in perpetuity and not amortized.

Depreciation and amortization are computed using the straight-line method over the estimated useful lives of the respective depreciable or amortizable asset classes as follows:

<u>Depreciation Lives by Asset Class</u>	
	<u>Years</u>
Buildings and components	10 - 80
Machinery and equipment	5 - 80
Furniture and office equipment	10 - 20
Motor vehicles and motorized equipment	10 - 15

Maintenance and repairs are charged to expense as incurred, whereas major betterments are capitalized and depreciated or amortized. At the time of retirement or disposition of depreciable property, the related cost

and accumulated depreciation are removed from the accounts, and the resulting gain or loss is reflected in nonoperating revenues (expenses).

Interest during the construction period is capitalized on major construction projects.

Beginning in 2015, process or system assets were capitalized rather than individual component units. Because the process or system asset may be made up of many component assets, the capitalization threshold was adjusted from \$5,000 to \$50,000.

J. Capital Contributions

Capital contributions consist of contributions in aid of construction ("CIAC") and system development charges ("SDC"). CIAC represent facilities, or cash payments for facilities, received from developers, property owners, governmental agencies, or customers who receive benefit from such facilities. SDC represent fees charged to customers to connect to the water system. Contributions are recognized in the statements of revenues, expenses, and changes in net position, after nonoperating revenues (expenses), when earned. Assets acquired through CIAC are included in capital assets. Depreciation applicable to such assets is computed using the straight-line method over the useful life associated with the contributed asset, and is included in operating expenses (see Note 14, *Capital Contributions*).

K. Employee Compensated Absences

The Board's policy is to accrue as an expense and liability employee vacation, sick leave and other compensated absences, including related payroll taxes. At the end of 2016, compensated absences were accrued at 100%, in preparation of the conversion to paid time off (PTO) in 2017.

L. Pension Plan

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Employees' Retirement Plan of the Denver Board of Water Commissioners (the "Plan") and additions to and/or deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

M. Operating Revenues and Expenses

Operating revenues consist primarily of charges to customers directly or indirectly related to the sale of water. Operating expenses consist of the cost of providing water and power, including administrative expenses and depreciation on capital assets. All other revenues and expenses are classified as nonoperating.

The Board accrues for estimated unbilled revenues for water provided through the end of each year from the last reading of the meters, based on the billing cycle.

N. Rates and Fees

Under Article X, Section 10.1.9 of the City Charter, the Board is empowered to set rates for all of its customers. These rates "...may be sufficient to pay for operation, maintenance, reserves, debt service, additions, extensions, betterments, including those reasonably required for the anticipated growth of the Denver metropolitan area, and to provide for Denver's general welfare...."

Consumption and Service Charges

On December 14, 2016, the Board approved a water rate increase, effective April 1, 2017. The rate increase is designed to increase overall total system water rate revenue by 3.0%.

On December 16, 2015, the Board approved a water rate increase and rate structure change, effective April 1, 2016. The rate increase is designed to increase overall total system water rate revenue by 3.8%. The rate structure change is designed to make water rate revenues more stable and better reflect modern demands.

On October 8, 2014, the Board approved a water rate increase, effective February 1, 2015, designed to increase overall total system water rate revenue by 2.2%.

System Development Charges (“SDC”)

There was no SDC adjustment made in 2015 or 2016.

O. Financial System Reimplementation and Revised Chart of Accounts

In 2016, the Board completed phase one of the Organizational Reporting and Communication Alignment (ORCA) project. As part of phase one, the financial structure and chart of accounts were completely overhauled resulting in certain variances in year over year comparisons, and a shift in how indirect costs are allocated to functions. In addition, certain reclassifications have been made to prior year’s information to conform to the current year presentation.

P. Recently Issued Accounting Standards

There were no new GASB statements that impacted the Board in 2016.

In 2015, the Board implemented GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date*, and restated the 2014 financial statements. The primary effect was to record the Board’s net pension liability of \$46.3 million and \$48.0 million on the Statements of Net Position as of December 31, 2015 and 2014, respectively. The cumulative effect of applying these statements was reported as a restatement of beginning 2014 net position in the amount of \$65.4 million. See Note 10, *Pension Plan*.

In 2015, the Board early implemented GASB Statement No. 72, *Fair Value Measurement and Application*. Because the Board was already reporting investments at fair value, the primary effect of the implementation was additional note disclosures. See Note 2, *Deposits and Investments*.

(2) DEPOSITS AND INVESTMENTS

A. Cash Deposits with Financial Institutions

Custodial Credit Risk - Deposits

Custodial credit risk for deposits is the risk that in the event of a bank failure, the Board’s deposits may not be returned to it. All of the Board’s cash deposits are either insured by FDIC or covered by the Colorado Public Deposit Protection Act (“PDPA”) (C.R.S., 11-10.5-101). Under the PDPA all deposits exceeding the amount insured by the FDIC are required to be fully collateralized at 102% of the deposits with specific approved securities identified in the act. Deposits collateralized under the PDPA are considered

collateralized with securities held by the pledging financial institutions' trust department or agent in the Board's name. All of the deposits of the Board at December 31, 2016 and 2015 were either insured by FDIC or collateralized under the Colorado Public Depository Act and are therefore not exposed to custodial credit risk.

B. Investments

A reconciliation of cash and investments reported on the *Statements of Net Position* as of December 31, is as follows:

	<u>Cash and Investments</u>	
	<u>(amounts expressed in thousands)</u>	
	December 31,	
	2016	2015
Cash	\$ 21,277	\$ 21,490
Short-term investments, at fair value, including accrued interest	232,590	172,065
Restricted investments - debt service	14,005	12,047
Restricted investments - other	500	-
Long-term investments	19,022	33,558
Total investments	<u>266,117</u>	<u>217,670</u>
Total cash and investments	<u>\$287,394</u>	<u>\$239,160</u>

Colorado statutes and the City Charter authorize the Board to expend funds for the operation of the Board, including the purchase of investments. It is the policy of the Board to invest funds in priority order to preserve principal, provide sufficient liquidity, and to obtain a market rate of return within the constraints of the Board's investment policy. Operational needs and prevailing market conditions affect the investment portfolio allocation at year-end. The table below identifies the investment types that are authorized by the Board's investment policy, as well as certain provisions of the investment policy that address interest rate risk, credit quality risk and concentration of credit risk.

Investments Authorized by the Board's Investment Policy
December 31, 2016 and 2015

<u>Authorized Investment Type</u>	<u>Maximum Maturity</u>	<u>Minimum Issuer Credit Quality¹</u>	<u>Maximum in Portfolio²</u>	<u>Maximum Investment One Issuer²</u>
U.S. Treasury securities	5 years	Not applicable	No limit	No limit
U.S. agency securities	4 years	AA- / Aa3	50%	15%
Commercial paper	270 days	A-1 / P-1	25% ³	5% ⁴
Corporate fixed income securities	3 years	AA- / Aa3	25% ³	5% ⁴
Money market mutual funds	Not applicable	AAAm	25%	5%
Local government investment pools	Not applicable	AAAm	10%	5%
Certificates of deposit	180 days	AA- / Aa3	15%	10%
Bankers' acceptances	180 days	A-1 / P-1	25% ³	5% ⁴
Repurchase agreements	Overnight	AA- / Aa3	25%	25%
Municipal bonds	5 years	AA- / Aa3	15%	5%

¹Investments must meet minimum credit quality at time of purchase. Investments that fall below minimum credit quality may be sold or held to maturity at the discretion of the Board. Ratings are S&P first and Moody's second.

²Calculated as a percentage of book value of the aggregate cash and investment portfolio at purchase.

³Maximum concentration in aggregate for commercial paper, corporate fixed income securities and bankers' acceptances.

⁴Maximum concentration in a single issuer of commercial paper, corporate fixed income securities and bankers' acceptances.

Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Normally the longer the maturity of an investment the greater the sensitivity of its fair value to changes in market interest rates. The Board manages interest rate risk by purchasing investments with varying maturities, continuously investing a portion of the portfolio in readily available funds, limiting total investments maturing in more than 3 years to 25% of the portfolio and limiting the maximum maturity of investments by type of investment.

Investments with call features increase the sensitivity of their fair values to increasing interest rates. The Board's portfolio of U.S. agency securities includes callable securities. At December 2016 and 2015, the Board owned callable securities with a fair value of \$3.0 million and \$2.0 million, respectively. The Board's callable securities are categorized in accordance with their final maturity dates in the tables below.

The Board's cash and investments at December 31, 2016 and 2015, and their maturities were as follows:

<u>Cash, Current and Long-Term Investments</u>					
<u>December 31, 2016</u>					
<u>(amounts expressed in thousands)</u>					
Investment type	Percent of Investment Portfolio	Fair Value	Investment Maturities (in years)		
			1 or less	1 - 3	3 - 5
U.S. Treasury securities	47.7%	\$ 126,946	\$ 122,921	\$ 4,025	\$ -
U.S. agency securities	28.0%	74,524	71,550	2,974 ¹	-
Commercial paper	3.8%	9,983	9,983	-	-
Corporate fixed income securities	7.0%	18,609	6,586	12,023	-
Money market funds	11.7% ²	31,051	31,051	-	-
Local government investment pools	1.9%	5,004	5,004	-	-
Total investments	<u>100.0%</u>	266,117	<u>\$ 247,095</u>	<u>\$ 19,022</u>	<u>\$ -</u>
Cash		<u>21,277</u>			
Total cash and investments		<u>\$ 287,394</u>			

¹ \$3.0 million in corporate fixed income securities are callable beginning in 2017.

² The Board's investment policy established maximum concentrations based on total cash, cash equivalents, and investments at the time of purchase. There is no requirement to sell investments if the concentration changes at a later date due to market factors.

<u>Cash, Current and Long-Term Investments</u>					
<u>December 31, 2015</u>					
<u>(amounts expressed in thousands)</u>					
<u>Investment type</u>	<u>Percent of Investment Portfolio</u>	<u>Fair Value</u>	<u>Investment Maturities</u>		
			<u>(in years)</u>		
			<u>1 or less</u>	<u>1 - 3</u>	<u>3 - 5</u>
U.S. Treasury securities	35.7%	\$ 77,613	\$ 60,577	\$ 17,036	\$ -
U.S. agency securities	41.1%	89,570	73,048	16,522 ¹	-
Commercial paper	4.1%	8,996	8,996	-	-
Corporate fixed income securities	1.2% ²	2,510	2,510	-	-
Money market funds	17.9%	38,981	38,981	-	-
Total investments	<u>100.0%</u>	<u>217,670</u>	<u>\$ 184,112</u>	<u>\$ 33,558</u>	<u>\$ -</u>
Cash		<u>21,490</u>			
Total cash and investments		<u>\$ 239,160</u>			

¹ \$2.0 million in agency securities are callable beginning in 2016.

² The Board's investment policy established maximum concentrations based on total cash, cash equivalents, and investments at the time of purchase. There is no requirement to sell investments if the concentration changes at a later date due to market factors.

Credit Risk

Credit risk is the risk that the issuer of a debt security will not fulfill its obligations to the holder of the obligation. National rating agencies assess this risk and assign a credit quality rating for most investments. U.S. agency securities held in the portfolio are securities issued by government sponsored enterprises. These securities are not explicitly guaranteed by the federal government. Presented below are the lowest credit ratings at December 31, 2016 and 2015, for each investment type.

<u>Investment Ratings</u> <u>December 31, 2016</u> (amounts expressed in thousands)							
S&P/Moody's Ratings ¹	U.S. Treasury Securities	U.S. Agency Securities	Commercial Paper	Corporate Fixed Income Securities	Money Market Mutual Funds	Local Government Investment Pools	Total
AAA/Aaa	\$ -	\$ 8,985	\$ -	\$ 5,188	\$ -	\$ -	\$ 14,173
AAAm	-	-	-	-	31,051	5,004	\$ 36,055
A-1/P-1	-	38,427	9,983	-	-	-	\$ 48,410
AA/Aa	126,946	27,112	-	13,421	-	-	\$ 167,479
A/A	-	-	-	-	-	-	\$ -
	<u>\$ 126,946</u>	<u>\$ 74,524</u>	<u>\$ 9,983</u>	<u>\$ 18,609</u>	<u>\$ 31,051</u>	<u>\$ 5,004</u>	<u>\$ 266,117</u>

¹Actual credit ratings as of the year end for each investment type. For securities with split ratings the lowest rating is shown. Securities that fall below the minimum credit quality may be sold or held at the discretion of the Board.

<u>Investment Ratings</u> <u>December 31, 2015</u> (amounts expressed in thousands)						
S&P/Moody's Ratings ¹	U.S. Treasury Securities	U.S. Agency Securities	Commercial Paper	Corporate Fixed Income Securities	Money Market Mutual Funds	Total
AAAm	\$ -	\$ -	\$ -	\$ -	\$ 38,981	\$ 38,981
A-1/P-1	-	55,441	8,996	-	-	64,437
AA/Aa	77,613	34,129	-	2,510	-	114,252
A/A	-	-	-	-	-	-
	<u>\$ 77,613</u>	<u>\$ 89,570</u>	<u>\$ 8,996</u>	<u>\$ 2,510</u>	<u>\$ 38,981</u>	<u>\$ 217,670</u>

¹Actual credit ratings as of the year end for each investment type. For securities with split ratings the lowest rating is shown. Securities that fall below the minimum credit quality may be sold or held at the discretion of the Board.

Concentration of Credit Risk

The Board's investments comply with the requirements of the investment policy. Specific limitations within the investment policy are displayed in the schedule titled *Investments Authorized by the Board's Investment Policy*. Generally accepted accounting principles require disclosure of certain investments in any one issuer that exceed five percent concentration of total investments. The following investments represent five percent or more of the Board's total investments at December 31, 2016 and 2015:

Concentration of Credit Risk (amounts expressed in thousands)		
Issuer	December 31,	
	2016	2015
	<u>Fair Value</u>	<u>Fair Value</u>
Federal Farm Credit Bank - (FFCB)	\$ -	\$14,552
Federal Home Loan Bank - (FHLB)	17,988	12,999
Federal Home Loan Mortgage Corporation - (FHLMC)	16,504	27,493
Federal National Mortgage Association - (FNMA)	19,001	34,526

Fair Value

The Board categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted process; Level 3 inputs are significant unobservable inputs.

The Board has the following recurring fair value measurements as of December 31, 2016 and 2015:

<u>Investments Measured at Fair Value</u>				
<u>December 31, 2016</u>				
<u>(amounts expressed in thousands)</u>				
	<u>12/31/2016</u>	<u>Fair Value Measurements Using</u>		
		<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Investments by fair value level:				
U.S. Treasury securities	\$ 126,946	\$ 126,946	\$ -	\$ -
U.S. agency securities	74,524	-	74,524	-
Commercial paper	9,983	-	9,983	-
Corporate fixed income securities	18,609	-	18,609	-
Total investments by fair value level	<u>230,062</u>	<u>\$ 126,946</u>	<u>\$ 103,116</u>	<u>\$ -</u>
Investments measured at net asset value (NAV):				
Local government investment pools	5,004			
Money market funds	31,051			
Total investments by NAV	<u>\$ 36,055</u>			
Total investments	<u>\$ 266,117</u>			

<u>Investments Measured at Fair Value</u>				
<u>December 31, 2015</u>				
<u>(amounts expressed in thousands)</u>				
	<u>12/31/2015</u>	<u>Fair Value Measurements Using</u>		
		<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Investments by fair value level:				
U.S. Treasury securities	\$ 77,613	\$ 77,613	\$ -	\$ -
U.S. agency securities	89,570	-	89,570	-
Commercial paper	8,996	-	8,996	-
Corporate fixed income securities	2,510	-	2,510	-
Total investments by fair value level	<u>178,689</u>	<u>\$ 77,613</u>	<u>\$ 101,076</u>	<u>\$ -</u>
Money market funds (measured at net asset value)	<u>38,981</u>			
Total investments	<u>\$ 217,670</u>			

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) is presented on the following table:

<u>Investments Measured at NAV</u>				
<u>December 31, 2016</u>				
<u>(amounts expressed in thousands)</u>				
	<u>Fair Value</u>	<u>Unfunded Commitments</u>	<u>Redemption Frequency</u>	<u>Redemption Notice Period</u>
Local government investment pools	\$ 5,004	\$ -	Daily	same day
Money market funds	<u>31,051</u>	-	Daily	same day
	<u>\$ 36,055</u>	\$ -		

<u>Investments Measured at NAV</u>				
<u>December 31, 2015</u>				
<u>(amounts expressed in thousands)</u>				
	<u>Fair Value</u>	<u>Unfunded Commitments</u>	<u>Redemption Frequency</u>	<u>Redemption Notice Period</u>
Money market funds	\$ 38,981	\$ -	Daily	same day

The Colorado Local Government Liquid Asset Trust (COLOTRUST) (the Trust), is an investment vehicle established for local government entities in Colorado to pool surplus funds. The State Securities Commissioner administers and enforces all State statutes governing the Trust. The Trust operates similarly to a money market fund and each share is equal in value to \$1.00. The Trust offers shares in two portfolios, COLOTRUST PRIME and COLOTRUST PLUS+. Both portfolios may invest in U.S. Treasury securities

and repurchase agreements collateralized by U.S. Treasury securities. COLOTRUST PLUS+ may also invest in certain obligations of U.S. government agencies, highest rated commercial paper and any security allowed under CRS 24-75-601. A designated custodial bank serves as custodian for the Trust's portfolios pursuant to a custodian agreement. The custodian acts as safekeeping agent for the Trust's investment portfolios and provides services as the depository in connection with direct investments and withdrawals. The custodian's internal records segregate investments owned by the Trust. COLOTRUST is rated AAAM by Standard & Poor's. There are no unfunded commitments, the redemption frequency is daily and there is no redemption notice period.

The money market funds include four money market funds that invest in U.S. Treasury securities, federal instrumentality securities, and agency securities. Unitized mutual funds are reported at fair value based upon the net asset value of shares/units held at year end, provided by fund administrators. All investments contained in the mutual funds are valued in accordance with the authoritative guidance on fair value measurements and disclosures. Funds are available for withdrawal daily.

(3) ACCOUNTS RECEIVABLE

Current and long-term accounts receivable at December 31, 2016 and 2015 were as described below. Other receivables include receivables for contributions in aid of construction, system development charges, non-potable and hydrant water sales, and power sales. Long-term receivables represent financing arrangements with various suburban water districts for the sale of water. The Board has no allowance for uncollectible accounts as it relates to water sales since non-payment of receivables may result in discontinuation of service that attaches to the property location. A \$150,000 allowance for uncollectible accounts was established in 2016 to recognize the potential of uncollectible amounts in non-water sales receivables.

<u>Accounts Receivable</u>				
<u>(amounts expressed in thousands)</u>				
	December 31,			
	2016		2015	
<u>Total Accounts Receivable</u>				
<u>Current</u>				
Water sales	\$ 16,783	79%	\$ 16,412	80%
Other	4,478	21	4,221	20
<i>Total Current</i>	<u>\$ 21,261</u>	<u>100%</u>	<u>\$ 20,633</u>	<u>100%</u>
<u>Long-term</u>	<u>\$ 14,190</u>		<u>\$ 15,374</u>	
<u>From the City and County of Denver (included above)</u>				
<u>Current</u>				
Water sales	\$ 195		\$ 284	
Other	-		9	
<i>Total Current</i>	<u>195</u>		<u>293</u>	
<u>Long-term</u>	-		-	
Total from City and County of Denver	<u>\$ 195</u>		<u>\$ 293</u>	

(4) CAPITAL ASSETS

Capital asset activity for the years ended December 31, 2016 and 2015 were as follows:

	<u>Capital Assets</u> <u>Year Ended December 31, 2016</u> <u>(amounts expressed in thousands)</u>			
	<u>December 31,</u> <u>2015</u>	<u>Additions</u> <u>& Transfers</u>	<u>Sales &</u> <u>Retirements</u>	<u>December 31,</u> <u>2016</u>
<u>Capital assets not being depreciated:</u>				
Land and land rights	\$ 99,098	\$ 10	\$ -	\$ 99,108
Water rights and other	105,785	-	-	105,785
Construction in progress	163,266	96,424	-	259,690
Total capital assets not being depreciated	<u>368,149</u>	<u>96,434</u>	<u>-</u>	<u>464,583</u>
<u>Capital assets being depreciated:</u>				
Buildings and improvements	201,538	2,733	(4,942)	199,329
Improvements other than buildings	2,002,297	42,961	(835)	2,044,423
Machinery and equipment	393,007	10,400	(10,444)	392,963
Total capital assets being depreciated	<u>2,596,842</u>	<u>56,094</u>	<u>(16,221)</u>	<u>2,636,715</u>
Less accumulated depreciation:				
Buildings and improvements	(47,372)	(3,959)	2,878	(48,453)
Improvements other than buildings	(570,105)	(27,209)	727	(596,587)
Machinery and equipment	(200,614)	(19,184)	8,402	(211,396)
Total accumulated depreciation	<u>(818,091)</u>	<u>(50,352)</u>	<u>12,007</u>	<u>(856,436)</u>
Total capital assets being depreciated, net	<u>1,778,751</u>	<u>5,742</u>	<u>(4,214)</u>	<u>1,780,279</u>
Total capital assets, net	<u>\$ 2,146,900</u>	<u>\$ 102,176</u>	<u>\$ (4,214)</u>	<u>\$ 2,244,862</u>

<u>Capital Assets</u>					
<u>Year Ended December 31, 2015</u>					
<u>(amounts expressed in thousands)</u>					
	<u>December 31,</u>	<u>Additions</u>	<u>Sales &</u>	<u>Category</u>	<u>December 31,</u>
	<u>2014</u>	<u>& Transfers</u>	<u>Retirements</u>	<u>Reclass¹</u>	<u>2015</u>
<u>Capital assets not being depreciated:</u>					
Land and land rights	\$ 115,291	\$ 14,042	\$ -	\$ (30,235)	\$ 99,098
Water rights and other	75,550	-	-	30,235	105,785
Construction in progress	171,215	(7,949)	-	-	163,266
Total capital assets not being depreciated	<u>362,056</u>	<u>6,093</u>	<u>-</u>	<u>-</u>	<u>368,149</u>
<u>Capital assets being depreciated:</u>					
Buildings and improvements	281,772	442	(184)	(80,492)	201,538
Improvements other than buildings	1,955,572	106,645	(4,858)	(55,062)	2,002,297
Machinery and equipment	246,368	17,874	(6,789)	135,554	393,007
Total capital assets being depreciated	<u>2,483,712</u>	<u>124,961</u>	<u>(11,831)</u>	<u>-</u>	<u>2,596,842</u>
<u>Less accumulated depreciation:</u>					
Buildings and improvements	(76,257)	(4,056)	138	32,803	(47,372)
Improvements other than buildings	(578,572)	(31,684)	2,252	37,899	(570,105)
Machinery and equipment	(121,358)	(14,040)	5,486	(70,702)	(200,614)
Total accumulated depreciation	<u>(776,187)</u>	<u>(49,780)</u>	<u>7,876</u>	<u>-</u>	<u>(818,091)</u>
Total capital assets being depreciated, net	<u>1,707,525</u>	<u>75,181</u>	<u>(3,955)</u>	<u>-</u>	<u>1,778,751</u>
Total capital assets, net	<u>\$ 2,069,581</u>	<u>\$ 81,274</u>	<u>\$ (3,955)</u>	<u>\$ -</u>	<u>\$ 2,146,900</u>

¹In 2015, assets were transferred between previous asset categories into functional program asset categories.

Depreciation and amortization for the years ended December 31, 2016 and 2015 were as follows:

<u>Depreciation and Amortization</u>		
<u>(amounts expressed in thousands)</u>		
	<u>Years Ended December 31,</u>	
	<u>2016</u>	<u>2015</u>
Operating expenses, water service	\$ 50,352	\$ 47,897
Nonoperating expenses	-	130
Other, as allocated	-	1,753
Total depreciation and amortization	<u>\$ 50,352</u>	<u>\$ 49,780</u>

Major retirements during 2016 were primarily the result of assets disposed of as part of the Operations Complex Redevelopment (OCR) project and fleet equipment sold. Major retirements during 2015 were primarily the result of fleet equipment sold and write-offs of mains, hydrants, and assets associated with the Ashland Reservoir tank replacement project.

(5) RISK MANAGEMENT

The Board is exposed to various risks of losses including torts, general liability, property damage (all limited under the Colorado Governmental Immunity Act to \$350,000 per person and \$990,000 per occurrence), and employee life, medical, dental, and accident benefits. The Board has a risk management program that includes self-insurance for liability, employee medical (including stop-loss coverage), dental, and vision. The Board carries commercial property insurance for catastrophic losses, including floods, fires, earthquakes and terrorism, for scheduled major facilities including the Westside Complex, Marston Treatment Plant and Lab, Moffat Treatment Plant, Foothills Treatment Plant, the Recycling Plant, and water turbines. It carries limited insurance for other nonscheduled miscellaneous locations. The Board also carries commercial insurance for life, accident, short and long term disability, employee dishonesty, and fiduciary exposure.

The Board is self-insured for workers' compensation and carries an excess liability (stop loss) policy for individual claims exceeding \$500,000. Prior to February 1, 2016 the Board was insured for Workers' compensation insurance by a large deductible policy whereby the Board was responsible for the first \$250,000 per claim with a maximum aggregate cost of \$2.6 million. In addition, the Board is at times party to pending or threatened lawsuits under which it may be required to pay certain amounts upon their final disposition. Settled claims have not exceeded this commercial coverage in any of the past three fiscal years.

Claims expenses and liabilities are reported when it is probable that a loss has occurred and the amount of that loss can be reasonably estimated. These losses include an estimate of claims that have been incurred but not reported (IBNR). At December 31, 2016 and 2015 IBNR claims, consisting of workers compensation, and medical and dental benefits, were \$1.3 million and \$1.0 million, respectively. There were no legal claims outstanding at year-end. Changes in the balances of these liabilities during 2016 and 2015 were as follows:

<u>Claims Liabilities</u> <u>(amounts expressed in thousands)</u>				
	<u>Beginning- of-Year Liability</u>	<u>Current-Year Claims and Changes in Estimates</u>	<u>Claim Payments</u>	<u>Balance at Year-End</u>
2016	\$ 1,041	\$ 12,938	\$ (12,636)	\$ 1,343
2015	\$ 919	\$ 11,778	\$ (11,656)	\$ 1,041

Medical, dental, and workers compensation claims liabilities are reported in *Payroll and Other Employee Benefits*; and legal claims, if any, are reported in *Accounts Payable* on the *Statements of Net Position*. It is expected the claims will be paid in the next twelve months.

(6) NOTES AND BONDS PAYABLE

A. Notes Payable

On November 20, 2013, the Board executed a credit agreement with Bank of America, N.A., to provide a variable rate revolving note payable for a maximum initial principal amount of \$30.0 million as an interim source of financing for capital improvements to the water works system. It was the intention of the Board

to periodically pay down the note payable by issuing revenue bonds. The revolving credit facility is payable solely from net revenue and is subordinate to the lien on the Board’s outstanding revenue bonds. The credit facility was amended in 2016 extending the maturity to November 2018 and adjusting applicable margins. The credit facility contains an option to increase the credit amount to \$50.0 million. The funds drawn on the line of credit are classified as long-term liabilities because the debt provisions permit refinancing the note on a long-term basis. Notes Payable activity for the years ended December 31, 2016 and 2015 was as follows:

	<u>Notes Payable</u>			
	<u>(amounts expressed in thousands)</u>			
	<u>Beginning</u>			<u>Ending</u>
	<u>Balance</u>	<u>Draws</u>	<u>Repayments</u>	<u>Balance</u>
2016	\$ 30,000	\$ -	\$ 30,000	\$ -
2015	\$ -	\$30,000	\$ -	\$30,000

B. Revenue Bonds Payable

Revenue Bonds payable consists of water revenue improvement and refunding bonds of the Board. The Board has pledged to repay the bonds and related interest from net revenues, and to maintain adequate rates to ensure its ability to do so. Coupon rates for the revenue bonds outstanding at December 31, 2016 and 2015 ranged from 0.75% to 6.15% each year. The weighted average yield to maturity at issue for outstanding bonds was 2.73% and 3.24% for the years ended December 31, 2016 and 2015, respectively. The weighted average yield is calculated net of Build America Bond subsidy of 35% for the Series 2009A and Series 2010B revenue bonds adjusted in 2016 by 6.9% and in 2015 by 6.8% for the congressional sequestration. In accordance with the issuing bond resolutions, the Board has established a reserve fund for the revenue bonds totaling \$14.0 and \$12.0 million at December 31, 2016 and 2015, respectively.

The Board issued the Series 2016A and 2016B master resolution water revenue bonds on May 10, 2016 in an aggregate principal amount of \$94.8 and \$63.5 million, respectively. The true interest cost at sale was 2.7% for the Series 2016A and 2.3% for Series 2016B. The proceeds from the sale of the Series 2016A were used to finance additions and improvements to the water system operated by the Board and to pay down \$30 million of the Bank of America credit facility. The Series 2016B master resolution water revenue bonds were used to advance refund a portion of the Series 2007A master resolution water revenue bonds. The proportionate share of proceeds for the advance refunding, together with cash funds of \$1,045,000 from the Series 2007A debt service reserve fund were placed in an irrevocable trust with an escrow agent to defease \$66.2 million in aggregate principal of the revenue bonds.

The advance refunding resulted in a difference between the reacquisition price and the net carrying amount of the old debt (“deferred amount on refunding”) of \$3.1 million. This difference, reported in the accompanying basic financial statements as a *Deferred Outflow of Resources*, is being amortized using the straight line method as a component of interest expense through 2037. The remaining unamortized amount of refunding of all bonds considered defeased is \$6.9 million and \$4.3 million at December 31, 2016 and 2015, respectively.

The Board completed the advance refunding to reduce its total debt service payments and to obtain an economic gain (difference between the present values of the old and new debt service payments). The

reduction in total debt service requirements over the next 22 years is \$17.3 million, with an economic gain of \$12.5 million.

A summary of debt maturity for the revenue bonds as of December 31, 2016 is as follows:

<u>Revenue Bonds</u>			
<u>December 31, 2016</u>			
<u>(amounts expressed in thousands)</u>			
<u>Year of Maturity:</u>	<u>Principal</u>	<u>Interest¹</u>	<u>Total</u>
Current:	\$ 19,595	\$ 18,452	\$ 38,047
Long-term:			
2018	19,925	17,546	37,471
2019	19,390	16,615	36,005
2020	16,190	15,725	31,915
2021	16,910	14,964	31,874
2022-2026	72,620	64,064	136,684
2027-2031	72,780	49,477	122,257
2032-2036	86,380	34,031	120,411
2037-2041	71,590	16,213	87,803
2042-2045	43,200	3,425	46,625
	418,985	232,060	651,045
Plus premium	15,758	-	15,758
Total long-term	434,743	232,060	666,803
	<u>\$ 454,338</u>	<u>\$ 250,512</u>	<u>\$ 704,850</u>
<p>¹Excludes Build America Bonds interest subsidy. Amounts received during 2016 and 2015 were \$2,184,000 and \$2,179,000, respectively. The Board is eligible to receive approximately \$33.3 million over the remaining life of the bonds, subject to appropriations by Congress.</p>			

(7) LEASES

A. Capital Lease

On July 21, 1992, the Board entered into an agreement amending the lease agreement of March 3, 1987 with the Colorado River Water Conservation District ("District") whereby the District was required to construct Ritschard Dam and Wolford Mountain Reservoir ("Wolford") on Muddy Creek, a tributary of the Colorado River north of Kremmling, Colorado. In consideration of quarterly and semiannual lease payments for 27 years beginning after issuance of a notice of award for construction and payments of 40% of the annual operating costs of Wolford beginning after the end of the lease term, the District will convey to the Board at the end of the lease term ownership, use and control of 40% of the storage capacity of Wolford and 40% of the water rights. The present value of the minimum lease payments at the beginning of the lease term, including a \$2.4 million nonrefundable deposit, was \$43.0 million, and the Board recorded

an asset and obligation under capital lease of that amount in 1992. The project was completed in the fall of 1995. The assets under the Wolford capital lease by major asset class, recorded in Utility Plant under Capital Lease, are as follows:

<u>Assets Under Capital Lease - Wolford Mountain</u>		
<u>(amounts expressed in thousands)</u>		
	December 31,	
	2016	2015
Improvements other than buildings	\$ 42,980	\$ 42,980
Less: accumulated amortization	(11,822)	(11,261)
	<u>\$ 31,158</u>	<u>\$ 31,719</u>

Minimum capital lease payments were \$3.0 million during both 2016 and 2015. The following is a schedule by year of future minimum lease payments, together with the present value of the minimum lease payments as of December 31, 2016:

<u>Obligation Under Capital Lease - Wolford Mountain</u>	
<u>As of December 31, 2016</u>	
<u>(amounts expressed in thousands)</u>	
<u>Year Ending December 31:</u>	
2017	3,000
2018	3,000
2019	3,000
2020	1,500
Total minimum lease payments	10,500
Less interest at 6.75%	(1,285)
Present value of minimum lease payments (obligation under capital lease)	9,215
Less current portion	(2,418)
Total long-term	<u>\$ 6,797</u>

B. Operating Leases

The Board is committed under various cancellable operating leases for property and equipment. Lease expenses for the years ended December 31, 2016 and 2015 were \$1.2 million and \$1.0 million, respectively. The Board expects these leases to be replaced in the ordinary course of business with similar leases. Future lease payments should approximate the amount expensed in 2016.

(8) WASTE DISPOSAL CLOSURE AND POSTCLOSURE CARE

The Board operates a landfill and residuals drying beds at the Foothills Water Treatment Plant for disposal of aluminum sulfate solids/residuals generated as a by-product of the potable water treatment process at the

Foothills and Marston Water Treatment Plants. It also operates residuals drying beds near the Ralston Reservoir and at West 41st Avenue and Independence Court for dewatering of aluminum sulfate solids/residuals generated as a by-product of the potable water treatment process at the Moffat Water Treatment Plant. These sites have been in operation since 1995. State and federal laws and regulations require the Board to perform certain closing functions on these disposal sites when they stop accepting residuals, including placing a final cover on the Foothills landfill and performing certain maintenance and monitoring functions at the Foothills landfill for thirty years after closure.

Although these sites are not municipal solid waste landfills, and are outside the scope of GASB Statement No. 18, *Accounting for Municipal Solid Waste Landfill Closure and Postclosure Care Costs*, (“GASB No. 18”), the Board voluntarily implemented the provisions of that statement in 2000 to meet State of Colorado and federal financial assurance requirements discussed below.

During 2013, Colorado revised its Solid Waste regulations to require reporting for the Foothills and 41st and Independence drying beds, which were previously not required to be reported. Also, the change in regulations no longer requires recording a liability for postclosure care costs for drying beds if they are “clean closed,” which means that all residuals are removed upon closure. Despite this, the postclosure care liability for Ralston drying beds of \$767,000 and \$760,000, respectively, has been included in 2016 and 2015 pending receipt of a revised Certificate of Designation from Jefferson County.

As required by GASB No. 18, although closure and postclosure care costs will be paid only near or after the date that the disposal sites stop accepting waste, the Board reports a portion of the Foothills closure and postclosure care costs as an operating expense and liability in each year based on landfill capacity used as of each *Statement of Net Position* date. The Board reports the entire liability for closure costs for the Foothills, Ralston, and 41st and Independence residual drying beds since they are not “filled” like a landfill, but are reusable.

Approximately \$6.3 million and \$6.2 million was reported as *Waste Disposal Closure and Postclosure Care* liability in the *Statements of Net Position*, at December 31, 2016 and 2015, respectively, for the sites as follows:

<u>Waste Disposal Closure and Postclosure Care Liability</u>				
<u>(amounts expressed in thousands)</u>				
	<u>Foothills</u>	<u>Ralston</u>	<u>41st & Independence</u>	<u>Total</u>
<u>2016</u>				
Closure Costs	\$ 2,470	\$ 2,142	\$ 634	\$ 5,246
Postclosure Care Costs	287	767	-	\$ 1,054
	<u>\$ 2,757</u>	<u>\$ 2,909</u>	<u>\$ 634</u>	<u>\$ 6,300</u>
<u>2015</u>				
Closure Costs	\$ 2,446	\$ 2,120	\$ 628	\$ 5,194
Postclosure Care Costs	276	760	-	1,036
	<u>\$ 2,722</u>	<u>\$ 2,880</u>	<u>\$ 628</u>	<u>\$ 6,230</u>

These costs are based on the use of 24.8% and 24.1% of the active portion of the Foothills landfill at December 31, 2016 and 2015, respectively, and 100% of the Foothills, Ralston, and 41st and Independence drying beds. The Board will recognize the remaining estimated cost of the Foothills postclosure care of

\$868,000 as the remaining capacity is filled. These amounts are based on what it would cost to perform all closure and postclosure care in 2016. Actual cost may be higher due to inflation, changes in technology, or changes in regulations. The remaining life of the Foothills landfill is estimated to be approximately 72.5 years for the active disposal area of 61.7 acres. In addition, there is expansion capability of 62 acres with an indefinite life. The Foothills, Ralston, and 41st and Independence drying beds have an indefinite life.

The Board is required by state and federal laws and regulations to establish financial assurance sufficient to ensure full payment of closure and postclosure care of its disposal sites by selecting one of a variety of financial mechanisms. The Board chose the “Local Government Financial Test” which includes profitability requirements, minimum general obligation bond ratings, unmodified audit opinions, and the implementation of GASB No. 18.

(9) CHANGES IN LONG-TERM LIABILITIES

Long-term liability activity for the years ended December 31, 2016 and 2015 were as follows:

<u>Long-Term Liabilities</u>					
<u>Year Ended December 31, 2016</u>					
<u>(amounts expressed in thousands)</u>					
	December 31,	2016		December 31,	Due Within
	2015	Additions	Reductions	2016	
	(Current and Long-Term)			(Current and Long-Term)	
Notes Payable	\$ 30,000	\$ -	\$ (30,000)	\$ -	\$ -
Revenue bonds payable, net	374,718	172,365	(92,745)	454,338	19,595
Obligation under capital lease	11,478	-	(2,263)	9,215	2,418
Customer advances for construction	7,676	21,883	(26,157)	3,402	-
Compensated absences	7,421	13,412	(4,859)	15,974	12,511 ¹
Net Pension Liability	46,255	26,601	-	72,856	-
Other postemployment benefits	10,799	1,605	(2,255)	10,149	-
Waste disposal closure	6,230	70	-	6,300	-
	<u>494,577</u>	<u>\$ 235,936</u>	<u>\$ (158,279)</u>	<u>572,234</u>	<u>\$ 34,524</u>
Less current portion	<u>(26,672)</u>			<u>(34,524)</u>	
Total long-term liabilities	<u>\$ 467,905</u>			<u>\$ 537,710</u>	

¹Included in Payroll and Other Employee Benefits in the Statements of Net Position.

Long-Term Liabilities
Year Ended December 31, 2015
(amounts expressed in thousands)

	December 31,	2015		December 31,	Due Within One Year
	2014 (Current and Long-Term)	Additions	Reductions	2015 (Current and Long-Term)	
Notes Payable	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -
Revenue bonds payable, net	404,605	-	(29,887)	374,718	21,565
Obligation under capital lease	13,595	-	(2,117)	11,478	2,263
Customer advances for construction	3,010	11,126	(6,460)	7,676	-
Compensated absences (accrued sick leave)	7,417	554	(550)	7,421	2,844 ¹
Net Pension Liability	48,019	-	(1,764)	46,255	-
Other postemployment benefits	10,990	2,722	(2,913)	10,799	-
Waste disposal closure	6,139	91	-	6,230	-
	<u>493,775</u>	<u>\$ 44,493</u>	<u>\$ (43,691)</u>	<u>494,577</u>	<u>\$ 26,672</u>
Less current portion	<u>(32,042)</u>			<u>(26,672)</u>	
Total long-term liabilities	<u>\$ 461,733</u>			<u>\$ 467,905</u>	

¹Included in Payroll and Other Employee Benefits in the Statements of Net Position.

(10) PENSION PLAN

The Board implemented GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date* in 2015 and restated 2014 financial statements.

General Information about the Pension Plan

Plan Description

The Board sponsors and administers a trustee, single-employer defined benefit pension plan, (the "Plan"). The Plan provides retirement benefits with limited annual cost-of-living adjustments to retired members and, if elected by the member, to his or her surviving spouse. Members of the Plan include substantially all regular and discretionary full-time and part-time employees of the Board. Article X, Section 10.1.6 of the Charter of the City assigns the authority to establish and amend benefit provisions to the Board. The Plan contains provisions regarding amendments, including a provision for employee voting on amendments in specifically described situations. The Plan issues a publicly available financial report that includes financial statements and required supplementary information for the Plan. That report may be obtained by writing to: Treasurer, MC 210, Denver Water, 1600 West 12th Avenue, Denver, CO 80204-3412. It can also be obtained from the Denver Water website.

Benefits Provided

The Plan provides retirement benefits with limited annual cost-of-living adjustments to retired members and, if elected by the member, to his or her surviving spouse. It also provides retirement service in the event of disability, and a \$5,000 death benefit to retirees receiving monthly payments from the plan. Retirement benefits are calculated based on the employee's (a) average final compensation during the 36 consecutive months out of the last 120 completed calendar months of employment with the Board that produce the highest average; (b) the "Covered Compensation" for Social Security tax purposes; (c) years of credited service; (d) age when pension benefit begins; and (e) the form chosen to receive pension benefits. The basic monthly benefit from the Plan for the normal retirement age of 65 will equal the sum of the following amounts: (1) .015 times the average final compensation times the number of years of credited service, and (2) .0045 times the amount by which the average final compensation exceeds the covered compensation times the number of years of credited service. There are also early retirement options beginning at age 55. Monthly pension benefits are automatically adjusted at the beginning of each year to reflect the annual rate of change in the Consumer Price Index from the previous year, limited to no more than 4.4%.

Employees Covered by Benefit Terms

At January 1, 2015 and 2014, the valuation date, the following employees were covered by the benefit terms:

<u>Employees Covered by Pension Plan Benefit Terms</u>		
	<u>2015</u>	<u>2014</u>
Inactive employees or beneficiaries currently receiving benefits	587	558
Inactive employees entitled to but not yet receiving benefits	90	91
Active employees	<u>1,034</u>	<u>1,023</u>
	<u>1,711</u>	<u>1,672</u>

Contributions

Article X, Section 10.1.6 of the Charter of the City assigns the authority to establish and amend the contribution requirements to the Board. The Board's funding policy is established and may be amended by the Board, which acts as trustee of the Plan. The Board reserves the right to suspend, reduce, or permanently discontinue all contributions at any time, pursuant to the termination provisions of the Plan.

On August 28, 2013, the Board adopted the Employees' Retirement Plan Funding Policy effective for 2014 and future years. The Policy defines the objectives of the Board in funding the Plan. In accordance with the policy, the Board will base its contributions to the Plan on Actuarially Determined Contributions ("ADC") calculated annually by an independent actuary using agreed upon methods and assumptions developed by the Actuarial Standards Board and specified in the funding policy. The primary objective of the Policy is to provide sufficient assets to pay all benefits promised under the Plan and to minimize the volatility of contribution payments from year to year. Plan members are not allowed to make contributions. For the years ended December 31, 2016 and 2015, the Board contributed \$14.5 million to the Plan.

Net Pension Liability

The Board has elected a measurement date for the current year-end as of the prior year-end. Therefore, the net pension liability reported as of December 31, 2016 was measured as of December 31, 2015, and the net pension liability reported as of December 31, 2015 was measured as of December 31, 2014. The total pension liability used to calculate the net pension liability for 2016 and 2015 was determined by an actuarial valuation performed as of January 1, 2015 and January 1, 2014.

Actuarial Assumptions

The Entry Age Normal actuarial cost method was used to measure the total pension liability. The actuarial assumptions for 2016 included (a) 7.25% investment rate of return, (b) age based salary increases ranging from 6.25% to 3.35% per year for funding, and (c) 2.75% inflation factor. The actuarial assumptions for 2015 included (a) 7.50% investment rate of return, (b) projected salary increases ranging from 6.1% to 3.6% per year, and (c) 3.0% inflation factor. The actuarial value of Plan assets was determined using techniques that smooth the effects of short-term volatility in the market value of investments over a three-year period. Effective January 1, 2014, the Plan's unfunded actuarial accrued liability will be amortized in level dollar amounts over 15 years on a layered basis, which more closely reflects the average period of active service of Plan members.

Mortality rates used for 2016 were based on the RP-2000 Combined Healthy Mortality Table, projected to 2020 using Scale BB. Mortality rates used for 2015 were based on the RP-2000 Combined Healthy Mortality Table, blended 50% blue collar adjusted and 50% white collar adjusted, and projected to 2021 using Scale AA.

The actuarial assumptions that determined the total pension liability as of January 1, 2015 and January 1 2014, were based on the results of an actuarial experience study for the period 2005 through 2009.

Discount Rate

The discount rate used to measure the total pension liability for 2016 was 7.25% and 7.50% for 2015. The projection of cash flows used to determine the discount rate assumed that Board contributions will be made at approximately the current actuarially determined contribution rate. Based on this assumption, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimate of the 30-year geometric mean return for each major asset class are summarized in the following table:

<u>Target Asset Allocation and Long-Term Expected Return</u>		
<u>As of January 1, 2015</u>		
<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Domestic equity	32.5%	5.1%
International equity	20.0%	5.0%
Domestic fixed income	15.0%	0.8%
Hedge funds	10.0%	3.0%
Public real assets	5.0%	3.8%
Real estate	17.5%	3.8%
	<u>100.0%</u>	

Sensitivity of the Net Pension Liability to Changes in Discount Rate

The following presents the net pension liability of the Board, calculated using the discount rate of 7.25% for 2016 and 7.50% for 2015, as well as what the Board's net pension liability would be if it were calculated using the discount rate that is one percentage point lower or one percentage point higher than the current rate:

<u>Sensitivity of the Net Pension Liability to Changes in Discount Rate</u>			
<u>As of December 31, 2016</u>			
<u>(amounts expressed in thousands)</u>			
	<u>1% Decrease (6.25%)</u>	<u>Current Discount Rate (7.25%)</u>	<u>1% Increase (8.25%)</u>
Net pension liability	<u>\$ 114,468</u>	<u>\$ 72,856</u>	<u>\$ 37,689</u>

<u>Sensitivity of the Net Pension Liability to Changes in Discount Rate</u>			
<u>As of December 31, 2015</u>			
<u>(amounts expressed in thousands)</u>			
	<u>1% Decrease (6.5%)</u>	<u>Current Discount Rate (7.5%)</u>	<u>1% Increase (8.5%)</u>
Net pension liability	<u>\$ 84,924</u>	<u>\$ 46,255</u>	<u>\$ 13,420</u>

Pension Plan Fiduciary Net Position

Detailed information about the Plan's fiduciary net position is available in the separately issued Plan financial report discussed above.

Changes in the Net Pension Liability

<u>Changes in Net Pension Liability</u>			
<u>As of December 31, 2016</u>			
<u>(amounts expressed in thousands)</u>			
	<u>Increase (Decrease)</u>		
	<u>Total Pension</u>	<u>Plan Fiduciary</u>	<u>Net Pension</u>
	<u>Liability</u>	<u>Net Position</u>	<u>Liability</u>
	<u>(a)</u>	<u>(b)</u>	<u>(a) - (b)</u>
Balances at 12/31/15	\$ 348,594	\$ 302,339	\$ 46,255
Changes for the year:			
Service cost	6,757	-	6,757
Interest on total pension liability	25,820	-	25,820
Effect of plan changes	-	-	-
Effect of economic/demographic gains or losses	801	-	801
Effect of assumptions changes or inputs	10,152	-	10,152
Benefit payments	(20,693)	(20,693)	-
Employer contributions	-	14,500	(14,500)
Member contributions	-	-	-
Net investment income	-	2,473	(2,473)
Administrative expenses	-	(44)	44
Net changes	<u>22,837</u>	<u>(3,764)</u>	<u>26,601</u>
Balances at 12/31/16	<u>\$ 371,431</u>	<u>\$ 298,575</u>	<u>\$ 72,856</u>

<u>Changes in Net Pension Liability</u>			
<u>As of December 31, 2015</u>			
<u>(amounts expressed in thousands)</u>			
	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 12/31/14	\$ 337,844	\$ 289,825	\$ 48,019
Changes for the year:			
Service cost	6,071	-	6,071
Interest on total pension liability	25,044	-	25,044
Effect of plan changes	-	-	-
Effect of economic/demographic gains or losses	-	-	-
Effect of assumptions changes or inputs	-	-	-
Benefit payments	(20,365)	(20,365)	-
Employer contributions	-	14,500	(14,500)
Member contributions	-	-	-
Net investment income	-	18,523	(18,523)
Administrative expenses	-	(144)	144
Net changes	10,750	12,514	(1,764)
Balances at 12/31/15	\$ 348,594	\$ 302,339	\$ 46,255

For the years ended December 31, 2016 and 2015, the Board recognized pension expense of \$13.2 million and \$ 6.6 million, respectively. At December 31, 2016 and 2015, the Board reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

<u>Deferred Outflows and Inflows of Resources Related to Pensions</u>		
<u>As of December 31, 2016</u>		
<u>(amounts expressed in thousands)</u>		
	Deferred Inflows of Resources	Deferred Outflows of Resources
Economic/demographic gains or losses	\$ -	\$ 1,883
Net difference between projected and actual earnings	-	9,132
Assumption changes	-	8,653
Contributions made subsequent to measurement date	-	14,500
Total	\$ -	\$ 34,168

<u>Deferred Outflows and Inflows of Resources Related to Pensions</u>		
<u>As of December 31, 2015</u>		
<u>(amounts expressed in thousands)</u>		
	<u>Deferred Inflows of Resources</u>	<u>Deferred Outflows of Resources</u>
Economic/demographic gains or losses	\$ -	\$ 1,479
Net difference between projected and actual earnings	(9,666)	-
Contributions made subsequent to measurement date	-	14,500
Total	<u>\$ (9,666)</u>	<u>\$ 15,979</u>

The \$14.5 million reported as deferred outflows of resources related to pensions, resulting from contributions subsequent to the measurement date, as of December 31, 2015, was recognized as a reduction of the net pension liability in the year ended December 31, 2016. The \$14.5 million reported as deferred outflows of resources related to pensions, resulting from contributions subsequent to the measurement date, as of December 31, 2016, will be recognized as a reduction of the net pension liability in the year ended December 31, 2017.

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

<u>Amortization of Deferred Outflows and Inflows of Resources Related to Pensions</u>	
<u>As of December 31, 2016</u>	
<u>(amounts expressed in thousands)</u>	
Year ended December 31,	
2017	2,319
2018	2,319
2019	6,339
2020	5,741
2021	1,702
Thereafter	1,248

<u>Amortization of Deferred Outflows and Inflows of Resources Related to Pensions</u>	
<u>As of December 31, 2015</u>	
<u>(amounts expressed in thousands)</u>	
Year ended December 31,	
2016	\$ (3,142)
2017	(3,143)
2018	(3,143)
2019	878
2020	279
Thereafter	84

(11) OTHER RETIREMENT PLANS

The Board sponsors and administers the Denver Water Supplemental Retirement Savings Plan (“SRSP”). The SRSP is a 401(k) defined contribution plan. Article X, Section 10.1.6 of the Charter of the City assigns the authority to establish and amend benefit provisions to the Board. All regular and discretionary employees are eligible to participate in the plan. Under the terms of the plan, the Board will make a matching contribution to the SRSP’s trust fund each year in an amount equal to 100% of each participant’s elective contributions, limited to 3% of the participant’s base salary for the year. During 2016 and 2015, the Board made contributions totaling approximately \$2.0 million in both years, respectively and members contributed approximately \$4.5 million in both years, respectively, to the SRSP. Employee rollovers from other plans to the SRSP were \$1.2 million in 2016 and \$1.3 million in 2015.

The Board sponsors and administers a deferred compensation plan that is available for its employees, created in accordance with Internal Revenue Code Section 457. The plan, available to all regular and discretionary employees, permits them to defer a portion of their salary until future years. The deferred compensation is not available to employees until termination, retirement, death, or qualifying unforeseeable emergency. Participation in the plan is voluntary. The Board may make discretionary employer contributions to a qualified participant. Discretionary employer contributions are limited by Treasury Regulations under I.R.S. Code §415, 401(a)(17).

(12) OTHER POSTEMPLOYMENT BENEFITS

Plan Description

The Board provides two types of other postemployment benefits (“OPEB”) as follows:

a. Postemployment Healthcare Benefits

For employees hired before January 16, 2012, the Board provides a postemployment healthcare benefit through a single-employer, defined benefit plan. The benefit is in the form of partially subsidized health care costs, until the retiree attains age 65. The benefit is provided through the Board’s self-insured health plan to employees and dependents who meet eligibility requirements of the postemployment healthcare benefit plan. The eligibility requirements include retiring under the Special Early Retirement (Rule of 75) provision of the Board’s defined benefit pension plan, taking an immediate distribution of pension benefits, and being covered as an employee or dependent under the employee healthcare plan, excluding COBRA

coverage, at the time of retirement. The subsidy is separate from the Board's defined benefit retirement plan and is not paid out of retirement plan funds. Currently, 155 retirees are receiving this benefit. The Board provides this benefit under authority of Article X, Section 10.1.6 of the City Charter, which assigns the authority to establish and amend benefit provisions to the Board. In January 2012, the Board discontinued its subsidy for this benefit for employees hired on or after January 16, 2012. However, employees can still access this program upon reaching age 60, at full cost. In January 2014, the Board changed the benefit for those hired after January 16, 2012, by increasing the minimum age from 55 to 60, with some transition options.

b. Long-Term Disability

A long-term disability ("LTD") insured plan is provided for each employee who attains regular status. Prior to 2007, this benefit was self-insured. Beginning January 2016, Unum took over the remainder of the self-insured plan. Any employee who becomes disabled on or after January 1, 2007, is covered under the terms of an insured plan. The insured plan is an 84-day elimination period for LTD benefits with a benefit of 60% of pay to a maximum of \$10,000 per month. Benefits are payable during the first two years if the disabled employee is incapable of employment at his or her own occupation with a 20% or more loss in indexed monthly earnings. Thereafter, benefits are payable provided the disabled employee continues to experience 20% or more reduction in indexed monthly earnings while working in any occupation or is incapable of employment at any occupation. Benefit duration depends on age at disability. Benefits are payable to age 65 for disabilities that occur before age 60. If the disability occurs after age 60, benefit duration depends on a benefit payment schedule. Under the insured plan, the obligation for the payment of benefits has been effectively transferred to the insurance company. The Board has guaranteed benefits in the event of the insurance company's insolvency.

Neither OPEB plan issues a separate report.

Funding Policy

The Board's funding policy is established and may be amended by the Board. The Board is not required to establish an irrevocable trust fund to accumulate assets for payment of future OPEB benefits, and has elected not to do so. Payments of OPEB benefits are made on a pay-as-you-go basis in amounts necessary to provide current benefits to recipients. For the year ended December 31, 2016, the Board contributed \$2.3 million to the postemployment healthcare benefits plan (approximately 74% of estimated premium equivalent costs). Retirees receiving benefits contributed \$800,000, or approximately 26% of the estimated premium equivalent costs. The Board paid \$1,000 in LTD benefits in 2016 and \$240,000 in LTD insurance premiums. For the year ended December 31, 2015, the Board contributed \$2.0 million to the postemployment healthcare benefits plan (approximately 71% of estimated premium equivalent costs). Retirees receiving benefits contributed \$798,000, or approximately 29% of the estimated premium equivalent costs. The Board paid \$28,000 in LTD benefits in 2015 and \$462,000 in LTD insurance premiums.

Annual OPEB Cost and Net OPEB Obligation

The Board's annual OPEB cost (expense) is calculated based on the annual required contribution of the employer ("ARC"), an amount actuarially determined in accordance with the parameters of GASB Statement 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities over a period not to exceed thirty years. As of January 2016, all long term disability benefits are maintained in an insured plan. As such, long term disability benefits are no longer considered when calculating the annual OPEB cost and net OPEB obligation. The following tables show the components of the Board's annual OPEB costs, the amount

actually contributed to the OPEB plan, and changes in the Board's net OPEB obligation for the years ended December 31, 2016 and 2015:

<u>Annual OPEB Cost and Net OPEB Obligation</u>			
<u>Year Ended December 31, 2016</u>			
<u>(amounts expressed in thousands)</u>			
	<u>Healthcare</u>	<u>LTD¹</u>	<u>Total</u>
Annual required contribution (ARC)	\$ 1,773	\$ -	\$ 1,773
Interest on net OPEB obligation (asset)	432	-	432
Adjustment to ARC	(600)	-	(600)
Annual OPEB cost	1,605	-	1,605
Contributions made	(2,255)	(1)	(2,256)
Increase in net OPEB obligation (asset)	(650)	(1)	(651)
Net OPEB obligation (asset) - beginning of year	10,799	(568)	10,231
Write off of LTD prepaid asset		569	569
Net OPEB obligation (asset) - end of year	<u>\$ 10,149</u>	<u>\$ -</u>	<u>\$ 10,149</u>

¹Denver Water no longer has a self insured long-term disability plan.

<u>Annual OPEB Cost and Net OPEB Obligation</u>			
<u>Year Ended December 31, 2015</u>			
<u>(amounts expressed in thousands)</u>			
	<u>Healthcare</u>	<u>LTD¹</u>	<u>Total</u>
Annual required contribution (ARC)	\$ 1,974	\$ 13	\$ 1,987
Interest on net OPEB obligation (asset)	439	(22)	417
Adjustment to ARC	(611)	31	(580)
Annual OPEB cost	1,802	22	1,824
Contributions made	(1,993)	(28)	(2,021)
Increase in net OPEB obligation (asset)	(191)	(6)	(197)
Net OPEB obligation (asset) - beginning of year	10,990	(562)	10,428
Net OPEB obligation (asset) - end of year	<u>\$ 10,799</u>	<u>\$ (568)</u>	<u>\$ 10,231</u>

¹This is the self-insured portion only. The LTD asset is recorded in *Prepaid Expenses and Other Assets* in the Statements of Net Position.

The Board's annual OPEB cost, the percentage of annual OPEB cost contributed to the OPEB plan, and the net OPEB obligation for 2016 and the two preceding years were as follows:

<u>Annual OPEB Cost and Percentage of Required Contribution</u> (amounts expressed in thousands)				
<u>Year Ended December 31,</u>	<u>Annual OPEB Cost</u>	<u>Contributions Made</u>	<u>Percentage of Annual OPEB Cost Contributed</u>	<u>Net OPEB Obligation</u>
2016	\$ 1,605	\$ 2,256	140.6%	\$ 10,149
2015	1,824	2,021	110.8	10,231
2014	2,044	1,972	96.5	10,428

Funded Status and Funding Progress

As of January 1, 2016 the most recent actuarial valuation date, the plan was 0% funded. The actuarial accrued liability for benefits was \$19.2 million, and the actuarial value of assets was \$0, resulting in an unfunded actuarial accrued liability (UAAL) of \$19.2 million. The covered payroll (annual payroll of active employees covered by the OPEB plan) was \$75.7 million, and the ratio of the UAAL to the covered payroll was 25.4%

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. A schedule of funding progress, presented as required supplementary information, presents multiyear trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits. See Exhibit I-C *OPEB Plan Schedule of Funding Progress*.

Actuarial Methods and Assumptions

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and the plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

In the January 1, 2016 actuarial valuation, the projected unit credit with 30-year open, level dollar amortization, actuarial cost method was used. The actuarial assumptions included a 4.00 percent investment rate of return (net of administrative expenses and including an inflation component of 2.75%). The annual healthcare cost trend rate based on the Getzen Trend Model smoothed each year out to 2030 is 4.50 percent. The actuarial value of assets was not determined as the Board has not advance funded the obligation. The amortization period of the UAAL is a level dollar amount over 30 years on an open basis.

(13) POLLUTION REMEDIATION LIABILITY

In 2016, as part of the Operations Complex Redevelopment project, a site assessment determined that a portion of the soil around the Operations Complex was contaminated with Polycyclic Aromatic

Hydrocarbons, or ash. The source of the ash is unknown. Approximately \$890,000 was expended in 2016 for the disposal of the contaminated soil. At the end of 2016, a liability was accrued for \$500,000 to cover the estimated costs to dispose of the remaining identified contaminated soil during 2017. This liability is shown in Accounts Payable on the Statements of Net Position. The assumptions used to estimate the remaining liability were 1) the estimated area to be disturbed of 392,526 square feet, 2) exploratory boring results indicating that approximately two-thirds of that area will need remediation, and 3) the average cost of the previous remediation work was \$1.80 per square foot. The actual cost could vary depending on depth and the soil conditions discovered once the work commences.

(14) CAPITAL CONTRIBUTIONS

Inception-to-date and current year proceeds from contributions in aid of construction (“CIAC”) and system development charges (“SDC”) were as follows:

<u>Capital Contributions</u>		
<u>Years Ended December 31, 2016 and 2015</u>		
<u>(amounts expressed in thousands)</u>		
	<u>CIAC</u>	<u>SDC</u>
Inception through December 31, 2014	\$ 488,622	\$ 708,802
2015 Additions	<u>33,256</u>	<u>36,109</u>
Inception through December 31, 2015	521,878	744,911
2016 Additions	<u>22,147</u>	<u>38,962</u>
Inception through December 31, 2016	<u>\$ 544,025</u>	<u>\$ 783,873</u>

(15) CONTINGENCIES

In the normal course of business, there are various outstanding legal proceedings, claims, commitments, and contingent liabilities. In the opinion of management, the ultimate disposition of these matters will not have a materially adverse effect on the Board’s financial statements.

(16) CONTRACT COMMITMENTS

Contractual commitments as of December 31, 2016 for construction and other purposes are estimated at \$306.5 million.

Organizational Reporting and Communication Alignment

The Organizational Reporting and Communication Alignment (ORCA) project is a multi-year, multi-phase effort to re-implement and rebuild the financial structure and chart of accounts in the enterprise financial system. Phase one of the project was completed mid-year 2016. Phase two, beginning in 2017, expands

the utilization of the enterprise financial system to include procurement and expense management, and changes to time and attendance reporting. The total estimated budget for the project is \$7 million.

Northwater Treatment Plant

The Northwater Treatment Plant (NTP) is a new 150 million gallons per day (MGD) facility to be constructed on Denver Water's Ralston Reservoir property north of Golden on Colorado State Highway 93. The new facility will replace the Moffat Water Treatment Plant, which is approaching the end of its useful life. The new treatment plant is expected to increase system reliability and flexibility with its modern design. The design of the NTP will be split into several different packages allowing for various components to be conducted by different prime consultants. The design execution will be completed by seven prime consultants and multiple subconsultants. There is an Owner's Representative (OR) that is responsible for the oversight and delivery of the Project. The OR will be part of an integrated team including Denver Water's Project Manager and the Construction Manager at Risk (CMAR) Project Manager. Early phases of construction are estimated to begin in 2018. The preliminary budget for the project is estimated at \$400 million.

Operations Complex Redevelopment

A new campus master plan was approved by the Board in 2013. Design started in 2014, with construction expected to be complete by December 2019. The plan includes two phases of construction. Phase 1 includes the operations buildings and site work, with Phase 2 including the administration and wellness buildings, and parking structure. Construction commenced at the end of 2015 and into 2016 with all Phase 1 design components under construction. The meter shop is nearly 70% complete, the warehouse, fleet and trades buildings are roughly 68%, 50%, and 45% complete respectively. Design efforts are underway for Phase 2 with the issuance of the construction documents for the parking structure in December and the March release of the construction documents for the administration building. The goal is to build a modern site that improves the efficiency, functionality, security and safety of the Board's operations. Many of the current buildings are more than 50 years old and are no longer adequate for today's demands. The new layout will improve traffic and work flow, while taking advantage of matching functions with building adjacencies. Sustainability is a key factor, as the complex is being designed to incorporate LEED certification, educational demonstrations of net zero energy and leading-edge concepts around the management of all water sources. The projected budget for this project has been set at \$195.8 million.

(17) SUBSEQUENT EVENTS

The Board has evaluated subsequent events through April 28, 2017 which is the date the basic financial statements were available to be issued and has identified the following subsequent event:

The Board is planning to issue approximately \$205 million in Series 2017A-B capital improvement revenue bonds on May 10 and May 11, 2017 with an expected close date of May 24, 2017. The Series 2017A bonds, in the amount of \$160 million will be designated "Green Bonds" and the Series 2017B bonds, in the amount of \$45 million will be designated water revenue bonds.

The term "Green Bonds" is used to describe bonds that are issued specifically to finance environmentally beneficial projects. Proceeds from the Series 2017A will be used to partially finance the redevelopment of Denver Water's main operating and administrative complex (the "Operations Complex Redevelopment Project"). Proceeds from the Series 2017B will be used to fund other large capital projects such as the Hillcrest Reservoir Tank Replacement project and Denver Water's Northwater Treatment Plant design.

REQUIRED SUPPLEMENTARY INFORMATION

**BOARD OF WATER COMMISSIONERS
CITY AND COUNTY OF DENVER, COLORADO**

REQUIRED SUPPLEMENTARY INFORMATION
Schedule of Changes in the Net Pension Liability and Related Ratios
2007 - 2016
(amounts expressed in thousands)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Total pension liability										
Service cost	\$ 6,757	\$ 6,071	\$ 6,046	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest	25,820	25,044	24,051	-	-	-	-	-	-	-
Effect of plan changes	-	-	-	-	-	-	-	-	-	-
Effect of economic/demographic (gains) or losses	801	-	2,037	-	-	-	-	-	-	-
Effect of changes of assumptions	10,152	-	-	-	-	-	-	-	-	-
Benefit payments	(20,693)	(20,365)	(17,850)	-	-	-	-	-	-	-
Net change in pension liability	<u>22,837</u>	<u>10,750</u>	<u>14,284</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total pension liability-beginning	<u>348,594</u>	<u>337,844</u>	<u>323,560</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total pension liability-ending (a)	<u><u>371,431</u></u>	<u><u>348,594</u></u>	<u><u>337,844</u></u>	<u><u>-</u></u>	<u><u>-</u></u>	<u><u>-</u></u>	<u><u>-</u></u>	<u><u>-</u></u>	<u><u>-</u></u>	<u><u>-</u></u>
Plan fiduciary net position										
Employer contributions	14,500	14,500	15,000	-	-	-	-	-	-	-
Member contributions	-	-	-	-	-	-	-	-	-	-
Net investment income	2,473	18,523	39,023	-	-	-	-	-	-	-
Benefit payments	(20,693)	(20,365)	(17,850)	-	-	-	-	-	-	-
Administrative expense	(44)	(144)	(116)	-	-	-	-	-	-	-
Net change in plan fiduciary net position	<u>(3,764)</u>	<u>12,514</u>	<u>36,057</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Plan fiduciary net position-beginning	<u>302,339</u>	<u>289,825</u>	<u>253,768</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Plan fiduciary net position-ending (b)	<u><u>298,575</u></u>	<u><u>302,339</u></u>	<u><u>289,825</u></u>	<u><u>-</u></u>	<u><u>-</u></u>	<u><u>-</u></u>	<u><u>-</u></u>	<u><u>-</u></u>	<u><u>-</u></u>	<u><u>-</u></u>
Net pension liability-ending (a)-(b)	<u><u>\$ 72,856</u></u>	<u><u>\$ 46,255</u></u>	<u><u>\$ 48,019</u></u>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>
Plan fiduciary net position as a percentage of the total pension liability	80.39%	86.73%	85.79%	-	-	-	-	-	-	-
Covered-employee payroll	\$ 75,990	\$ 71,847	\$ 71,940	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net position liability as a percentage of covered-employee payroll	95.88%	64.38%	66.75%	-	-	-	-	-	-	-

Notes to schedule:

Information prior to 2014 was not available.

Because the measurement date is December 31 of the previous year, these amounts will differ by one fiscal year when comparing to information displayed on page II-57.

**BOARD OF WATER COMMISSIONERS
CITY AND COUNTY OF DENVER, COLORADO**

REQUIRED SUPPLEMENTARY INFORMATION
Schedule of Board Pension Contributions
2007 - 2016
(amounts expressed in thousands)

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>
Actuarially determined contribution	\$ 14,017	\$ 14,068	\$ 13,532	\$ 11,958	\$ 12,256	\$ 12,414	\$ 12,639	\$ 11,872	\$ 7,233	\$ 6,982
Contributions in relation to the actuarially determined contribution	<u>14,500</u>	<u>14,500</u>	<u>14,500</u>	<u>15,000</u>	<u>14,300</u>	<u>15,400</u>	<u>12,639</u>	<u>14,500</u>	<u>7,590</u>	<u>7,277</u>
Contribution deficiency (excess)	<u>\$ (483)</u>	<u>\$ (432)</u>	<u>\$ (968)</u>	<u>\$ (3,042)</u>	<u>\$ (2,044)</u>	<u>\$ (2,986)</u>	<u>\$ -</u>	<u>\$ (2,628)</u>	<u>\$ (357)</u>	<u>\$ (295)</u>
Covered-employee payroll	\$ 75,740	\$ 75,990	\$ 71,847	\$ 71,940	\$ 71,172	\$ 69,927	\$ 70,372	\$ 65,721	\$ 60,347	\$ 58,579
Contributions as a percentage of covered-employee payroll	19.14%	19.08%	20.18%	20.85%	20.09%	22.02%	17.96%	22.06%	12.58%	12.42%

Notes to schedule:Valuation date:

Actuarially determined contribution rates are calculated as of January 1, the beginning of each fiscal year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age normal
Amortization method	Level dollar amount, layered
Remaining amortization period	15 years
Asset valuation method	3-year smoothed market
Inflation	2.75%
Salary increases	Aged-based rates from 6.25% to 3.35%
Investment rate of return	7.25% investment rate of return (net of administrative expenses and including an inflation component of 3.0%)
Retirement age	Experience based table of rates that are specific to the type of eligibility condition.
Mortality	Mortality rates were based on the RP-2000 Combined Healthy Mortality Table projected to 2020 using Scale BB.

**BOARD OF WATER COMMISSIONERS
CITY AND COUNTY OF DENVER, COLORADO**

REQUIRED SUPPLEMENTARY INFORMATION
Other Post-Employment Benefits Plan Schedule of Funding Progress
(amounts expressed in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b-a)/c]
1/1/16	\$ -	\$ 19,208	\$ 19,208	-	\$ 75,740	25.4%
1/1/15	\$ -	\$ 22,188	\$ 22,188	-	\$ 75,990	29.2%
1/1/14	-	24,264	24,264	-	71,847	33.8%

OTHER SUPPLEMENTAL INFORMATION

BOARD OF WATER COMMISSIONERS
CITY AND COUNTY OF DENVER, COLORADO
Revenue Water Improvement and Refunding Bonds Outstanding
December 31, 2016
(amounts expressed in thousands)

Date of Issue	Interest Rates on Bonds Outstanding as of December 31, 2016	Amount			Bonds Which Are Callable	
		Issued	Retired	Outstanding	Callable Amount	Initial Date Callable
Mar 22, 2007A	3.00-5.00%	100,000	(77,325)	22,675	20,110	Dec 15, 2017
Jun 23, 2008A	0.75%	1,800	(1,080)	720	-	Not callable
June 2, 2009A	4.65-6.15%	44,000	-	44,000	40,255	Dec 15, 2019
Sep 28, 2010B	2.625-5.17%	90,000	-	90,000	78,990	Dec 15, 2020
May 22, 2012A	3.50-5.00%	36,555	-	36,555	32,040	Dec 15, 2021
Jun 26, 2012B	3.00-5.00%	108,545	(68,535)	40,010	16,315	Dec 15, 2021
Sep 16, 2014A	3.00-5.00%	48,670	(2,275)	46,395	43,730	Dec 15, 2023
May 24, 2016A	2.50-5.00%	94,755	-	94,755	59,530	Sep 15, 2026
May 24, 2016B	2.00-5.00%	63,470	-	63,470	33,455	Sep 15, 2026
		<u>\$ 587,795</u>	<u>\$(149,215)</u>	438,580	<u>\$ 324,425</u>	
Plus premium				15,758		
Total Revenue Bonds				<u>\$ 454,338</u>		

See accompanying independent auditors' report.

BOARD OF WATER COMMISSIONERS
CITY AND COUNTY OF DENVER, COLORADO
 Summary of Revenue Bond Debt Service Requirements Outstanding
 December 31, 2016
 Years 2017 to 2045, inclusive
 (amounts expressed in thousands)

<u>Year</u>	<u>Rev. Bond Retirements (Exhibit II-C)</u>	<u>Rev. Bond Interest¹ (Exhibit II-D)</u>	<u>Total Debt Service</u>	<u>Build America Bonds Interest Subsidy²</u>
2017	\$ 19,595	\$ 18,452	\$ 38,047	\$ 2,183
2018	19,925	17,546	37,471	2,141
2019	19,390	16,615	36,005	2,096
2020	16,190	15,725	31,915	2,045
2021	16,910	14,964	31,874	1,989
2022	16,560	14,216	30,776	1,931
2023	17,285	13,481	30,766	1,869
2024	12,585	12,709	25,294	1,801
2025	12,830	12,120	24,950	1,858
2026	13,360	11,538	24,898	1,776
2027	13,915	10,932	24,847	1,690
2028	14,350	10,440	24,790	1,651
2029	13,955	9,915	23,870	1,503
2030	14,965	9,392	24,357	1,403
2031	15,595	8,798	24,393	1,297
2032	16,245	8,168	24,413	1,186
2033	16,930	7,509	24,439	1,069
2034	17,090	6,823	23,913	948
2035	17,735	6,122	23,857	822
2036	18,380	5,409	23,789	689
2037	19,090	4,635	23,725	550
2038	13,880	3,830	17,710	406
2039	14,395	3,192	17,587	254
2040	11,990	2,529	14,519	97
2041	12,235	2,027	14,262	-
2042	12,580	1,573	14,153	-
2043	13,050	1,107	14,157	-
2044	13,530	624	14,154	-
2045	4,040	121	4,161	-
	<u>\$ 438,580</u>	<u>\$ 250,512</u>	<u>\$ 689,092</u>	<u>\$ 33,254</u>
Plus premium	<u>15,758</u>	<u>-</u>	<u>15,758</u>	<u>-</u>
	<u><u>\$ 454,338</u></u>	<u><u>\$ 250,512</u></u>	<u><u>\$ 704,850</u></u>	<u><u>\$ 33,254</u></u>

¹Excludes Build America Bonds interest subsidy.

² Receipt of Build America Bonds interest subsidy is subject to appropriations by Congress.

See accompanying independent auditors' report.

BOARD OF WATER COMMISSIONERS
CITY AND COUNTY OF DENVER, COLORADO
Schedule of Bond Retirements for Revenue Bonds Outstanding
December 31, 2016
Years 2017 to 2045, inclusive
(amounts expressed in thousands)

Year	Series 2007A Improvement	Series 2008A Improvement	Series 2009A Improvement	Series 2010B Improvement	Series 2012A Improvement	Series 2012B Refunding	Series 2014A Improv/Ref	Series 2016A Improv/Ref	Series 2016B Refunding	Total
2017	\$ 2,565	\$ 120	\$ 1,215	\$ 2,670	\$ 815	\$ 6,035	\$ 2,370	\$ 3,805	\$ -	\$ 19,595
2018	-	120	1,245	2,720	860	5,195	-	6,515	3,270	19,925
2019	-	120	1,285	2,780	900	3,025	-	7,845	3,435	19,390
2020	-	120	1,325	2,840	945	3,635	-	3,735	3,590	16,190
2021	-	120	1,370	2,910	995	5,805	-	2,770	2,940	16,910
2022	-	120	1,420	2,980	1,045	5,950	-	1,975	3,070	16,560
2023	-	-	1,475	3,055	1,095	6,200	295	1,965	3,200	17,285
2024	-	-	1,530	3,140	1,140	995	330	2,105	3,345	12,585
2025	-	-	1,595	3,230	1,185	755	360	2,210	3,495	12,830
2026	-	-	1,660	3,330	1,230	780	390	2,300	3,670	13,360
2027	-	-	1,730	3,430	1,280	805	420	2,395	3,855	13,915
2028	-	-	1,805	3,540	1,340	830	450	2,455	3,930	14,350
2029	-	-	1,885	3,660	1,400	-	475	2,515	4,020	13,955
2030	4,665	-	1,970	3,780	1,460	-	505	2,585	-	14,965
2031	4,900	-	2,065	3,910	1,530	-	530	2,660	-	15,595
2032	5,145	-	2,160	4,050	1,595	-	560	2,735	-	16,245
2033	5,400	-	2,265	4,190	1,670	-	585	2,820	-	16,930
2034	-	-	2,370	4,340	1,745	-	610	2,905	5,120	17,090
2035	-	-	2,480	4,495	1,820	-	640	2,990	5,310	17,735
2036	-	-	2,600	4,650	1,885	-	665	3,080	5,500	18,380
2037	-	-	2,720	4,815	1,960	-	695	3,180	5,720	19,090
2038	-	-	2,850	4,985	2,040	-	720	3,285	-	13,880
2039	-	-	2,980	5,160	2,120	-	750	3,385	-	14,395
2040	-	-	-	5,340	2,205	-	960	3,485	-	11,990
2041	-	-	-	-	2,295	-	6,350	3,590	-	12,235
2402	-	-	-	-	-	-	8,885	3,695	-	12,580
2043	-	-	-	-	-	-	9,240	3,810	-	13,050
2044	-	-	-	-	-	-	9,610	3,920	-	13,530
2045	-	-	-	-	-	-	-	4,040	-	4,040
	<u>\$ 22,675</u>	<u>\$ 720</u>	<u>\$ 44,000</u>	<u>\$ 90,000</u>	<u>\$ 36,555</u>	<u>\$ 40,010</u>	<u>\$ 46,395</u>	<u>\$ 94,755</u>	<u>\$ 63,470</u>	<u>\$ 438,580</u>
Plus premium										<u>15,758</u>
										<u>\$ 454,338</u>

See accompanying independent auditors' report.

BOARD OF WATER COMMISSIONERS
CITY AND COUNTY OF DENVER, COLORADO
 Schedule of Bond Interest for Revenue Bonds Outstanding¹
 December 31, 2016
 Years 2017 to 2045, inclusive
 (amounts expressed in thousands)

Year	Series 2007A Improvement	Series 2008A Improvement	Series 2009A Improvement	Series 2010B Improvement	Series 2012A Improvement	Series 2012B Refunding	Series 2014A Improv/Ref	Series 2016A Improv/Ref	Series 2016B Refunding	Total
2017	\$ 732	\$ 5	\$ 2,588	\$ 4,109	\$ 1,569	\$ 1,713	\$ 1,818	\$ 3,484	\$ 2,434	\$ 18,452
2018	604	5	2,532	4,039	1,528	1,411	1,700	3,294	2,433	17,546
2019	604	4	2,471	3,961	1,485	1,151	1,700	2,968	2,271	16,615
2020	604	3	2,407	3,867	1,440	1,030	1,699	2,576	2,099	15,725
2021	604	2	2,337	3,768	1,393	853	1,699	2,388	1,920	14,964
2022	603	1	2,262	3,664	1,343	622	1,699	2,250	1,772	14,216
2023	603	-	2,182	3,553	1,291	383	1,698	2,152	1,619	13,481
2024	603	-	2,097	3,431	1,247	134	1,685	2,053	1,459	12,709
2025	603	-	2,009	3,300	1,201	96	1,671	1,948	1,292	12,120
2026	603	-	1,913	3,161	1,154	73	1,657	1,860	1,117	11,538
2027	603	-	1,813	3,015	1,105	49	1,645	1,768	934	10,932
2028	603	-	1,709	2,859	1,047	25	1,633	1,708	856	10,440
2029	603	-	1,601	2,694	987	-	1,619	1,643	768	9,915
2030	603	-	1,488	2,520	924	-	1,605	1,574	678	9,392
2031	463	-	1,370	2,337	858	-	1,589	1,503	678	8,798
2032	317	-	1,246	2,141	789	-	1,574	1,423	678	8,168
2033	161	-	1,116	1,939	718	-	1,556	1,341	678	7,509
2034	-	-	980	1,730	642	-	1,537	1,257	677	6,823
2035	-	-	838	1,510	564	-	1,517	1,169	524	6,122
2036	-	-	686	1,283	500	-	1,495	1,080	365	5,409
2037	-	-	526	1,047	425	-	1,473	979	185	4,635
2038	-	-	360	800	346	-	1,448	876	-	3,830
2039	-	-	183	543	265	-	1,423	778	-	3,192
2040	-	-	-	276	180	-	1,397	676	-	2,529
2041	-	-	-	-	92	-	1,363	572	-	2,027
2042	-	-	-	-	-	-	1,109	464	-	1,573
2043	-	-	-	-	-	-	754	353	-	1,107
2044	-	-	-	-	-	-	385	239	-	624
2045	-	-	-	-	-	-	-	121	-	121
	<u>\$ 9,516</u>	<u>\$ 20</u>	<u>\$ 36,714</u>	<u>\$ 61,547</u>	<u>\$ 23,093</u>	<u>\$ 7,540</u>	<u>\$ 42,148</u>	<u>\$ 44,497</u>	<u>\$ 25,437</u>	<u>\$ 250,512</u>

¹Excludes Build America Bonds interest subsidy. See Exhibit II-B.

See accompanying independent auditors' report.

STATISTICAL SECTION

This part of Denver Water's comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about Denver Water's overall financial health.

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These schedules offer demographic and economic indicators to help the reader understand the environment within which Denver Water's financial activities take place.

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These schedules contain information about Denver Water's operations and resources to help the reader understand how Denver Water's financial information relates to the services Denver Water provides and the activities it performs.

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Sources : *Unless otherwise noted, the information in these schedules is derived from the comprehensive annual financial reports for the relevant year or internal Denver Water operating groups.*

Rounding : *Some columns in the statistical section are totaled according to the precision of the numbers entered rather than the way they are displayed, and may not appear to total correctly.*

STATISTICAL SUMMARY: 2007 - 2016

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Population served ¹	1,249,000	1,210,000	1,172,000	1,161,000	1,147,000	1,135,000	1,125,000	1,111,000	1,093,000	1,077,000
Total treated water consumption (million gallons) ²	65,003.83	60,115.97	61,185.27	60,212.44	71,968.70	68,260.80	69,695.40	62,106.90	71,975.87	70,479.84
Average daily consumption (million gallons)	178.09	164.70	167.63	165.00	196.64	187.02	190.95	170.16	196.66	193.10
Average daily consumption per capita (gallons) ¹	142	136	143	142	171	165	170	153	180	179
Maximum daily consumption (million gallons)	355.88	344.26	335.20	355.00	398.20	366.40	365.81	341.80	426.16	425.70
Maximum hour treated water use rate (million gallons per day)	592.00	499.30	603.60	591.00	628.00	546.80	577.75	516.90	670.00	660.00
Treated water pumped (million gallons)	26,767.23	27,677.64	36,088.94	34,895.00	39,484.10	36,443.50	41,611.30	38,198.90	50,283.70	44,684.79
Raw water storage capacity (acre-feet) ³	568,642	569,534	569,534	569,534	569,534	569,534	561,883	561,883	561,883	561,883
Replacement reservoir storage capacity (acre-feet)	122,432	122,432	122,432	122,432	122,432	122,432	122,432	122,432	122,432	122,432
Supply from South Platte River (acre-feet) ⁴	158,324	166,561	148,680	142,915	85,765	117,559	151,891	138,791	122,255	168,554
Supply from Blue River/Roberts Tunnel system (acre-feet)	40,795	39,801	77,765	111,564	54,394	148,643	74,674	58,468	80,056	65,682
Supply from Moffat system (acre-feet)	75,551	73,016	73,585	141,159	54,523	93,763	76,318	79,636	88,842	85,444
Treated water pumping capacity (mgd)	1,048.4	1,048.4	1,007.9	1,007.9	1,003.3	1,003.3	1,095.9	1,095.9	1,097.4	1,097.4
Raw water pumping capacity (mgd)	112.2	112.2	112.2	112.2	112.2	112.2	112.2	112.2	112.2	112.2
Treatment plant capacity (mgd)	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0
Treated water reservoir capacity (million gallons)	351.4	351.4	353.3	353.3	381.65	371.65	371.65	371.65	368.65	368.65
Raw water supply mains in miles (mountain collection system)	77.3	77.4	77.4	77.4	77.5	77.5	76.9	77.5	77.5	77.6
Raw water supply mains in miles (metropolitan Denver area)	54.3	54.2	54.0	52.3	47.7	47.7	47.1	46.0	40.7	40.7
Transmission & distribution mains (miles) - Inside City and Outside City Total Service Contract distributors	3,109.3	3,091.7	3,074.2	3,058.2	3,050.1	3,041	3,037	2,954	2,681	2,657
Recycled water transmission & distribution mains (miles)	73.5	67.2	67.0	63.1	49.0	45.0	44.2	35.3	36.5	36.5
Total active taps - end of year	312,876	312,653	312,908	312,228	310,463	309,269	309,562	310,068	309,373	308,079
Fire hydrants operated & maintained	20,556	20,269	20,030	19,818	19,670	19,553	19,439	19,159	19,185	15,767
Fire hydrants tested and repaired	23,909	18,093	29,506	25,177	25,112	26,760	21,103	18,472	25,577	27,940
Breaks in mains - Denver	225	262	191	222	232	313	261	220	274	247
Service leaks	503	542	337	719	402	385	287	329	318	879
Total employees (actual)	1,058.0	1,057.3	1,064.6	1,064.9	1,082.5	1,069.8	1,089.1	1,095.1	1,055.0	1,010.2
Additions to capital assets (thousands)	\$ 152,528	\$ 131,054	\$ 125,374	\$ 93,421	\$ 128,277	\$ 113,071	\$ 125,816	\$ 103,146	\$ 101,328	\$ 103,779
Total long-term debt ⁵ (thousands)	\$ 463,553	\$ 416,196	\$ 418,200	\$ 414,013	\$ 434,945	\$ 415,644	\$ 449,828	\$ 392,659	\$ 381,285	\$ 410,928

¹Population estimated based on treated water customers only. Revised population from 2005 to 2010 is based on 2010 Census information.

²Denver Water has three water treatment facilities. See page III-81, "Water Treated Monthly." Total treated water consumption includes both sales of treated water as well as non-revenue water. See page III-22 "Sales of Treated Water Between Denver and Outside City."

³Denver Water has 13 raw water reservoirs. See page III-62, "Source of Supply - Reservoirs and Collection Systems."

⁴Supply includes effluent exchanges.

⁵Long-term debt consists of current and long-term portions of bonds payable and obligations under capital lease, net of discounts and premiums, plus notes payable. Effective in 2012, deferred amounts on refunding are no longer included.

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A - FINANCIAL TRENDS INFORMATION

These schedules contain trend information to help the reader understand how Denver Water's financial performance and well-being have changed over time.

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NET POSITION BY COMPONENT^{1,2}: 2007 - 2016

(amounts expressed in thousands)

	<u>2016</u>	<u>2015</u>	<u>Restated 2014³</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>
NET POSITION:										
Net investment in capital assets	\$ 1,788,250	\$ 1,735,020	\$ 1,641,601	\$ 1,579,642	\$ 1,513,582	\$ 1,454,710	\$ 1,401,820	\$ 1,363,848	\$ 1,319,268	\$ 1,227,499
Restricted for debt service reserve funds	14,005	12,047	12,375	12,327	12,274	13,746	18,912	13,233	9,005	7,661
Other restricted	500	-	-	-	-	-	-	-	-	-
Unrestricted	202,692	170,963	171,648	230,159	217,297	169,602	162,077	174,279	178,243	199,493
Total net position	<u>\$ 2,005,447</u>	<u>\$ 1,918,030</u>	<u>\$ 1,825,624</u>	<u>\$ 1,822,128</u>	<u>\$ 1,743,153</u>	<u>\$ 1,638,058</u>	<u>\$ 1,582,809</u>	<u>\$ 1,551,360</u>	<u>\$ 1,506,516</u>	<u>\$ 1,434,653</u>

¹Accounting standards require that net position be reported in three components in the financial statements: net investment in capital assets, restricted, and unrestricted.

Net position is considered restricted when constraints placed on net position use are either: (a) externally imposed by creditors (such as through debt covenants), grantors, contributors, or laws or regulations of other governments, or (b) imposed by law through constitutional provisions or enabling legislation.

²The above data was extracted from the audited financial statements of the Board of Water Commissioners.

³The 2014 financial statements were restated as part of the implementation of GASB Statement No.68 *Accounting and Financial Reporting for Pensions* .

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION^{1,2}: 2007 - 2016

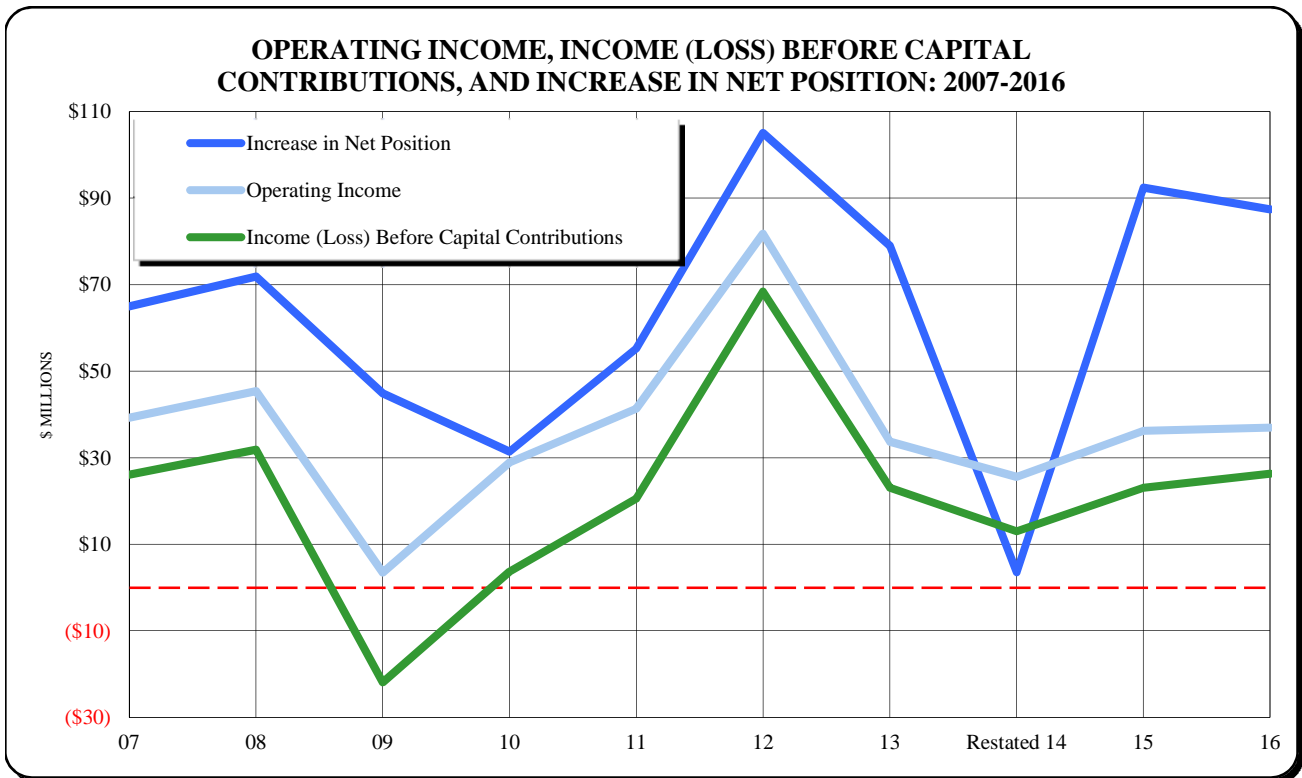
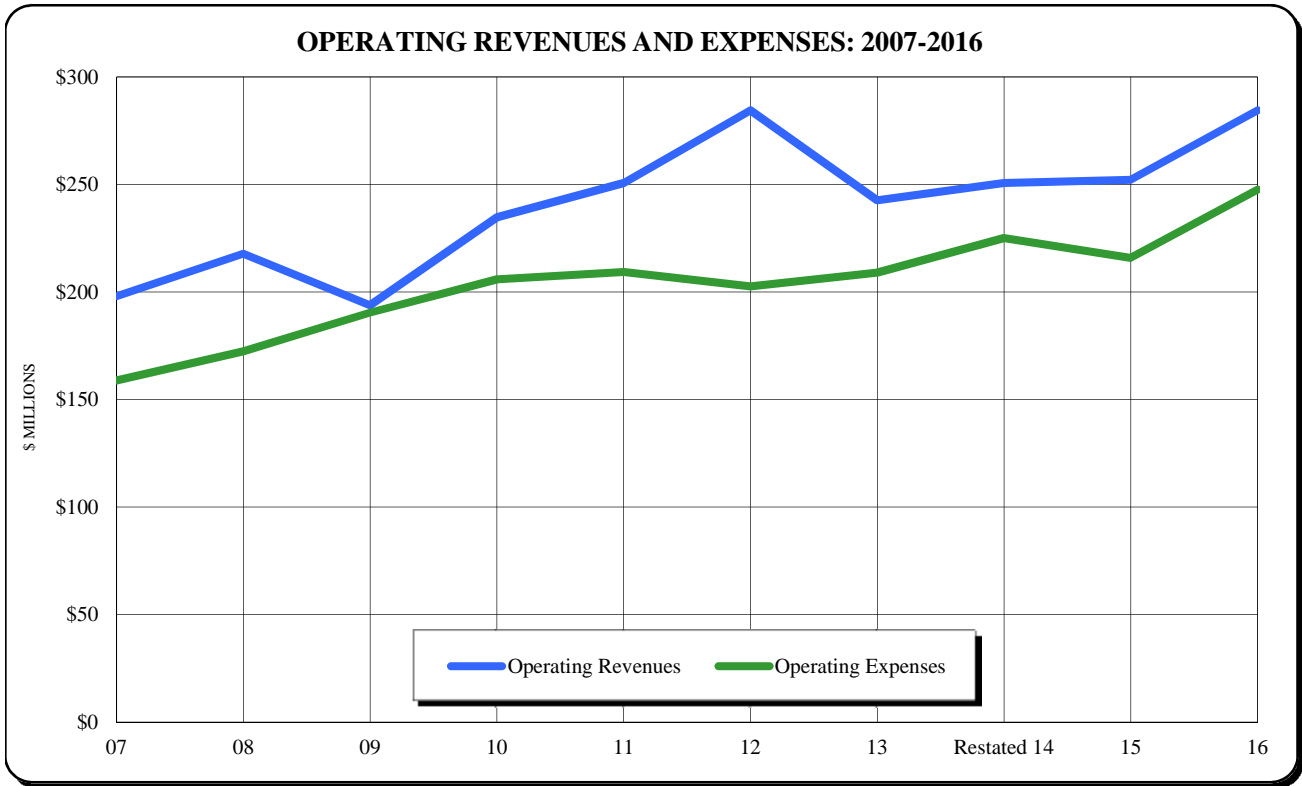
(amounts expressed in thousands)

	2016	2015	Restated 2014 ³	2013	2012	2011	2010	2009	2008	2007
OPERATING REVENUES:										
Water	\$ 273,238	\$ 241,836	\$ 239,288	\$ 230,482	\$ 271,575	\$ 239,186	\$ 224,489	\$ 184,396	\$ 205,941	\$ 188,729
Power generation and other	11,216	10,224	11,380	12,141	12,764	11,481	10,187	9,432	11,791	9,273
Total operating revenues	284,454	252,060	250,668	242,623	284,339	250,667	234,676	193,828	217,732	198,002
OPERATING EXPENSES:										
Source of supply, pumping, treatment and distribution	82,418	75,972	83,091	68,722	75,846	79,881	79,400	68,275	66,629	59,760
General and administrative	103,380	81,994	85,347	81,494	66,433	66,077	73,926	72,487	60,955	54,545
Customer service	11,370	9,962	10,851	12,894	13,929	14,394	14,150	13,022	9,407	10,208
Depreciation and amortization	50,352	47,897	45,772	45,805	46,363	48,961	38,322	36,582	35,382	34,238
Total operating expenses	247,520	215,825	225,061	208,915	202,571	209,313	205,798	190,366	172,373	158,751
OPERATING INCOME	36,934	36,235	25,607	33,708	81,768	41,354	28,878	3,462	45,359	39,251
NONOPERATING REVENUES (EXPENSES):										
Investment income	1,603	1,479	1,552	1,488	1,451	1,201	1,336	948	9,141	12,201
Interest expense, less capitalized interest	(11,446)	(13,049)	(12,664)	(13,602)	(14,217)	(17,719)	(16,630)	(17,547)	(17,699)	(16,305)
Gain (loss) on disposition of capital assets	(6,348)	(4,720)	(5,394)	(2,171)	(4,331)	(6,011)	(15,533)	(8,168)	(4,426)	(9,144)
Other income	7,426	5,595	6,143	6,606	5,882	6,147	7,931	1,881	1,956	1,677
Other expense	(1,861)	(2,499)	(2,252)	(2,939)	(2,164)	(4,408)	(2,336)	(2,483)	(2,459)	(1,612)
Total nonoperating expenses, net	(10,626)	(13,194)	(12,615)	(10,618)	(13,379)	(20,790)	(25,232)	(25,369)	(13,487)	(13,183)
INCOME (LOSS) BEFORE CAPITAL CONTRIBUTIONS	26,308	23,041	12,992	23,090	68,389	20,564	3,646	(21,907)	31,872	26,068
CAPITAL CONTRIBUTIONS:										
Contributions in aid of construction	22,147	33,256	23,190	21,424	17,163	17,239	10,861	41,443	21,492	12,911
System development charges	38,962	36,109	32,736	34,461	19,543	17,446	16,942	25,308	18,499	26,023
Total capital contributions	61,109	69,365	55,926	55,885	36,706	34,685	27,803	66,751	39,991	38,934
INCREASE IN NET POSITION	87,417	92,406	68,918	78,975	105,095	55,249	31,449	44,844	71,863	65,002
NET POSITION:										
Beginning of year	1,918,030	1,825,624	1,822,128	1,743,153	1,638,058	1,582,809	1,551,360	1,506,516	1,434,653	1,369,651
Cumulative effect of GASB 68 implementation			(65,422)							
Restated beginning net position			1,756,706							
End of year	\$ 2,005,447	\$ 1,918,030	\$ 1,825,624	\$ 1,822,128	\$ 1,743,153	\$ 1,638,058	\$ 1,582,809	\$ 1,551,360	\$ 1,506,516	\$ 1,434,653

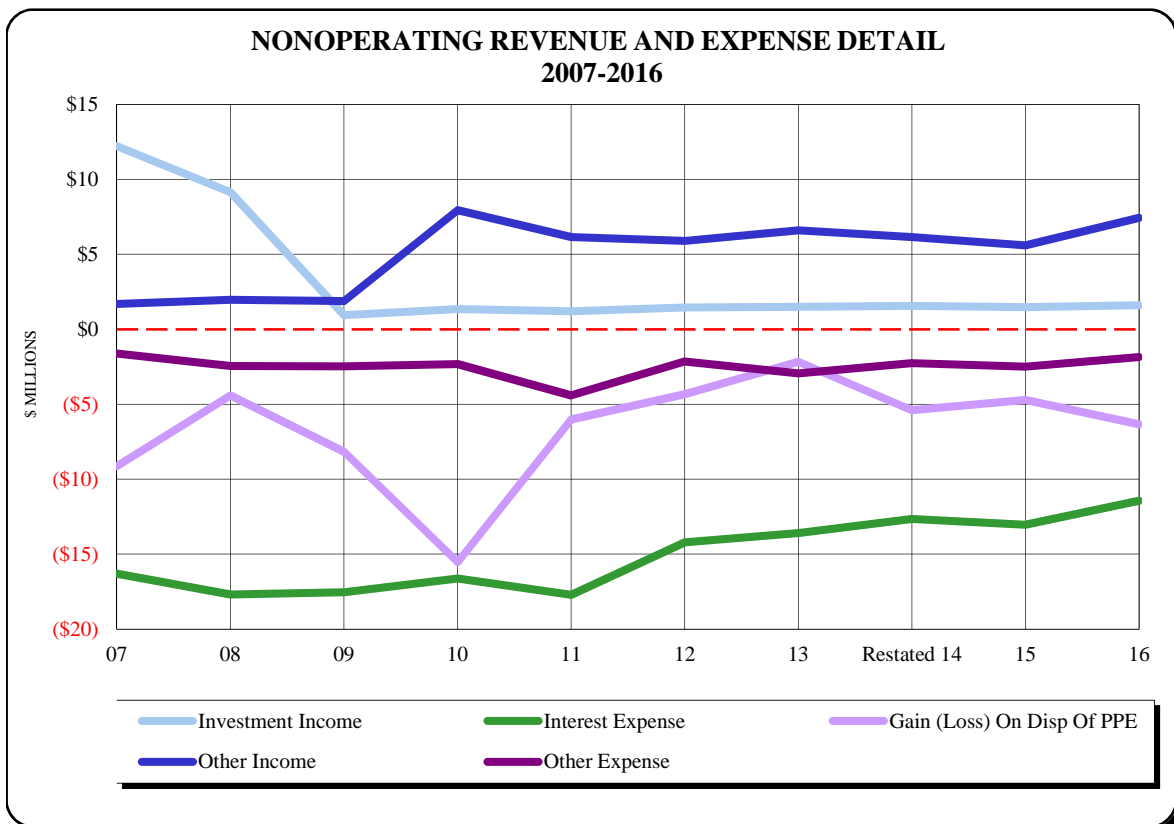
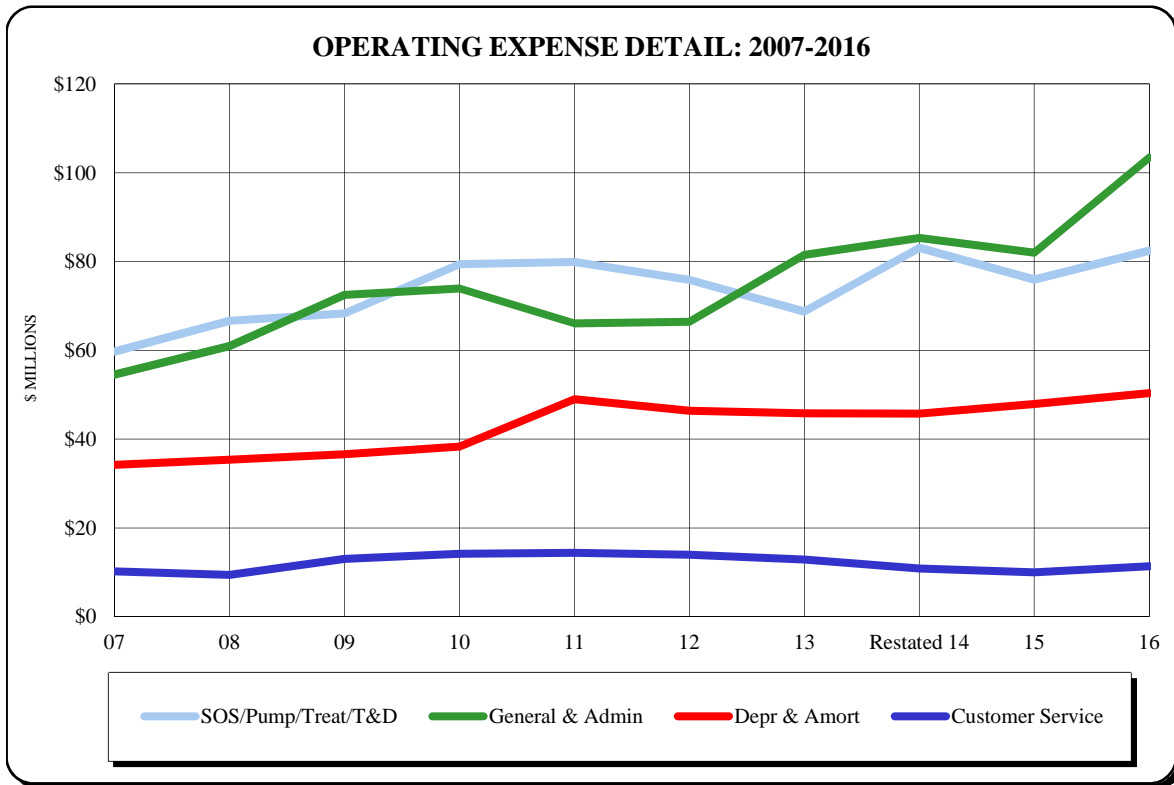
¹The above data was extracted from the audited financial statements of the Board of Water Commissioners.

²Certain reclassifications have been made to prior years' information to conform to the current year presentation.

³The 2014 financial statements were restated as part of the implementation of GASB Statement No.68 *Accounting and Financial Reporting for Pensions* .



¹Operating expenses, operating income, income before contributions and net position were restated for 2014 as part of the implementation of GASB Statement No.68 *Accounting and Financial Reporting for Pensions*.



¹See footnote on page III-9

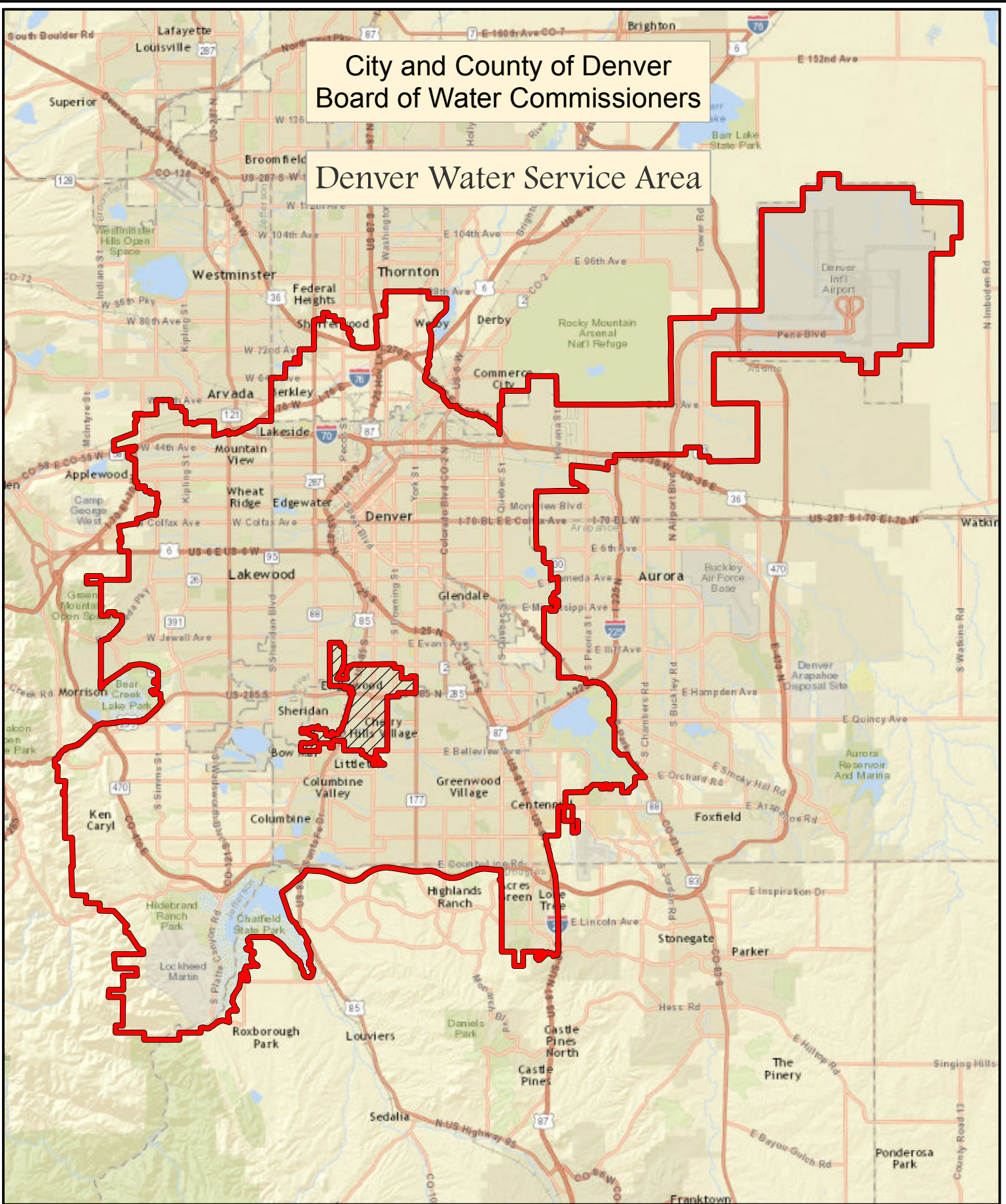
B - REVENUE CAPACITY INFORMATION

*These schedules contain information to help the reader assess
Denver Water's primary revenue sources.*

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City and County of Denver Board of Water Commissioners

Denver Water Service Area



Legend

-  Denver Water Service Area
-  Not served by Denver Water



Map Date: 4/3/2015
Author: ARG-MLF
Source(s):



0 1.75 3.5 7 Miles

CUSTOMER SERVICE DATA: 2007 - 2016

	2016	2015	2014	2013	2012	2011 ⁵	2010	2009 ⁶	2008	2007
Active Taps: ¹										
Beginning of Year	312,653	312,908	312,228	310,463	309,272	309,562	310,068	309,373	308,079	306,901
Activated During Year	1,139	1,105	1,250	2,377	1,539	23	886	979	1,919	1,826
Discontinued During Year	(916)	(1,360)	(570)	(612)	(348)	(313)	(1,392)	(284)	(625)	(648)
Net Increase During Year	223	(255)	680	1,765	1,191	(290)	(506)	695	1,294	1,178
Total Active Taps - End of Year	312,876	312,653	312,908	312,228	310,463	309,272	309,562	310,068	309,373	308,079
Active Taps: ¹										
Inside City	161,816	161,611	161,997	161,668	160,205	159,302	159,592	161,611	158,448	157,707
City and County	1,225	1,229	1,236	1,334	1,218	1,204	1,277	1,272	1,226	1,212
Outside City - Read and Bill	37,051	37,020	36,911	36,795	36,637	36,542	36,477	35,760	36,420	36,278
Outside City - Total Service	36,462	36,452	36,408	36,473	36,318	36,270	36,376	36,140	36,230	36,112
Outside City - Master Meter	76,322	76,341	76,356	75,958	76,085	75,954	75,840	75,285	77,049	76,770
Total Active Taps - End of Year	312,876	312,653	312,908	312,228	310,463	309,272	309,562	310,068	309,373	308,079
Stub-Ins on System ²	1,179	766	1,146	811	514	651	367	275	801	1,408
Fire Hydrant Use Permits	730	673	631	550	518	527	439	485	518	546
AMR (Automatic Meter Reading) Installations ³	-	-	-	-	-	895	886	742	137	85
Turn-Offs Due to Delinquent Accounts	6,275	4,996	5,630	4,746	5,463	6,125	6,687	8,913	13,284	12,747
In-Home Water Audits	1,172	1,005	1,162	976	609	480	409	349	383	169
Call Center Calls ⁴	230,002	231,620	214,867	227,736	231,533	221,291	213,065	229,979	237,047	215,457
Water Quality Calls:										
Taste and Odor	214	213	180	219	212	169	221	194	161	180
Dirty Water	296	335	300	326	289	333	309	356	205	221
Illness Concerns	49	56	47	50	48	46	51	56	48	50
Other ⁷	654	94	89	192	99	89	128	63	50	40
New Taps Made	2,710	2,165	2,289	1,941	950	906	583	679	1,743	1,901

¹An active tap is defined as a metered connection to the distribution main that has had all fees paid, and is either currently using water, or has used water at any time during the last five consecutive years. Does not include taps sold to raw water customers.

²A stub-in is a connection made solely to extend the service line from the main to the valve at the property line prior to the paving of the street and is not considered a tap.

³AMR represents large capital investments to replace old batteries in the AMRs not day to day replacements of meters.

⁴Call Center Calls include calls offered, plus calls handled through the Interactive Voice Response (IVR).

⁵In 2011, there were 895 taps activated during the year. 875 change over taps were double counted in prior years which were corrected in 2011.

⁶In 2009, a new customer information system was implemented and data produced from that system may not be strictly comparable to prior years.

⁷Starting in 2016, customers were given the opportunity to request lead test kits to test lead levels in the water in their homes, these calls are tracked in the "other" category.

WATER SOLD IN DOLLARS BY TYPE OF CUSTOMER: 2007 - 2016

(Page 1 of 2)

(NON-ACCRUAL BASIS)¹
(amounts expressed in thousands)

		2016 ⁵	2015	2014	2013	2012	2011	2010	2009	2008	2007
SALES OF TREATED WATER											
A. METERED GENERAL CUSTOMERS 2016											
Residential -	Inside City	\$ 58,477									
	Outside City-Read and Bill	21,461	-	-	-	-	-	-	-	-	-
	Outside City-Total Service	27,095	-	-	-	-	-	-	-	-	-
Irrigation -	Inside City	4,430	-	-	-	-	-	-	-	-	-
	Outside City-Read and Bill	3,056	-	-	-	-	-	-	-	-	-
	Outside City-Total Service	4,129	-	-	-	-	-	-	-	-	-
Non-Residential -	Inside City	47,711	-	-	-	-	-	-	-	-	-
	Outside City-Read and Bill	12,214	-	-	-	-	-	-	-	-	-
	Outside City-Total Service	11,750	-	-	-	-	-	-	-	-	-
		190,323	-	-	-	-	-	-	-	-	-
A. METERED GENERAL CUSTOMERS 2007-2015											
Residential -	Inside City	\$ -	\$ 49,842	\$ 49,114	\$ 48,057	\$ 57,504	\$ 49,853	\$ 46,658	\$ 34,776	\$ 39,376	\$ 36,393
	Outside City-Read and Bill	-	17,623	16,938	16,893	20,726	17,739	17,547	13,016	15,970	16,255
	Outside City-Total Service	-	21,943	22,113	22,168	28,464	23,923	24,172	17,921	22,069	19,965
Residential Irrigation ² -	Inside City	-	1,044	1,028	995	1,363	1,128	1,044	707	860	683
	Outside City-Read and Bill	-	770	753	725	1,002	819	798	609	696	427
	Outside City-Total Service	-	682	661	602	766	632	617	468	459	388
Small multi-family -	Inside City	-	4,974	4,932	4,780	5,281	4,735	4,285	3,657	3,735	3,464
	Outside City-Read and Bill	-	477	484	476	505	437	370	331	291	263
	Outside City-Total Service	-	785	781	748	813	714	606	552	528	464
Commercial -	Inside City	-	36,651	35,883	33,834	37,074	33,705	31,454	29,121	29,548	28,432
	Outside City-Read and Bill	-	8,940	9,010	8,501	9,585	8,557	8,069	8,163	7,164	7,645
	Outside City-Total Service	-	9,284	9,434	8,744	9,691	8,821	8,285	8,040	7,575	8,372
Industrial -	Inside City	-	3,033	3,090	3,139	3,212	2,995	2,820	2,896	3,020	2,996
	Outside City-Read and Bill	-	1,102	1,121	1,028	1,624	2,239	2,101	2,016	2,384	2,444
	R&B Winter/Summer Adj	-	-	-	-	(1,644)	-	-	-	-	-
	Outside City-Total Service	-	154	143	148	164	167	184	120	201	161
Other Irrigation ³ -	Inside City	-	2,567	2,629	2,494	3,709	3,190	2,889	1,815	2,017	-
	Outside City-Read and Bill	-	1,674	1,584	1,535	2,095	1,736	1,757	1,182	1,246	-
	Outside City-Total Service	-	2,510	2,426	2,300	3,077	2,688	2,567	1,697	1,920	-
		-	164,055	162,124	157,167	185,011	164,078	156,223	127,087	139,059	128,352
B. PRIVATE FIRE PROTECTION SERVICE 2016											
Sprinklers -	Inside City	895	-	-	-	-	-	-	-	-	-
	Outside City-Read and Bill	88	-	-	-	-	-	-	-	-	-
	Outside City-Total Service	146	-	-	-	-	-	-	-	-	-
		1,129	-	-	-	-	-	-	-	-	-
B. PRIVATE FIRE PROTECTION SERVICE 2007-2015											
Sprinklers -	Inside City	-	868	840	827	1,015	985	928	925	896	879
	Outside City-Read and Bill	-	86	84	71	65	51	49	52	45	45
	Outside City-Total Service	-	142	139	133	122	73	70	71	64	62
		-	1,096	1,063	1,031	1,202	1,109	1,047	1,048	1,005	986

¹This schedule represents actual billings made for water during the year. No accruals were made for revenue earned on unbilled metered accounts. Therefore, amounts on this schedule do not agree with amounts on the Statement of Revenues, Expenses and Changes in Net Position. The difference from amounts on an accrual basis is immaterial.

²In 2007, a separate rate classification was created for residential irrigation-only customers ("Residential Irrigation"). For years prior to 2007, the revenue earned from the sale of water and the related gallons sold to these customers are included in the amounts shown for regular residential service.

³In 2008, a separate rate classification was created for commercial, industrial and governmental irrigation-only customers ("Other Irrigation"). For years prior to 2008, the revenue earned from the sale of water and the related gallons sold to these customers are included in the amounts shown for regular commercial, industrial and local government agency service.

⁴In 2008, a separate rate classification was created for City and County of Denver irrigation-only customers ("City & County of Denver - Irrigation"). Prior to 2008, the revenue earned from the sale of water and the related gallons sold to these customers are included in "City & County of Denver - Non-Irrig

⁵In 2016, Denver Water underwent a significant change in rate structures. As part of this change Denver Water also consolidated various revenue accounts to simplify and streamline financial reporting.

(Continued next page)

WATER SOLD IN DOLLARS BY TYPE OF CUSTOMER: 2007 - 2016

(Page 2 of 2)

(NON-ACCRUAL BASIS)¹
(amounts expressed in thousands)

	2016 ⁵	2015	2014	2013	2012	2011	2010	2009	2008	2007
C. OTHER SALES TO PUBLIC AUTHORITIES 2016										
City & County of Denver ⁴ - Irrigation	3,452	-	-	-	-	-	-	-	-	-
Non-Irrigation	2,298	-	-	-	-	-	-	-	-	-
	<u>5,750</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
C. OTHER SALES TO PUBLIC AUTHORITIES 2007-2015										
City & County of Denver ⁴ - Irrigation	-	2,626	2,707	2,686	4,087	3,148	3,616	2,441	3,394	-
Non-Irrigation	-	2,078	1,927	1,717	1,880	1,583	1,584	1,772	1,491	3,799
Other County Agencies - Inside City	-	1,016	971	1,003	1,476	1,136	1,040	950	1,153	1,102
Outside City-Read and Bill	-	608	768	625	743	757	891	458	600	752
Outside City-Total Service	-	750	736	708	964	852	839	674	758	1,136
State Agencies - Inside City	-	361	361	354	393	375	362	352	469	481
Outside City-Read and Bill	-	51	46	38	42	39	37	35	29	29
Outside City-Total Service	-	5	6	7	6	4	5	4	7	6
Federal Agencies - Inside City	-	54	127	133	168	198	92	357	288	269
Outside City-R&B at Denver Rates	-	31	9	26	26	67	31	35	61	17
Outside City-Read and Bill	-	44	49	37	48	62	530	118	427	297
Total Service	-	1	2	2	2	2	1	2	2	2
	-	<u>7,625</u>	<u>7,709</u>	<u>7,336</u>	<u>9,835</u>	<u>8,223</u>	<u>9,028</u>	<u>7,198</u>	<u>8,679</u>	<u>7,890</u>
D. SALES OF TREATED WATER FOR RESALE 2016⁶										
Outside City - Master Meter	65,479	-	-	-	-	-	-	-	-	-
Outside the Combined Service Area	3,704	-	-	-	-	-	-	-	-	-
	<u>69,183</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
D. SALES OF TREATED WATER FOR RESALE 2007-2015										
Outside City - Master Meter	-	48,906	48,371	47,550	62,968	47,483	43,196	38,192	40,909	37,611
Outside the Combined Service Area	-	13,034	13,598	10,729	4,064	9,886	9,552	8,954	8,686	9,141
	-	<u>61,940</u>	<u>61,969</u>	<u>58,279</u>	<u>67,032</u>	<u>57,369</u>	<u>52,748</u>	<u>47,146</u>	<u>49,595</u>	<u>46,752</u>
TOTAL SALES OF TREATED WATER	266,385	234,716	232,865	223,813	263,080	230,780	219,046	182,479	198,338	183,980
SALES OF NONPOTABLE WATER	8,133	7,509	5,912	7,043	8,271	7,039	6,189	5,587	7,204	5,576
TOTAL SALES OF WATER	\$ 274,518	\$ 242,225	\$ 238,777	\$ 230,856	\$ 271,351	\$ 237,819	\$ 225,235	\$ 188,066	\$ 205,542	\$ 189,556

¹This schedule represents actual billings made for water during the year. No accruals were made for revenue earned on unbilled metered accounts. Therefore, amounts on this schedule do not agree with amounts on the Statement of Revenues, Expenses and Changes in Net Position. The difference from amounts on an accrual basis is immaterial.

²In 2007, a separate rate classification was created for residential irrigation-only customers ("Residential Irrigation"). For years prior to 2007, the revenue earned from the sale of water and the related gallons sold to these customers are included in the amounts shown for regular residential service.

³In 2008, a separate rate classification was created for commercial, industrial and governmental irrigation-only customers ("Other Irrigation"). For years prior to 2008, the revenue earned from the sale of water and the related gallons sold to these customers are included in the amounts shown for regular commercial, industrial and local government agency service.

⁴In 2008, a separate rate classification was created for City and County of Denver irrigation-only customers ("City & County of Denver - Irrigation"). Prior to 2008, the revenue earned from the sale of water and the related gallons sold to these customers are included in "City & County of Denver - Non-Irrigation."

⁵In 2016, Denver Water underwent a significant change in rate structures. As part of this change Denver Water also consolidated various revenue accounts to simplify and streamline financial reporting.

⁶During 2016, the Board of Directors at Denver Water approved modifications to its rate structures, changes to how Denver Water classifies selected revenues and expenses for financial statement presentation, and the presentation of certain information included in its statistical schedules. The 2016 financial statements reflect these changes.

TREATED WATER SOLD IN GALLONS BY TYPE OF CUSTOMER: 2007 - 2016

(amounts expressed in thousands of gallons)

SALES OF TREATED WATER

A. METERED GENERAL CUSTOMERS 2016

	2016 ¹	2015	2014	2013	2012	2011	2010	2009	2008	2007
Residential - Inside City	12,435,755	-	-	-	-	-	-	-	-	-
Outside City-Read and Bill	4,231,865	-	-	-	-	-	-	-	-	-
Outside City-Total Service	4,533,837	-	-	-	-	-	-	-	-	-
Irrigation - Inside City	911,999	-	-	-	-	-	-	-	-	-
Outside City-Read and Bill	554,832	-	-	-	-	-	-	-	-	-
Outside City-Total Service	624,619	-	-	-	-	-	-	-	-	-
Non-Residential - Inside City	15,543,153	-	-	-	-	-	-	-	-	-
Outside City-Read and Bill	3,073,586	-	-	-	-	-	-	-	-	-
Outside City-Total Service	2,570,546	-	-	-	-	-	-	-	-	-
	44,480,192	-	-	-	-	-	-	-	-	-

A. METERED GENERAL CUSTOMERS 2017-2015

Residential - Inside City	-	11,359,464	11,603,885	11,629,361	14,052,609	13,098,298	13,601,820	12,075,102	14,190,479	13,788,207
Outside City-Read and Bill	-	3,714,016	3,722,505	3,839,625	4,750,696	4,399,807	4,593,122	4,114,005	4,913,295	4,691,563
Outside City-Total Service	-	3,957,317	4,051,615	4,150,654	5,225,688	4,794,193	4,959,464	4,388,923	5,297,529	5,008,534
Residential Irrigation ¹ - Inside City	-	215,336	209,084	202,587	283,485	248,861	261,019	190,264	247,163	186,902
Outside City-Read and Bill	-	144,812	145,195	139,779	198,236	173,346	186,694	139,916	200,591	116,794
Outside City-Total Service	-	105,991	107,181	101,655	140,407	121,065	124,574	94,358	125,168	89,235
Small multi-family - Inside City	-	1,355,336	1,386,032	1,370,868	1,560,394	1,495,266	1,525,150	1,437,136	1,556,375	1,544,714
Outside City-Read and Bill	-	120,007	123,537	125,029	135,850	125,757	118,190	114,740	113,627	108,934
Outside City-Total Service	-	160,073	162,590	163,553	184,925	172,393	156,313	149,255	158,912	149,588
Commercial - Inside City	-	11,877,715	11,865,891	11,407,418	12,522,805	12,157,287	12,398,800	12,069,634	12,643,141	13,060,641
Outside City-Read and Bill	-	2,232,004	2,257,606	2,208,047	2,524,765	2,384,164	2,370,656	2,390,356	2,519,213	2,778,664
Outside City-Total Service	-	2,032,945	2,071,909	2,033,840	2,323,899	2,223,111	2,248,376	2,160,037	2,235,147	2,544,606
Industrial - Inside City	-	1,061,877	1,116,290	1,145,795	1,188,635	1,185,642	1,220,187	1,286,307	1,328,867	1,434,058
Outside City-Read and Bill	-	300,802	306,221	297,504	521,752	690,755	685,581	696,547	884,226	913,261
R&B Winter/Summer Adj	-	-	-	-	(519,142)	-	-	-	-	-
Outside City-Total Service	-	33,596	31,138	33,138	38,090	40,772	49,246	33,022	59,666	50,081
Other Irrigation ¹ - Inside City	-	543,870	550,833	514,946	786,154	719,221	747,524	574,776	806,722	-
Outside City-Read and Bill	-	318,000	307,594	296,929	417,375	370,134	416,362	300,627	421,140	-
Outside City-Total Service	-	398,268	396,232	391,745	567,216	520,659	525,479	391,178	546,971	-
	-	39,931,429	40,415,338	40,052,473	46,903,839	44,920,731	46,188,557	42,606,183	48,248,232	46,465,782

¹See footnotes on page III-15.

(Continued next page)

TREATED WATER SOLD IN GALLONS BY TYPE OF CUSTOMER: 2007 - 2016

(Page 2 of 2)

(amounts expressed in thousands of gallons)

SALES OF TREATED WATER	2016 ¹	2015	2014	2013	2012	2011	2010	2009	2008	2007
B. OTHER SALES TO PUBLIC AUTHORITIES 2016										
City & County of Denver ¹ - Irrigation	1,266,661	-	-	-	-	-	-	-	-	-
Non-Irrigation	914,444	-	-	-	-	-	-	-	-	-
	2,181,105	-	-	-	-	-	-	-	-	-
B. OTHER SALES TO PUBLIC AUTHORITIES 2007-2015										
City & County of Denver ¹ - Irrigation	-	978,144	1,026,040	1,008,417	1,565,859	1,230,115	1,594,390	1,036,056	1,951,435	-
Non-Irrigation	-	843,730	802,951	763,591	829,144	763,595	790,149	888,372	824,476	2,415,541
Other County Agencies - Inside City	-	302,066	291,796	309,260	445,947	368,139	363,214	358,456	478,945	500,176
Outside City-Read and Bill	-	160,303	190,837	160,096	191,100	213,673	261,631	135,817	212,370	273,868
Outside City-Total Service	-	149,410	146,595	148,160	210,913	195,617	208,405	166,629	219,046	338,161
State Agencies - Inside City	-	116,022	117,316	118,520	130,365	130,345	140,865	147,880	200,936	224,516
Outside City-Read and Bill	-	11,139	10,783	9,299	10,205	9,724	10,112	9,857	9,927	10,368
Outside City-Total Service	-	1,088	1,225	1,622	1,557	1,081	1,370	1,177	1,931	1,742
Federal Agencies - Inside City	-	20,840	40,390	48,534	60,751	83,863	38,759	55,456	84,686	133,356
Outside City-R&B at Denver Rates	-	6,991	5,341	6,238	6,245	8,244	12,116	195,924	121,545	8,334
Outside City-Read and Bill	-	10,166	11,486	8,493	11,156	22,629	152,973	38,949	149,333	107,201
Total Service	-	296	451	457	367	375	384	443	488	506
	-	2,600,195	2,645,211	2,582,687	3,463,609	3,027,400	3,574,368	3,035,016	4,255,118	4,013,769
C. SALES OF TREATED WATER FOR RESALE 2016										
Outside City - Master Meter	15,767,447	-	-	-	-	-	-	-	-	-
Outside the Combined Service Area	828,540	-	-	-	-	-	-	-	-	-
	16,595,987	-	-	-	-	-	-	-	-	-
C. SALES OF TREATED WATER FOR RESALE 2007-2015										
Outside City - Master Meter	-	12,130,614	12,264,584	12,574,045	15,050,805	14,109,526	14,352,778	12,824,666	15,294,977	14,753,753
Outside the Combined Service Area	-	3,147,757	3,326,368	2,743,233	3,558,092	2,767,464	3,021,344	2,902,470	3,008,039	3,482,153
	-	15,278,371	15,590,952	15,317,278	18,608,897	16,876,990	17,374,122	15,727,136	18,303,016	18,235,906
TOTAL SALES OF TREATED WATER	63,257,284	57,809,995	58,651,501	57,952,438	68,976,345	64,825,121	67,137,047	61,368,335	70,806,366	68,715,457
Reconciliation of Water Treated, Delivered, Consumption, Sales and Non-revenue Water:										
Total Water Treated (Production) - Page III-81	64,963,810	60,140,870	61,177,090	60,195,400	71,960,650	68,257,000	69,713,070	62,089,800	71,983,540	70,474,410
(Increase) Decrease in Clear Water Storage - Page III-81	40,020	(24,900)	8,180	17,040	8,050	3,800	(17,670)	17,100	(7,670)	5,430
Treated Water Delivered - Page III-74 & III-81	65,003,830	60,115,970	61,185,270	60,212,440	71,968,700	68,260,800	69,695,400	62,106,900	71,975,870	70,479,840
Water Purchased - Page III-22	-	-	-	-	-	-	-	-	-	-
Treated Water Available (Consumption) -Page III-80	65,003,830	60,115,970	61,185,270	60,212,440	71,968,700	68,260,800	69,695,400	62,106,900	71,975,870	70,479,840
Less Sales of Treated Water - Page III-22	(63,257,284)	(57,809,995)	(58,651,501)	(57,952,438)	(68,976,345)	(64,825,121)	(67,137,047)	(61,368,335)	(70,806,366)	(68,715,457)
Less Load Shifted Treated Water - Page III-22	-	-	-	-	-	-	-	-	-	-
Non-revenue Water - Page III-22	1,746,546	2,305,975	2,533,769	2,260,002	2,992,355	3,435,679	2,558,353	738,565	1,169,504	1,764,383
% Non-revenue Water - Page III-22	2.69%	3.84%	4.14%	3.75%	4.16%	5.03%	3.67%	1.19%	1.62%	2.50%

¹See footnotes on page III-16.

OPERATING REVENUE AND RELATED WATER CONSUMPTION - 2016

(Page 1 of 2)

(NON-ACCRUAL BASIS)¹

(amounts expressed in thousands)

		Revenue	Gallons Sold (000)	Number of Customers ²	Revenue Per 1,000 Gallons
I. SALES OF TREATED WATER					
A. METERED GENERAL CUSTOMERS³					
Residential	Inside City	\$ 58,477	12,435,755	135,398	\$ 4.7023
	Outside City-Read and Bill	21,461	4,231,865	33,261	5.0713
	Outside City-Total Service	27,095	4,533,837	32,150	5.9762
Irrigation	Inside City	4,430	911,999	1,390	4.8575
	Outside City-Read and Bill	3,056	554,832	443	5.5080
	Outside City-Total Service	4,129	624,619	599	6.6104
Non-Residential	Inside City	47,711	15,543,153	24,961	3.0696
	Outside City-Read and Bill	12,214	3,073,586	3,193	3.9739
	Outside City-Total Service	11,750	2,570,546	3,590	4.5710
		<u>190,323</u>	<u>44,480,192</u>	<u>234,985</u>	<u>4.2788</u>
B. PRIVATE FIRE PROTECTION SERVICE⁴					
Sprinklers -	Inside City	895	-		
	Outside City-Read and Bill	88	-		
	Outside City-Total Service	146	-		
		<u>1,129</u>	<u>-</u>		
C. OTHER SALES TO PUBLIC AUTHORITIES					
City & County of Denver	Irrigation	3,452	1,266,661	696	2.7253
	Non-Irrigation	2,298	914,444	409	2.5130
		<u>5,750</u>	<u>2,181,105</u>	<u>1,105</u>	<u>2.6363</u>
D. SALES OF TREATED WATER FOR RESALE⁵					
	Outside City - Master Meter	65,479	15,767,447	76,322	4.1528
	Outside the Combined Service Area	3,704	828,540	-	4.4705
		<u>69,183</u>	<u>16,595,987</u>	<u>76,322</u>	<u>4.1687</u>
	TOTAL SALES OF TREATED WATER⁶	<u>\$ 266,385</u>	<u>63,257,284</u>	<u>312,412</u>	<u>\$ 4.2111</u>

¹This schedule represents actual billings made for water during the year. No accruals were made for revenue earned on unbilled accounts. Therefore, amounts on this schedule do not agree with amounts on the Statement of Revenues, Expenses and Changes in Net Assets. The difference from amounts on an accrual basis is immaterial.

²Represents the number of active metered services at year-end.

³In 2016, Denver Water underwent a significant change in rate structures. As part of this change Denver Water also consolidated various revenue accounts to simplify and streamline financial reporting. The classification of 'Metered General Customers' was modified to reflect this change.

⁴Private fire protection consumption is unmetered and is considered part of non-revenue water. See "Sales of Treated Water between Denver and Outside City" on pages III-21 and III-22, for this estimate.

⁵See "Sales of Treated Water for Resale" on page III-33.

⁶See "Sales of Treated Water Between Denver and Outside City" on pages III-21 and III-22.

(Continued next page)

OPERATING REVENUE AND RELATED WATER CONSUMPTION (Continued) - 2016

(Page 2 of 2)

(NON-ACCRUAL BASIS)

(amounts expressed in thousands)

	<u>Revenue</u>	<u>Gallons Sold (000)</u>	<u>Number of Customers</u>	<u>Revenue Per 1,000 Gallons</u>
II. <u>SALES OF NON-POTABLE WATER</u>⁷				
Inside City	\$ 945	1,209,519	92	\$ 0.7813
Outside City	5,824	6,012,847	23	0.9686
Outside the Combined Service Area	1,364	1,225,109	8	1.1134
	<u>8,133</u>	<u>8,447,475</u>	<u>123</u>	<u>0.9628</u>
TOTAL SALES OF WATER	<u>\$ 274,518</u>	<u>71,704,759</u>	<u>312,535</u>	<u>\$ 3.8284</u>
III. <u>OTHER NON-POTABLE WATER DELIVERIES</u>⁷		<u>1,291,218</u>		
TOTAL GALLONS SOLD		<u><u>72,995,977</u></u>		
IV. <u>OTHER OPERATING REVENUE</u>				
A. POWER SALES REVENUE⁸				
Foothills Treatment Plant	\$ 365			
Strontia Springs	199			
Dillon Dam	575			
Roberts Tunnel	651			
Hillcrest	405			
Williams Fork	680			
Gross Reservoir	1,135			
	<u>4,010</u>			
B. SPECIAL ASSESSMENTS				
Administrative Fees	3,484			
Penalty Fees	39			
Stub-in, Taps and Meter Fees	1,931			
Hydrant Fees	1,619			
Plan Review, Easement, Distribution Inspection	1,089			
Other Assessments	(1,175)			
	<u>6,987</u>			
TOTAL OTHER OPERATING REVENUE	<u>10,997</u>			
TOTAL OPERATING REVENUE	<u><u>\$ 285,515</u></u>			

⁷See "Sales of Non-Potable Water Between Denver and Outside City" on page III-23.

⁸Power Sales Revenue represents actual billings made for power during the year. No accruals were made for unbilled revenue. Therefore, amounts on this schedule do not agree with amounts on other schedules which report the value of power produced.

SALES OF TREATED WATER BETWEEN DENVER AND OUTSIDE CITY - 2016

(NON-ACCRUAL BASIS)¹

(Page 1 of 2)

(amounts expressed in thousands)

	Revenue		Gallons Sold		Number of Customers
	Amount	Percent of Total	Amount (000)	Percent of Total	
I. INSIDE CITY					
A. METERED GENERAL CUSTOMERS²					
Residential	\$ 58,477	21.95%	12,435,755	19.66%	135,398
Irrigation	4,430	1.66%	911,999	1.44%	1,390
Non-Residential	47,711	17.91%	15,543,153	24.57%	24,961
	<u>110,618</u>	<u>41.52%</u>	<u>28,890,907</u>	<u>45.67%</u>	<u>161,749</u>
B. PRIVATE FIRE PROTECTION SERVICE³					
Sprinklers	<u>895</u>	<u>0.34%</u>	<u>-</u>		
C. OTHER SALES TO PUBLIC AUTHORITIES					
City And County of Denver-Irrigation	3,452	1.30%	1,266,661	2.00%	696
City and County of Denver-Non-Irrigation	2,298	0.86%	914,444	1.45%	409
	<u>5,750</u>	<u>2.16%</u>	<u>2,181,105</u>	<u>3.45%</u>	<u>1,105</u>
TOTAL SALES OF TREATED WATER - DENVER					
	<u>117,263</u>	<u>44.02%</u>	<u>31,072,012</u>	<u>49.12%</u>	<u>162,854</u>
Revenue per 1,000 Gallons - Denver			<u>\$ 3.7739</u>		
II. OUTSIDE CITY					
A. METERED GENERAL CUSTOMERS					
Residential - Read & Bill	21,461	8.06%	4,231,865	6.69%	33,261
Irrigation - Read & Bill	3,056	1.15%	554,832	0.88%	443
Non-Residential - Read & Bill	12,214	4.59%	3,073,586	4.86%	3,193
Residential - Total Service	27,095	10.17%	4,533,837	7.17%	32,150
Irrigation - Total Service	4,129	1.55%	624,619	0.99%	599
Non-Residential - Total Service	11,750	4.41%	2,570,546	4.06%	3,590
	<u>79,705</u>	<u>29.93%</u>	<u>15,589,285</u>	<u>24.65%</u>	<u>73,236</u>

¹This schedule represents actual billings made for water during the year. No accruals were made for revenue earned on unbilled accounts. Therefore, amounts on this schedule do not agree with amounts on the Statement of Revenues, Expenses and Changes in Net Assets. The difference from amounts on an accrual basis is immaterial.

²In 2016, Denver Water underwent a significant change in rate structures. As part of this change Denver Water also consolidated various revenue accounts to simplify and streamline financial reporting. The classification of 'Metered General Customers' was modified to reflect this change.

³ Private fire protection consumption is unmetered and is considered part of non-revenue water. See "Operating Revenue and Related Water Consumption" on pages III-19 and III-20, for this estimate.

(Continued next page)

SALES OF TREATED WATER BETWEEN DENVER AND OUTSIDE CITY - 2016

(NON-ACCRUAL BASIS)

(Page 2 of 2)

(amounts expressed in thousands)

	Revenue		Gallons sold		Number of Customers
	Amount	Percent of Total	Amount (000)	Percent of Total	
II. OUTSIDE CITY (Continued)					
B. PRIVATE FIRE PROTECTION SERVICE ²					
Sprinklers	\$ 88	0.03%	-		
Sprinklers - Total Service	<u>146</u>	<u>0.05%</u>	<u>-</u>		
	234	0.08%	-		
C. SALES OF TREATED WATER FOR RESALE ^{3,4}					
Master Meter Distributors	65,479	24.58%	15,767,447	24.93%	76,322
Outside CSA-Fixed Limit Contracts	<u>3,704</u>	<u>1.39%</u>	<u>828,540</u>	<u>1.31%</u>	<u>-</u>
	<u>69,183</u>	<u>25.97%</u>	<u>16,595,987</u>	<u>26.24%</u>	<u>76,322</u>
TOTAL SALES OF TREATED WATER - OUTSIDE CITY					
	<u>149,122</u>	<u>55.98%</u>	<u>32,185,272</u>	<u>50.88%</u>	<u>149,558</u>
Revenue per 1,000 Gallons - Outside City			<u>\$ 4.6332</u>		
TOTAL SALES OF TREATED WATER					
	<u>\$ 266,385</u>	<u>100.00%</u>	<u>63,257,284</u>	<u>100.00%</u>	<u>312,412</u>
Revenue per 1,000 Gallons - Total			<u>\$ 4.2111</u>		

RECONCILIATION/CALCULATION OF NON-REVENUE WATER

Total Water Treated (Production) - Page III-81	64,963,810	
(Increase) Decrease in Clear Water Storage - Page III-81	<u>40,020</u>	
Total Treated Water Delivered - Page III-81	65,003,830	
Water Purchased	<u>-</u>	
Total Treated Water Available (Consumption) - Page III-80	65,003,830	100.00%
Less Sale of Treated Water	<u>(63,257,284)</u>	<u>-97.31%</u>
Less Load Shifted Treated Water	<u>-</u>	<u>0.00%</u>
Non-revenue Water	<u>1,746,546</u>	<u>2.69%</u>

²Private fire protection consumption is unmetered and is considered part of non-revenue water.

³See "Sales of Treated Water For Resale" on page III-33.

⁴During 2016, the Board of Directors at Denver Water approved modifications to its rate structures, changes to how Denver Water classifies selected revenues and expenses for financial statement presentation, and the presentation of certain information included in its statistical schedules. The 2016 financial statements reflect these changes.

SALES OF NON-POTABLE WATER BETWEEN DENVER AND OUTSIDE CITY - 2016

(NON-ACCRUAL BASIS)¹
 (amounts expressed in thousands)

	Revenue		Gallons Sold		Number of Customers ³	Revenue Per 1,000 Gallons
	Amount	Percent of Total	Amount (000)	Percent of Total		
I. <u>INSIDE CITY</u>						
Raw Water Sales						
City & County of Denver	\$ 64	0.79%	213,834	2.53%	2	\$ 0.2993
All Other	8	0.10%	5,649	0.07%	4	1.4162
	<u>72</u>	<u>0.89%</u>	<u>219,483</u>	<u>2.60%</u>	<u>6</u>	<u>0.3280</u>
Effluent Sales						
City & County of Denver	15	0.18%	50,418	0.60%	1	0.2975
All Other	11	0.14%	21,889	0.26%	2	0.5025
	<u>26</u>	<u>0.32%</u>	<u>72,307</u>	<u>0.86%</u>	<u>3</u>	<u>0.3596</u>
Recycle Sales						
City & County of Denver	113	1.39%	512,383	6.07%	12	0.2205
All Other	460	5.66%	405,346	4.79%	71	1.1348
	<u>573</u>	<u>7.05%</u>	<u>917,729</u>	<u>10.86%</u>	<u>83</u>	<u>0.6244</u>
Minimum Contract Payment ² - All Other						
All Other	274	3.36%	-	0.00%	-	-
Total Denver	<u>945</u>	<u>11.62%</u>	<u>1,209,519</u>	<u>14.32%</u>	<u>92</u>	<u>0.7813</u>
II. <u>OUTSIDE CITY, WITHIN COMBINED SERVICE AREA</u>						
Raw Water Sales-All Others	5,812	71.46%	6,001,252	71.04%	16	0.9685
Effluent Sales-All Others	12	0.15%	11,595	0.14%	7	1.0349
Total Outside City, Within Combined Service Area	<u>5,824</u>	<u>71.61%</u>	<u>6,012,847</u>	<u>71.18%</u>	<u>23</u>	<u>0.9686</u>
III. <u>OUTSIDE COMBINED SERVICE AREA</u>						
Raw Water Sales						
Centennial Water & Sanitation District	289	3.55%	275,181	3.26%	1	1.0502
Consolidated Mutual Water	151	1.86%	144,026	1.70%	1	1.0484
All Other	31	0.38%	5,359	0.06%	5	5.7847
	<u>471</u>	<u>5.79%</u>	<u>424,566</u>	<u>5.02%</u>	<u>7</u>	<u>1.1094</u>
Recycle Sales						
Total Outside Combined Service Area	<u>893</u>	<u>10.98%</u>	<u>800,543</u>	<u>9.48%</u>	<u>1</u>	<u>1.1155</u>
	<u>1,364</u>	<u>16.77%</u>	<u>1,225,109</u>	<u>14.50%</u>	<u>8</u>	<u>1.1134</u>
TOTAL SALES OF NON-POTABLE WATER	<u>\$ 8,133</u>	<u>100.00%</u>	<u>8,447,475</u>	<u>100.00%</u>	<u>123</u>	<u>\$ 0.9628</u>
IV. <u>OTHER NON-POTABLE WATER DELIVERIES</u>						
City Ditch at Washington Park			669,397			
City of Englewood (Cabin-Meadow Exchange)			<u>621,821</u>			
Total Other Non-Potable Water Deliveries			<u>1,291,218</u>			
TOTAL NON-POTABLE WATER DELIVERIES			<u>9,738,693</u>			

¹This schedule represents actual billings made for water during the year. No accruals were made for revenue earned on unbilled accounts. The difference from amounts on an accrual basis is immaterial.

²The minimum contract payments category reflects contract stipulated payments with the ability to take a quantified amount of water. The payment is made in full regardless of consumption below the quantified amount.

³If the customer is reflected in the count of raw water customers, it is excluded from the count of effluent and minimum contract payment customers.

ANALYSIS OF CUSTOMER ACCOUNTS FOR TREATED WATER - 2016^{1,2,3}

		Number of Customers		
		12/31/2016	12/31/2015	Increase (Decrease)
METERED GENERAL CUSTOMERS				
Residential	Denver	135,398	135,020	378
	Outside City	33,261	33,245	16
	Total Service	32,150	32,158	(8)
Non-Residential	Denver	24,961	24,809	152
	Outside City	3,193	3,148	45
	Total Service	3,590	3,570	20
Irrigation	Denver	1,390	1,360	30
	Outside City	443	439	4
	Total Service	599	587	12
TOTAL METERED GENERAL CUSTOMERS		234,985	234,336	649
PUBLIC AUTHORITIES				
City & County of Denver	Irrigation	696	723	(27)
	Non-Irrigation	409	407	2
TOTAL PUBLIC AUTHORITIES		1,105	1,130	(25)
RESALE ACCOUNTS (MASTER METER)⁴		76,322	76,341	(19)
TOTAL TREATED WATER CUSTOMERS		312,412	311,807	605

¹A customer account is defined as a person or legal entity to which Denver Water currently provides service or has provided service at any time during the last five consecutive years. A customer may have more than one license, tap and /or premise.

²Represents the number of active metered services at year-end.

³In 2016, Denver Water underwent a significant change in rate structures. As part of this change Denver Water also consolidated various revenue accounts to simplify and streamline financial reporting. The classification of 'Number of Customers' was modified to reflect this change. Information as of December 31, 2015 was also modified for comparability purposes.

⁴See "Sales of Treated Water for Resale" on page III-33.

A. Monthly Fixed Charges, \$ per Bill

Meter Size inches	Schedule 1	Schedule 2	Schedule 3	Schedule 4
	Inside City of Denver	Read & Bill	Outside City Total Service	Wholesale
5/8" & 3/4"	\$8.79	\$8.79	\$8.79	\$8.79
1"	10.13	10.13	10.13	10.13
1 1/2"	14.27	14.27	14.27	14.27
2"	20.02	20.02	20.02	20.02
3"	36.33	36.33	36.33	36.33
4"	59.20	59.20	59.20	59.20
6"	124.71	124.71	124.71	124.71
8"	216.30	216.30	216.30	216.30
10"	334.09	334.09	334.09	334.09
12"	478.22	478.22	478.22	478.22

B. Treated Water Volume Rates, \$ per 1,000 gallons

Customer Class	Tier Threshold 1,000 gallons	Inside City of	Outside City		
		Denver	Read & Bill	Total Service	Wholesale
Single Family Residential					
Tier 1	0 to AWC (note D.3)	\$2.60	\$2.80	\$3.28	N/A
Tier 2	AWC + 15	4.68	5.04	5.90	
Tier 3	Greater than AWC + 15	6.24	6.72	7.87	
Nonresidential (note D.4, D.5)					
Tier 1	0 to AWC	\$2.68	\$3.32	\$3.76	N/A
Tier 2	AWC to 4 x AWC	3.75	4.65	5.26	
Tier 3	Greater than 4 x AWC	4.29	5.31	6.02	
Irrigation					
Winter (Nov. 1 through April 30)		\$1.22	\$1.40	\$1.69	N/A
Summer (May 1 through October 31)		4.88	5.60	6.76	
Wholesale					
Master Meter					\$4.15
Outside the Combined Service Area					4.44

C. Private Fireline

Fireline Size inches	Inside City of	Outside City		
	Denver	Read & Bill	Total Service	Wholesale
1"	\$3.78	\$2.34	\$3.71	
2"	6.31	3.90	6.19	
4"	9.74	6.03	9.56	
6"	13.92	8.61	13.66	N/A
8"	24.36	15.07	23.91	
10"	34.80	21.53	34.15	
12"	55.68	34.44	54.64	
16"	139.20	86.10	136.60	
Fire Hydrants	\$13.92	\$8.61	\$13.66	

D. Notes

- 1. Applicability:** See Chapter 2 of [Denver Water's Operating Rules](#)
 - 2. Payment:** Bills are due and payable to Denver Water upon issuance. Monthly bills are delinquent 20 days after the billing date. Late charges will be assessed per Denver Water policy.
 - 3. Single Family AWC:** A customer's average winter consumption (AWC) is used to determine the tier 1 threshold. The AWC is calculated by averaging each customer's billed monthly water use from January through March, which is a way of determining essential indoor water use. Denver Water has set the tier 1 minimum threshold at 5,000 gallons and a maximum of 15,000 gallons. For example, if the customer's AWC is less than 5,000 gallons, tier 1 is 0 to 5,000 gallons. If the AWC is over 15,000 gallons, tier 1 is 0 to 15,000 gallons. Volume rates are applied to billed monthly usage.
 - 4. Nonresidential AWC:** The tier 1 threshold is based on each customer's average winter consumption (AWC). This represents demands during the system off-peak period. The AWC is the average of a customer's billed water use for the months of January, February, and March. Volume rates are applied to billed monthly usage. Tier 2 is equal to 4 times the customer's AWC. Tier 3 is for usage in excess of 4 times the AWC.
 - 5. Small Multifamily:** For 2016, the small multifamily class (duplex through 5-plex) is now included in the nonresidential class.
- Schedule 4 Applicability:** Charges for treated water service under this schedule are applicable to entities (i.e. municipalities, quasi-municipal districts and water companies) outside the limits of the City and County of Denver served under distributor agreements whereby the entity operates and maintains water systems to supply individual licensees. Denver Water bills distributors for water delivered through "master meters." Each distributor establishes charges for its individual licensees for water service.

Schedule 5
Raw and Recycled

RAW WATER CONSUMPTION (Monthly)	<u>Per 1,000 Gallons</u>	<u>Per Acre Foot</u>
Inside City	\$0.52	\$169.44
Outside City	0.98	319.33
Outside the Combined Service Area (See Rate Schedule No. 6)	1.05	342.14
SERVICE CHARGES FOR RAW WATER BY METER SIZE		
	<u>Monthly</u>	
	Not Applicable	
RECYCLED WATER CONSUMPTION		
	<u>Per 1,000 Gallons</u>	<u>Per Acre Foot</u>
Inside City	\$0.99	\$322.59
Outside City	n/a	n/a
Outside the Combined Service Area (See Rate Schedule No. 6)	1.11	361.69
SERVICE CHARGES FOR RECYCLED WATER BY METER SIZE		
	<u>Monthly</u>	
3/4"	\$8.79	
1"	10.13	
1 1/2"	14.27	
2"	20.02	
3"	36.33	
4"	59.20	
6"	124.71	
8"	216.30	
10"	334.09	
12"	478.22	

Schedule 5 Applicability: Charges under this schedule are applicable to entities (including municipalities, quasi-municipal districts and corporations) with whom Denver Water has contracts to deliver raw or recycled water service at inside city or outside city rates. See Rate Schedule No. 6 for applicability outside the combined service area.

Schedule 6
Outside Combined Service Area

TREATED WATER CONSUMPTION (Monthly)	<u>Per 1,000 Gallons</u>	<u>Per Acre Foot</u>
	\$4.44	\$1,446.77
SERVICE CHARGE FOR TREATED WATER BY METER SIZE		
	<u>Monthly</u>	
3/4"	\$8.79	
1"	10.13	
1 1/2"	14.27	
2"	20.02	
3"	36.33	
4"	59.20	
6"	124.71	
8"	216.30	
10"	334.09	
12"	478.22	
RAW WATER CONSUMPTION		
	<u>Per 1,000 Gallons</u>	<u>Per Acre Foot</u>
	\$1.05	\$342.14
SERVICE CHARGE FOR RAW WATER BY METER SIZE		
	<u>Monthly</u>	
	Not Applicable	
RECYCLED WATER CONSUMPTION		
	<u>Per 1,000 Gallons</u>	<u>Per Acre Foot</u>
	\$1.11	\$361.69
SERVICE CHARGE FOR RECYCLED WATER BY METER SIZE		
	<u>Monthly</u>	
3/4"	\$8.79	
1"	10.13	
1 1/2"	14.27	
2"	20.02	
3"	36.33	
4"	59.20	
6"	124.71	
8"	216.30	
10"	334.09	
12"	478.22	

Schedule 6 Applicability: Charges under this schedule are applicable to entities (including municipalities, quasi-municipal districts and corporations) with whom Denver Water has contracts to deliver a fixed amount of water each year at Denver Water's outside the combined service area rates. These entities are located outside of Denver Water's combined service area, which is comprised of the City and County of Denver plus the total geographic area of all Total Service, Read and Bill, and Master Meter distributors who rely on Denver Water for their treated water supply. For contracts with entities outside of the combined service area, Denver Water is only obligated to provide specified amounts of treated, raw or recycled water as specified by contract. Denver Water has no relationship with, or obligation to, individual customers of the entity holding the fixed amount contract.

Schedule 7
City and County of Denver

TREATED WATER CONSUMPTION CHARGE (Monthly)	<u>Per 1,000 Gallons</u>
<u>Domestic - All Consumption</u>	\$2.39
<u>Irrigation</u>	
Winter - All Consumption ¹	1.06
Summer - All Consumption	2.66

¹Winter bills have billing periods ending on October 28 through April 30. Summer bills have billing periods ending on May 1 through October 27.

SERVICE CHARGES BY METER SIZE	<u>Monthly</u>
3/4"	\$8.79
1"	10.13
1 1/2"	14.27
2"	20.02
3"	36.33
4"	59.20
6"	124.71
8"	216.30
10"	334.09
12"	478.22

RAW WATER CONSUMPTION (Monthly)	<u>Per 1,000 Gallons</u>
Inside City	\$0.30

SERVICE CHARGES FOR RAW WATER	<u>Monthly</u>
	Not Applicable

RECYCLED WATER CONSUMPTION	<u>Per 1,000 Gallons</u>
Inside City	\$0.24

SERVICE CHARGES FOR RECYCLED WATER	<u>Monthly</u>
3/4"	\$8.79
1"	10.13
1 1/2"	14.27
2"	20.02
3"	36.33
4"	59.20
6"	124.71
8"	216.30
10"	334.09
12"	478.22

Schedule 7 Applicability: Charges under this schedule are applicable to all licensees for treated water service or private fire protection service outside the limits of the City and County of Denver served under agreements whereby Denver Water operates and maintains the water system used to supply water to the licensee.

		Schedule 8			
		System Development Charges			
		Treated Water			
		Inside City	Outside City		
I. SINGLE FAMILY RESIDENTIAL					
Base Charge		\$ 3,030		\$ 4,240	
First 22,000 sq. ft., \$ per sq. ft.		0.70		0.98	
Over 22,000 sq. ft., \$ per sq. ft.		0.35		0.49	
Auxiliary Dwelling Unit ¹		\$ 1,940		\$ 2,710	
II. RESIDENTIAL MULTIPLEX					
Base Charge, \$ per unit		\$ 3,030			n/a
Lot size charge, \$ per sq. ft.		0.70			n/a
III. MULTIFAMILY RESIDENTIAL					
Base charge for the first two dwelling units that are on same parcel		\$ 10,040		\$ 14,060	
Charge for next 6 dwelling units that are on the same parcel		2,420		3,390	
Charge for each additional dwelling units above 8 that are on the same parcel		1,940		2,710	
IV. IRRIGATION-ONLY					
Minimum charge: first 5,000 sq. ft.		\$ 5,820		\$ 8,150	
Over 5,000 sq. ft., \$ per sq. ft.		0.87		1.22	
V. NON-RESIDENTIAL^{2,3,4}					
<u>Tap Size</u>		<u>Treated Water</u>		<u>Non-Potable Water</u>	
		<u>Inside City</u>	<u>Outside City</u>	<u>Inside City</u>	<u>Outside City</u>
3/4"		\$ 10,730	\$ 15,030	\$ 9,370	\$ 13,120
1"		19,170	26,840	16,730	23,420
1 1/2"		42,180	59,050	36,810	51,540
2"		76,690	107,360	66,930	93,710
VI. MIXED USE⁵ (sum of the following SDC)					
Multifamily component				<u>Inside City</u>	<u>Outside City</u>
Nonresidential component				\$ 2.91	\$ 4.08
\$ per sq. ft. of nonresidential gross floor area irrigation, if applicable				As set forth in Section IV of this schedule	
VII. SPECIAL CONTRACTS, FIXED VOLUME CONTRACTS, & LARGE VOLUME CUSTOMERS					
<u>Description</u>		<u>Treated Water</u>		<u>Non-Potable Water</u>	
		<u>Inside City</u>	<u>Outside City</u>	<u>Inside City</u>	<u>Outside City</u>
Inside the Combined Service Area					
Acre Foot Conversion (\$/AF)		\$ 18,980	\$ 26,570	\$ 16,570	\$ 23,190
1,000 Gallons Conversion (\$/1,000 gallons)		58.26	81.57	50.85	71.19
Outside the Combined Service Area					
Acre Foot Conversion (\$/AF)		n/a	37,210	n/a	32,470
1,000 Gallons Conversion (\$/1,000 gallons)		n/a	114.10	n/a	99.60

System Development Charge Applicability: Licenses for treated and non-potable water taps within the City and County of Denver and Denver Water service areas, including special contracts. System Development Charges are due and payable prior to issuance of a license to the customer.

Note: Several distributor contracts and water service agreements contain negotiated tap ratio conversions per acre foot and some agreements contain negotiated and/or prepaid system development charges. These contracts will continue to be administered utilizing the system development charge calculations and/or tap ratio conversions specified in each of the contracts. Tap credit pools are administered consistent with the applicable water service agreement and Denver Water Operating Rules.

¹ Units such as a guest house or carriage house that are detached from the primary residence and contain provisions for sleeping, cooking, and sanitation.

² Includes commercial, industrial, institutional development.

³ SDC for nonpotable by tap size apply only to recycled water taps.

⁴ Tap sizes greater than 2 inches are determined on an individual basis using peak demand requirements.

⁵ Development containing two or more different principal or primary uses such as residential, office, manufacturing, retail, public or entertainment uses.

City of Denver - Schedule 1	2016	2015	2014	2013	2012	2011	2010	2009 ¹	2008	2007
Residential - Consumption Charge per 1,000 Gallons										
0 to AWC ²	\$ 2.60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AWC + 15	4.68	-	-	-	-	-	-	-	-	-
Greater than AWC + 15	6.24	-	-	-	-	-	-	-	-	-
Prior to April 1, 2016										
First 11,000 Gallons	-	2.75	2.68	2.59	2.54	2.41	2.11	1.91	-	-
12,000 - 30,000 Gallons	-	5.50	5.36	5.18	5.09	4.82	4.22	3.82	-	-
31,000 - 40,000 Gallons	-	8.25	8.04	7.77	7.63	7.23	6.33	5.73	-	-
Over 40,000 Gallons	-	11.00	10.72	10.36	10.17	9.64	8.44	7.64	-	-
Prior to July 6, 2009										
First 22,000 Gallons	-	-	-	-	-	-	-	-	1.81	1.72
22,000 - 60,000 Gallons	-	-	-	-	-	-	-	-	3.62	3.44
Over 60,000 Gallons	-	-	-	-	-	-	-	-	-	-
60,000 - 80,000 Gallons	-	-	-	-	-	-	-	-	5.43	5.16
Over 80,000 Gallons	-	-	-	-	-	-	-	-	7.24	6.88
Residential Irrigation - Consumption Charge per 1,000 Gallons										
Winter - All Consumption	-	-	-	-	-	-	1.00	0.92	0.89	0.94
Summer - All Consumption	-	-	-	-	-	-	4.00	3.68	3.56	3.76
Small Multi-Family - Consumption Charge per 1,000 Gallons (Duplexes through Five-Plexes with a Single Meter)										
0 to AWC ^{3,4}	2.68	-	-	-	-	-	-	-	-	-
AWC to 4 x AWC	3.75	-	-	-	-	-	-	-	-	-
Greater than 4 x AWC	4.29	-	-	-	-	-	-	-	-	-
Prior to April 1, 2016										
First 15,000 Gallons ⁵	-	3.02	2.93	2.83	2.82	2.67	2.33	2.17	-	-
Over 15,000 Gallons	-	3.62	3.52	3.40	3.38	3.20	2.80	2.60	-	-
Prior to July 6, 2009										
First 30,000 Gallons ⁶	-	-	-	-	-	-	-	-	2.10	1.95
Over 30,000 Gallons	-	-	-	-	-	-	-	-	2.52	2.34
All Other Retail - Consumption Charge per 1,000 Gallons										
0 to AWC ³	2.68	-	-	-	-	-	-	-	-	-
AWC to 4 x AWC	3.75	-	-	-	-	-	-	-	-	-
Greater than 4 x AWC	4.29	-	-	-	-	-	-	-	-	-
Prior to April 1, 2016										
Winter - All Consumption	-	1.88	1.84	1.78	1.78	1.69	1.54	1.48	2.06	1.89
Summer - All Consumption	-	3.76	3.68	3.57	3.57	3.38	3.08	2.96	2.47	2.27
Irrigation Only- Consumption Charge per 1,000 Gallons										
Winter - All Consumption	1.22	1.20	1.20	1.20	1.20	1.14	1.00	1.49	2.02	-
Summer - All Consumption	4.88	4.81	4.81	4.81	4.81	4.56	4.00	3.17	2.50	-
Service Charge/Meter Charge										
Monthly 5/8" & 3/4"	8.79	-	-	-	-	-	-	-	-	-
Monthly 1"	10.13	-	-	-	-	-	-	-	-	-
Monthly 1 1/2"	14.27	-	-	-	-	-	-	-	-	-
Monthly 2"	20.02	-	-	-	-	-	-	-	-	-
Monthly 3"	36.33	-	-	-	-	-	-	-	-	-
Monthly 4"	59.20	-	-	-	-	-	-	-	-	-
Monthly 6"	124.71	-	-	-	-	-	-	-	-	-
Monthly 8"	216.30	-	-	-	-	-	-	-	-	-
Monthly 10"	334.09	-	-	-	-	-	-	-	-	-
Monthly 12"	478.22	-	-	-	-	-	-	-	-	-
Prior to April 1, 2016										
Monthly Service Charge	-	6.74	6.58	6.33	6.33	6.00	5.58	4.41	3.82	3.87
Bimonthly Service Charge	-	-	-	-	-	-	-	-	6.07	5.98

¹Effective July 6, 2009 Denver Water customers are billed monthly.

²Single Family AWC: A customer's average winter consumption (AWC) is used to determine the tier 1 threshold.

The AWC is calculated by averaging each customer's billed monthly water use from January through March, which is a way of determining essential indoor water use. Denver Water has set the tier 1 minimum threshold at 5,000 gallons and a maximum of 15,000 gallons. For example, if the customer's AWC is less than 5,000 gallons, tier 1 is 0 to 5,000 gallons. If the AWC is over 15,000 gallons, tier 1 is 0 to 15,000 gallons. Volume rates are applied to billed monthly usage.

³Small Multifamily: For 2016, the small multifamily class (duplex through 5-plex) is now included in the nonresidential class.

⁴Nonresidential AWC: The tier 1 threshold is based on each customer's average winter consumption (AWC). This represents demands during the system off-peak period. The AWC is the average of a customer's billed water use for the months of January, February, and March. Volume rates are applied to billed monthly usage. Tier 2 is equal to 4 times the customer's AWC. Tier 3 is for usage in excess of 4 times the AWC.

⁵Monthly usage amounts increase by 6,000 gallons per additional dwelling unit up to 5 dwelling units.

⁶Bimonthly usage amounts increased by 12,000 gallons per additional dwelling unit up to 5 dwelling units.

(Continued next page)

	2016	2015	2014	2013	2012	2011	2010	2009 ¹	2008	2007
Outside City Read and Bill - Schedule 2										
<u>Residential - Consumption Charge per 1000 Gallons</u>										
0 to AWC ²	\$ 2.80	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AWC + 15	5.04	-	-	-	-	-	-	-	-	-
Greater than AWC + 15	6.72	-	-	-	-	-	-	-	-	-
<u>Prior to April 1, 2016</u>										
First 11,000 Gallons	-	2.82	2.73	2.61	2.49	2.36	2.20	2.00	-	-
12,000 - 30,000 Gallons	-	5.64	5.46	5.22	4.98	4.72	4.40	4.00	-	-
31,000 - 40,000 Gallons	-	8.46	8.19	7.83	7.47	7.08	6.60	6.00	-	-
Over 40,000 Gallons	-	11.28	10.92	10.44	9.96	9.44	8.80	8.00	-	-
<u>Prior to July 6, 2009</u>										
First 22,000 Gallons	-	-	-	-	-	-	-	-	1.90	2.11
22,000 - 60,000 Gallons	-	-	-	-	-	-	-	-	3.80	4.22
Over 60,000 Gallons	-	-	-	-	-	-	-	-	-	-
60,000 - 80,000 Gallons	-	-	-	-	-	-	-	-	5.70	6.33
Over 80,000 Gallons	-	-	-	-	-	-	-	-	7.60	8.44
<u>Residential Irrigation - Consumption Charge per 1,000 Gallons</u>										
Winter - All Consumption	-	-	-	-	-	-	1.09	1.08	0.98	0.92
Summer - All Consumption	-	-	-	-	-	-	4.36	4.32	3.92	3.68
<u>Small Multi-Family - Consumption Charge per 1000 Gallons</u>										
0 to AWC ^{3,4}	3.32	-	-	-	-	-	-	-	-	-
AWC to 4 x AWC	4.65	-	-	-	-	-	-	-	-	-
Greater than 4 x AWC	5.31	-	-	-	-	-	-	-	-	-
<u>Prior to April 1, 2016</u>										
(Duplexes through Five-Plexes with a Single Meter)										
First 15,000 Gallons ⁵	-	3.43	3.39	3.30	3.21	3.04	2.71	2.57	-	-
Over 15,000 Gallons	-	4.12	4.07	3.96	3.85	3.65	3.25	3.08	-	-
<u>Prior to July 6, 2009</u>										
First 30,000 Gallons ⁶	-	-	-	-	-	-	-	-	2.27	2.13
Over 30,000 Gallons	-	-	-	-	-	-	-	-	2.72	2.56
<u>All Other Retail - Consumption Charge per 1000 Gallons</u>										
0 to AWC ³	3.32	-	-	-	-	-	-	-	-	-
AWC to 4 x AWC	4.65	-	-	-	-	-	-	-	-	-
Greater than 4 x AWC	5.31	-	-	-	-	-	-	-	-	-
<u>Prior to April 1, 2016</u>										
Winter - All Consumption	-	2.36	2.35	2.26	2.20	2.09	1.99	1.99	2.50	2.42
Summer - All Consumption	-	4.72	4.70	4.52	4.41	4.18	3.98	3.98	3.00	2.90
<u>Irrigation Only - Consumption Charge per 1000 Gallons</u>										
Winter - All Consumption	1.40	1.35	1.31	1.29	1.29	1.22	1.09	1.78	2.35	-
Summer - All Consumption	5.60	5.40	5.24	5.15	5.15	4.88	4.36	3.94	3.08	-
<u>Service Charge/Meter Charge</u>										
Monthly 5/8" & 3/4"	8.79	-	-	-	-	-	-	-	-	-
Monthly 1"	10.13	-	-	-	-	-	-	-	-	-
Monthly 1 1/2"	14.27	-	-	-	-	-	-	-	-	-
Monthly 2"	20.02	-	-	-	-	-	-	-	-	-
Monthly 3"	36.33	-	-	-	-	-	-	-	-	-
Monthly 4"	59.20	-	-	-	-	-	-	-	-	-
Monthly 6"	124.71	-	-	-	-	-	-	-	-	-
Monthly 8"	216.30	-	-	-	-	-	-	-	-	-
Monthly 10"	334.09	-	-	-	-	-	-	-	-	-
Monthly 12"	478.22	-	-	-	-	-	-	-	-	-
<u>Prior to April 1, 2016</u>										
Monthly Service Charge	-	6.74	6.58	6.33	6.33	6.00	5.58	4.41	3.82	3.87
Bimonthly Service Charge	-	-	-	-	-	-	-	-	6.07	5.98

¹Effective July 6, 2009 Denver Water customers are billed monthly.

²Single Family AWC: A customer's average winter consumption (AWC) is used to determine the tier 1 threshold. The AWC is calculated by averaging each customer's billed monthly water use from January through March, which is a way of determining essential indoor water use. Denver Water has set the tier 1 minimum threshold at 5,000 gallons and a maximum of 15,000 gallons. For example, if the customer's AWC is less than 5,000 gallons, tier 1 is 0 to 5,000 gallons. If the AWC is over 15,000 gallons, tier 1 is 0 to 15,000 gallons. Volume rates are applied to billed monthly usage.

³Small Multifamily: For 2016, the small multifamily class (duplex through 5-plex) is now included in the nonresidential class.

⁴Nonresidential AWC: The tier 1 threshold is based on each customer's average winter consumption (AWC). This represents demands during the system off-peak period. The AWC is the average of a customer's billed water use for the months of January, February, and March. Volume rates are applied to billed monthly usage. Tier 2 is equal to 4 times the customer's AWC. Tier 3 is for usage in excess of 4 times the AWC.

⁵Monthly usage amounts increase by 6,000 gallons per additional dwelling unit up to 5 dwelling units.

⁶Bimonthly usage amounts increased by 12,000 gallons per additional dwelling unit up to 5 dwelling units.

(Continued next page)

	2016	2015	2014	2013	2012	2011	2010	2009 ¹	2008	2007
Outside City Total Service - Schedule 3										
<u>Residential - Consumption Charge per 1,000 Gallons</u>										
0 to AWC ²	\$ 3.28	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AWC + 15	5.90	-	-	-	-	-	-	-	-	-
Greater than AWC + 15	7.87	-	-	-	-	-	-	-	-	-
<u>Prior to April 1, 2016</u>										
First 11,000 Gallons	3.04	3.04	3.02	2.93	2.85	2.70	2.59	2.43	-	-
12,000 - 30,000 Gallons	6.08	6.08	6.04	5.86	5.70	5.40	5.18	4.86	-	-
31,000 - 40,000 Gallons	9.12	9.12	9.06	8.79	8.55	8.10	7.77	7.29	-	-
Over 40,000 Gallons	12.16	12.16	12.08	11.72	11.39	10.80	10.36	9.72	-	-
<u>Prior to July 6, 2009</u>										
First 22,000 Gallons	-	-	-	-	-	-	-	-	2.27	2.22
22,000 - 60,000 Gallons	-	-	-	-	-	-	-	-	4.54	4.44
Over 60,000 Gallons	-	-	-	-	-	-	-	-	-	-
60,000 - 80,000 Gallons	-	-	-	-	-	-	-	-	6.81	6.66
Over 80,000 Gallons	-	-	-	-	-	-	-	-	9.08	8.88
<u>Residential Irrigation - Consumption Charge per 1,000 Gallons</u>										
Winter - All Consumption	-	-	-	-	-	-	1.26	1.24	1.09	1.09
Summer - All Consumption	-	-	-	-	-	-	5.04	4.96	4.36	4.36
<u>Small Multi-Family - Consumption Charge per 1,000 Gallons</u> (Duplexes through Five-Plexes with a Single Meter)										
0 to AWC ^{3,4}	3.76	-	-	-	-	-	-	-	-	-
AWC to 4 x AWC	5.26	-	-	-	-	-	-	-	-	-
Greater than 4 x AWC	6.02	-	-	-	-	-	-	-	-	-
<u>Prior to April 1, 2016</u>										
First 15,000 Gallons ⁵	-	4.29	4.21	3.99	3.84	3.64	3.39	3.31	-	-
Over 15,000 Gallons	-	5.15	5.05	4.79	4.61	4.37	4.07	3.97	-	-
<u>Prior to July 6, 2009</u>										
First 30,000 Gallons ⁶	-	-	-	-	-	-	-	-	2.97	2.77
Over 30,000 Gallons	-	-	-	-	-	-	-	-	3.56	3.32
<u>All Other Retail - Consumption Charge per 1,000 Gallons</u>										
0 to AWC ³	3.76	-	-	-	-	-	-	-	-	-
AWC to 4 x AWC	5.26	-	-	-	-	-	-	-	-	-
Greater than 4 x AWC	6.02	-	-	-	-	-	-	-	-	-
<u>Prior to April 1, 2016</u>										
Winter - All Consumption	-	2.72	2.70	2.54	2.44	2.31	2.16	2.16	2.98	2.89
Summer - All Consumption	-	5.44	5.40	5.08	4.87	4.62	4.32	4.32	3.58	3.47
<u>Irrigation Only - Consumption Charge per 1,000 Gallons</u>										
Winter - All Consumption	1.69	1.64	1.56	1.47	1.39	1.32	1.26	2.02	2.78	-
Summer - All Consumption	6.76	6.56	6.24	5.88	5.57	5.28	5.04	4.33	3.61	-
<u>Service Charge/Meter Charge</u>										
Monthly 5/8" & 3/4"	8.79	-	-	-	-	-	-	-	-	-
Monthly 1"	10.13	-	-	-	-	-	-	-	-	-
Monthly 1 1/2"	14.27	-	-	-	-	-	-	-	-	-
Monthly 2"	20.02	-	-	-	-	-	-	-	-	-
Monthly 3"	36.33	-	-	-	-	-	-	-	-	-
Monthly 4"	59.20	-	-	-	-	-	-	-	-	-
Monthly 6"	124.71	-	-	-	-	-	-	-	-	-
Monthly 8"	216.30	-	-	-	-	-	-	-	-	-
Monthly 10"	334.09	-	-	-	-	-	-	-	-	-
Monthly 12"	478.22	-	-	-	-	-	-	-	-	-
<u>Prior to April 1, 2016</u>										
Monthly Service Charge	-	6.74	6.58	6.33	6.33	6.00	5.58	4.41	3.82	3.87
Bimonthly Service Charge	-	-	-	-	-	-	-	-	6.07	5.98

¹Effective July 6, 2009 Denver Water customers are billed monthly.

²Single Family AWC: A customer's average winter consumption (AWC) is used to determine the tier 1 threshold.

The AWC is calculated by averaging each customer's billed monthly water use from January through March, which is a way of determining essential indoor water use. Denver Water has set the tier 1 minimum threshold at 5,000 gallons and a maximum of 15,000 gallons. For example, if the customer's AWC is less than 5,000 gallons, tier 1 is 0 to 5,000 gallons. If the AWC is over 15,000 gallons, tier 1 is 0 to 15,000 gallons. Volume rates are applied to billed monthly usage.

³Small Multifamily: For 2016, the small multifamily class (duplex through 5-plex) is now included in the nonresidential class.

⁴Nonresidential AWC: The tier 1 threshold is based on each customer's average winter consumption (AWC). This represents demands during the system off-peak period. The AWC is the average of a customer's billed water use for the months of January, February, and March. Volume rates are applied to billed monthly usage. Tier 2 is equal to 4 times the customer's AWC. Tier 3 is for usage in excess of 4 times the AWC.

⁵Monthly usage amounts increase by 6,000 gallons per additional dwelling unit up to 5 dwelling units.

⁶Bimonthly usage amounts increased by 12,000 gallons per additional dwelling unit up to 5 dwelling units.

(Continued next page)

	2016	2015	2014	2013	2012	2011	2010	2009 ¹	2008	2007
Outside City Master Meter - Schedule 4										
Consumption Charge per 1000 Gallons - All Consumption	\$ 4.15	\$ 4.04	\$ 3.95	\$ 3.81	\$ 3.64	\$ 3.45	\$ 3.01	\$ 3.01	\$ 2.67	\$ 2.55
<u>Service Charge/Meter Charge</u>										
Monthly 5/8" & 3/4"	8.79	-	-	-	-	-	-	-	-	-
Monthly 1"	10.13	-	-	-	-	-	-	-	-	-
Monthly 1 1/2"	14.27	-	-	-	-	-	-	-	-	-
Monthly 2"	20.02	-	-	-	-	-	-	-	-	-
Monthly 3"	36.33	-	-	-	-	-	-	-	-	-
Monthly 4"	59.20	-	-	-	-	-	-	-	-	-
Monthly 6"	124.71	-	-	-	-	-	-	-	-	-
Monthly 8"	216.30	-	-	-	-	-	-	-	-	-
Monthly 10"	334.09	-	-	-	-	-	-	-	-	-
Monthly 12"	478.22	-	-	-	-	-	-	-	-	-
<u>Prior to April 1, 2016</u>										
Monthly Service Charge	-	6.74	6.58	6.33	6.33	6.00	5.58	4.41	3.82	3.87
Bimonthly Service Charge	-	-	-	-	-	-	-	-	6.07	5.98
Outside City Master Meter Maintenance - Schedule 5										
Consumption Charge per 1000 Gallons - All Consumption	-	-	-	-	4.96	4.70	4.45	4.31	3.93	3.72
<u>Service Charge/Meter Charge</u>										
Monthly Service Charge	-	-	-	-	6.33	6.00	5.58	4.41	3.82	3.87
Bimonthly Service Charge	-	-	-	-	-	-	-	-	6.07	5.98
Raw and Recycled - Schedule 6										
<u>Raw - Consumption Charge per 1000 Gallons</u>										
Inside City - All Consumption	0.50	0.52	0.52	0.50	0.50	0.47	0.47	0.47	0.47	0.47
Outside City - All Consumption	1.00	0.96	0.91	0.91	0.86	0.81	0.77	0.73	0.67	0.67
Outside Combined Service Area - All Consumption	1.10	1.04	1.04	1.04	1.01	0.95	0.90	0.85	0.76	0.76
<u>Recycled - Consumption Charge per 1000 Gallons</u>										
Inside City Recycled - All Consumption	0.99	0.99	0.99	0.99	0.99	0.93	0.89	0.89	0.88	0.86
Outside City Recycled - All Consumption	-	-	-	-	-	-	-	-	-	-
Outside Combined Service Area - All Consumption	1.11	1.11	1.11	1.11	1.11	1.05	0.91	0.90	0.76	0.77
<u>Recycled Service Meter Charge</u>										
Monthly 5/8" & 3/4"	8.79	-	-	-	-	-	-	-	-	-
Monthly 1"	10.13	-	-	-	-	-	-	-	-	-
Monthly 1 1/2"	14.27	-	-	-	-	-	-	-	-	-
Monthly 2"	20.02	-	-	-	-	-	-	-	-	-
Monthly 3"	36.33	-	-	-	-	-	-	-	-	-
Monthly 4"	59.20	-	-	-	-	-	-	-	-	-
Monthly 6"	124.71	-	-	-	-	-	-	-	-	-
Monthly 8"	216.30	-	-	-	-	-	-	-	-	-
Monthly 10"	334.09	-	-	-	-	-	-	-	-	-
Monthly 12"	478.22	-	-	-	-	-	-	-	-	-
<u>Prior to April 1, 2016</u>										
Monthly Service Charge	-	6.74	6.58	6.33	6.33	6.00	5.58	4.41	3.82	3.87
Bimonthly Service Charge	-	-	-	-	-	-	-	-	6.07	5.98
Outside Combined Service Area - Schedule 7										
Treated Water - Consumption Charge per 1000 Gallons	4.44	4.44	4.44	4.25	4.05	3.83	3.36	3.19	3.13	2.68
<u>Service Charge/Meter Charge</u>										
Monthly 5/8" & 3/4"	8.79	-	-	-	-	-	-	-	-	-
Monthly 1"	10.13	-	-	-	-	-	-	-	-	-
Monthly 1 1/2"	14.27	-	-	-	-	-	-	-	-	-
Monthly 2"	20.02	-	-	-	-	-	-	-	-	-
Monthly 3"	36.33	-	-	-	-	-	-	-	-	-
Monthly 4"	59.20	-	-	-	-	-	-	-	-	-
Monthly 6"	124.71	-	-	-	-	-	-	-	-	-
Monthly 8"	216.30	-	-	-	-	-	-	-	-	-
Monthly 10"	334.09	-	-	-	-	-	-	-	-	-
Monthly 12"	478.22	-	-	-	-	-	-	-	-	-
<u>Prior to April 1, 2016</u>										
Monthly Service Charge	-	6.74	6.58	6.33	6.33	6.00	5.58	4.41	3.82	3.87
Bimonthly Service Charge	-	-	-	-	-	-	-	-	6.07	5.98

¹Effective July 6, 2009 Denver Water customers are billed monthly.

SALES OF TREATED WATER FOR RESALE - 2016

(NON-ACCRUAL BASIS)¹

(amounts expressed in thousands)

Treated Water Sold Outside Denver to Municipalities and Distributors through Master Meters^{2,3}

	Revenue	Gallons Sold (000)	Number of Customers
MASTER METER DISTRIBUTORS			
Alameda Water & Sanitation District	\$ 336	79,750	335
Bancroft-Clover Water & Sanitation District	6,219	1,498,464	8,817
Bonvue Water & Sanitation District	59	14,326	169
Bow-Mar Water & Sanitation District	471	112,194	290
Cherry Creek Valley Water & Sanitation District	3,845	925,485	1,975
Cherry Creek Village Water & Sanitation District	568	136,057	475
City of Edgewater	832	199,138	1,483
City of Glendale	1,112	268,548	237
City of Lakewood	800	192,906	732
Consolidated Mutual Water Company	8,562	2,062,821	15,702
Crestview Water & Sanitation District	2,343	566,548	4,528
Green Mountain Water & Sanitation District	6,709	1,620,672	10,111
High View Water District	587	141,510	891
Ken-Caryl Water & Sanitation District	3,278	790,056	3,742
Lakehurst Water & Sanitation District	3,702	889,251	5,519
Meadowbrook Water & Sanitation District	649	154,821	1,321
North Pecos Water & Sanitation District	653	156,268	404
North Washington Street Water & Sanitation District	3,322	800,917	3,637
Northgate Water District	20	4,496	4
South Adams County Water & Sanitation District	261	61,252	167
Valley Water District	2,201	529,454	1,782
Wheat Ridge Water District	3,339	803,998	5,849
Willowbrook Water & Sanitation District	2,032	488,137	3,415
Willows Water District	3,180	765,428	4,737
Chatfield South Water District	28	6,415	-
City and County of Broomfield	6,456	1,556,508	-
East Cherry Creek Valley Water District	876	195,590	-
GSA	352	83,581	-
Inverness Water District	657	157,692	-
Rocky Mountain Arsenal	27	4,650	-
South Adams County Special Contract Area	3,356	761,710	-
Suncor Energy USA	2,351	567,344	-
Total Sales of Treated Water for Resale	\$ 69,183	16,595,987	76,322

¹This schedule represents actual billings made for water during the year. No accruals were made for revenue earned on unbilled accounts. Therefore, amounts on this schedule do not agree with amounts on the Statement of Revenues, Expenses, and Changes in Net Assets. The difference from amounts on an accrual basis is immaterial.

²Sales on Total Service or Read and Bill Contracts are not included.

³During 2016, the Board of Directors at Denver Water approved modifications to its rate structures, changes to how Denver Water classifies selected revenues and expenses for financial statement presentation, and the presentation of certain information included in its statistical schedules. The 2016 financial statements reflect these changes.

10 LARGEST RETAIL CUSTOMERS - WATER CONSUMPTION AND REVENUE - 2016

(NON-ACCRUAL BASIS)

(amounts expressed in thousands)

<u>Account Type</u>	<u>Consumption</u>		<u>Revenue</u>	
	<u>Gallons Sold</u> <u>(000)</u>	<u>Percent of</u> <u>Total</u> <u>Gallons Sold</u>	<u>Water</u> <u>Revenue¹</u>	<u>Percent of</u> <u>Total Water</u> <u>Revenue</u>
Oil and Gas Company	608,901	0.96%	\$ 2,407	0.90%
Public School System	487,818	0.77%	1,661	0.62%
Public Utility	437,776	0.69%	1,535	0.58%
Housing Authority	345,445	0.55%	1,218	0.46%
Parks System	221,970	0.35%	1,348	0.51%
Retail Grocer - 1	175,190	0.28%	481	0.18%
Beverage Company	145,643	0.23%	384	0.14%
Retail Grocer - 2	129,481	0.20%	522	0.20%
State Government	125,653	0.20%	405	0.15%
Hospitals	114,087	0.18%	286	0.11%
Total of the 10 largest customers	<u>2,791,964</u>	<u>4.41%</u>	<u>\$ 10,247</u>	<u>3.85%</u>
Total sales of treated water	<u>63,257,284</u>		<u>\$ 266,385</u>	

¹This column represents actual billings made for treated water and private fire protection service during the year. The difference from amounts on an accrual basis is immaterial. In addition to the 10 largest retail accounts listed, Denver Water provided 2,181 million gallons of treated water to the City and County of Denver. Revenues from these sales were \$5.8 million. (See pages III-19)

SYSTEM DEVELOPMENT CHARGES AND PARTICIPATION RECEIPTS:

1973 - 2016

(Cash basis - net of refunds)

(amounts expressed in thousands)

	<u>System Development Charges ("SDC")</u>	<u>Participation Receipts (aka Contributions in Aid of Construction)</u>
2016	38,752	2,335
2015	36,109	8,713
2014	32,736	6,384
2013	34,461	4,834
2012	19,543	1,297
2011	14,233	7,023
2010	14,441	1,093
2009	8,118	10,908
2008	18,498	2,424
2007	26,028	3,300
2006	22,305	2,730
2005	26,257	1,850
2004	24,834	2,229
2003	19,615	2,831
2002	36,591	5,567
2001	22,186	7,027
2000	25,525	6,392
1999	24,224	11,964
1998	33,156	8,412
1997	45,058	3,733
1996	15,137	2,913
1995	15,528	3,927
1994	13,536	2,882
1993	12,182	1,344
1992	10,920	1,199
1991	7,530	2,331
1990	6,615	1,839
1989	6,251	4,965
1988	6,085	3,068
1987	8,544	4,561
1973-86	<u>149,475</u>	<u>43,646</u>
	<u>\$ 774,473</u>	<u>\$ 173,721</u>

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C - DEBT CAPACITY INFORMATION

These schedules present information to help the reader assess the affordability of Denver Water's current levels of outstanding debt and its ability to issue additional debt in the future.

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RATIOS OF TOTAL OUTSTANDING DEBT BY TYPE: 2007 - 2016

(amounts expressed in thousands, except debt per capita)

Total Principal Balance Outstanding Debt by Type ¹												
Year	General Obligation Bonds	Water Revenue Bonds	Revenue Bond		Capital Leases		Notes Payable ⁵	Gross Revenues ^{2,4}	Ratio of Total Debt to Gross Revenue ¹	Estimated Population Served ³	Debt Per Capita	
			Unamortized Premium or (Discount)	Total Water Rev Bonds	Certificates of Participation	Other						Total
2007	61,545	280,080	-	280,080	39,515	25,061	-	406,201	238,689	1.70	1,077,000	377
2008	42,725	277,490	-	277,490	33,805	23,731	-	377,751	248,074	1.52	1,093,000	346
2009	31,170	309,025	-	309,025	27,835	22,308	-	390,338	216,557	1.80	1,111,000	351
2010	28,090	377,665	-	377,665	21,630	20,790	-	448,175	259,730	1.73	1,125,000	398
2011	23,825	371,560	-	371,560	-	19,166	-	414,551	279,682	1.48	1,135,000	365
2012	500	401,420	15,594	417,014	-	17,431	-	434,945	313,093	1.34	1,147,000	379
2013	-	376,965	11,472	388,437	-	15,576	10,000	414,013	290,349	1.39	1,161,000	357
2014	-	395,125	9,480	404,605	-	13,595	-	418,200	297,768	1.37	1,172,000	357
2015	-	368,125	6,593	374,718	-	11,478	30,000	416,196	305,073	1.34	1,210,000	344
2016	-	438,580	15,758	454,338	-	9,215	-	463,553	336,713	1.33	1,249,000	371

¹Details regarding outstanding debt can be found in the notes to the financial statements. For presentation purposes, capital leases have been treated as debt. Prior to 2012 the outstanding debt included principal balances only and excluded discounts, premiums, and deferred amounts on advance refundings; therefore, they do not agree with numbers presented in the basic financial statements, exhibits, or the statistical summary. Beginning in 2012 the outstanding debt is net of premiums and discounts. Outstanding debt excluding premiums and discounts is used to calculate the ratio of total debt to gross revenue. All bonded debt is secured by revenues.

²Gross Revenues are defined as operating revenues plus investment income plus proceeds from sales of capital assets plus other income plus cash proceeds from contributions in aid of construction (CIAC) and prepaid CIAC, and cash proceeds from system development charges (SDC) and prepaid SDC.

³Population estimates are treated water customers only. See schedule entitled "Consumption of Treated Water" on page III-80

⁴Certain reclassifications have been made to prior years' information to conform to the current year presentation.

⁵The lien on notes payable is subordinate and junior to the lien on the revenue bonds outstanding and on future revenue bond issues.

PLEDGED-REVENUE COVERAGE: 2007 - 2016

General Obligation Bonds, Water Revenue Bonds, Notes Payable and Obligations under Capital Lease¹
(amounts expressed in thousands)

Year	Gross Revenues ^{2,4,5}	Less Operating Expenses ^{3,4,5,7}	Net Available Revenue	Total Debt Service ¹			Coverage including Notes Payable Debt ⁶	Coverage not including Notes Payable Debt
				Principal	Interest	Total		
2007	\$ 238,689	\$ 124,170	\$ 114,519	\$ 32,055	\$ 19,683	\$ 51,738	2.21	2.21
2008	248,074	138,402	109,672	30,250	19,324	49,574	2.21	2.21
2009	216,557	155,127	61,430	31,413	19,204	50,617	1.21	1.21
2010	259,730	168,501	91,229	32,164	19,065	51,229	1.78	1.78
2011	279,682	164,760	114,922	33,624	22,335	55,959	2.05	2.08
2012	313,093	158,372	154,721	24,715	19,740	44,455	3.48	3.48
2013	290,349	166,049	124,300	26,810	19,410	46,220	2.69	2.69
2014	297,768	181,541	116,227	28,071	18,673	46,744	2.49	2.49
2015	305,073	170,427	134,646	29,117	18,802	47,919	2.81	2.81
2016	336,713	199,029	137,684	23,828	16,248	40,076	3.44	3.45

¹Details regarding outstanding debt can be found in the notes to the financial statements. For presentation purposes, capital leases have been treated as debt. All bonded debt is secured by revenue.

²Gross Revenues are defined as operating revenues plus investment income plus proceeds from sales of capital assets plus other income plus cash proceeds from contributions in aid of construction (CIAC) and prepaid CIAC, and cash proceeds from system development charges (SDC) and prepaid SDC.

³Operating Expenses are defined as operating expenses plus other expenses minus total depreciation and amortization (as disclosed in Note 4 to the financial statements).

⁴All items computed as defined in bond covenants. Rate maintenance covenant is 1.10; additional bonds test is 1.2 times average annual debt service. Notes payable debt service is not subject to this covenant.

⁵Certain reclassifications have been made to prior years' information to conform to the current year presentation.

⁶Notes payable debt has a subordinate lien to the lien on outstanding revenue bonds and future revenue bond issues. Total debt service for notes payable in 2015 was \$0 in principal and \$57 thousand in interest. In 2015 \$30 million was drawn on the notes. In 2016 \$30 million in notes payable was paid down with proceeds from the 2016A revenue bond issue. \$132 thousand was paid in interest in 2016 for the notes.

⁷The 2014 financial statements we restated as part of the implementation of GASB Statement No.68 *Accounting and Financial Reporting for Pensions*.

RATIOS OF GENERAL OBLIGATION BONDED DEBT OUTSTANDING: 2007 - 2016
(amounts expressed in thousands, except debt per capita)

<u>Year</u>	<u>General Obligation Bonds¹</u>	<u>Gross Revenues^{2,4}</u>	<u>Ratio of General Obligation Debt to Gross Revenue</u>	<u>Estimated Population Served³</u>	<u>General Obligation Debt per Capita</u>
2007	\$ 61,545	\$ 238,689	0.26	1,077,000	57
2008	42,725	248,074	0.17	1,093,000	39
2009	31,170	216,557	0.14	1,111,000	28
2010	28,090	259,730	0.11	1,125,000	25
2011	23,825	279,682	0.09	1,135,000	21
2012	500	313,093	-	1,147,000	-
2013	-	290,349	-	1,161,000	-
2014	-	297,768	-	1,172,000	-
2015	-	305,073	-	1,210,000	-
2016	-	336,713	-	1,249,000	-

¹Details regarding outstanding debt can be found in the notes to the financial statements. The Board no longer has authority to issue general obligation bonds of the City.

²Gross Revenues are defined as operating revenues plus investment income plus proceeds from sales of capital assets plus other income plus cash proceeds from contributions in aid of construction (CIAC) and prepaid CIAC, and cash proceeds from system development charges (SDC) and prepaid SDC.

³Population estimates are treated water customers only. See schedule entitled "Consumption of Treated Water" on page III-80.

⁴Certain reclassifications have been made to prior years' information to conform to the current year presentation.

RATIOS OF WATER REVENUE BONDED DEBT OUTSTANDING: 2007 - 2016
(amounts expressed in thousands, except debt per capita)

Year	Water Revenue Bonds ¹	Gross Revenues ^{2,4}	Ratio of Water Revenue Debt to Gross Revenue	Estimated Population Served ³	Water Revenue Debt per Capita
2007	\$ 280,080	\$ 238,689	1.17	1,077,000	260
2008	277,490	248,074	1.12	1,093,000	254
2009	309,025	216,557	1.43	1,111,000	278
2010	377,665	259,730	1.45	1,125,000	336
2011	371,560	279,682	1.33	1,135,000	327
2012	401,420	313,093	1.28	1,147,000	350
2013	376,965	290,349	1.30	1,161,000	325
2014	395,125	297,768	1.33	1,172,000	337
2015	368,125	305,073	1.21	1,210,000	304
2016	438,580	336,713	1.30	1,249,000	351

¹Details regarding outstanding debt can be found in the notes to the financial statements. The numbers above are principal balances only and exclude discounts, premiums, and deferred amounts on advance refundings; therefore, they do not agree with numbers presented in the basic financial statements, exhibits, or the statistical summary.

²Gross Revenues are defined as operating revenues plus investment income plus proceeds from sales of capital assets plus other income plus cash proceeds from contributions in aid of construction (CIAC) and prepaid CIAC, and cash proceeds from system development charges (SDC) and prepaid SDC.

³Population estimates are treated water customers only. See schedule entitled "Consumption of Treated Water" on page III-80. Population estimates for 2005 through 2010 were revised based on 2010 census.

⁴Certain reclassifications have been made to prior years' information to conform to the current year presentation.

D - DEMOGRAPHIC AND ECONOMIC INFORMATION

These schedules offer demographic and economic indicators to help the reader understand the environment within which Denver Water's financial activities take place.

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DEMOGRAPHIC AND ECONOMIC OVERVIEW OF THE DENVER METROPOLITAN AREA - 2016

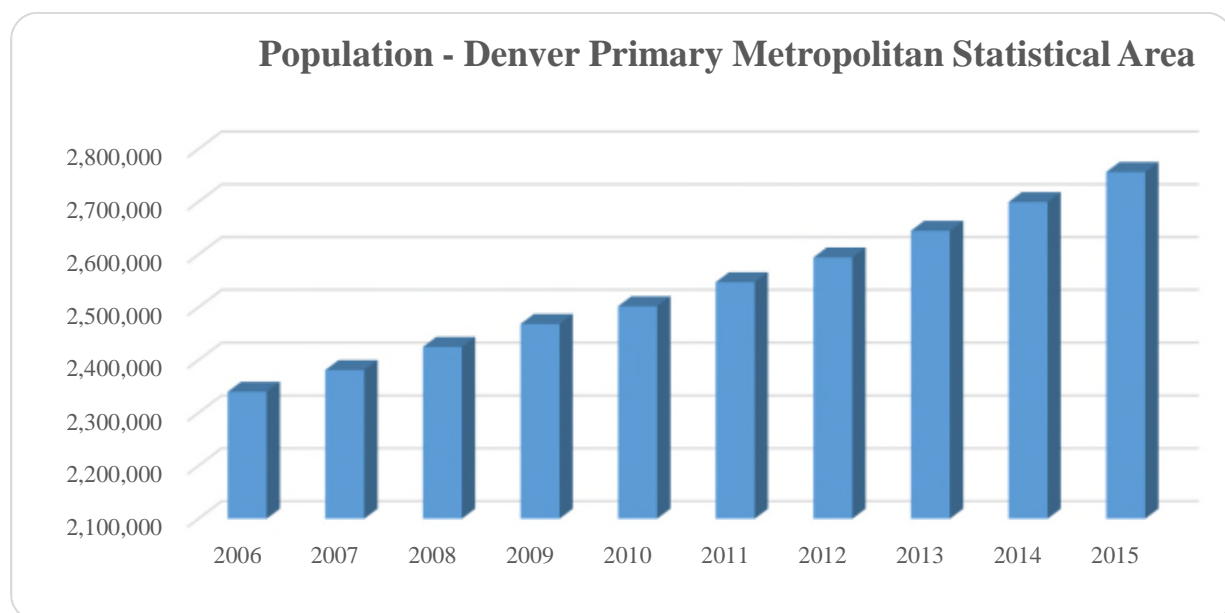
The following is general information concerning the economic and demographic conditions in the City and County of Denver (“Denver” or the “City”) and the immediate vicinity. The statistics presented below have been obtained from the sources indicated and represent the most current information available from such sources. However, certain of the information is released only after a significant amount of time has passed since the most recent date of the reported data and therefore such information may not be indicative of economic and demographic conditions as they currently exist or conditions which may be experienced in the near future. Further, the reported data has not been adjusted to reflect economic trends, notably inflation.

Population

The following table sets forth population statistics for Denver, the Denver Primary Metropolitan Statistical Area (“PMSA”) and the State of Colorado. The Denver PMSA includes the counties of Adams, Arapahoe, Denver, Douglas, and Jefferson.

Population Estimates (n/a = not available)				
Year	Denver	Denver PMSA	State of Colorado	
2006	562,862	2,340,064	4,745,660	
2007	570,437	2,381,281	4,821,784	
2008	581,903	2,424,992	4,901,938	
2009	595,573	2,468,523	4,976,853	
2010	604,879	2,502,291	5,050,332	
2011	620,817	2,547,810	5,120,686	
2012	634,940	2,594,563	5,193,097	
2013	649,214	2,645,259	5,272,677	
2014	664,453	2,699,638	5,356,626	
2015	683,096	2,756,524	5,456,584	
2016	n/a	n/a	n/a	

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



DEMOGRAPHIC AND ECONOMIC OVERVIEW OF THE DENVER METROPOLITAN AREA - 2016

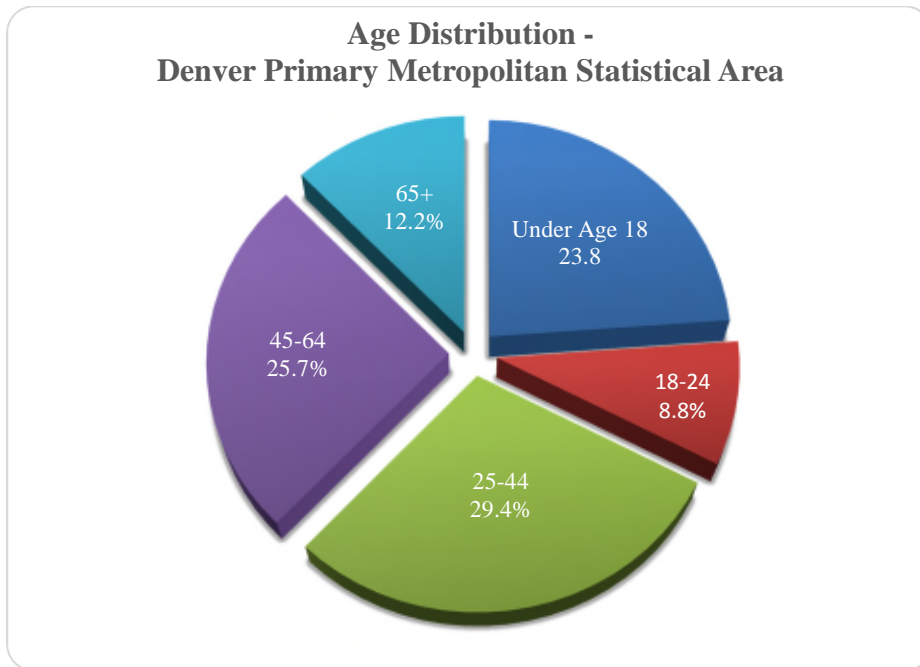
Age Distribution

The following table sets forth a forecasted age distribution profile for Denver, the Denver PMSA, and the State of Colorado for 2016.

Forecasted Age Distribution for 2016
(Columns may not add to 100% due to rounding)

<u>Age Groups</u>	<u>Percent of Population</u>		
	<u>Denver</u>	<u>Denver PMSA</u>	<u>State of Colorado</u>
Under 18	22.3%	23.8%	23.4%
18-24	8.4	8.8	9.8
25-44	36.3	29.4	27.4
45-64	21.7	25.7	26.0
65+	11.3	12.2	13.4

Sources: Colorado Department of Local Affairs, Division of Local Government, State Demography Office.



DEMOGRAPHIC AND ECONOMIC OVERVIEW OF THE DENVER METROPOLITAN AREA - 2016

Income

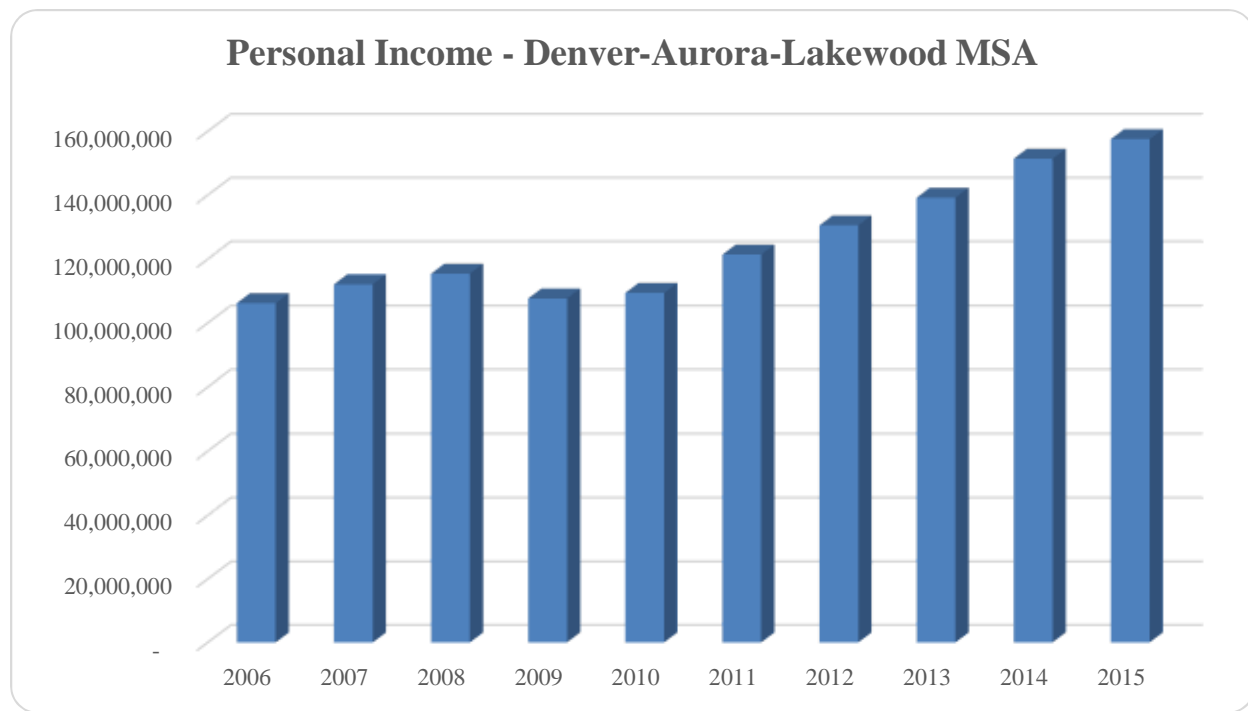
The following tables set forth recent annual personal income and per capita personal income levels for Denver, the Denver-Aurora-Lakewood Metropolitan Statistical Area (“MSA”), the State of Colorado and the United States from 2005 through 2014 as reported by the U.S. Department of Commerce, Bureau of Economic Analysis. The Denver-Aurora-Lakewood MSA includes the counties of Adams, Arapahoe, Broomfield, Clear Creek, Denver, Douglas, Elbert, Gilpin, Jefferson and Park.

Personal Income

(Current dollars, not adjusted for inflation. Amounts expressed in thousands. n/a = not available)

<u>Year</u>	<u>Denver</u>	<u>Denver-Aurora-Lakewood MSA</u>	<u>State of Colorado</u>	<u>United States</u>
2006	28,573,465	106,200,622	189,492,643	11,381,350,000
2007	29,907,155	112,087,470	201,743,269	11,995,419,000
2008	31,995,450	115,393,714	208,608,111	12,492,705,000
2009	27,446,777	107,655,385	198,082,468	12,079,444,000
2010	28,829,542	109,386,712	201,569,924	12,459,613,000
2011	32,836,870	121,383,631	219,860,916	13,233,436,000
2012	36,287,725	130,544,627	234,005,901	13,904,485,000
2013	40,408,827	139,212,185	246,648,165	14,068,960,000
2014	45,351,613	151,397,505	266,534,568	14,801,624,000
2015	46,616,995	157,531,669	277,731,754	15,463,981,000
2016	n/a	n/a	n/a	n/a

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



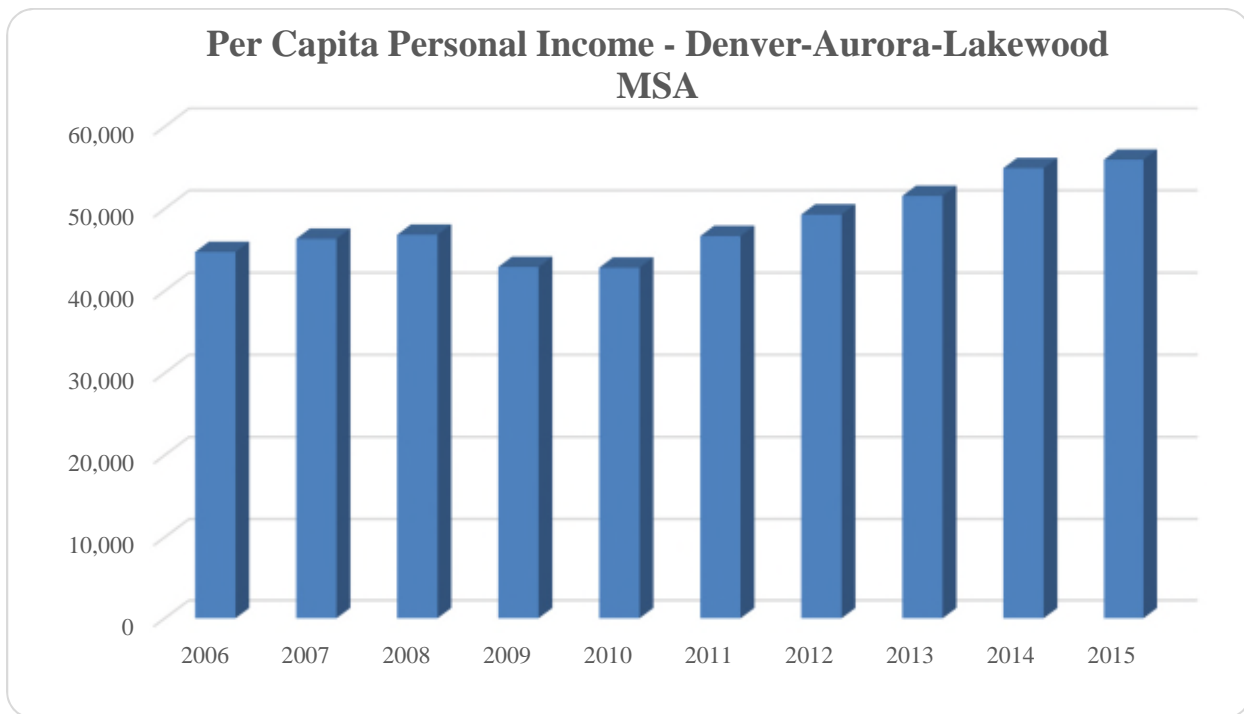
DEMOGRAPHIC AND ECONOMIC OVERVIEW OF THE DENVER METROPOLITAN AREA - 2016

Per Capita Personal Income

(Current dollars, not adjusted for inflation. n/a = not available)

<u>Year</u>	<u>Denver</u>	<u>Denver-Aurora-Lakewood MSA</u>	<u>State of Colorado</u>	<u>United States</u>
2006	51,309	44,731	40,143	38,144
2007	52,990	46,342	41,996	39,821
2008	55,575	46,832	42,663	41,082
2009	46,598	42,901	39,838	39,376
2010	47,786	42,822	39,929	40,277
2011	53,016	46,666	42,946	42,453
2012	57,238	49,290	45,073	44,267
2013	62,320	51,558	46,792	44,462
2014	68,304	54,937	49,768	46,414
2015	68,299	55,975	50,899	48,112
2016	n/a	n/a	n/a	n/a

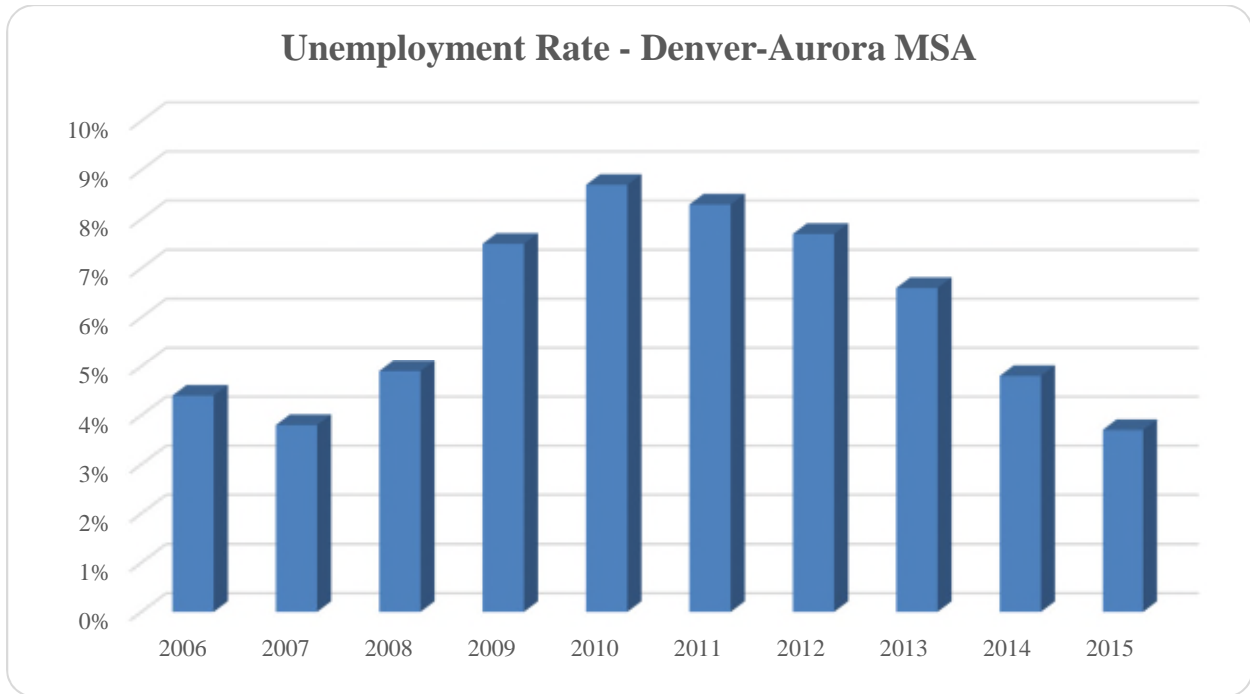
Source: U.S. Department of Commerce, Bureau of Economic Analysis.



DEMOGRAPHIC AND ECONOMIC OVERVIEW OF THE DENVER METROPOLITAN AREA - 2016

Employment

The following table sets forth recent total labor force, employment and unemployment statistics for Denver, the Denver-Aurora MSA and the State of Colorado. The national unemployment rate is estimated to be approximately 5.0% as of December, 2015.



DEMOGRAPHIC AND ECONOMIC OVERVIEW OF THE DENVER METROPOLITAN
AREA - 2016

Local Area Employment Statistics
(Annual averages, not seasonally adjusted.)

Denver				
Year	Labor Force (Thousands)	% Change	Unemployed (Thousands)	Unemployment Rate
2006	306.0	1.3	14.7	4.8
2007	314.8	2.9	13.0	4.1
2008	323.3	2.7	17.4	5.4
2009	324.3	0.3	26.3	8.1
2010	347.6	7.2	31.7	9.1
2011	352.2	1.3	30.3	8.6
2012	358.0	1.6	28.1	7.9
2013	364.6	1.8	24.2	6.6
2014	370.6	1.6	17.8	4.8
2015	373.1	0.7	13.8	3.7
2016	n/a	n/a	n/a	n/a

Denver-Aurora MSA				
Year	Labor Force (Thousands)	% Change	Unemployed (Thousands)	Unemployment Rate
2006	1,338.7	1.9	58.5	4.4
2007	1,359.0	1.5	51.8	3.8
2008	1,393.4	2.5	68.9	4.9
2009	1,392.7	(0.1)	104.2	7.5
2010	1,423.4	2.2	123.6	8.7
2011	1,431.2	0.5	118.8	8.3
2012	1,449.5	1.3	112.0	7.7
2013	1,471.0	1.5	97.0	6.6
2014	1,494.5	1.6	71.8	4.8
2015	1,504.9	0.7	55.5	3.7
2016	n/a	n/a	n/a	n/a

State of Colorado				
Year	Labor Force (Thousands)	% Change	Unemployed (Thousands)	Unemployment Rate
2006	2,622.2	2.3	112.5	4.3
2007	2,664.7	1.6	99.5	3.7
2008	2,716.6	1.9	131.4	4.8
2009	2,723.0	0.2	198.5	7.3
2010	2,724.4	0.1	238.0	8.7
2011	2,736.1	0.4	228.8	8.4
2012	2,759.4	0.9	217.2	7.9
2013	2,780.5	0.8	189.9	6.8
2014	2,815.2	1.2	140.6	5.0
2015	2,828.5	0.5	109.8	3.9
2016	n/a	n/a	n/a	n/a

Source: Colorado Department of Labor and Employment

DEMOGRAPHIC AND ECONOMIC OVERVIEW OF THE DENVER METROPOLITAN AREA - 2016

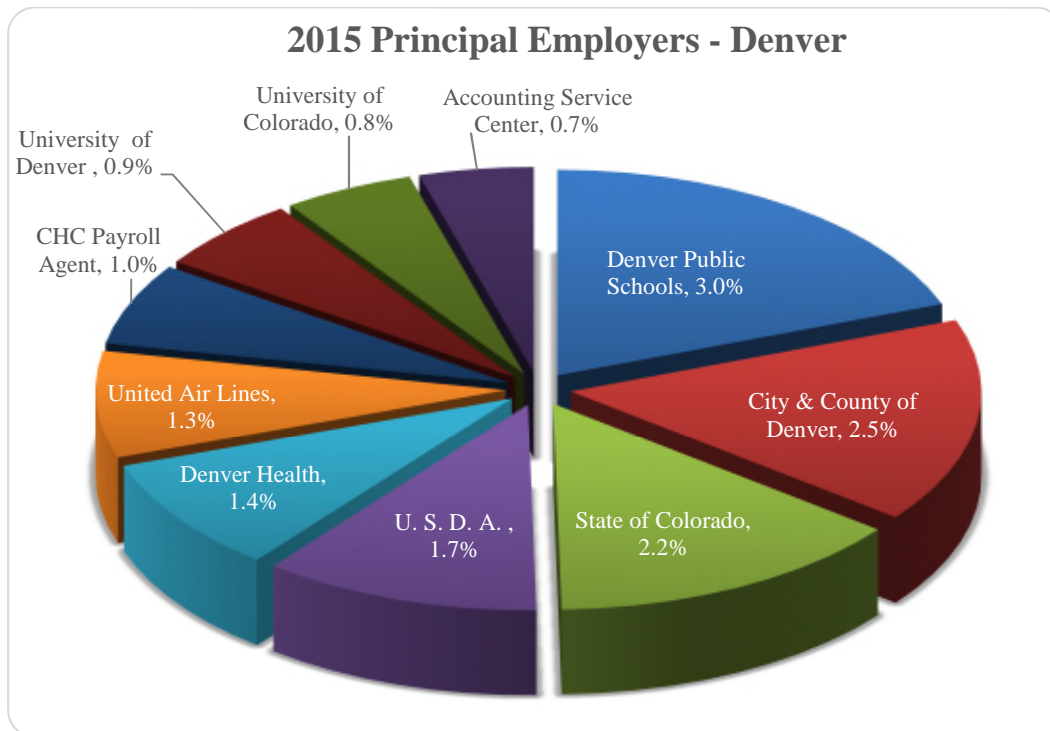
Principal Employers

Set forth in the following table are the ten largest employers in Denver for the current year and the period nine years prior, the number of persons each employs, and the percentage of total employment that each represents.

**Principal Employers in Denver
Current Year and Nine Years Ago
(2016 data not available at time of publication.)**

	2015			2006		
	<u>Employees</u>	<u>Rank</u>	<u>% of Total City Employment</u>	<u>Employees</u>	<u>Rank</u>	<u>% of Total City Employment</u>
Denver Public School District #1	12,864	1	3.0%	9,421	2	2.5%
City and County of Denver	10,549	2	2.5	11,322	1	3.0
State of Colorado Central Payroll	9,401	3	2.2	8,885	3	2.4
U.S.D.A. National Finance Center	7,264	4	1.7	3,933	7	1.1
Denver Health & Hospital Authority	6,047	5	1.4	-	-	-
United Airlines, Inc.	5,412	6	1.3	5,805	6	1.6
CHC Payroll Agent, Inc. (HCA Health One)	4,264	7	1.0	3,630	10	1.0
University of Denver	3,795	8	0.9	-	-	-
University of Colorado Central	3,536	9	0.8	6,113	5	1.6
Accounting Service Center (U.S. Postal Svc.)	2,943	10	0.7	3,710	9	1.0
Frontire Airlines, Inc.	-	-	-	3,746	8	1.0
Defense Civilian Pay System	-	-	-	8,352	4	2.2
Total	66,075		15.5%	64,917		17.4%

Source: Based on 2015 and 2006 Occupational Privilege Tax Remitters.



DEMOGRAPHIC AND ECONOMIC OVERVIEW OF THE DENVER METROPOLITAN AREA - 2016

New Residential Building Construction

Set forth in the following table are recent historical residential building permit statistics for Denver and the Denver metropolitan area (Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson counties).

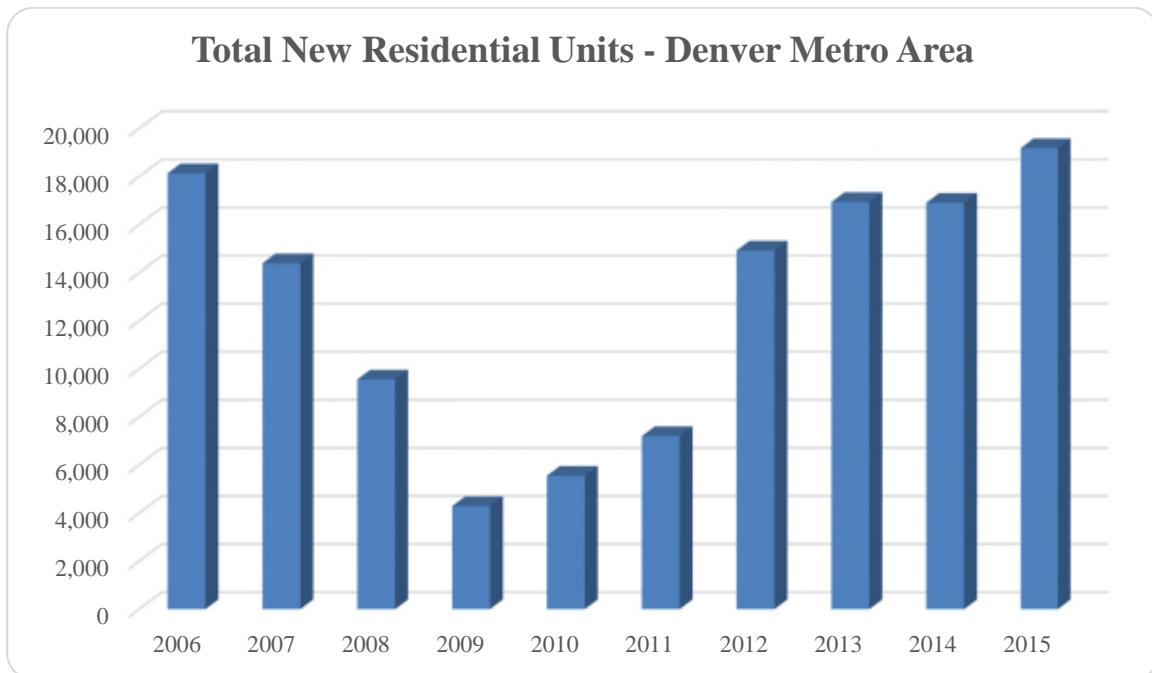
New Residential Units in Denver and the Denver Metropolitan Area

<u>Year</u>	<u>Denver</u>				<u>Denver Metropolitan Area</u>			
	<u>Single Family Detached</u> ¹	<u>Single Family Attached</u> ¹	<u>Multi-Family</u> ²	<u>Total</u>	<u>Single Family Detached</u>	<u>Single Family Attached</u> ¹	<u>Multi-Family</u> ²	<u>Total</u>
2006	1,800	170	1,882	3,852	12,938	428	4,769	18,135
2007	1,215	201	2,266	3,682	7,799	398	6,195	14,392
2008	837	148	2,195	3,180	4,037	224	5,296	9,557
2009	485	74	329	888	2,690	133	1,465	4,288
2010	632	130	470	1,232	3,791	285	1,478	5,554
2011	703	147	1,835	2,685	3,885	309	3,005	7,199
2012	1,056	166	4,356	5,578	5,947	299	8,679	14,925
2013	1,284	256	4,330	5,870	7,396	399	9,145	16,940
2014	1,710	287	3,961	5,958	8,396	440	8,074	16,910
2015	1,847	134	5,920	7,901	9,701	442	9,061	19,184
2016	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

¹ Generally includes owner occupied residential units such as duplexes, tri-plexes, townhomes and condominiums.

² Generally includes non-owner occupied residential units such as apartments.

Source: Metro Denver Economic Development Corporation.



E - OPERATING INFORMATION

These schedules contain information about Denver Water's operations and resources to help the reader understand how Denver Water's financial information relates to the services Denver Water provides and the activities it performs.

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EMPLOYEES BY DIVISION¹: 2007 - 2016

Division/Section²	2016³	2015	2014	2013	2012	2011 ⁴	2010	2009 ⁵	2008	2007
Manager & Staff Division	25.0	10.0	15.0	11.0	10.0	7.0	7.0	7.0	15.0	15.0
Human Resources Division	31.0	29.0	32.0	25.0	24.8	23.8	23.8	22.8	20.0	19.0
Information Technology Division	104.0	110.4	92.5	80.8	74.5	68.5	68.5	69.0	61.0	57.8
Public Affairs Division										
Chief Public Affairs Officer	3.0	3.0	3.0	2.0	6.0	4.0	4.0	4.0	8.0	7.0
Conservation & Comm. Outreach	29.0	-	11.0	-	-	8.6	9.6	9.6	6.0	5.4
Communications and Marketing	14.0	12.0	-	11.6	10.4	-	-	-	-	-
Conservation	-	17.0	16.0	17.0	15.0	15.0	17.0	17.0	15.0	12.0
Customer Relations	-	9.0	7.0	7.0	6.8	-	-	-	-	-
Central Services	-	-	-	-	-	-	3.0	3.0	3.0	3.0
Customer Care	31.0	-	-	-	-	-	39.2	41.2	43.0	39.2
CIS Business Support	-	-	-	-	-	-	2.0	5.0	-	-
Customer Services - Field	52.0	-	-	-	-	-	70.0	75.0	66.0	60.0
Meter Inspection Shop	-	-	-	-	-	-	7.0	5.0	8.0	7.0
Sales & Support	16.0	-	-	-	-	-	20.8	16.8	12.0	15.6
	145.0	41.0	37.0	38.6	34.2	29.6	172.6	176.6	161.0	149.2
Customer Relations										
Chief Customer Relations Officer	-	3.0	2.0	2.0	2.0	2.0	-	-	-	-
Central Services	-	-	2.6	2.6	1.0	3.0	-	-	-	-
Customer Care	-	29.3	30.3	31.3	42.8	42.2	-	-	-	-
Quality Assurance & Reporting	-	8.0	7.0	8.0	-	-	-	-	-	-
Customer Services - Field	-	48.0	49.0	51.0	64.0	66.0	-	-	-	-
Meter Inspection Shop	-	-	-	-	-	7.0	-	-	-	-
Sales Administration	-	9.0	9.0	9.0	13.0	12.8	-	-	-	-
	-	97.3	99.9	103.9	122.8	133.0	-	-	-	-
Legal Division	-	13.0	14.0	14.4	14.6	13.6	13.6	14.6	12.0	13.8
Finance Division										
Chief Financial Officer	2.0	2.0	2.0	1.0	1.0	1.0	1.0	2.0	9.0	9.0
Purchasing & Contracting	-	12.0	11.0	11.0	11.0	9.0	5.0	9.0	8.0	8.0
Records & Document Administration	-	8.8	7.8	8.8	9.0	9.0	9.0	9.0	6.0	6.0
Treasury	8.0	8.0	9.0	9.0	9.0	8.0	7.0	8.0	7.0	7.0
Controller	2.0	1.0	1.0	1.0	-	-	-	-	-	-
Finance Computer Support	-	-	-	1.0	2.0	2.0	2.0	2.0	-	-
Budget	2.0	4.0	3.0	3.0	3.0	4.0	4.0	5.0	4.0	4.0
Accounting, Payroll, AP	17.0	20.0	20.0	20.0	20.0	20.0	19.0	19.0	19.0	18.0
Rate Administration	-	1.0	3.0	3.0	3.0	3.0	3.0	4.0	3.0	2.0
	31.0	56.8	56.8	57.8	58.0	56.0	50.0	58.0	56.0	54.0
Engineering Division										
Chief Engineering Officer	13.0	7.8	7.8	7.8	7.8	7.8	6.0	6.0	3.0	6.0
Asset Recording	7.0	7.0	8.0	10.0	7.0	7.0	7.0	7.0	7.0	7.0
Programs & Projects	53.0	55.0	58.0	58.0	57.9	53.9	57.0	57.0	49.0	39.0
Survey	26.0	23.0	25.0	25.0	25.0	26.0	26.0	26.0	26.0	25.0
Construction Management	28.0	27.0	28.0	24.0	25.0	24.0	24.0	23.0	21.0	23.0
Distribution & Property Mgmt Admin	31.0	38.0	37.0	41.0	39.0	40.0	41.0	40.0	41.0	39.0
	158.0	157.8	163.8	165.8	161.7	158.7	161.0	159.0	147.0	139.0
Planning Division										
Chief Planning Officer	4.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
Environmental Planning	7.0	6.0	5.6	5.6	5.6	5.6	5.6	5.6	5.0	4.6
Raw Water Supply	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Water Resources Analysis	9.0	10.0	10.0	11.0	11.0	9.0	11.0	11.0	11.0	10.8
Water Resource Planning	4.0	4.0	4.0	3.0	3.0	3.0	2.0	2.0	2.0	-
Demand Planning	4.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Treated Water Planning	9.0	-	-	-	-	-	-	-	-	-
Water Rights	6.0	7.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Hydraulics	-	10.0	10.0	10.0	10.0	8.0	8.0	8.0	8.0	7.0
	48.0	48.0	48.6	49.6	49.6	45.6	46.6	46.6	45.0	41.4
Administrative Services Division										
Chief Administrative Officer	33.0	-	-	-	-	-	-	-	-	-
Safety and Security	13.0	-	-	-	-	-	-	-	-	-
Recreation Management	6.0	-	-	-	-	-	-	-	-	-
	52.0	-	-	-	-	-	-	-	-	-
Operations and Maintenance Division										
Chief OM Officer	6.0	7.0	5.0	6.0	3.0	4.0	4.0	4.0	3.0	3.0
Source of Supply	58.0	56.0	58.0	57.0	57.0	59.0	61.0	60.0	60.0	53.0
Water Quality & Treatment	118.0	35.0	44.0	44.0	42.0	37.0	33.0	33.0	32.0	32.0
Water Treatment	-	86.0	85.0	87.0	84.0	88.0	89.0	89.0	92.0	90.0
Treated Water Operations	-	53.0	55.0	62.0	58.0	59.0	59.0	57.5	57.0	54.0
Water Distribution	190.0	136.0	122.0	132.0	142.0	144.0	157.0	149.0	145.0	144.0
Emergency Management	-	4.0	2.0	2.0	2.0	-	-	-	-	-
Support Services	92.0	-	-	-	-	-	-	-	-	-
Safety and Loss Control	-	11.0	10.0	15.0	15.0	16.0	14.0	16.0	15.0	14.0
Instrumentation & Ctrl Systems	-	-	18.0	11.0	14.0	12.0	11.0	12.0	11.0	11.0
Maintenance and Warehouse	-	106.0	106.0	102.0	113.0	115.0	118.0	121.0	123.0	120.0
	464.0	494.0	505.0	518.0	530.0	534.0	546.0	541.5	538.0	521.0
Total All Divisions	1058.0	1057.3	1064.6	1064.9	1080.2	1069.8	1089.1	1095.1	1055.0	1010.2

¹Number of employees includes regular and introductory employees. Temporary and project employees are not included. The source of the data is Human Resource employee records.

²Section names may have changed due to business needs.

³In 2016, the Legal Division was added to the Manager & Staff division. The Customer Relations division was added to the Public Affairs division. The Administrative Services division is new.

⁴In 2011, the Customer Relations Division was split out from Public Affairs.

⁵In 2009, Director positions were moved to their respective divisions and manager positions were moved to their respective sections.

ADDITIONS TO CAPITAL ASSETS - 2016

(amounts expressed in thousands)

NEW FACILITIES

Operations Complex Redevelopment Project	\$	47,158
Distribution Mains & Hydrants		17,565
Hillcrest Pump Station		16,341
North System Renewal Water Treatment Plant		7,647
Ashland Pump Station		7,132
Strontia Springs		4,349
Downstream Reservoirs		3,958
Gross Reservoir		1,889
Recycled Water Conduits		1,672
Harvard Gulch		1,180
Foothills Treatment Plant		1,133
Treated Water Conduits		1,124
Other New Facilities		1,684
	\$	112,832

FACILITY REPLACEMENT AND IMPROVEMENTS

Distribution Mains & Hydrants	\$	14,338
Motor Vehicles and Heavy Equipment		7,442
Antero Reservoir		6,651
Treated Water Conduits		2,521
Moffat Tunnel		2,218
Highline Canal		1,890
Cherry Hills Pump Station		1,013
Marston Dam		802
Foothills Treatment Plant		755
Hillcrest Pump Station		516
Marston Treatment Plant		487
Ralston Reservoir		376
Kendrick Pump Station		272
Other Facility Replacement and Improvements		415
	\$	39,696

TOTAL 2016 CAPITAL ADDITIONS

\$ 152,528

CAPITAL ASSETS BY FUNCTION: 2007 - 2016

(amounts expressed in thousands)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
CAPITAL ASSETS NOT BEING DEPRECIATED										
Land and land rights	\$ 99,108	\$ 99,098	\$ 115,291	\$ 115,304	\$ 115,107	\$ 114,149	\$ 113,473	\$ 112,348	\$ 97,262	\$ 93,077
Water rights and other	105,785	105,785	75,550	75,550	74,161	74,100	70,033	66,975	65,582	63,198
Construction work in progress (CWIP)	259,690	163,266	171,215	124,244	117,862	129,770	110,483	77,340	109,316	155,813
Total capital assets not being depreciated	464,583	368,149	362,056	315,098	307,130	318,019	293,989	256,663	272,160	312,088
CAPITAL ASSETS BEING DEPRECIATED										
Buildings and improvements	199,329	201,538	281,772	279,280	254,796	236,538	224,496	217,774	212,288	209,195
Improvements other than buildings	2,044,423	2,002,297	1,955,572	1,890,470	1,860,363	1,761,486	1,698,311	1,648,231	1,575,950	1,499,287
Machinery and equipment	392,963	393,007	246,368	246,433	221,915	222,362	231,107	226,396	210,761	161,442
Total capital assets being depreciated	2,636,715	2,596,842	2,483,712	2,416,183	2,337,074	2,220,386	2,153,914	2,092,401	1,998,999	1,869,924
Less accumulated depreciation										
Buildings and improvements	(48,453)	(47,372)	(76,257)	(72,278)	(68,216)	(63,781)	(59,093)	(55,819)	(52,176)	(49,577)
Improvements other than buildings	(596,587)	(570,105)	(578,572)	(549,357)	(520,020)	(501,992)	(475,222)	(454,312)	(430,600)	(408,342)
Machinery and equipment	(211,396)	(200,614)	(121,358)	(112,055)	(101,296)	(92,405)	(86,676)	(78,929)	(83,382)	(76,491)
Total accumulated depreciation	(856,436)	(818,091)	(776,187)	(733,690)	(689,532)	(658,178)	(620,991)	(589,060)	(566,158)	(534,410)
Total capital assets being depreciated, net	1,780,279	1,778,751	1,707,525	1,682,493	1,647,542	1,562,208	1,532,923	1,503,341	1,432,841	1,335,514
TOTAL CAPITAL ASSETS, NET	\$ 2,244,862	\$ 2,146,900	\$ 2,069,581	\$ 1,997,591	\$ 1,954,672	\$ 1,880,227	\$ 1,826,912	\$ 1,760,004	\$ 1,705,001	\$ 1,647,602

RECEIPTS AND EXPENDITURES
BUDGET TO ACTUAL COMPARISON 2012 - 2016 AND 2017 BUDGET (BUDGET BASIS)
(amounts expressed in thousands)

	2017 ⁵	2016 ⁴		2015		2014		2013		2012	
	Budget	Budget	Actual	Budget	Actual	Budget	Actual	Budget ¹	Actual ³	Budget	Actual ³
BEGINNING CASH & INVESTMENTS	\$ 287,394	\$ 240,889	\$ 240,889	\$ 234,924	\$ 234,924	\$ 219,744	\$ 219,744	\$ 222,299	\$ 222,299	\$ 187,296	\$ 187,296
RECEIPTS FROM:											
Sale of water	269,481	273,112	274,299	269,256	242,225	250,376	238,777	233,058	230,857	261,978	271,647
Nonoperating, interest & other	18,120	19,482	19,200	19,951	21,184	19,336	24,026	20,502	24,946	18,783	23,606
System development charges	34,035	20,294	38,752	17,294	36,109	15,294	32,736	8,640	34,616	10,714	19,619
Developer participation (new facilities), reimbursements & grants	-	-	-	-	-	-	-	-	-	-	-
	-	8,129	3,239	4,415	10,795	2,163	6,384	2,911	7,426	5,367	3,452
	321,636	321,017	335,490	310,916	310,313	287,169	301,923	265,111	297,845	296,842	318,324
Sale of bonds or issuance of notes	207,185	56,923	71,238	42,000	30,000	36,000	40,102	25,600	10,000	38,000	40,358
Total receipts	528,821	377,940	406,728	352,916	340,313	323,169	342,025	290,711	307,845	334,842	358,682
LESS EXPENDITURES FOR:											
Operations, maintenance & refunds	201,270	196,865	191,060	191,036	185,820	197,662	185,820	183,092	185,857	201,862	174,878
Debt service	45,456	43,835	41,121	48,822	56,742	48,364	46,742	46,752	46,218	39,853	45,089
	246,726	240,700	232,181	239,858	242,562	246,026	232,562	229,844	232,075	241,715	219,967
Capital improvements (new facilities)	125,237	85,758	94,231	29,808	33,011	45,931	44,343	26,958	24,471	47,343	47,465
System replacements	53,081	51,171	44,941	50,125	44,668	59,734	52,153	42,823	35,271	37,271	32,486
Equipment	6,507	7,000	7,548	12,700	10,603	5,813	3,030	6,486	4,214	7,186	6,975
	184,825	143,929	146,720	92,633	88,282	111,478	99,526	76,267	63,956	91,800	86,926
Indirects to capital	-	-	-	11,527	9,058	13,994	9,585	12,735	9,954	14,265	15,176
Total expenditures	431,551	384,629	378,901	344,018	339,902	371,498	341,673	318,846	305,985	347,780	322,069
Cash Balance Adjustment ⁴			18,678		5,554		14,828		(4,415)		(1,610)
ENDING CASH & INVESTMENTS	\$ 384,664	\$ 234,200	\$ 287,394	\$ 243,822	\$ 240,889	\$ 171,415	\$ 234,924	\$ 194,164	\$ 219,744	\$ 174,358	\$ 222,299

GENERAL EXPLANATION OF VARIANCES:

¹The 2013 budget represents the revised budget approved by the Board on April 10, 2013 in response to the drought.

²The cash balance adjustment is due to a timing difference between cash payments that were made in January but were accrued for in December.

³In 2014 prior year information was adjusted for 2012 and 2013 due to timing differences after the original reporting period.

⁴In 2016, financial system underwent a significant conversion eliminating the allocation of indirect costs to capital. Totals include Applied Labor.

The financial system conversion also resulted in changes to the categorization and inclusion/exclusion of certain budgeted costs for the 2016 budget.

⁵2017 totals include Applied Labor.

Variations in operating receipts are generally due to abnormal climatic conditions.

Variations in system development charges are generally related to levels of activity in the home building industry.

Variations in capital improvements are generally due to changes in project scheduling.

Cash and investments do not agree with amounts on the statements of net assets due to differences in valuation methods.

Prior year information has been updated to adjust for timing differences during the original reporting period.

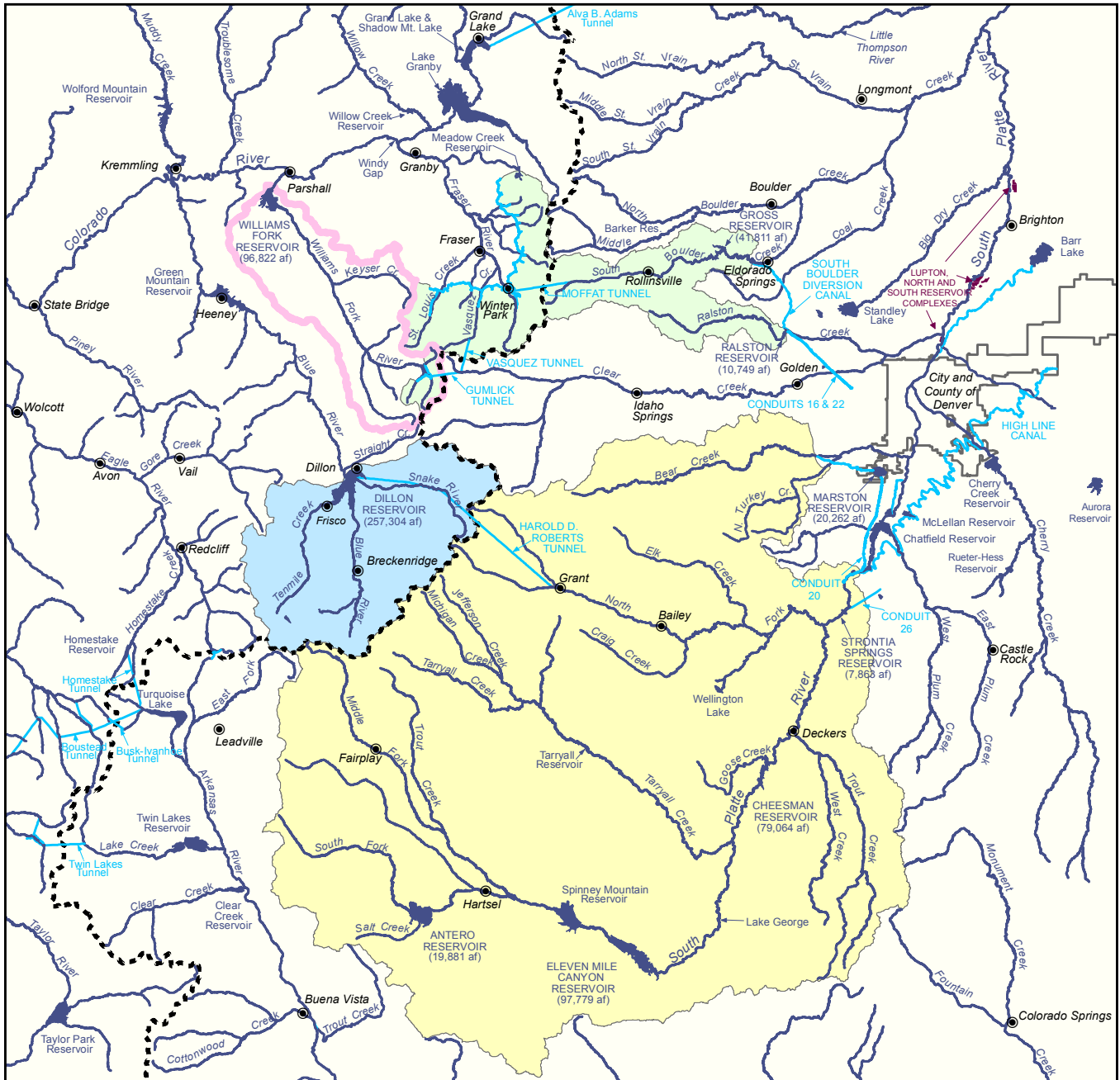
Supply

2016 Facts

Raw water collected	274,670	Acre Feet
Percent of average yield-last 10 years	90%	
Percent from South Platte System	58%	
Percent from Moffat System	28%	
Percent from Roberts Tunnel System	15%	
Reservoir storage, January 1	582,015	Acre Feet
Percent of capacity	86.1%	
Reservoir storage, December 31	568,124	Acre Feet
Percent of capacity	84.0%	
Power generation (excluding power purchased).....	67,436,291	KWH
Value of power generation (excluding power purchased)..	\$4,337,858	

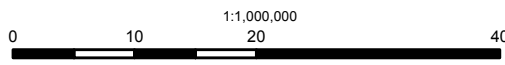
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City and County of Denver Board of Water Commissioners Water Collection System



LEGEND

 South Platte Collection System	 Town
 Roberts Tunnel Collection System	 Continental Divide
 Moffat Collection System	 Major Canal or Aqueduct
 Williams Fork Reservoir Watershed	 Major Stream or River
 Major Lake or Reservoir	



Scale number is accurate when printed at 8.5 x 11 inches in size.



Map Date: 12/29/2016
Author: Planning WRGIS
Sources: USGS-NHD, DOLA,
Denver Water,
NRCS, CDWR.

SOURCE OF SUPPLY - 2016
Reservoirs and Collection Systems

	Capacity in <u>Acre-Feet</u>	Capacity in <u>Million Gals.</u>
RAW WATER STORAGE		
Storage Reservoirs:		
Antero	19,881	6,478.2
Chatfield	27,076	8,822.7
Cheesman	79,064	25,763.1
Dillon	257,304	83,842.8
Eleven Mile Canyon	97,779	31,861.4
Gross	41,811	13,624.2
Meadow Creek Reservoir (Denver Water portion)	4,520	1,472.8
Soda Lakes (Denver Water portion)	615	200.4
Total Storage Reservoirs	<u>528,050</u>	<u>172,065.6</u>
Operating Reservoirs:		
Long Lakes	1,787	582.3
Marston Lake	19,256	6,274.6
Platte Canyon	910	296.5
Ralston	10,776	3,511.4
Strontia Springs	7,863	2,562.2
Total Operating Reservoirs	<u>40,592</u>	<u>13,227.0</u>
TOTAL RAW WATER STORAGE	<u><u>568,642</u></u>	<u><u>185,292.6</u></u>
 REPLACEMENT RESERVOIRS		
Williams Fork	96,822	31,549.5
Wolford Mountain (Denver Water portion)	25,610	8,345.0
TOTAL REPLACEMENT RESERVOIRS	<u><u>122,432</u></u>	<u><u>39,894.5</u></u>
 MOUNTAIN COLLECTION SYSTEM		
	<u>Length in Feet</u>	<u>Length in Miles</u>
Moffat Collection System:		
Concrete and Steel Pipe	101,589	19.2
Moffat Water Tunnel	32,383	6.1
Open Canals	15,443	2.9
Covered Canals	18,041	3.4
Other Tunnels	10,953	2.1
Total Moffat Collection System	<u>178,409</u>	<u>33.7</u>
Williams Fork Collection System:		
Steel Pipe	18,939	3.6
Vasquez Tunnel	17,874	3.4
A. P. Gumlick Tunnel	15,572	2.9
Open Canals	1,795	0.3
Total Williams Fork Collection System	<u>54,180</u>	<u>10.2</u>
Roberts Tunnel	<u>122,953</u>	<u>23.3</u>
South Boulder Diversion Conduit:		
Open Canals	30,250	5.7
Concrete and Steel Pipe	13,948	2.6
Tunnels	7,704	1.5
Covered Canals	1,748	0.3
Total South Boulder Diversion Conduit	<u>53,650</u>	<u>10.1</u>
TOTAL MOUNTAIN COLLECTION SYSTEM	<u><u>409,192</u></u>	<u><u>77.3</u></u>

SOURCE OF SUPPLY - 2016

Supply Mains and Wells

RAW WATER SUPPLY MAINS

	<u>Size</u>	<u>Kind of Pipe</u>	<u>Length in Feet</u>	<u>Length in Miles</u>
Conduit 5:	< 20"	No Material breakout ³	1,517	0.3
	24"	Cast Iron	10	0.0
	24"	Ductile Iron	58	0.0
	24"	High Density Polyethylene	2,239	0.4
	24"	Steel	144	0.0
	30"	Cast Iron	157	0.0
	30"	Concrete	242	0.0
	30"	Reinforced Concrete Cyl	24,485	4.6
	30"	Steel	87	0.0
	36"	Cast Iron	965	0.2
	36"	Reinforced Concrete Cyl	637	0.1
	42"	Steel	204	0.0
	Total Conduit 5			<u>30,745</u>
Conduit 8:	< 20"	No Material breakout ³	26	0.0
	36"	Cast Iron	913	0.2
	36"	Concrete	106	0.0
	36"	Reinforced Concrete Cyl	2,550	0.5
	36"	Steel	1,109	0.2
	44"	Cast Iron	15	0.0
	60"	Steel	541	0.1
	84"	Steel	15	0.0
	90"	Steel	10	0.0
	Total Conduit 8			<u>5,285</u>
Conduit 14:	24"	Steel	8	0.0
	30"	Reinforced Concrete Cyl	69	0.0
	36"	Corrugated Metal Pipe	104	0.0
	36"	Concrete	1,381	0.3
	36"	Steel	117	0.0
	48"	Reinforced Concrete Cyl	3,322	0.6
Total Conduit 14			<u>5,001</u>	<u>0.9</u>
Conduit 15:	< 20"	No Material breakout ³	410	0.1
	24"	Cast Iron	90	0.0
	30"	Reinforced Concrete Cyl	410	0.1
	60"	Reinforced Concrete Cyl	8,036	1.5
	60"	Steel	11,235	2.1
	72"	Reinforced Concrete Cyl	5,532	1.0
	72"	Steel	6,741	1.3
	84"	Reinforced Concrete Cyl	437	0.1
Total Conduit 15			<u>32,891</u>	<u>6.2</u>

	<u>Size</u>	<u>Kind of Pipe</u>	<u>Length in Feet</u>	<u>Length in Miles</u>
Conduit 16:	< 20"	No Material breakout ³	562	0.1
	24"	Steel	22	0.0
	36"	Steel	19	0.0
	42"	Reinforced Concrete	3,071	0.6
	42"	Reinforced Concrete Cyl	40,980	7.8
	42"	Steel	1,433	0.3
	48"	Steel	25	0.0
	72"	Steel	229	0.0
Total Conduit 16			<u>46,341</u>	<u>8.8</u>
Conduit 20:	< 20"	No Material breakout ³	285	0.1
	30"	Concrete	8	0.0
	36"	Concrete	6	0.0
	40"	Reinforced Concrete Cyl	75	0.0
	60"	Reinforced Concrete Cyl	122	0.0
	60"	Steel	509	0.1
	84"	Steel	543	0.1
	90"	Steel	60	0.0
	90"	Reinforced Concrete Non-Cyl	59,904	11.3
	96"	Steel	3,007	0.6
Total Conduit 20			<u>64,519</u>	<u>12.2</u>
Conduit 22:	< 20"	No Material breakout ³	418	0.1
	24"	Ductile Iron	133	0.0
	24"	Steel	37	0.0
	36"	Ductile Iron	68	0.0
	42"	Reinforced Concrete Cyl	14	0.0
	48"	Steel	74	0.0
	54"	Reinforced Concrete Cyl	43,519	8.2
	54"	Steel	1,318	0.2
60"	Steel	51	0.0	
Total Conduit 22			<u>45,632</u>	<u>8.5</u>

¹These are raw water supply mains typically on Denver Water property that are not assigned a conduit number.

²Alternative uses for supplies from the Farnell Lane Well Field are presently under study.

³Updates to pipe database in 2014 added 20" and smaller pipe diameter footage totals.

(Continued on the next page)

SOURCE OF SUPPLY - 2016
Supply Mains and Wells (Continued)

RAW WATER SUPPLY MAINS

	Size	Kind of Pipe	Length in Feet	Length in Miles
Conduit 26:	< 20"	No Material breakout ³	50	0.0
	24"	Ductile Iron	13	0.0
	24"	Reinforced Concrete Cyl	365	0.1
	24"	Steel	72	0.0
	36"	Steel	54	0.0
	60"	Steel	76	0.0
	72"	Steel	64	0.0
	78"	Steel	213	0.0
	96"	Steel	225	0.0
	120"	Steel	14	0.0
	126"	Concrete	13,976	2.6
	126"	Steel	5,766	1.1
Total Conduit 26			<u>20,888</u>	<u>3.8</u>
Conduit 155:	< 20"	No Material breakout ³	89	0.0
	24"	Ductile Iron	27	0.0
	30"	Ductile Iron	2,492	0.5
Total Conduit 155			<u>2,608</u>	<u>0.5</u>
Conduit 157:	30"	Steel	25	0.0
	42"	Reinforced Concrete Cyl	3,044	0.6
	42"	Steel	468	0.1
	48"	Reinforced Concrete Cyl	130	0.0
Total Conduit 157			<u>3,667</u>	<u>0.7</u>
Conduit 160:	36"	Steel	321	0.1

	Size	Kind of Pipe	Length in Feet	Length in Miles
Other (no number) ¹ :	< 20"	No Material breakout ³	6,521	1.2
	24"	Cast Iron	110	0.0
	24"	Ductile Iron	24	0.0
	24"	Steel	68	0.0
	24"	PVC	101	0.0
	30"	Cast Iron	12	0.0
	30"	Steel	797	0.2
	36"	Cast Iron	1,129	0.2
	36"	Concrete	1,516	0.3
	36"	Steel	624	0.1
	42"	Steel	4,423	0.8
	48"	Cast Iron	157	0.0
	48"	Concrete	15	0.0
	48"	Steel	146	0.0
	54"	Steel	2,890	0.5
	60"	Steel	1,718	0.3
	66"	Reinforced Concrete Non-Cyl	1,629	0.3
	72"	Steel	978	0.2
	90"	Steel	31	0.0
	96"	Steel	-	0.0
	108"	Concrete	123	0.0
	108"	Steel	8,263	1.6
	120"	Steel	104	0.0
	132"	Steel	322	0.1
	144"	Steel	830	0.2
Total Conduit Other			<u>32,531</u>	<u>6.0</u>
TOTAL RAW WATER SUPPLY MAINS			<u>290,429</u>	<u>54.3</u>

INFILTRATION GALLERIES & WELLS

	Capacity in MGD		Capacity in MGD		Capacity in MGD
Cherry Creek Wells - Well O	1.6	Glendale Well No.2	1.15	Glendale LFH-1	0.43
Cherry Creek Galleries/Conduit No. 5	9.06	Glendale Well No.3	1.29	Glendale UA-1	0.22
Farnell Lane Well Field	- ²	Glendale Well No.4	1.29	Glendale LA-1	0.22
Glendale Well No.1	1.15	Glendale Well No.5	0.72	Garland Park	0.76

¹These are raw water supply mains typically on Denver Water property that are not assigned a conduit number.

²Alternative uses for supplies from the Farnell Lane Well Field are presently under study.

³Updates to pipe database in 2014 added 20" and smaller pipe diameter footage totals.

POWER GENERATION, PURCHASE, DISTRIBUTION, AND BANKING

POWER GENERATION AND PURCHASE	<u>Kilowatt Hours</u>	<u>Value²</u>
Net Power Generation: ¹		
Dillon	13,754,054	\$ 572,366
Foothills	10,283,360	610,904
Gross	18,031,950	1,141,863
Hillcrest	8,207,602	446,190
Roberts Tunnel	709,234	699,434
Strontia Springs	3,368,187	186,842
Williams Fork	13,081,904	680,259
Total Power Generation	<u>67,436,291</u>	<u>4,337,858</u>
Power Purchased for Department of Energy (DOE) power interference	<u>6,799,714</u>	<u>299,321</u>
TOTAL POWER GENERATION AND PURCHASE	<u><u>74,236,005</u></u>	<u><u>4,637,179</u></u>
POWER DISTRIBUTION		
Internal Power Consumption: ¹		
Foothills	4,137,924	245,822
Hillcrest	689,904	37,508
Total Internal Power Consumption	<u>4,827,828</u>	<u>283,330</u>
Power Deliveries:		
To Xcel Energy:		
Dillon	13,754,054	572,366
Foothills	6,145,436	365,082
Gross	18,031,950	1,141,863
Hillcrest	7,517,698	408,682
Roberts Tunnel	709,234	699,434
Strontia Springs	3,368,187	186,842
	<u>49,526,559</u>	<u>3,374,269</u>
To Tri-State Generation and Transmission Association:		
Williams Fork	13,081,904	680,259
Total Power Deliveries to Xcel and Tri-State	<u>62,608,463</u>	<u>4,054,528</u>
Total Power Generation	67,436,291	4,337,858
To DOE for Power Interference:		
Purchased Power	6,799,714	299,321
Total Power Deliveries to DOE	<u>6,799,714</u>	<u>299,321</u>
TOTAL POWER DISTRIBUTION	<u><u>74,236,005</u></u>	<u><u>4,637,179</u></u>
DOE BANKED POWER INTERFERENCE ACCOUNT ³		
Balance, Beginning of Year	39,978,081	1,484,361
Adjustment to Prior Year	860	(284,993)
Adjusted Balance, Beginning of Year	<u>39,978,941</u>	<u>1,199,368</u>
Net Interference	(9,035,989)	(271,080)
Total Allocation	<u>6,799,714</u>	<u>299,321</u>
Balance, End of Year	<u><u>37,742,666</u></u>	<u><u>\$ 2,426,977</u></u>

¹Net Power Generation is total generation less station service (except Foothills and Hillcrest) and transmission wheeling losses. Value of Williams Fork power and that consumed by Foothills and Hillcrest based on PSC tariff schedule TT, June 4, 1988.

²Values on this schedule represent the value of power produced and distributed and do not relate to power sales on other schedules.

³Value based on 30 mills/kwh (approximate average of PSC and DOE rates).

POWER VALUE, COST, AND RETURN ON INVESTMENT

	Power Plant							Total
	Dillon	Foothills	Gross	Hillcrest	Roberts Tunnel	Strontia Springs	Williams Fork	
Date of Commercial Operation:	Oct 1, 1987	May 25, 1985	Aug 1, 2007	Jun 30, 1993	Jan 30, 1988	Aug 11, 1986	July 25, 1959	
VALUE OF POWER GENERATION ¹								
Delivered to Xcel Energy	\$ 572,366	\$ 365,082	\$ 1,141,863	\$ 408,682	\$ 699,434	\$ 186,842	\$ -	\$ 3,374,269
Foothills Internal Consumption	-	245,822	-	-	-	-	-	245,822
Hillcrest Internal Consumption	-	-	-	37,508	-	-	-	37,508
Delivered to Tri-State	-	-	-	-	-	-	680,259	680,259
TOTAL VALUE	572,366	610,904	1,141,863	446,190	699,434	186,842	680,259	4,337,858
COST OF POWER GENERATION								
Transmission Wheeling	-	18,332	-	-	18,669	-	-	37,001
Operation and Maintenance	34,763	10,927	25,039	42,915	17,657	24,460	92,504	248,265
Administrative Expense	6,605	2,076	4,757	8,154	3,355	4,647	17,576	47,170
Depreciation	80,037	74,228	760,159	114,431	105,641	33,832	838,635	2,006,963
TOTAL COST	121,405	105,563	789,955	165,500	145,322	62,939	948,715	2,339,399
Net Return (Loss)	\$ 450,961	\$ 505,341	\$ 351,908	\$ 280,690	\$ 554,112	\$ 123,903	\$ (268,456)	\$ 1,998,459
Plant Investment (Before Depreciation)	\$ 4,646,727	\$ 2,936,645	\$ 18,685,773	\$ 6,309,868	\$ 6,007,230	\$ 1,733,652	\$ 25,336,393	\$ 65,656,288
Return on Investment - Current Year	10%	17%	2%	4%	9%	7%	(1)%	3%
Return on Investment - Cumulative	185%	349%	34%	25%	118%	262%	10%	62%

¹Values on this schedule represent the value of power produced and distributed and do not relate to power sales on other schedules.

WATER SUPPLY, USE AND STORAGE: 2007 - 2016

Values in acre-feet¹

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<u>SUPPLY</u>										
South Platte System:										
South Platte Direct Rights	96,293	110,915	108,990	72,254	46,557	75,389	94,795	84,365	67,152	103,166
South Platte Storage Rights	41,301	46,741	31,939	37,816	4,283	25,739	31,347	39,402	31,786	40,192
Bear Creek Rights	-	-	-	2,067	61	1,359	1,222	1,178	1,862	1,930
Total South Platte System	137,594	157,656	140,929	112,137	50,901	102,487	127,364	124,945	100,800	145,288
Blue River/Roberts Tunnel System	40,795	39,801	77,765	111,564	54,394	148,643	74,674	58,468	80,056	65,682
Effluent Exchange ²	20,730	8,905	7,751	30,778	34,864	15,072	24,527	13,846	21,455	23,266
Moffat System:										
Fraser Collection System	19,190	20,943	24,012	49,036	29,399	45,353	27,240	37,640	58,490	34,090
Williams Fork Collection System	25,393	21,288	26,680	68,483	23,275	33,565	28,362	31,138	26,268	34,608
Cabin-Meadow Creek System	4,217	2,271	85	3,080	1,448	4,112	1,452	4,668	3,794	5,866
South Boulder Creek	21,453	22,172	19,516	7,418	-	9,606	15,178	4,816	-	7,708
Ralston Creek	5,298	6,342	3,292	13,142	401	1,127	4,086	1,374	290	2,792
Total Moffat System	75,551	73,016	73,585	141,159	54,523	93,763	76,318	79,636	88,842	85,064
Total Water Supply	274,670	279,378	300,030	395,638	194,682	359,965	302,883	276,895	291,153	319,300
<u>USE</u>										
Foothills Filters	125,327	113,433	101,795	116,095	155,334	137,330	142,811	117,784	117,973	141,468
Marston Filters	34,719	34,427	52,777	36,135	46,029	25,763	40,489	31,853	56,498	43,303
Moffat Filters	39,393	33,691	33,173	32,503	19,477	46,380	30,642	40,910	46,438	31,507
Total Water Filtered	199,439	181,551	187,745	184,733	220,840	209,473	213,942	190,547	220,909	216,278
Change in Clear Water Storage	123	(76)	26	52	24	12	(55)	52	(23)	17
Total Treated Water Delivered ³	199,562	181,475	187,771	184,785	220,864	209,485	213,887	190,599	220,886	216,295
Raw Water Deliveries	21,752	26,566	19,260	24,533	31,574	27,535	24,641	25,717	30,079	26,830
Other Uses ⁴	67,247	90,815	103,131	46,075	91,467	100,922	79,819	58,632	39,620	61,234
Total Water Use	288,561	298,856	310,162	255,393	343,905	337,942	318,347	274,948	290,585	304,359
<u>STORAGE</u>										
Total Reservoir Storage, December 31	568,124	582,015	601,493	611,625	471,380	620,603	598,580	614,044	612,097	611,529
Total Reservoir Storage, January 1	582,015	601,493	611,625	471,380	620,603	598,580	614,044	612,097	611,529	596,588
Storage Gain or (Loss)	(13,891)	(19,478)	(10,132)	140,245	(149,223)	22,023	(15,464)	1,947	568	14,941

¹Starting in Water Year 2011 the conversion factor from cfs to acre-feet was changed from 2 to 1.9835.

²Initiated exchange programs for Blue River effluent on September 10, 1976.

³Total Treated Water Delivered is determined by adding or subtracting Change in Clear Water Storage from Total Water Filtered.

⁴Other Uses include, but are not limited to, evaporation, carriage losses, seepage losses, Chatfield bypasses, flood bypasses, substitution and releases for power production and maintenance projects.

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Pumping

2016 Facts

Treated Water pumped - Current year	26,767.2	MG ¹
Treated Water pumped - Last year	27,677.6	MG ¹
Percentage increase (decrease) from last year	(329)%	
Number of treated water pump stations	18	
Maximum pumping capacity	1,048.4	MGD ²
Pumping energy costs (Treated Water) - Current year	\$2,903,926	
Pumping energy costs (Treated Water) - Last year	\$2,816,438	
Percentage increase from last year	3%	

¹Million Gallons

²Million Gallons per Day

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PUMPING STATION CAPACITIES - 2016

(Page 1 of 3)

Center of pump U.S.G.S. elevation in parentheses

Pump Station/Elevation	Pump			Horse-power	Head in Feet	Capacity in MGD
	Number	Make of Pump	Make of Motor			
BELLEVIEW (5,714) (High Pressure)	4	Goulds	Ideal Electric	900	260	15.0
	5	Worthington	Westinghouse	300	260	5.0
	6	Goulds	US Motor	700	271	10.0
	7	Worthington	General Electric	900	260	15.0
			<u>2,800</u>		<u>45.0</u>	
BELLEVIEW (5,714) (Low Pressure)	1	Goulds	General Electric	250	175	6.0
	2	Goulds	General Electric	400	175	10.0
				<u>650</u>		<u>16.0</u>
BROOMFIELD (5,316)	1	Goulds	US Motor	500	350	6.5
	2	Goulds	US Motor	500	350	6.5
	3	Goulds	US Motor	500	350	6.5
	4	Goulds	US Motor	500	300	6.5
			<u>2,000</u>		<u>26.0</u>	
CASTLEWOOD (5,785) ¹	1	Peerless	US Motor	10		0.5
	2	Peerless	General Electric	40		1.5
	3	Peerless	General Electric	100		4.2
			<u>150</u>		<u>6.2</u>	
CHATFIELD (5,717) (Low Pressure)	1	ITT	US Motor	200	150	5.0
	2	ITT	US Motor	200	150	5.0
	3	ITT	US Motor	200	150	5.0
			<u>600</u>		<u>15.0</u>	
CHATFIELD (5,717) (High Pressure)	5	ITT	US Motor	400	320	5.0
	6	ITT	US Motor	400	320	5.0
	7	ITT	Nidec	400	320	5.0
			<u>1,200</u>		<u>15.0</u>	
CHERRY HILLS (5,380)	1	Worthington	General Electric	1,000	220	20.0
	2	Worthington	General Electric	1,000	220	20.0
	3	Worthington	General Electric	1,000	220	20.0
	4	Worthington	General Electric	1,000	220	20.0
	5	Worthington	General Electric	1,000	220	20.0
	6	Worthington	General Electric	1,000	220	20.0
			<u>6,000</u>		<u>120.0</u>	
CLARKSON (5,482) ¹	1	Fairbanks Morse	Fairbanks Morse	150	234	2.1
	2	Fairbanks Morse	Fairbanks Morse	150	234	2.1
	3	Fairbanks Morse	Fairbanks Morse	150	234	2.1
	4	Fairbanks Morse	Fairbanks Morse	150	234	2.1
	5	Fairbanks Morse	Fairbanks Morse	150	234	2.1
	6	Fairbanks Morse	Reliance Electric	150	234	2.1
			<u>900</u>		<u>12.6</u>	
EINFELDT (5,341)	2	Wheeler Economy	General Electric	800	175	20.0
	3	Byron Jackson	General Electric	600	175	17.0
	4	Byron Jackson	General Electric	400	175	12.0
	5	Byron Jackson	Westinghouse	200	175	5.3
	6	Worthington	General Electric	800	175	20.0
	7	Wheeler Economy	General Electric	800	175	20.0
				<u>3,600</u>		<u>94.3</u>
ELIZABETH (5,374)	1	Goulds	US Motor	400	164	11.0
	2	Goulds	US Motor	600	164/250	8.5
	3	Goulds	US Motor	600	164/250	8.5
	4	Goulds	US Motor	600	164/250	8.5
	5	Goulds	US Motor	200	164	5.0
			<u>2,400</u>		<u>41.5</u>	

¹Vault Type Structure (underground)

PUMPING STATION CAPACITIES (Continued) - 2016

(Page 2 of 3)

Center of pump U.S.G.S. elevation in parentheses

	Pump			Horse-	Head	Capacity
<u>Pump Station/Elevation</u>	<u>Number</u>	<u>Make of Pump</u>	<u>Make of Motor</u>	<u>power</u>	<u>in Feet</u>	<u>in MGD</u>
FIFTY-SIXTH AVENUE (5,203)	2	Allis Chalmers	Ideal Electric	1,750	450	15.0
	3	Allis Chalmers	Ideal Electric	1,750	450	15.0
	4	Allis Chalmers	Ideal Electric	1,750	450	15.0
	5	Allis Chalmers	Ideal Electric	1,750	450	15.0
	8	Gould	U.S. Motor	500	75	30.0
	9	Gould	U.S. Motor	500	75	30.0
				<u>8,000</u>		<u>120.0</u>
GREEN MOUNTAIN (5,837)	1	Flow Serve	General Electric	600	200	12.0
	2	Flow Serve	General Electric	300	200	6.0
	3	Flow Serve	General Electric	300	200	6.0
				<u>1,200</u>		<u>24.0</u>
HIGHLANDS (5,704) (Low Pressure)	1	Fairbanks Morse	General Electric	125	165	3.0
	2	Fairbanks Morse	General Electric	125	165	3.0
	3	Fairbanks Morse	General Electric	125	165	3.0
	4	Fairbanks Morse	General Electric	125	165	3.0
	5	DeLaval	Ideal Electric	350	165	10.0
	6	DeLaval	Ideal Electric	350	165	10.0
	7	DeLaval	Ideal Electric	350	165	10.0
				<u>1,550</u>		<u>42.0</u>
HIGHLANDS (5,704) (High Pressure)	1	Gould	General Electric	900	260	15.0
	2	Gould	General Electric	900	260	15.0
	6	Gould	General Electric	300	110	10.0
	7	Gould	General Electric	300	110	10.0
	8	Gould	General Electric	150	110	5.0
	9	Gould	General Electric	150	110	5.0
				<u>2,700</u>		<u>60.0</u>
HILLCREST (5,602) (Low Pressure)	1	Allis Chalmers	Allis Chalmers	50	169	1.0
	2	Allis Chalmers	Allis Chalmers	100	167	2.0
	3	DeLaval	Electric Machinery	200	163	5.0
	4	DeLaval	Electric Machinery	400	163	11.0
	5	DeLaval	Electric Machinery	400	163	11.0
	6	Worthington	Fairbanks Morse	400	163	11.0
	7	Worthington	Fairbanks Morse	400	163	11.0
				<u>1,950</u>		<u>52.0</u>
HILLCREST (5,602) (High Pressure)	8	American Marsh	Westinghouse	75	320	0.8
	9	Gould	US Motor	1,500	330	20.0
	10	DeLaval	Electric Machinery	350	313	4.8
	11	DeLaval	Electric Machinery	800	315	10.5
	12	DeLaval	Electric Machinery	800	315	10.5
	13	Patterson	Ideal Electric	900	320	10.0
				<u>4,425</u>		<u>56.6</u>
KENDRICK (5,607) (Low Pressure)	1	Peerless	US Motor	300	120	10.6
	2	Peerless	US Motor	200	120	6.7
	3	Peerless	US Motor	100	120	3.3
	4	Peerless	US Motor	100	120	3.3
	5	Peerless	US Motor	100	120	3.3
				<u>800</u>		<u>27.2</u>

PUMPING STATION CAPACITIES (Continued) - 2016

Center of pump U.S.G.S. elevation in parentheses

<u>Pump Station/Elevation</u>	<u>Pump</u>			<u>Horse- power</u>	<u>Head in Feet</u>	<u>Capacity in MGD</u>
	<u>Number</u>	<u>Make of Pump</u>	<u>Make of Motor</u>			
KENDRICK (5,607) (High Pressure)	7	Worthington	Electric Machinery	800	260	10.0
	8	Worthington	Electric Machinery	800	260	10.0
	9	Goulds	Waukesha ²	700	260	10.0
	10	DeLaval	Waukesha ²	400	260	5.0
	11	Flow Serve	General Electric	600	243	10.0
			<u>3,300</u>		<u>45.0</u>	
LAKERIDGE (5,516)	1	American Marsh	General Electric	25	120	0.7
	2	American Marsh	General Electric	75	120	2.9
	3	American Marsh	General Electric	75	120	2.9
	4	American Marsh	General Electric	60	120	1.7
			<u>235</u>		<u>8.2</u>	
LAMAR (5,443) ¹	1	Peerless	US Motor	40	111	1.1
	2	Peerless	US Motor	60	113	2.1
	3	Peerless	US Motor	125	119	4.1
			<u>225</u>		<u>7.3</u>	
LONE TREE (5,904) (Low Pressure)	3	Gould	US Motor	300	127	10.0
	4	Gould	US Motor	150	127	5.0
	5	Gould	US Motor	150	127	5.0
			<u>600</u>		<u>20.0</u>	
LONE TREE (5,904) (High Pressure)	6	Gould	Siemens & Allis	300	227	5.0
	7	Gould	Siemens & Allis	600	227	10.0
	8	Gould	Siemens & Allis	600	227	10.0
			<u>1,500</u>		<u>25.0</u>	
MARSTON (5,485) (Low Pressure)	1	Worthington	Waukesha ²	700	166	20.0
	2	Worthington	General Electric	700	166	20.0
	3	Worthington	General Electric	700	166	20.0
	4	Worthington	General Electric	700	166	20.0
	5	Worthington	General Electric	700	166	20.0
			<u>3,500</u>		<u>100.0</u>	
MARSTON (5,485) (High Pressure)	8	Patterson	Waukesha ²	400	260	6.5
	9	Ingersoll-Rand	Reliance Electric	500	260	8.0
	10	Gould	US Motor	900	260	15.0
	11	Gould	US Motor	900	260	15.0
			<u>2,700</u>		<u>44.5</u>	
SIXTY-FOURTH AVENUE (5,427) (Low Pressure)	3	Fairbanks Morse	United States	100	90	5.0
	6	Fairbanks Morse	United States	200	90	10.0
			<u>300</u>		<u>15.0</u>	
SIXTY-FOURTH AVENUE (5,427) (High Pressure)	1	Fairbanks Morse	United States	400	170	10.0
			<u>53,685</u>		<u>1,048.4</u>	

Note: City Datum = 5,172.91

¹Vault Type Structure (underground)

²Natural Gas Engine

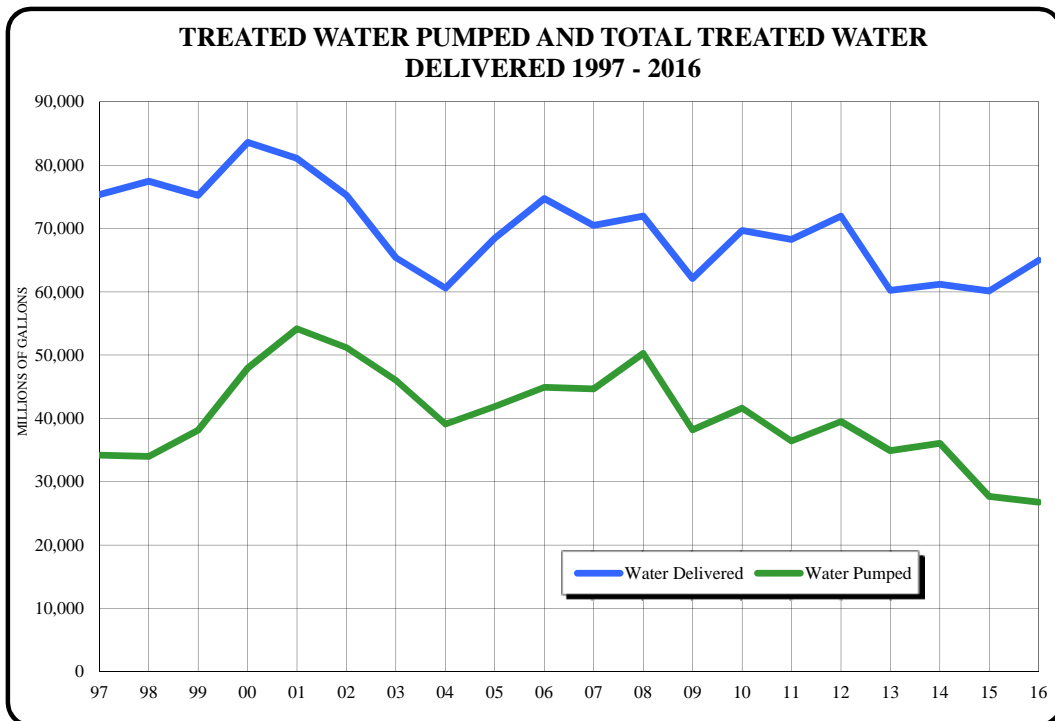
TREATED WATER PUMPED AND POWER COSTS: 1997 - 2016

Year	Total Treated Water Pumped	Total Treated Water Delivered	Pumps		Treated Water Total Pumping	Gas Used	Total Power, Electric and Gas Costs ²
	(million gals.)	(million gals.)	Number	Capacity (million gals.)	Power Used (kwh) ¹	(dth)	
1997	34,179.67	75,363.33	105	1,027.5	31,876,334	23,055	\$1,997,924
1998	33,990.21	77,466.65	105	1,027.5	30,170,882	38,331	\$1,881,873
1999	38,149.92	75,232.01	106	1,052.5	33,378,202	18,927	\$1,915,984
2000	47,953.92	83,585.25	106	1,052.5	39,257,987	20,159	\$2,166,806
2001	54,161.28	81,051.42	106	1,052.5	42,691,836	15,096	\$2,774,857
2002	51,205.33	75,221.18	109	1,070.6	46,058,108	7,217	\$1,986,429
2003	46,030.79	65,399.47	110	1,077.1	33,489,508	1,858	\$2,322,558
2004	39,105.07	60,578.77	110	1,077.1	35,898,176	-	\$2,820,144
2005	41,890.71	68,473.70	110	1,096.3	38,384,576	-	\$3,686,475
2006	44,937.60	74,724.98	110	1,096.3	44,823,999	-	\$3,247,213
2007	44,684.79	70,479.84	112	1,097.4	38,635,526	-	\$2,942,190
2008 ³	50,283.70	71,975.87	112	1,097.4	33,898,600	-	\$3,583,417
2009	38,198.90	62,106.90	112	1,095.9	27,801,487	-	\$2,568,082
2010	41,611.30	69,695.40	112	1,095.9	28,457,672	-	\$2,709,675
2011	36,443.49	68,260.80	112	1,003.3	25,674,399	-	\$3,042,871
2012	39,484.07	71,968.70	112	1,003.3	26,277,763	-	\$3,328,526
2013	34,895.37	60,212.44	112	1,007.9	25,604,391	-	\$3,259,289
2014	36,088.94	61,185.27	112	1,007.9	29,118,267	-	\$3,517,530
2015	27,677.64	60,115.97	113	1,048.4	22,901,689	-	\$2,960,292
2016	26,767.23	65,003.83	113	1,048.4	23,870,718	-	\$3,145,819

¹Years prior to 2008 included some raw water pumping and a portion of power used at the treatment plants.

²Total energy costs for all Denver metropolitan area Board treated water distribution facilities.

³Foothills Treatment Plant out of service from December 4, 2007 through April 25, 2008.



DISTRIBUTING RESERVOIRS AND RAW WATER PUMPING STATIONS - 2016

High water U.S.G.S. elevation in parentheses

	Capacity (million gals.)		Capacity (million gals.)
Alameda & Beech (6,042) ¹		Hillcrest (5,624)	
Number 1	1.0	Number 1	14.8
Number 2	<u>2.0</u>	Number 2	<u>14.8</u>
	<u>3.0</u>		<u>29.6</u>
Ashland (5,430)		Hogback (6,007)	<u>4.0</u>
East Basin	under construction	Ken Caryl Ranch (6,410) ¹	
West Basin	<u>10.0</u>	Number 3	2.0
	<u>10.0</u>	Number 4	<u>2.0</u>
Belleview (5,743)	<u>10.0</u>		<u>4.0</u>
Broomfield (5,335)		Kendrick (5,627)	<u>15.0</u>
Number 1	2.5	Lone Tree (5,930)	
Number 2	<u>2.5</u>	Number 1	10.0
	<u>5.0</u>	Number 2	<u>10.0</u>
Broomfield Tank (5,534) ¹			<u>20.0</u>
Number 1	3.0	Marston Treatment (5,497)	
Number 2	<u>3.0</u>	Number 3	6.8
	<u>6.0</u>	Number 4	<u>9.2</u>
Capitol Hill (5,395)			<u>16.0</u>
Number 1	23.4	Moffat Treatment (5,620)	
Number 3	<u>27.0</u>	Number 1	4.3
	<u>50.4</u>	Number 2	4.3
Chatfield Tank (5,740)		Number 3	5.0
Number 1	5.0	Number 4	<u>4.4</u>
Number 2	<u>5.0</u>		<u>18.0</u>
	<u>10.0</u>	Sixty-Fourth Avenue (5,460)	<u>15.0</u>
Colorow (6007)	<u>3.7</u>	Southgate (6,123) ¹	
Fifty-Sixth Avenue (5,223)	<u>15.0</u>	9E	2.0
Foothills (5,860)		9E2	<u>6.0</u>
Number 1	25.0		<u>8.0</u>
Number 2	25.0	Southgate (6,270) ¹	
Number 3	<u>25.0</u>	10E	1.5
	<u>75.0</u>	10E2	<u>1.5</u>
Green Mountain (5,859)	<u>5.0</u>		<u>3.0</u>
Highlands (5,722)		Utah Tank (6,042) ¹	<u>3.0</u>
Number 1	7.2	Valley Tank (6,000) ¹	<u>2.0</u>
Number 3	<u>13.5</u>	Total Capacity	<u>351.4</u>
	<u>20.7</u>		

¹Not Owned by Denver Water.

RAW WATER PUMPING STATIONS

Pump Station	Pump			Horse-Power	Head in Feet	Capacity in MGD
	Number	Make of Pump	Make of Motor			
Last Chance	1	Worthington	General Electric			
Metro Sewer	1	Peerless	United States	30	60	2.2
	2	Peerless	General Electric	200	30	30.0
	3	Peerless	General Electric	200	30	30.0
Kassler	3	Peerless	General Electric	200	30	30.0
	5	Peerless	General Electric	600	90	90.0
				600	153	10.0
			600	153	10.0	
			Total	1,200	306	20.0
				1,830	456	112.2

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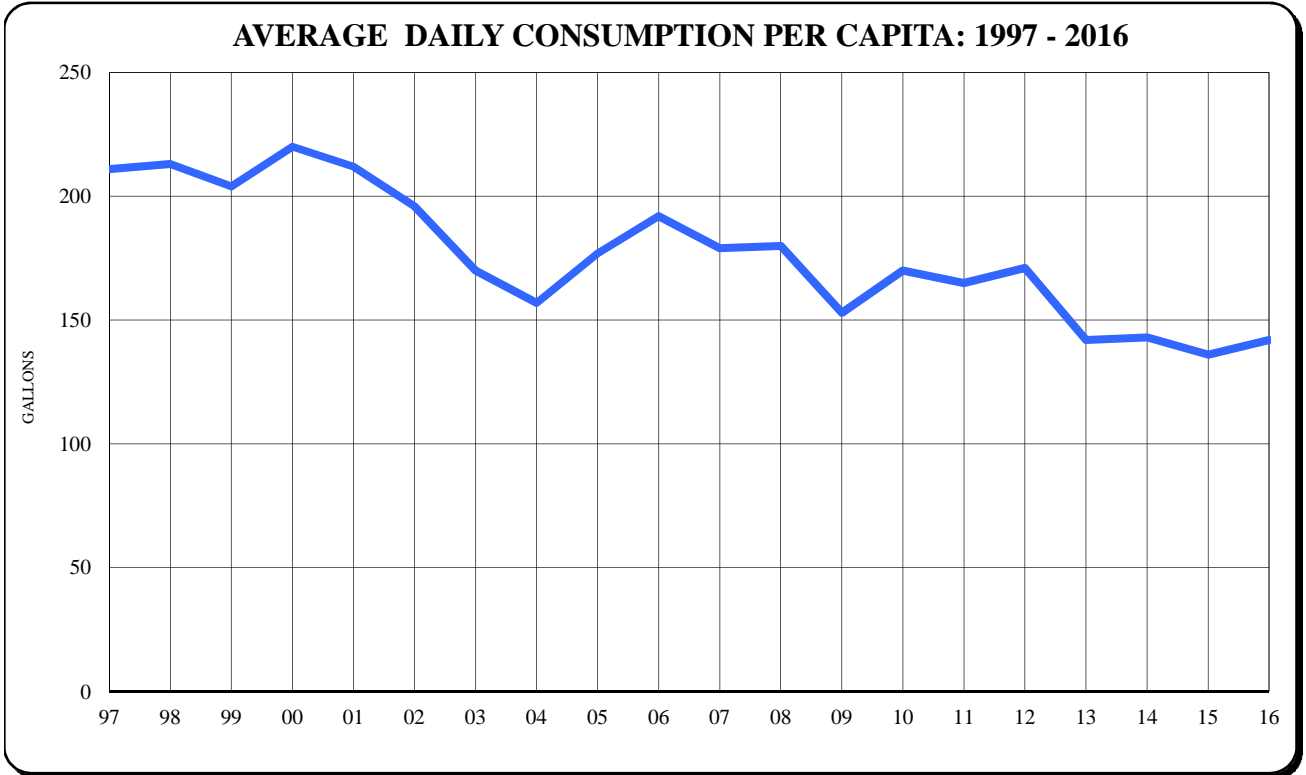
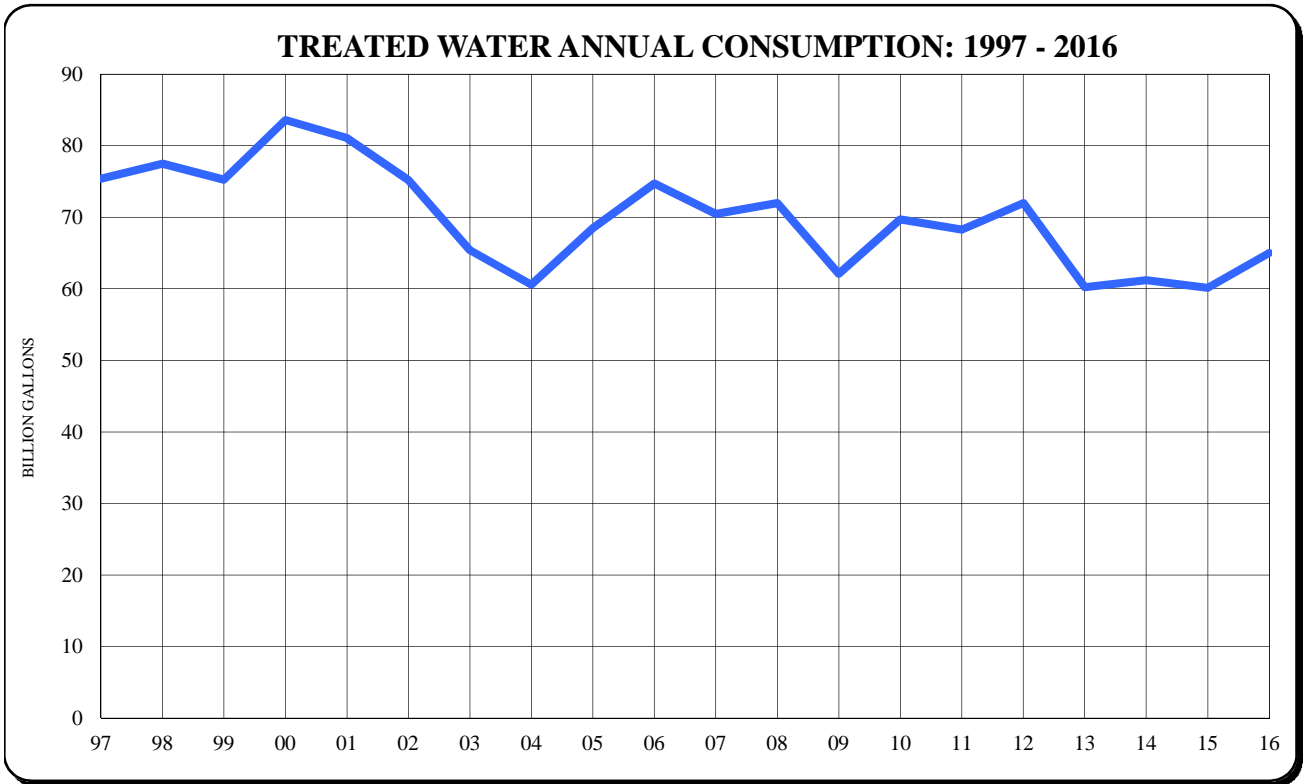
Treatment and Water Quality

2016 Facts

Treated water consumption.....	65,003.83 MG
Increase (decrease) from last year.....	4,887.86 MG
Average daily consumption.....	178.09 MG
Maximum daily consumption: (July 13).....	355.88 MG
Maximum hour treated water use rate: (Aug 1 at 5:30 a.m.).....	592.00 MGD
Water Quality:	
Total samples collected.....	32,168
Microbiological analyses completed.....	11,407
Chemical analyses completed.....	49,829

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CONSUMPTION OF TREATED WATER - 20 YEAR GRAPHS: 1997 - 2016



CONSUMPTION OF TREATED WATER: 1997 - 2016

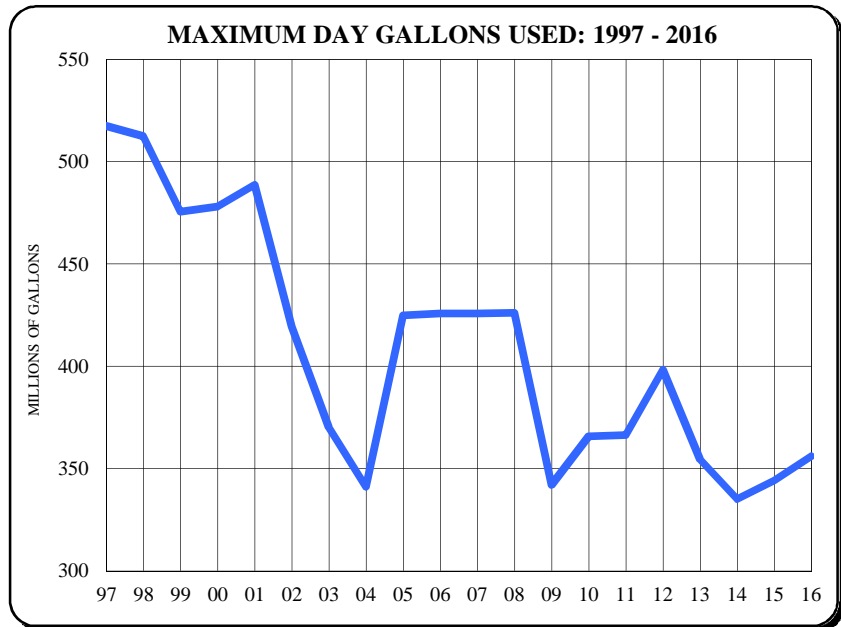
Year	Acre-Feet	(million gallons)			Population July 1 ¹	Avg. Daily Gals. Per Capita	Precipitation in Inches ²	
		Annual	Daily Avg.	Daily Max.			Year	4/1 to 9/30
1997	231,282	75,363.33	206.47	517.57	980,000	211	20.38	14.46
1998	237,764	77,475.48	212.26	512.53	996,000	213	17.61	12.77
1999	230,879	75,232.01	206.12	475.66	1,012,000	204	20.03	17.04
2000	256,514	83,585.25	228.38	478.19	1,036,000	220	14.87	11.07
2001	248,738	81,051.42	222.06	488.71	1,048,000	212	16.45	12.43
2002	230,845	75,221.18	206.09	419.20	1,049,000	196	9.95	6.59
2003	200,704	65,399.47	179.18	370.05	1,052,000	170	17.00	8.77
2004	185,909	60,578.77	165.52	340.92	1,055,000	157	21.35	16.06
2005	210,138	68,473.70	187.60	424.80	1,057,000	177	16.32	10.90
2006	229,323	74,724.98	204.73	425.68	1,064,000	192	16.15	8.66
2007	216,295	70,479.84	193.10	425.70	1,077,000	179	18.10	11.45
2008	220,886	71,975.87	196.66	426.16	1,093,000	180	12.42	8.19
2009	190,599	62,106.90	170.16	341.80	1,111,000	153	21.34	15.09
2010	213,887	69,695.40	190.95	365.81	1,125,000	170	14.28	9.74
2011	209,485	68,260.80	187.02	366.40	1,135,000	165	19.29	13.99
2012	220,864	71,968.70	196.64	398.20	1,147,000	171	12.39	8.72
2013	184,785	60,212.44	164.97	354.50	1,161,000	142	22.41	17.95
2014	187,771	61,185.27	167.63	335.20	1,172,000	143	20.26	14.77
2015	184,489	60,115.97	164.70	344.26	1,210,000	136	27.80	19.07
2016	199,489	65,003.83	178.09	355.88	1,249,000	142	13.84	8.25

¹Population estimates are treated water customers only.

²Precipitation readings are the averages of Stapleton, Lakewood and Kassler measurement stations.

TREATMENT PLANT CAPACITY

Plant	Type	Capacity in MGD
Foothills	Dual-Media	280.0
Marston	Dual-Media	250.0
Moffat	Rapid Sand	185.0
		<u>715.0</u>

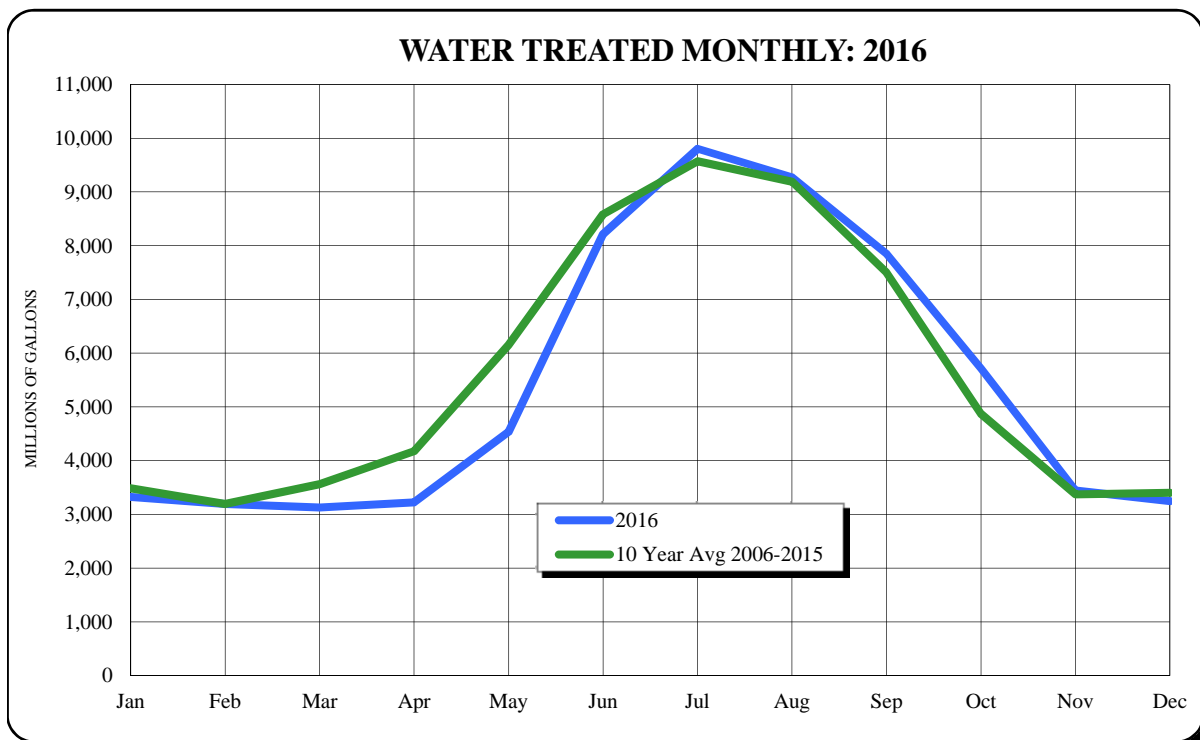


WATER TREATED MONTHLY - 2016

(millions of gallons)

	Treatment Plant			Total Produced
	Foothills	Marston	Moffat	
January	756.35	1,576.17	995.17	3,327.69
February	367.45	1,535.92	1,289.98	3,193.35
March	1,882.23	599.52	646.17	3,127.92
April	1,989.44	593.98	641.74	3,225.16
May	2,897.67	972.02	663.00	4,532.69
June	5,494.31	1,246.13	1,474.68	8,215.12
July	5,980.17	2,090.88	1,732.46	9,803.51
August	6,060.02	1,353.77	1,860.72	9,274.51
September	5,812.73	809.64	1,227.56	7,849.93
October	4,758.70	-	961.22	5,719.92
November	2,790.19	-	654.00	3,444.19
December	2,033.82	531.00	685.00	3,249.82
	<u>40,823.08</u>	<u>11,309.03</u>	<u>12,831.70</u>	<u>64,963.81</u>

Note: Totals are based on multiple totalizer meter readings at various treatment plant sites. The accuracy of the readings varies within the limits inherent to each water meter.



RECONCILIATION OF WATER TREATED TO WATER DELIVERED/CONSUMED:

Total Water Treated for the Year (Produced)	64,963.81 MG
(Increase) Decrease In Clear Water Storage	40.02 MG
Total Treated Water Delivered/Consumed for the Year	<u>65,003.83 MG</u>

CHEMICAL TREATMENT AND ANALYSIS:
TREATED WATER IN DISTRIBUTION SYSTEM - 2016

CHEMICAL TREATMENT

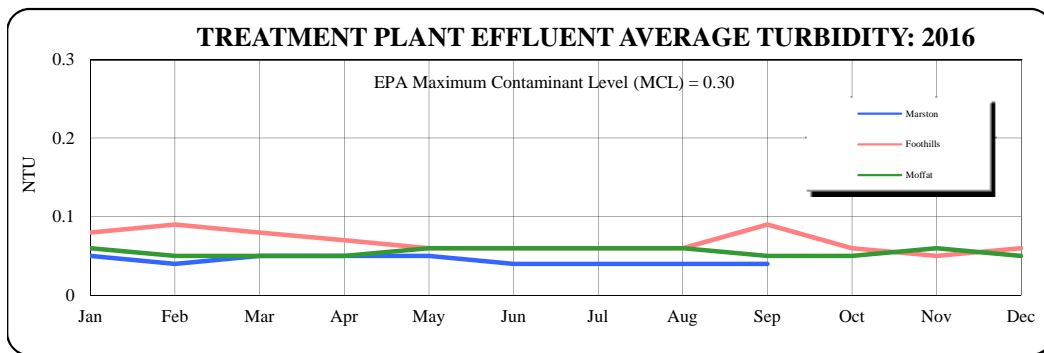
Chemicals are used at various points throughout the treatment plants to provide for appropriate water treatment including oxidation, coagulation, pH adjustment, fluoridation and disinfection. The following are total pounds and cost of chemicals used at each treatment plant.

	Pounds of Chemicals Used	Total Cost
Foothills	18,683,629	\$ 1,634,775
Moffat	8,020,541	780,631
Marston	7,767,628	689,334
Recycling	2,510,135	248,552
	36,981,933	\$ 3,353,292

DISTRIBUTION SYSTEM & TREATMENT PLANT EFFLUENT TOTAL COLIFORM RESULTS

Month	Number of Samples	Number of Positives	% Positive
January	383	0	0.00%
February	426	0	0.00%
March	390	0	0.00%
April	406	0	0.00%
May	372	0	0.00%
June	438	1	0.23%
July	389	0	0.00%
August	451	0	0.00%
September	415	0	0.00%
October	397	0	0.00%
November	395	0	0.00%
December	379	0	0.00%
	4,841	1	0.02%

The total coliform group of bacteria is a microbiological indicator used to determine the safety of drinking water for human consumption. The EPA and the Colorado Department of Public Health and Environment require that Denver Water test a minimum of 300 treated water samples each month for total coliforms. The Maximum Contaminant Level (MCL) for total coliform specifies that no more than 5% of the samples taken each month may be positive. All positive samples were further analyzed to determine if *E. coli* bacteria were present, which would indicate possible contamination from a fecal source. There were no *E. coli* positive samples in the current year.



Turbidity is a measure of the clarity of the water. EPA has established 0.30 NTU (Nephelometric Turbidity Unit) as the MCL for turbidity.

TREATED WATER QUALITY SUMMARY:
TREATMENT PLANT EFFLUENT AVERAGES – 2016

<u>Analysis</u>	<u>Maximum Contaminant Level (MCL)</u>	<u>Marston</u>	<u>Foothills</u>	<u>Moffat</u>
General (mg/L)				
Alkalinity, Total as CaCO ₃		72	64	30
Chlorine, Total		1.7	1.6	1.6
Hardness as CaCO ₃		117	102	51
pH (SU)		7.8	7.8	7.7
Specific Conductance (µS)		339	299	145
Temperature (°C)		12	13	11
Total Dissolved Solids		196	175	81
Turbidity (NTU)	0.30	0.04	0.07	0.05
Metals (µg/L)				
Aluminum		37	41	27
Barium	2,000	37	37	23
Boron		19	15	9
Calcium (mg/L)		29	25	12
Magnesium (mg/L)		8	7	3
Manganese		5	12	8
Molybdenum		6	8	1
Potassium (mg/L)		2	2	1
Sodium (mg/L)		22	20	8
Strontium (mg/L)		0.2	0.2	0.1
Ions (mg/L)				
Chloride		26	24	7
Fluoride	4.0	0.7	0.8	0.7
Nitrate + Nitrite- Nitrogen	10	0.1	0.1	0.1
Silicon		3	4	3
Sulfate		53	45	22
Radiological (pCi/L)				
Uranium (µg/L)	30	0.5	0.6	< 0.5

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TREATED WATER QUALITY SUMMARY:
TREATMENT PLANT EFFLUENT AVERAGES – 2016 (Continued)

<u>Analysis</u>	<u>Maximum Contaminant Level (MCL)</u>	<u>Marston</u>	<u>Foothills</u>	<u>Moffat</u>
Disinfection By-Products (µg/L)				
Bromodichloromethane		7.4	6.1	3.2
Chloroform		8.9	11	9.9
Dibromochloromethane		3.2	1.7	0.8
Dichloroacetic acid		8.6	11.2	9.0
Haloacetic Acids	60	15	19	16
Total Trihalomethanes	80	18	15	16
Trichloroacetic acid		4.5	6.2	6.0
Nonspecific Organics				
Total Organic Carbon (mg/L)		2.4	2.1	1.8
Total Organic Halogen (µg/L)		190	180	150

TREATED WATER QUALITY SUMMARY:
TREATMENT PLANT EFFLUENT AVERAGES – 2016 (Continued)

The following analyses were performed and each of these constituents was either below the reporting limit or the average result was less than the reporting limit. The Maximum Contaminant Level is listed after the analysis in parentheses, if applicable. The unit of measure is also listed if different than that listed for the subsection.

Metals - plumbing, mining, natural erosion (µg/L)	Strontium-90	2-Chlorobiphenyl	Hexachlorocyclopentadiene
Antimony (6)	Thorium-227,234	2-Chlorophenol	Indeno(1,2,3-cd)pyrene
Arsenic (10)	Thallium=208	2-Nitrophenol	Isophorone
Beryllium (4)	Uranium-235	2,4-Dichlorophenol	Methacrylonitrile
Cadmium (5)	Zinc-65	2,4-Dimethylphenol	Methyl acrylate
Chromium (100)	human activity, Algal toxins	2,4-Dinitrophenol	Methylmethacrylate
Cobalt	<i>Cryptosporidium (oocysts/L)</i>	2,4-Dinitrotoluene	Naphthalene
Copper (TT ¹)	<i>E. coli (count/100 ml)</i>	2,6-Dinitrotoluene	n-Butyl Acrylate
Iron	<i>Giardia (TT¹) (cysts/L)</i>	3,5-Dichlorobenzoic acid	N-nirtosopyrollidine
Lead (TT ¹)	<i>Legionella (TT¹)</i>	4-tert-Octylphenol	Nitrobenzene
Lithium	Plankton	4-Nitrophenol	Nonylphenol isomer mix
Mercury (2)	Cylindrospermopsin (Algal Toxin)	4,6-Dinitro-2-methylphenol	Pyrene
Selenium (50)	Microcystin-LA (Algal Toxin)	Acenaphthene	TCPP
Silver	Microcystin -LF (Algal Toxin)	Acenaphthylene	TDCPP
Thallium (2)	Microcystin-LR (Algal Toxin)	Acetochlor	Trichloronate
			SOC - Plastizers, Surfactants, Personal Care Products µg/L, ng/L
Titanium	Microcystin-LY (Algal Toxin)	Ametryn	
Vanadium	Microcystin-RR (Algal Toxin)	Anthracene	1,2,4,5-Tetrachlorobenzene
Ions - from farming, and industry, (mg/L, µg/L)	Microcystin-YR (Algal Toxin)	Benzo(a)anthracene	1,1,2-Trichloro-1,2,2-trifluoroethane
Bromide	Nodularin (Algal Toxin)	Benzo(a)pyrene (0.2)	2,4,5-Trichlorobiphenyl
Carbon disulfide	Total Coliform (DS)	Benzo(b)fluoranthene	4-Chloro-3-methylphenol
	Disinfection By-Products - reaction between the disinfectant and natural organic matter (µg/L)		
Cyanide, Total	Bromoform	Benzo(g,h,i)perylene	Benzyl chloride
Hydroxide	Carbon Tetrachloride	Benzo(k)fluoranthene	Bis(2-ethylhexyl)adipate
Nitrite-Nitrogen (1)	Chlorate	Chloroprene	Bis(2-ethylhexyl)phthalate
Ortho Phosphorus, Dissolved	Chloroacetone	Chloropropylate	Bisphenol A
Perchlorate	Chloroacetonitrile	Chrysene	Butyl benzyl phthalate
deposits/mining (pCi/L)	Monochloroacetic Acid	Cyclohexanone	Butylparaben
Alpha	N-nitrosodiethylamine (Nitrosamine)	Dibenzo(a,h)anthracene	Chloroprene
Beta	N-nitrosodimethylamine (NDMA)	Diethanolmine (DEA)	Desethylatrazine
Cesium-134,137	N-nitrosodi-n-butylamine	Ethyl acrylate	Desisopropylatrazine
Iodine-129, 131	N-nitrosodi-n-propylamine	Ethyl tert-butyl ether	Diethyl phthalate
Radium ^{226/228 (5)}	N-nitrosomethylethylamine	Fluoranthene	Dimetyl phthalate
	N-nitrosodiphenylamine	Fluorene	Di-n-butyl phthalate
	Tribromoacetic Acid	Hexachlorobenzene	Di-n-octyl phthalate
	Synthetic Organic Compounds (SOC) - from Feedstock/ combustion by-products, Flame retardants (µg/L)		

¹TT indicates that the MCL involves treatment techniques.

TREATED WATER QUALITY SUMMARY:
TREATMENT PLANT EFFLUENT AVERAGES – 2016 (Continued)

Epichlorohydrin	alpha-Chlordane	Cyanazine	Ethion
Ethyl acrylate	Acifluorfen	Dacthal	Ethofumesate
Ethyl methacrylate	Alachlor (2)	Dalapon (200)	Ethoprop
Galaxolide	Aldicarb	DCPA acid metabolites	Ethylene dibromide
Isobutylparaben	Aldicarb sulfone	Demeton O	Etridiazole
Isopropyl ether	Aldicarb sulfoxide	Demeton S	Famphur
Methyl paraben	Aldrin	Desethylatrazine	Fenamiphos
Methacrylonitrile	Atraton	Desisopropylatrazine (DIA)	Fenarimol
Polychlorinated Biphenyls (PCB)	Atrazine (3)	delta- BHC	Fenitrothion
PCB 1016 Aroclor	Azinphos-ethyl	Diazinon	Fenoxaprop-ethyl
PCB 1221 Aroclor	Azoxystrobin	Dicamba	Fensulfthion
PCB 1232 Aroclor	Baygon	Dichlobenil	Fenthion
PCB 1242 Aroclor	Bendiocarb	Dichlofenthion	Fenuron
PCB 1248 Aroclor	Benfluralin	Dichloran	Fipronil
PCB 1254 Aroclor	Bensulide	Dichloprop	Fluazifop-butyl
PCB 1260 Aroclor	Bentazon	Dichlorvos	Fluchloralin
Perfluoro octanesulfonic acid (PFOS)	β-BHC (beta-BHC)	Dicrotophos	Fluometuron
Perfluoro-1-butanesulfonic acid (PFBS)	Bolstar	Dieldrin	Fluridone
Perfluoro-1-hexanesulfonic acid (PFHxS)	Bromacil	Diflubenzuron	Fonofos
Perfluoroheptanoic acid (PFHpA)	Butachlor	Dimethoate	gamma-Chlordane
Perfluoro-nonanoic acid (PFNA)	Butylate	Dinoseb	Halofenozide
Perfluorooctanoic acid (PFOA)	Carbaryl	Dioxathion	Halosulfuron methyl
Phenol	Carbofuran	Dioxin	Heptachlor (0.4)
Pyrene	Carbophenothion	Diphenamid	Heptachlor Epoxide (0.2)
Tetrabromobisphenol A	Carboxin	Disulfoton	Hexachlorobenzene
Toxaphene	Chlordane	Disulfoton sulfone	Hexazinone
Pesticides µg/L	Chlorfenvinphos	Disulfoton sulfoxide	Imidacloprid
1,2-Dibromo-3-chloropropane (0.2)	Chloridazon	Diuron	Isophorone
2,4,5-T	Chlorneb	Dursban	Kepone
2,4,5-Trichlorobiphenyl	Chlorobenzilate	Endosulfan sulfate	Leptophos
2,4,6-Trichlorophenol	Chlorothalonil	Endosulfan –A	Lindane
2,4-D (70)	chlorpyrifos methyl	Endosulfan –B	Linuron
2,4-DB	cis-Nonachlor	Endrin (2)	Malathion
3-Hydroxycarbofuran	cis-Permethrin	Endrin Aldehyde	Metalaxyl
4,4'-DDD	Clomazone	EPN	Metazachlor
4,4'-DDE	Clopyralid	EPTC	Methiocarb
4,4'-DDT	Coumaphos	Esfenvalerate	Methomyl
alpha-BHC	Crotoxyphos	Ethalfuralin	Methoxychlor
			Methyl paraoxon

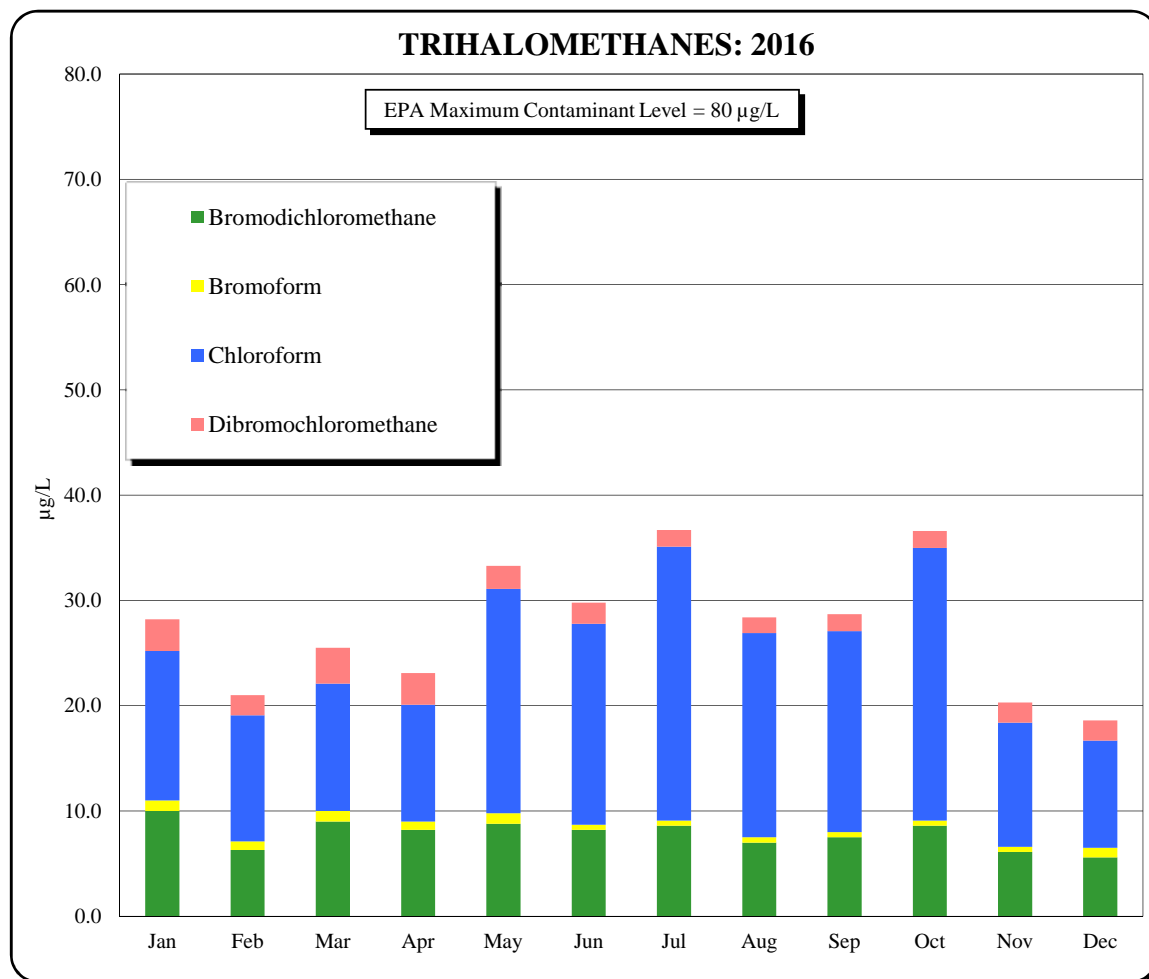
TREATED WATER QUALITY SUMMARY:
TREATMENT PLANT EFFLUENT AVERAGES – 2016 (Continued)

Methyl parathion	Propargite	1,2,4-Trimethylbenzene	Methyl tert-butyl ether (MTBE)
Metolachlor	Propazine	1,2-Dichloropropane (5)	n-Butylbenzene
Metribuzin	Propiconazole isomer a	1,3,5-Trimethylbenzene	n-Propylbenzene
Metsulfuron-methyl	Propiconazole isomer b	1,3-Dichloropropane	o-Chlorotoluene
Mevinphos	Propoxur	1,3-Dichloropropene	o-Dichlorobenzene (600)
MGK 264 isomer a	Prothiofos	1,4-Dioxane	p-Chlorotoluene
MGK 264 isomer b	Siduron, Total	1-Chlorobutane	p-Dichlorobenzene (78.5)
MGK 326	Silvex (50)	2,2-Dichloropropane	Pentachlorobenzene
Mirex	Simazine (4)	2-Hexanone	Pentachloroethane
Molinate	Simetryn	2-Nitropropane	p-Isopropyltoluene (Cymene)
Monocrotophos	Stirofos	4-Methyl-2-Pentanone (MIBK)	Propionitrile
Monuron	Sulfotep	Acrylonitrile	sec-Butylbenzene
Naled	Tebuthiuron	Allyl chloride	Styrene (100)
Napropamide	Terbacil	Anilazine	tert-Amyl Methyl ether (TAME)
Neburon	Terbufos	Anthracene	tert-Butyl alcohol
N-nitrosomorpholine	Terbutryn	Benzene (5)	tert-Butylbenzene
N-nitrosopiperidine	Thidiazuron	Bromobenzene	Tetrachloroethene (5)
Norflurazon	Thiobencarb	Bromoethane	Tetrahydrofuran
Oryzalin	Thionazin	Bromomethane	Toluene (1000)
Oxadiazon	trans-Nonachlor	Carbon disulfide	trans-1,2-Dichloroethene (100)
Oxamyl (200)	Triademefon	Chlorobenzene (100)	trans-1,3-Dichloropropene
Oxychlorthane	Triadimenol	Chlorodifluoromethane (CFC 22)	trans-1,4-Dichloro-2-butene
Oxyfluorfen	Tribufos	Chloroethane	Trichloroethylene (5) (TCE)
Paclobutrazol	Trichloronate	Chloromethane	Trichlorofluoromethane
Parathion	Tricyclazole	cis-1,2-Dichloroethene (70)	Vinyl acetate
Pebulate	Trifluralin	cis-1,3-Dichloropropene	Vinyl Chloride (2)
Pendimethalin	Vernolate	Dibromomethane	Xylenes (10000)
Pentachlorophenol (1)	Vinclozolin	Dichlorodifluoromethane (CFC-12)	Pharmaceuticals/Hormones (µg/L, ng/L)
Pentachloronitrobenzene	Z-Phosphamidon	Dichloromethane (5)	17 alpha-Estradiol
	Volatile Organic Compounds (VOC) - from solvents, feedstock/ fuels, Flame retardants (µg/L, ng/L)		
Permethrin Isomers		Diisopropyl ether	17 alpha-Ethynyl estradiol
Permethrin, cis & trans	1,1,1,2-Tetrachloroethane	Epichlorohydrin	17-beta-Estradiol
Phorate	1,1,1-Trichloroethane (200)	Ether	Acetaminophen (Tylenol)
Phosmet	1,1,2,2-Tetrachloroethane	Ethyl Benzene (700)	Antipyrine
Picloram	1,1,2-Trichloroethane (5)	Ethyl tert-butyl ether	Atenolol
Profluralin	1,1-Dichloroethane	Hexachloroethane	Azithromycin
Prometon	1,1-Dichloroethene (7)	Hexachlorobutadiene	Bacitracin
Prometryn	1,1-Dichloropropene	Isopropylbenzene (Cumene)	Bezafibrate
Pronamide	1,2,3-Trichlorobenzene	m-Dichlorobenzene	Caffeine
Propachlor	1,2,3-Trichloropropane	Methyl iodide	
Propanil	1,2,3-Trimethylbenzene		
	1,2,4-Trichlorobenzene (70)		

TREATED WATER QUALITY SUMMARY:
TREATMENT PLANT EFFLUENT AVERAGES – 2016 (Continued)

Carbadox	Oleandomycin
Carbamazepine	Oxytetracycline
Carboxin	Paraxanthine
Chloramphenicol	Penicillin G
Chlorotetracycline	Penicillin V
Ciprofloxacin	Phenanthrene
Clofibric acid	Prednisone
cis-Testosterone	Primidone
Cotinine	Progesterone
Dexamethasone	Roxithromycin
Diazepam (Valium)	Salicylic acid
Diclofenac	Salinomycin
Diethylstilbestrol (DES)	Simvastatin
Dilantin	Sulfachloropyridazine
Diltiazem	Sulfadiazine
Doxycycline	Sulfadimethoxine
Enrofloxacin	Sulfamerazine
Erythromycin	Sulfamethazine
Estradiol	Sulfamethizole
Estriol	Sulfamethoxazole
Estrone	Sulfasalazine
Fluoxetine (Prozac)	Sulfathiazole
Gemfibrozil	trans-Testosterone
Ibuprofen	Tetracycline
Iopromide	Theobromine
Lasalocid	Theophylline
Levothyroxine (Synthroid)	Thiabendazole
Lincomycin	trans-Testosterone
Meprobamate	Triclocarban
Monensin	Triclosan
Naproxen (Aleve)	Trimethoprim
Narasin	Tylosin
Norfloxacin	Virginiamycin M1

DISTRIBUTION SYSTEM AVERAGE TRIHALOMETHANES - 2016



Trihalomethanes (THMs) are organic compounds formed when chlorine disinfectant is added to the water. The use of chlorine and other chlorine-based disinfectant compounds is mandated by health regulatory agencies to eliminate microbiological contaminants from drinking water. The creation of THMs is a consequence of this necessary practice. THMs are comprised of four individual compounds. EPA has established 80 mg/L as the MCL for Total Trihalomethanes (the sum of the four individual compounds). The amounts present in the Denver distribution system are consistently below the 80 mg/L level.

WATER QUALITY SAMPLE COLLECTION AND ANALYTICAL PROCEDURES - 2016

Samples Collected:

Watershed	6,826
Treatment plant	3,168
Distribution system	16,575
Other	5,599
	<u>32,168</u>

Analyses Performed:

Microbiological	11,407
Chemical	49,829
	<u>61,236</u>

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Transmission and Distribution

2016 Facts

Miles of pipe installed, net of reductions	17.6
Miles of pipe in system	3,109.3
Miles of recycled water mains in system	73.5
Number of valves operated and maintained	83,171
Number of recycled water valves in system	1,538
Number of hydrants operated and maintained	20,556
Leak Detection Program:	
Miles of pipe surveyed	922
Visible leaks pinpointed	134
Non-visible leaks detected	68

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TRANSMISSION AND DISTRIBUTION MAINS¹ - 2016

SUMMARY OF PIPE BY MATERIAL

Kind of Pipe	Length in Feet		Length in Miles	
	12-31-15	Net Change	12-31-16	12-31-16
Cast Iron	5,895,795	(56,169)	5,839,626	1,106.0
Cement Asbestos	1,659,669	(1,396)	1,658,273	314.1
Cement Mortar Coated Steel	121	(117)	4	-
Concrete ⁴	10,934	-	10,934	2.1
Copper	1,406	(118)	1,288	0.2
Ductile iron	3,218,153	15,165	3,233,318	612.4
Embedded Cyl Prestressed	79,108	2	79,110	15.0
Galvanized	4,307	(71)	4,236	0.8
Lined Cyl Prestressed	231,198	(23)	231,175	43.8
Non-Cyl Prestressed	7,558	-	7,558	1.4
Pretensioned Concrete	69,744	(24)	69,720	13.2
Polyvinyl Chloride	3,215,452	136,537	3,351,989	634.8
Reinforced Concrete Cyl	288,472	(40)	288,432	54.6
Reinforced Concrete Non-Cyl	72,911	-	72,911	13.8
Steel ³	1,546,648	146	1,546,794	293.0
Steel -tape Coated	-	-	-	-
Steel - enamel Coated	-	-	-	-
Unknown ²	22,860	(1,199)	21,661	4.1
	<u>16,324,336</u>	<u>92,693</u>	<u>16,417,029</u>	<u>3,109.3</u>

SUMMARY OF PIPE BY DIAMETER

Diameter of Pipe in Inches	Length in Feet		Length in Miles	
	12-31-15	Net Change	12-31-16	12-31-16
0.75	134	(24)	110	-
1	329	(14)	315	0.1
1.5	395	(1)	394	0.1
2	1,908	(146)	1,762	0.3
3	5,166	(7)	5,159	1.0
4	119,763	(508)	119,255	22.6
6	4,759,348	(3,722)	4,755,626	900.7
8	4,739,147	50,285	4,789,432	907.1
10	128,379	(58)	128,321	24.3
12	3,334,198	43,036	3,377,234	639.6
14	40,019	(23)	39,996	7.6
15	4,502	-	4,502	0.9
16	561,677	5,406	567,083	107.4
18	50,607	19	50,626	9.6
20	133,282	(465)	132,817	25.2
24	480,933	(60)	480,873	91.1
27	39	(15)	24	-
30	419,340	(33)	419,307	79.4
33	-	-	-	-
36	491,620	53	491,673	93.1
40	59	-	59	-
42	204,663	(1,027)	203,636	38.6
45	76	-	76	-
46	22,109	1	22,110	4.2
48	122,538	1	122,539	23.2
51	6,359	-	6,359	1.2
54	177,152	24	177,176	33.6
57	12,979	9	12,988	2.5
60	185,903	9	185,912	35.2
63	17,586	(3)	17,583	3.3
66	78,566	-	78,566	14.9
67	1,007	-	1,007	0.2
72	112,024	(27)	111,997	21.2
78	-	-	-	-
84	18,241	(6)	18,235	3.5
88	-	-	-	-
90	32,609	(11)	32,598	6.2
96	358	-	358	0.1
108	57,886	-	57,886	11.0
120	3,369	-	3,369	0.6
144	66	-	66	-
150	-	-	-	-
	<u>16,324,336</u>	<u>92,693</u>	<u>16,417,029</u>	<u>3,109.3</u>

¹Mains within the City and Total Service Contract Areas.

²Unknown pipe material is assumed to be cast iron.

³Steel pipe is no longer separated out by pipe coating. That information is tracked separately.

⁴The Conduit Rectification Project has allowed concrete pipe to be more discretely defined as variations of Cylindrical Prestressed and Reinforced.

VALVES¹ - 2016

SUMMARY OF VALVES BY TYPE

Type of Valve	12-31-15	Net Change	12-31-16
Air vacuum valve	3,180	15	3,195
Ball valve	41	-	41
Blowoff valve	3,271	18	3,289
Butterfly valve	1,802	10	1,812
Check valve	96	4	100
Cone valve	130	(5)	125
Gate valve	47,188	(480)	46,708
Hub valve	24	-	24
MacDougall blowoff valve	145	(1)	144
Pito (Corp stop)	620	(3)	617
Pressure regulating valve	291	(5)	286
Unknown	-	-	-
Vacuum valve	16	-	16
Gate valve - Resilient Seat	24,895	1,376	26,271
Altitude valve	1	-	1
Corp Stop	508	(8)	500
Surge valve	22	-	22
Slide gate valve	12	-	12
Plug valve	-	-	-
Sleeve valve	5	-	5
Knife valve	3	-	3
	<u>82,250</u>	<u>921</u>	<u>83,171</u>

SUMMARY OF VALVES BY DIAMETER

Diameter of Valve in Inches	12-31-15	Net Change	12-31-16
0.75	71	-	71
1	1,321	(7)	1,314
2	3,579	19	3,598
2.5	-	-	-
3	170	-	170
4	1,800	18	1,818
6	38,327	346	38,673
8	19,561	276	19,837
10	624	1	625
12	14,317	259	14,576
14	105	(3)	102
15	2	-	2
16	504	14	518
18	139	-	139
20	252	(5)	247
24	691	-	691
27	-	-	-
30	253	1	254
36	231	1	232
42	90	1	91
48	75	-	75
54	46	-	46
60	47	-	47
66	4	-	4
72	22	-	22
84	7	-	7
96	6	-	6
108	3	-	3
120	3	-	3
	<u>82,250</u>	<u>921</u>	<u>83,171</u>

¹Valves within the City and Total Service Contract Areas.

FIRE HYDRANTS¹ - 2016

FIRE HYDRANTS

<u>Size in Inches</u>	<u>Total Hydrants</u>		
	<u>12-31-15</u>	<u>Net Change</u>	<u>12-31-16</u>
4	41	-	41
6	20,228	287	20,515
	<u>20,269</u>	<u>287</u>	<u>20,556</u>

FIRE HYDRANT BRANCH PIPE

<u>Size in Inches</u>	<u>Kind of Pipe</u>	<u>Length in Feet</u>		
		<u>12-31-15</u>	<u>Net Change</u>	<u>12-31-16</u>
4	Cast iron	783	-	783
4	Ductile iron	101	7	108
6	Cast iron	86,169	(1,853)	84,316
6	Cement asbestos	3,059	(40)	3,019
6	Ductile iron	272,845	9,705	282,550
6	Polyvinylchloride	929	(12)	917
6	Steel	18,765	277	19,042
6	Unknown	12,713	(267)	12,446
8	Steel	385	-	385
		<u>395,749</u>	<u>7,817</u>	<u>403,566</u>

SUMMARY OF FIRE HYDRANT BRANCH PIPE BY MATERIAL

<u>Kind of Pipe</u>	<u>Length in Feet</u>		
	<u>12-31-15</u>	<u>Net Change</u>	<u>12-31-16</u>
Cast iron	86,952	(1,853)	85,099
Cement asbestos	3,059	(40)	3,019
Ductile iron	272,946	9,712	282,658
Polyvinylchloride	929	(12)	917
Steel	19,150	277	19,427
Unknown	12,713	(267)	12,446
	<u>395,749</u>	<u>7,817</u>	<u>403,566</u>

SUMMARY OF FIRE HYDRANT BRANCH PIPE BY DIAMETER

<u>Size in Inches</u>	<u>Length in Feet</u>		
	<u>12-31-15</u>	<u>Net Change</u>	<u>12-31-16</u>
4	884	7	891
6	394,480	7,810	402,290
8	385	-	385
	<u>395,749</u>	<u>7,817</u>	<u>403,566</u>

¹Fire hydrants and branch pipe within the City and Total Service Contract Areas.

RECYCLED WATER MAINS AND VALVES - 2016

RECYCLED WATER MAINS

SUMMARY OF PIPE BY MATERIAL

Kind of Pipe	Length in Feet		
	12-31-15	Net Change	12-31-16
Copper	117	-	117
Ductile Iron	25,929	(79)	25,850
PVC	193,308	33,107	226,415
Steel	135,704	(13)	135,691
	<u>355,058</u>	<u>33,015</u>	<u>388,073</u>

SUMMARY OF PIPE BY DIAMETER

Size	Kind of Pipe	Length in Feet		
		12-31-15	Net Change	12-31-16
2"	Copper	83	-	83
2"	PVC	5	-	5
2"	Steel	17	-	17
3"	Copper	34	-	34
3"	PVC	13	-	13
4"	Ductile Iron	196	-	196
4"	PVC	6,763	3,086	9,849
4"	Steel	26	-	26
6"	Ductile Iron	4,725	19	4,744
6"	PVC	14,609	2,731	17,340
6"	Steel	481	-	481
8"	Ductile Iron	2,202	(99)	2,103
8"	PVC	36,215	20	36,235
8"	Steel	231	(13)	218
10"	Ductile Iron	107	-	107
10"	PVC	167	-	167
10"	Steel	93	-	93
12"	Ductile Iron	308	-	308
12"	PVC	44,718	-	44,718
12"	Steel	9,929	-	9,929
14"	Steel	13	-	13
16"	Ductile Iron	45	-	45
16"	PVC	26,015	-	26,015
16"	Steel	119	-	119
18"	PVC	42	-	42
18"	Steel	27	-	27
20"	PVC	33,705	27,271	60,976
20"	Steel	286	-	286
24"	PVC	31,014	-	31,014
24"	Steel	5,748	-	5,748
30"	Ductile Iron	1,399	-	1,399
30"	PVC	41	-	41
30"	Steel	23,725	-	23,725
36"	DI	16,946	-	16,946
36"	PVC	-	-	-
36"	Steel	29,292	-	29,292
42"	PVC	-	-	-
42"	Steel	36,319	-	36,319
48"	PVC	-	-	-
48"	Steel	8,018	-	8,018
54"	Steel	21,304	-	21,304
84"	Steel	78	-	78
		<u>355,058</u>	<u>33,015</u>	<u>388,073</u>

RECYCLED WATER VALVES

SUMMARY OF VALVES BY TYPE

Type of Valve	12-31-15	Net Change	12-31-16
Air vacuum valves	340	-	340
Blowoff valve	188	11	199
Butterfly valve	217	-	217
Check Valve	36	-	36
Corp Stop	102	(7)	95
Cone	6	-	6
Gate valve	598	21	619
Pitot	18	-	18
Plug Valve	3	-	3
PRV	3	1	4
Sleeve Valve	1	-	1
	<u>1,512</u>	<u>26</u>	<u>1,538</u>

SUMMARY OF VALVES BY DIAMETER

Diameter of Valve	12-31-15	Net Change	12-31-16
1"	115	(8)	107
2"	265	11	276
2.5"	5	-	5
4"	182	10	192
6"	419	15	434
8"	136	(3)	133
10"	25	-	25
12"	156	-	156
16"	30	-	30
18"	1	-	1
20"	47	-	47
24"	55	-	55
30"	19	-	19
36"	28	-	28
42"	13	-	13
48"	7	1	8
54"	9	-	9
	<u>1,512</u>	<u>26</u>	<u>1,538</u>

BREAKS IN MAINS, WATER CONTROL AND LEAK DETECTION SERVICES - 2016

DENVER MAIN BREAKS

<u>Size</u>	<u>Pipe Material</u>	<u>Number of Breaks</u>
3"	Cast Iron	1
4"	Cast Iron	1
4"	Ductile Iron	1
4"	Cement Asbestos	1
6"	Ductile Iron	10
6"	Cement Asbestos	9
6"	PVC	-
6"	Cast Iron	112
8"	Cement Asbestos	1
8"	Ductile Iron	8
8"	PVC	-
8"	Cast Iron	38
12"	Cement Asbestos	3
12"	Cast Iron	35
12"	Ductile Iron	4
16"	PVC	-
16"	Ductile Iron	1
16"	Steel	-
20"	Steel	-
		225

TOTAL SERVICE MAIN BREAKS

<u>Size</u>	<u>Pipe Material</u>	<u>Number of Breaks</u>
4"	Cast Iron	-
4"	Ductile Iron	1
6"	Ductile Iron	2
6"	Cast Iron	25
6"	Cement Asbestos	4
8"	Cement Asbestos	1
8"	Ductile Iron	3
8"	Cast Iron	16
8"	PVC	1
10"	Cast Iron	2
12"	Cast Iron	1
12"	Ductile Iron	-
16"	Ductile Iron	-
		56

WATER CONTROL SERVICES

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>
Service Calls	8,060	7,818	7,565	8,989	11,892
Service Leaks	503	542	337	719	402
Service Turn Ons	417	349	319	649	844
Service Turn Offs	586	601	614	1,588	935
Valve Leaks	66	128	59	64	58
Fire Hydrants Hit	151	109	155	146	146
Fire Hydrants Packed and Greased	21,123	17,351	28,110	22,153	23,360
Fire Hydrants Excavated for Replacement	60	41	116	160	435
Fire Hydrants, Miscellaneous Repairs	2,575	592	1,125	2,718	1,171
Total Fire Hydrants Tested and Repaired	23,909	18,093	29,506	25,177	25,112

LEAK DETECTION PROGRAM

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>
Non-Visible Leaks Detected	68	62	110	61	93
Non-Visible Water Leaks Loss (1000's of Gallons) ¹	17,870	16,262	28,908	16,030	24,440
Visible Leaks Pinpointed	134	131	160	116	137
Miles Surveyed	922	808	1,290	615	1,022
Savings Generated from Saving Lost Water ¹	\$ 34,130	\$ 31,120	\$ 55,212	\$ 30,618	\$ 46,681
Savings Generated from Pinpointing Leaks ¹	93,800	91,700	112,000	81,200	95,900
Total Savings Generated from Leak Detection Program ¹	\$ 127,930	\$ 122,820	\$ 167,212	\$ 111,818	\$ 142,581

¹Estimated.

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