



**Statistical  
Section  
(Unaudited)**

## **Statistical Section (Unaudited)**

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This section contains statistical tables that reflect financial trends information, revenue capacity information, debt capacity information, demographic and economic information, and operating information. These tables differ from the basic financial statements because they usually cover more than two fiscal years and may present non-accounting data.

The statistical section is divided into five sections as follows:

1. Financial Trends
  2. Revenue Capacity
  3. Debt Capacity
  4. Demographic and Economic Information
  5. Operating Information
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## **1. Financial Trends**

These schedules contain trend information to better understand how the Authority's financial performance and well-being have changed over time.

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# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## EXHIBIT 1 CHANGE IN NET POSITION LAST TEN FISCAL YEARS (\$000)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>Operating revenues</b>										
Residential, commercial and multi-family customers	\$ 401,246	\$ 382,552	\$ 335,711	\$ 295,209	\$ 275,337	\$ 256,846	\$ 241,475	\$ 209,796	\$ 191,543	\$ 183,553
Federal government	67,672	63,417	54,274	39,001	45,187	48,381	43,033	37,845	35,195	35,888
District government and DC Housing Authority	40,483	38,185	32,948	28,852	21,677	24,713	25,123	21,947	16,804	16,193
Charges for w holesale w astew ater treatment	101,619	91,873	112,522	96,845	87,178	94,549	90,414	87,505	85,519	82,854
Other	32,149	19,762	14,460	13,917	9,700	16,077	8,210	6,655	3,337	3,846
<b>Total Operating Revenues</b>	<b>643,169</b>	<b>595,789</b>	<b>549,915</b>	<b>473,824</b>	<b>439,079</b>	<b>440,566</b>	<b>408,255</b>	<b>363,748</b>	<b>332,398</b>	<b>322,334</b>
<b>Operating expenses</b>										
Personnel services	132,124	124,239	115,233	108,467	103,908	97,784	93,240	88,210	82,248	75,838
Contractual services	72,611	74,086	66,241	68,172	68,417	64,939	71,055	69,497	64,513	58,730
Chemicals, supplies and small equipment	33,381	29,524	32,935	31,748	28,987	28,815	28,188	29,003	29,074	28,816
Utilities and rent	24,262	23,934	30,848	29,939	26,098	26,786	29,429	29,929	32,813	37,843
Depreciation and amortization	97,900	89,512	83,857	77,833	77,330	74,342	70,209	64,425	59,291	54,418
Water purchases	26,796	26,345	29,109	28,407	27,223	28,389	27,170	27,587	25,371	25,746
Payment in lieu of taxes and right of way fee	21,057	20,744	20,437	11,458	21,982	21,982	21,982	20,474	19,183	17,525
<b>Total operating expenses</b>	<b>408,131</b>	<b>388,384</b>	<b>378,660</b>	<b>356,024</b>	<b>353,945</b>	<b>343,037</b>	<b>341,273</b>	<b>329,125</b>	<b>312,493</b>	<b>298,916</b>
<b>Operating income</b>	<b>235,038</b>	<b>207,405</b>	<b>171,255</b>	<b>117,800</b>	<b>85,134</b>	<b>97,529</b>	<b>66,982</b>	<b>34,623</b>	<b>19,905</b>	<b>23,418</b>
<b>Non-operating revenue (expenses)</b>										
Interest income	3,740	2,629	1,316	977	1,144	749	2,036	1,343	1,704	11,444
Interest expense and other nonoperating expenses	(68,293)	(69,118)	(61,409)	(69,288)	(63,905)	(74,001)	(73,335)	(57,479)	(53,197)	(44,338)
<b>Total non-operating (expenses)</b>	<b>(64,553)</b>	<b>(66,489)</b>	<b>(60,093)</b>	<b>(68,311)</b>	<b>(62,761)</b>	<b>(73,252)</b>	<b>(71,299)</b>	<b>(56,136)</b>	<b>(51,493)</b>	<b>(32,894)</b>
<b>Change in net position before capital contributions</b>	<b>170,485</b>	<b>140,916</b>	<b>111,162</b>	<b>49,489</b>	<b>22,373</b>	<b>24,277</b>	<b>(4,317)</b>	<b>(21,513)</b>	<b>(31,588)</b>	<b>(9,476)</b>
Capital contributions	24,066	32,431	67,965	94,690	58,310	58,957	47,374	30,403	27,752	42,208
<b>Change in net position</b>	<b>194,551</b>	<b>173,347</b>	<b>179,127</b>	<b>144,179</b>	<b>80,683</b>	<b>83,234</b>	<b>43,057</b>	<b>8,890</b>	<b>(3,836)</b>	<b>32,732</b>
Net position, beginning of year	1,703,289	1,529,942	1,350,815	1,206,636	1,125,953	1,042,719	999,662	990,772	994,608	961,876
<b>Net position, end of year</b>	<b>\$ 1,897,840</b>	<b>\$ 1,703,289</b>	<b>\$ 1,529,942</b>	<b>\$ 1,350,815</b>	<b>\$ 1,206,636</b>	<b>\$ 1,125,953</b>	<b>\$ 1,042,719</b>	<b>\$ 999,662</b>	<b>\$ 990,772</b>	<b>\$ 994,608</b>

Source: FY 2008 - 2017 Statements of Revenues, Expenses and Changes in Net Position.

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

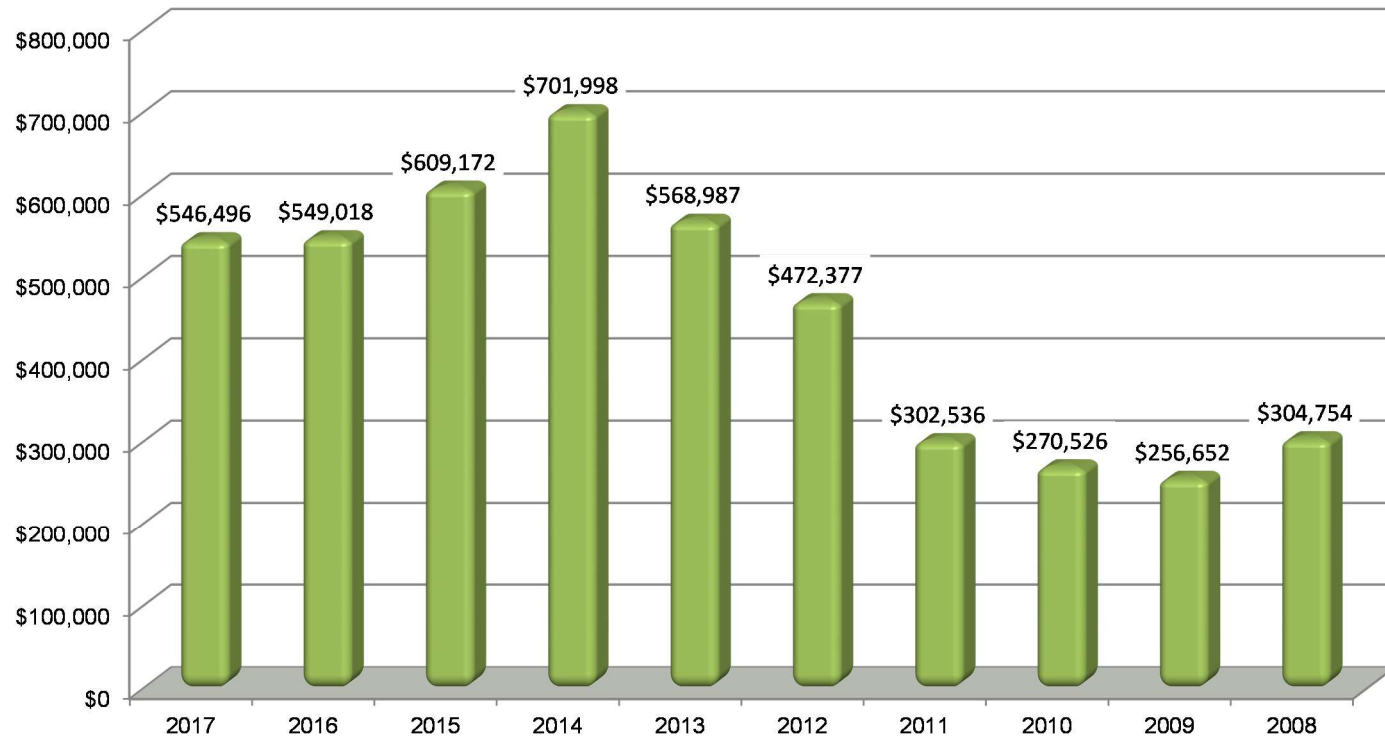
**EXHIBIT 2  
SUMMARY OF NET POSITION  
LAST TEN FISCAL YEARS  
(\$000)**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Net investments in capital assets	\$ 1,655,867	\$ 1,491,925	\$ 1,348,056	\$ 1,130,952	\$ 1,042,620	\$ 956,397	\$ 874,356	\$ 818,001	\$ 765,709	\$ 726,747
Restricted	33,276	33,135	27,054	28,863	29,010	27,297	26,825	17,257	10,244	8,297
Unrestricted	208,697	178,229	154,832	191,000	135,006	142,259	141,538	164,404	214,819	259,564
Total net position	<u>\$ 1,897,840</u>	<u>\$ 1,703,289</u>	<u>\$ 1,529,942</u>	<u>\$ 1,350,815</u>	<u>\$ 1,206,636</u>	<u>\$ 1,125,953</u>	<u>\$ 1,042,719</u>	<u>\$ 999,662</u>	<u>\$ 990,772</u>	<u>\$ 994,608</u>

Source: FY 2008 - 2017 Statements of Net Position.

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 3  
CAPITAL DISBURSEMENTS  
LAST TEN FISCAL YEARS  
(\$000)**



Note: These disbursements include DC Water's share of Washington Aqueduct's capital disbursements.

Source: FY 2008 – 2017 Statements of Cash Flows.

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## **2. Revenue Capacity**

These schedules contain information regarding the Authority's most significant revenue sources.

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**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 4  
OPERATING REVENUES AND RATE INCREASES  
LAST TEN FISCAL YEARS  
(\$000)**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Operating Revenues										
Retail Customers										
Residential, Commercial and Multifamily	\$ 401,246	\$ 382,552	\$ 335,711	\$ 295,209	\$ 275,337	\$ 256,846	\$ 241,475	\$ 209,796	\$ 191,543	\$ 183,553
Federal Government	67,672	63,417	54,274	39,001	45,187	48,381	43,033	37,845	35,195	35,888
DC Government	30,429	28,890	24,453	21,205	14,714	18,213	17,827	15,628	10,116	9,391
DC Housing Authority	10,054	9,295	8,495	7,647	6,963	6,500	7,296	6,319	6,688	6,802
Other Revenues	32,149	19,762	14,460	13,917	9,700	16,077	8,210	6,655	3,337	3,846
Total Retail Customers	541,550	503,916	437,393	376,979	351,901	346,017	317,841	276,243	246,879	239,480
Wholesale Customers	101,619	91,873	112,522	96,845	87,178	94,549	90,414	87,505	85,519	82,854
Total Operating Revenues	\$ 643,169	\$ 595,789	\$ 549,915	\$ 473,824	\$ 439,079	\$ 440,566	\$ 408,255	\$ 363,748	\$ 332,398	\$ 322,334
Retail Rate Increases	5.00%	6.50%	7.50%	5.50%	5.50%	4.50%	12.50%	9.00%	7.50%	5.50%

Source: FY 2008 - 2017 Statements of Revenues, Expenses and Changes in Net Position



**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 5  
NUMBER AND TYPE OF CUSTOMER ACCOUNTS  
LAST TEN FISCAL YEARS**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Retail Accounts										
Residential	105,762	106,120	105,735	104,965	104,477	103,887	103,857	103,315	103,665	103,674
Commercial <sup>(A)</sup>	18,807	18,828	18,947	19,433	19,343	19,242	19,165	19,049	19,060	18,528
Governmental										
Federal	560	558	550	542	542	538	549	546	540	533
District of Columbia	650	641	638	641	630	605	607	603	606	590
DC Housing Authority	1,457	1,462	1,446	1,452	1,460	1,435	1,431	1,431	1,220	1,218
Total Retail Accounts	127,236	127,609	127,316	127,033	126,452	125,707	125,609	124,944	125,091	124,543
DC Water	39	39	39	37	36	36	35	35	30	30
Washington Aqueduct	2	2	2	2	2	2	2	1	2	2
Wholesale	7	7	7	7	7	7	7	7	7	7
Total Number of Accounts	127,284	127,657	127,364	127,079	126,497	125,752	125,653	124,987	125,130	124,582

<sup>(A)</sup> Included in commercial are multi-family and exempt accounts

Source: D.C. Water Department of Customer Service

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 6  
TEN LARGEST COMMERCIAL CUSTOMERS  
LAST TEN FISCAL YEARS**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Howard University	\$ 3,957,007	\$ 3,823,023	\$ 3,237,999	\$ 2,662,949	\$ 2,699,376	\$ 2,596,564	\$ 1,862,880	\$ 1,735,598	\$ 1,640,815	\$ 1,706,124
George Washington University	2,477,970	2,338,974	2,763,055	2,609,611	2,161,183	2,530,632	2,122,176	1,618,618	1,777,659	2,020,849
William C Smith & Co	2,226,722	2,455,990	2,076,534	2,277,833	1,782,719	1,787,150	1,709,334	1,505,145	-	-
Washington Hospital Center	1,624,588	1,991,344	1,830,586	1,671,855	1,693,655	933,027	1,270,788	1,113,672	823,743	514,275
Georgetown University	1,438,247	1,324,563	1,413,714	2,605,884	1,865,068	1,842,860	2,238,766	2,100,705	2,135,768	2,055,644
Metropolitan Washington Airports Authority	1,068,877	1,008,250	923,394	807,803	716,929	661,509	-	-	-	-
Amtrak	983,224	1,019,570	1,028,989	984,336	1,004,177	937,430	903,475	761,235	963,925	795,825
Georgetown University Hospital	808,884	920,681	720,247	955,353	1,053,659	1,643,380	1,371,035	-	-	-
Medstar-Georgetown Medical Center	807,540	-	-	-	-	-	-	-	-	-
American University	750,235	1,001,742	1,078,412	1,125,050	1,253,038	869,211	-	694,565	1,524,262	773,109
Horning Brothers	-	1,335,613	-	1,347,287	1,258,995	1,163,586	1,122,879	993,115	-	-
Shoreham Hotel	-	-	1,035,982	-	-	-	-	-	656,182	458,828
The Barac Company	-	-	-	-	-	-	927,022	776,134	-	-
Soldiers Home	-	-	-	-	-	-	897,121	804,533	818,641	948,708
Marriott Wardman Park Hotel	-	-	-	-	-	-	-	-	1,037,663	681,480
JW Marriott Hotel	-	-	-	-	-	-	-	-	556,985	-
Children's Hospital	-	-	-	-	-	-	-	-	-	841,774
Washington Hilton Hotel	-	-	-	-	-	-	-	-	-	792,227
<b>Total</b>	<b>\$ 16,143,294</b>	<b>\$ 17,219,750</b>	<b>\$ 16,108,912</b>	<b>\$ 17,047,961</b>	<b>\$ 15,488,799</b>	<b>\$ 14,965,349</b>	<b>\$ 14,425,476</b>	<b>\$ 12,103,320</b>	<b>\$ 11,935,643</b>	<b>\$ 11,588,843</b>
<b>% of Total Operating Revenues</b>	<b>2.51%</b>	<b>2.89%</b>	<b>2.93%</b>	<b>3.60%</b>	<b>3.53%</b>	<b>3.40%</b>	<b>3.53%</b>	<b>3.33%</b>	<b>3.59%</b>	<b>3.60%</b>

Source: DC Water Department of Customer Service

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 7  
TEN LARGEST GOVERNMENT CUSTOMERS  
LAST TEN FISCAL YEARS**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
D.C. Housing Authority	\$ 7,492,820	\$ 6,999,037	\$ 6,922,176	\$ 6,308,902	\$ 5,879,383	\$ 5,669,475	\$ 6,277,722	\$ 5,750,927	\$ 6,266,786	\$ 6,339,434
U.S. General Services Administration	7,092,342	11,670,623	6,425,889	7,598,077	7,184,034	7,443,691	6,877,787	6,575,977	6,773,195	8,199,985
National Park Service	4,621,035	3,656,234	2,233,857	1,363,657	2,577,096	2,481,144	2,217,698	2,384,771	2,844,549	2,257,749
U.S. Congress	4,597,331	3,223,507	6,524,863	4,019,627	4,926,790	5,225,952	4,214,640	3,559,903	4,028,564	4,096,695
Smithsonian Institution	3,635,763	2,768,661	3,219,324	2,810,786	3,038,455	2,681,705	3,997,326	2,564,033	3,605,478	4,325,576
Bolling Air Force Base	3,115,393	2,602,439	2,509,536	1,928,617	2,265,348	2,925,847	-	-	2,279,861	-
D.C. Board of Education	2,497,561	2,228,498	2,166,846	2,391,393	2,092,748	2,213,636	2,142,907	2,534,044	2,292,454	3,062,431
Federal Naval Research Lab	1,853,214	1,975,742	1,802,150	1,542,370	1,833,491	1,788,497	-	-	-	-
Department of the Navy	1,662,225	1,708,908	-	-	1,521,264	1,886,750	3,832,568	2,851,611	3,504,547	3,011,883
D.C. Recreation and Parks	1,604,350	1,695,630	1,702,488	1,216,398	-	-	-	-	-	-
Department Defense VA	-	-	4,020,624	3,275,936	3,275,936	3,527,613	2,873,310	2,759,264	2,136,653	2,425,139
D.C. Department of Human Services	-	-	-	-	-	-	3,272,747	2,047,213	-	1,914,251
Department of Defense DC	-	-	-	-	-	-	2,151,529	1,608,642	2,248,076	3,292,402
<b>Total</b>	<b>\$ 38,172,034</b>	<b>\$ 38,529,279</b>	<b>\$ 37,527,753</b>	<b>\$ 32,455,763</b>	<b>\$ 34,594,545</b>	<b>\$ 35,844,310</b>	<b>\$ 37,858,234</b>	<b>\$ 32,636,385</b>	<b>\$ 35,980,163</b>	<b>\$ 38,925,545</b>
<b>% of Total Operating Revenues</b>	<b>5.93%</b>	<b>6.47%</b>	<b>6.82%</b>	<b>6.85%</b>	<b>7.88%</b>	<b>8.14%</b>	<b>9.27%</b>	<b>8.97%</b>	<b>10.82%</b>	<b>12.08%</b>

Source: DC Water Department of Customer Service

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 8  
RETAIL WATER AND SEWER RATES  
LAST TEN FISCAL YEARS**

FISCAL YEAR	(a) METERING FEE	(b) WATER SYSTEM REPLACEMENT FEE	(c) DISTRICT PUBLIC SPACE OCCUPANCY FEE AND PILOT	(d) WATER CONSUMPTION RATE	(e) SEWER CONSUMPTION RATE	(f) COMBINED CONSUMPTION RATE	(g) IMPERVIOUS SURFACE AREA CHARGE <sup>2</sup>	AVERAGE MONTHLY BILL <sup>1</sup>
2008	2.010	-	0.47	2.14	3.23	5.37	-	38.22
2009	2.010	-	0.52	2.30	3.31	5.61	1.240	41.26
2010	2.010	-	0.57	2.51	3.61	6.12	2.20	45.69
2011	3.860	-	0.63	3.10	3.79	6.89	3.45	53.93
2012	3.860	-	0.64	3.24	3.96	7.20	6.64	59.11
2013	3.860	-	0.66	3.42	4.18	7.60	9.57	64.64
2014	3.860	-	0.70	3.61	4.41	8.02	11.85	69.77
2015	3.860	-	0.63	3.88	4.74	8.62	16.75	77.96
2016	3.860	6.30	0.64	3.36	5.44	8.80	20.30	88.99
2017	3.860	6.30	0.65	3.52 <sup>3</sup>	5.71	9.23	22.24	93.66

<sup>1</sup> Average residential customer consumption is 6.2 Ccf per month. The average monthly bill is calculated as follows (a)+(b)+(g)+(((c)+(f)) x 6.2 Ccf)

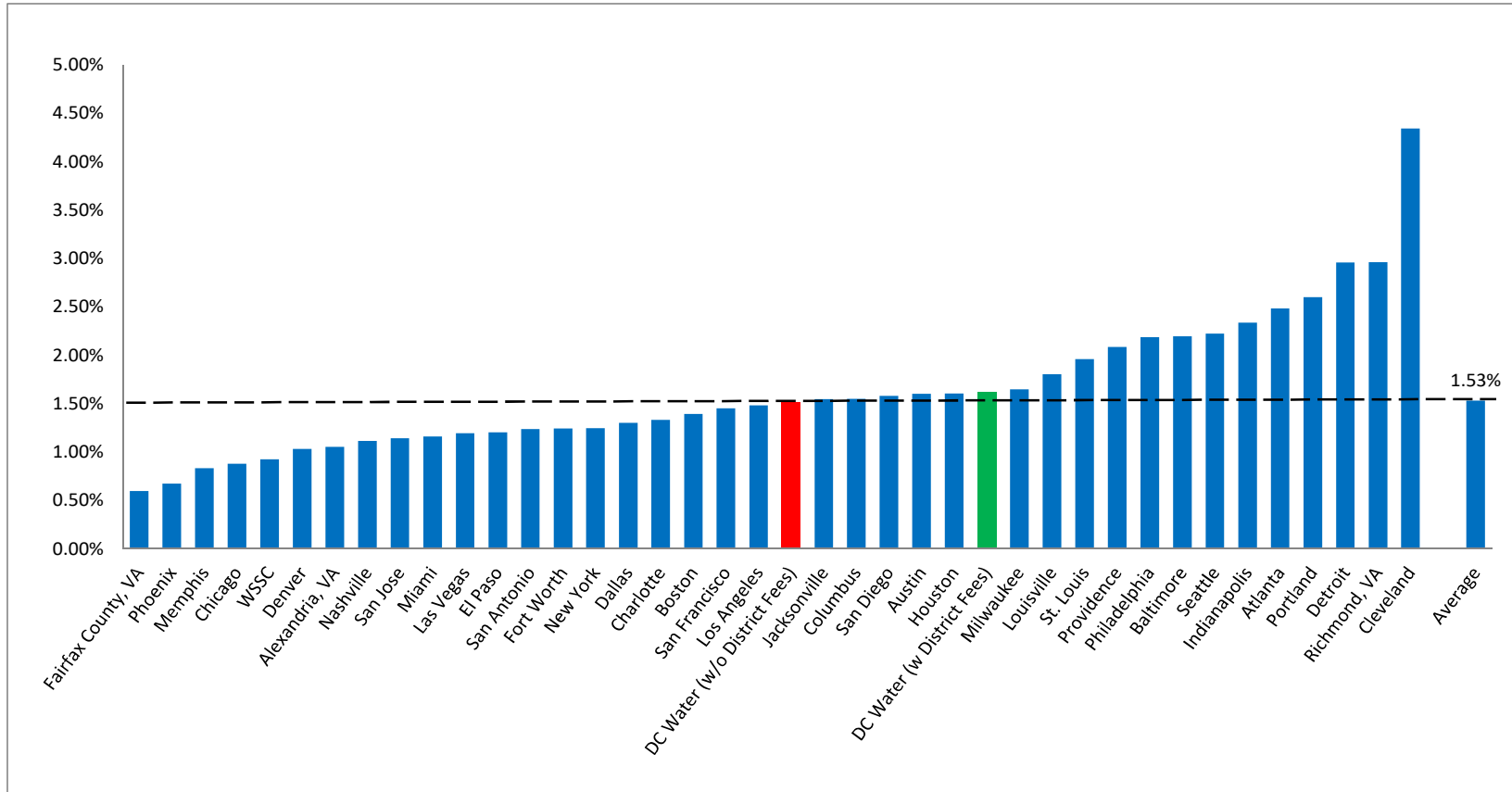
<sup>2</sup> Per Equivalent Residential Unit (ERU).

<sup>3</sup> Weighted average water rate for residential customers.

Source: D.C. Water Department of Finance & Budget

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

**EXHIBIT 9**  
**RESIDENTIAL WATER AND WASTEWATER BILL COMPARISONS**  
**AS A PERCENTAGE OF MEDIAN HOUSEHOLD INCOME (1)**

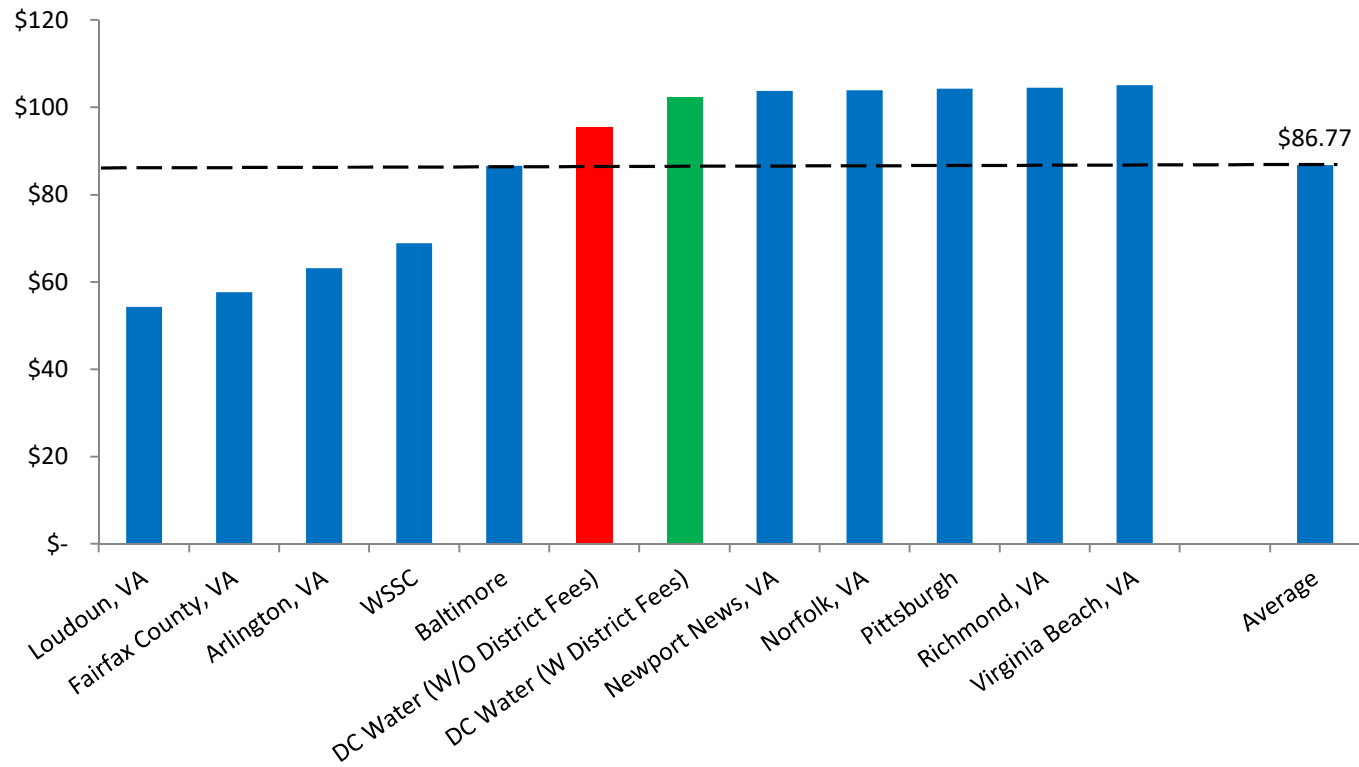


(1) This analysis is based on a single family residential monthly bill as a percentage of median household income for large national utilities based on rates in effect fall 2017.

Source: DC Water Department of Finance & Budget

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## EXHIBIT 10 RESIDENTIAL WATER AND WASTEWATER BILL COMPARISONS TO LOCAL AND REGIONAL UTILITIES (1)



(1) This analysis represents single family residential average monthly bill based on rates in effect fall 2017.

Source: DC Water Department of Finance & Budget

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### **3. Debt Capacity**

These schedules present information showing the Authority's current levels of outstanding debt and the Authority's ability to issue additional debt in the future.

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# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## EXHIBIT 11 OUTSTANDING DEBT AND DEBT RATIOS LAST TEN FISCAL YEARS (\$000, EXCEPT PER CAPITA)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>Senior Debt:</b>										
2017 Series A Public Utility Revenue Bonds	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017 Series B Public Utility Revenue Bonds	200,000	-	-	-	-	-	-	-	-	-
2014 Public Utility Revenue Bonds	350,000	350,000	350,000	350,000	-	-	-	-	-	-
2009 Series A Public Utility Revenue Bonds	8,040	11,535	159,520	291,145	293,720	296,205	298,225	300,000	300,000	-
1998 Public Utility Revenue Bonds	156,605	170,525	183,660	196,050	207,735	218,815	229,315	239,270	248,705	257,645
<b>Total Senior Debt</b>	<b>814,645</b>	<b>532,060</b>	<b>693,180</b>	<b>837,195</b>	<b>501,455</b>	<b>515,020</b>	<b>527,540</b>	<b>539,270</b>	<b>548,705</b>	<b>257,645</b>
<b>Subordinate Debt:</b>										
2016 Series A Public Utility Revenue Bonds	389,110	389,110	-	-	-	-	-	-	-	-
2016 Series B Public Utility Revenue Bonds	25,000	25,000	-	-	-	-	-	-	-	-
2015 Series A Public Utility Revenue Bonds	100,000	100,000	-	-	-	-	-	-	-	-
2015 Series B Public Utility Revenue Bonds	250,000	250,000	-	-	-	-	-	-	-	-
2014 Series B-1 Public Utility Revenue Bonds	50,000	50,000	50,000	50,000	-	-	-	-	-	-
2014 Series B-2 Public Utility Revenue Bonds	50,000	50,000	50,000	50,000	-	-	-	-	-	-
2014 Series C Public Utility Revenue Bonds	377,110	377,110	377,700	-	-	-	-	-	-	-
2013 Series A Public Utility Revenue Bonds	300,000	300,000	300,000	300,000	300,000	-	-	-	-	-
2012 Series A Public Utility Revenue Bonds	158,740	163,655	168,405	172,990	177,430	177,430	-	-	-	-
2012 Series B-1 Public Utility Revenue Bonds	-	-	-	52,690	52,690	52,690	-	-	-	-
2012 Series B-2 Public Utility Revenue Bonds	-	-	47,310	47,310	47,310	47,310	-	-	-	-
2012 Series C Public Utility Revenue Bonds	163,215	163,215	163,215	163,215	163,215	163,215	-	-	-	-
2010 Series A Public Utility Revenue Bonds	300,000	300,000	300,000	300,000	300,000	300,000	300,000	-	-	-
2008 Series A Public Utility Revenue Bonds	13,600	20,200	168,190	268,095	274,210	279,955	285,540	290,000	290,375	290,375
2007 Series A Public Utility Revenue Bonds	-	-	115,580	218,715	218,715	218,715	218,715	218,715	218,715	218,715
2003 Public Utility Revenue Bonds	-	-	-	-	-	-	176,220	176,220	176,220	176,220
<b>Notes Payable to the Federal</b>										
Government for Bloomington Dam	12,454	12,841	13,217	13,580	13,932	14,273	14,603	14,922	15,232	15,532
DC General Obligation Bonds	-	-	-	-	-	-	245	1,490	5,180	9,905
Notes Payable to WSSC for Little Seneca	-	-	-	-	-	63	104	142	179	216
<b>Total Subordinate Debt</b>	<b>2,189,229</b>	<b>2,201,131</b>	<b>1,753,617</b>	<b>1,636,595</b>	<b>1,547,502</b>	<b>1,253,651</b>	<b>995,427</b>	<b>701,489</b>	<b>705,901</b>	<b>710,963</b>
<b>Total Senior and Subordinate debt</b>	<b>3,003,874</b>	<b>2,733,191</b>	<b>2,446,797</b>	<b>2,473,790</b>	<b>2,048,957</b>	<b>1,768,671</b>	<b>1,522,967</b>	<b>1,240,759</b>	<b>1,254,606</b>	<b>968,608</b>
Unamortized bond premiums	222,786	198,677	104,060	76,098	79,313	79,674	28,255	29,929	31,102	31,255
Unamortized bond discounts	(2,093)	(2,222)	(2,351)	(2,480)	(2,608)	(2,784)	(2,879)	(2,968)	(3,053)	(3,134)
<b>Total Debt</b>	<b>\$ 3,224,567</b>	<b>\$ 2,929,646</b>	<b>\$ 2,548,506</b>	<b>\$ 2,547,408</b>	<b>\$ 2,125,662</b>	<b>\$ 1,845,561</b>	<b>\$ 1,548,343</b>	<b>\$ 1,267,720</b>	<b>\$ 1,282,655</b>	<b>\$ 996,729</b>
<b>Debt - per capita</b>	<b>N/A</b>	<b>\$ 4,301</b>	<b>\$ 3,791</b>	<b>\$ 3,866</b>	<b>\$ 3,288</b>	<b>\$ 2,919</b>	<b>\$ 2,505</b>	<b>\$ 2,096</b>	<b>\$ 2,166</b>	<b>\$ 1,718</b>
<b>Debt - percentage of personal income</b>	<b>N/A</b>	<b>5.65%</b>	<b>5.17%</b>	<b>5.54%</b>	<b>4.37%</b>	<b>3.90%</b>	<b>3.40%</b>	<b>2.94%</b>	<b>3.18%</b>	<b>2.43%</b>

N/A: population and personal income not available

See exhibits 13 and 14 for per capita personal income and population data.

Total debt doesn't include outstanding debt associated with DC Water's short-term debt (commercial paper) program.

Source: D.C. Water Department of Finance & Budget



**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 12  
CALCULATION OF DEBT SERVICE COVERAGE  
FY 2017 (\$000)**

Prepared in accordance with the Authority's Master Trust Indenture, which corresponds closely to the cash basis of accounting.

Calculation of Debt Service Coverage:

Cash Receipts (Revenues)

Retail	\$ 474,462
Wholesale	81,136
Other Non-Operating	61,419
Transfer from (Contributions to) Rate Stabilization Fund	(10,000)
Total Cash Receipts (A)	<u>607,017</u>
Cash Disbursements (Operating Expenses) (B)	<u>292,812</u>
Cash Receipts Less Cash Disbursements (C=A-B)	<u>\$ 314,205</u>

Debt Service:

Senior Debt Service (D)	\$ 51,945
Subordinate Debt Service (E)	109,263
Total Outstanding and Projected Debt Service (F=D+E)	<u>\$ 161,208</u>

Calculation of Net Cash Receipts Available for Senior Debt Service:

Cash Receipts Less Cash Disbursements (C)	\$ 314,205
Prior Year Federal Billing Reconciliation	(19,201)
(Refund to)/Payment from Wholesale Customers	(10,906)
Net Cash Receipts Available for Senior Debt Service (G)	<u>\$ 284,098</u>

**Senior Debt Service Coverage (G/D)** 5.47

Calculation of Subordinate Debt Service Coverage:

Net Cash Receipts Available for Senior Debt Service (G)	\$ 284,098
Less Senior Debt Service (D)	(51,945)
Net Cash Receipts Available for Subordinate Debt Service (G-D)	<u>\$ 232,153</u>

**Subordinate Debt Service Coverage ((G-D)/E)** 2.12

**Combined Debt Service Coverage (G/F)** 1.76

Source: D.C. Water Department of Finance & Budget

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#### **4. Demographic and Economic Information**

These schedules offer demographic and economic data to help explain the environment within which the Authority's financial activities take place.

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**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 13  
POPULATION OF SERVICE AREA JURISDICTIONS  
LAST TEN CALENDAR YEARS**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
District of Columbia	N/A	681,170	672,228	658,893	646,449	632,323	617,996	604,912	592,228	580,236
Montgomery County, MD	N/A	1,043,863	1,040,116	1,030,447	1,016,677	1,004,709	989,794	975,439	959,013	942,748
Prince George's County, MD	N/A	908,049	909,535	904,430	890,081	881,138	871,233	865,219	856,161	850,167
Fairfax County, VA	N/A	1,176,830	1,180,139	1,175,622	1,168,405	1,155,292	1,135,992	1,121,054	1,099,347	1,077,509
Loudoun County, VA	N/A	385,945	375,629	363,050	349,679	336,898	325,405	315,305	303,661	292,570

N/A: Not Available

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

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 14  
PERSONAL INCOME OF SERVICE AREA JURISDICTIONS  
LAST TEN CALENDAR YEARS  
(\$000)**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
District of Columbia	N/A	\$51,842,801	\$49,275,917	\$46,015,860	\$ 48,696,519	\$ 47,280,666	\$ 45,597,835	\$ 43,082,099	\$ 40,326,374	\$ 41,014,705
Montgomery County, MD	N/A	84,518,332	79,946,266	75,720,017	73,958,785	73,551,167	69,050,166	65,904,393	62,962,957	65,845,731
Prince George's County, MD	N/A	41,922,938	40,806,805	40,215,913	38,595,921	38,481,250	35,036,640	33,888,631	33,156,357	33,026,742
Fairfax County, VA	N/A	89,412,959	88,419,380	88,180,013	83,835,355	82,727,342	78,392,046	75,161,493	71,954,372	75,302,775
Loudoun County, VA	N/A	27,486,217	26,254,562	24,463,869	20,886,046	20,107,077	18,626,729	16,971,112	15,340,608	15,147,096

N/A: Not Available

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

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 15  
PER CAPITA PERSONAL INCOME OF SERVICE AREA JURISDICTIONS  
LAST TEN CALENDAR YEARS**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
District of Columbia	N/A	\$ 76,108	\$ 73,302	\$ 69,838	\$ 75,329	\$ 74,773	\$ 73,783	\$ 71,220	\$ 69,093	\$ 70,686
Montgomery County, MD	N/A	80,967	76,863	73,483	72,746	73,206	69,762	67,564	65,654	69,844
Prince George's County, MD	N/A	46,168	44,866	44,465	43,362	43,672	40,215	39,168	38,727	38,847
Fairfax County, VA	N/A	75,978	74,923	75,007	71,752	71,607	69,008	67,045	65,452	69,886
Loudoun County, VA	N/A	71,218	69,895	67,384	59,729	59,683	57,242	53,824	50,519	51,773

N/A: Not Available

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

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 16  
UNEMPLOYMENT RATES  
LAST TEN CALENDAR YEARS**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
District of Columbia	6.2%	6.5%	6.9%	7.0%	7.3%	8.2%	10.2%	10.1%	9.7%	6.6%
Montgomery County, MD	3.4%	3.2%	4.0%	4.1%	4.5%	4.7%	5.2%	5.8%	5.6%	3.2%
Prince George's County, MD	4.3%	4.1%	5.1%	5.5%	6.2%	6.5%	7.0%	7.7%	7.3%	4.4%
Fairfax County, VA	3.4%	3.3%	3.3%	3.6%	3.7%	3.6%	4.3%	4.9%	4.9%	2.9%
Loudoun County, VA	3.4%	3.3%	3.3%	3.6%	3.9%	3.7%	4.2%	4.8%	4.8%	2.8%

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

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 17  
EMPLOYMENT BY SECTOR**

	DISTRICT OF COLUMBIA	MONTGOMERY COUNTY	PRINCE GEORGE'S COUNTY	FAIRFAX COUNTY	LOUDOUN COUNTY
Agriculture, Forestry, Mining, etc.	0.06%	0.33%	0.09%	0.22%	0.76%
Construction	2.06%	5.56%	8.76%	4.45%	8.16%
Manufacturing	0.22%	1.93%	1.89%	0.81%	3.37%
Transportation & Public Utilities	1.56%	2.44%	5.32%	2.50%	6.19%
Wholesale & Retail Trade	3.64%	9.37%	13.32%	8.06%	11.87%
Finance, Insurance & Real Estate	6.12%	11.74%	6.47%	9.66%	8.23%
Services	58.09%	54.80%	42.95%	60.93%	50.29%
Government (Federal, State & Local)	26.64%	12.75%	19.57%	12.26%	10.59%
Military	1.58%	1.09%	1.63%	1.11%	0.54%
<b>TOTAL</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

Source: U.S. Department of Commerce, Bureau of Economic Analysis  
Latest available data is for 2016



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## **5. Operating Information**

These schedules contain information about the Authority's operations and resources to help the reader understand how the Authority's financial information relates to the activities it perform.

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**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 18  
WATER DELIVERED (PUMPED) AND BILLED (SOLD)  
LAST TEN FISCAL YEARS**

FISCAL YEAR	TREATED		SOLD/PUMPED RATIO
	WATER DELIVERED (MG)	WATER BILLED (MG)	
2008	40,755	30,603	75.09%
2009	39,998	29,344	73.36%
2010	38,589	29,004	75.16%
2011	37,556	29,040	77.32%
2012	36,930	27,988	75.79%
2013	34,714	26,316	75.81%
2014	34,708	25,374	73.11%
2015	38,146	26,748	70.12%
2016	36,363	26,325	72.40%
2017	35,827	25,845	72.14%

Source: DC Water Department of Customer Service

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 19  
WATER DEMAND  
LAST TEN FISCAL YEARS**

<u>FISCAL YEAR</u>	<u>ANNUAL DELIVERIES TO SYSTEM (MG)</u>	<u>AVERAGE DAY (MG)</u>	<u>MAXIMUM MONTH AVERAGE (MGD)</u>	<u>MAXIMUM DAY (MGD)</u>	<u>TOTAL ANNUAL WATER SOLD (MG)</u>	<u>AVERAGE DAY (MGD)</u>
2008	40,755	111.7	130.1	150.5	30,603	83.8
2009	39,998	109.6	123.2	150.4	29,344	80.4
2010	38,589	105.7	130.5	146.9	29,004	79.5
2011	37,556	102.9	121.6	143.7	29,040	79.6
2012	36,930	100.9	125.3	142.9	27,988	76.7
2013	34,714	95.1	111.3	129.7	26,316	71.9
2014	34,708	95.1	106.6	123.7	25,374	72.1
2015	38,146	104.5	117.7	148.4	26,748	73.3
2016	36,363	99.4	113.8	127.7	26,325	72.1
2017	35,827	98.2	107.4	122.7	25,845	70.8

Source: DC Water Department of Water Services and Washington Aqueduct

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 20  
MISCELLANEOUS STATISTICS ABOUT AUTHORITY OPERATIONS  
LAST TEN FISCAL YEARS**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>Utilities and supplies per day at Blue Plains</b>										
Electric power (kwh) - Total Used	632,220	615,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	745,000
Electric power (kwh) - Generated On Site	138,347	-	-	-	-	-	-	-	-	-
Sodium hypochlorite (gallons)	12,880	10,051	10,051	6,850	6,850	6,850	6,850	6,850	6,850	6,850
Sodium bisulfite (pounds)	9,085	7,880	7,880	5,600	5,600	5,600	5,600	5,600	5,600	5,600
Water (gallons)	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000
Lime (tons, pounds), dry	-	-	39,000	72,050	72,050	72,050	72,050	72,050	72,050	72,050
Lime (gallons), slurry	3,095	-	-	-	-	-	-	-	-	-
Sodium hydroxide (pounds)	2,854	14,766	14,766	26,100	26,100	26,100	26,100	26,100	26,100	26,100
Methanol (gallons)	20,705	19,428	19,428	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Ferric chloride (10% Iron) (gallons)	16,054	19,060	19,060	12,900	12,900	12,900	12,900	12,900	12,900	12,900
<b>Wastewater treatment capacity</b>										
Average day (mgd)	384	370	370	370	370	370	370	370	370	370
Peak 4 hour flow, through complete process (mgd)	511	511	511	740	740	740	740	740	740	740
Excess storm flow, primary treatment only (mgd)	336	336	336	336	336	336	336	336	336	336
Peak flow (mgd)	847	847	847	1,076	1,076	1,076	1,076	1,076	1,076	1,076
<b>DC Water employees</b>	1,134	1,121	1,164	1,079	1,080	1,051	1,032	1,004	1,000	961

Source: D.C. Water Department of Wastewater Treatment Operations

(CONTINUED ON NEXT PAGE)

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 20  
MISCELLANEOUS STATISTICS ABOUT AUTHORITY OPERATIONS  
(CONTINUED)**

**Wastewater Plant Permit Limitations**  
**September 30, 2012 through September 30, 2017**

<b>Parameter</b>	<b>Monthly</b>	<b>Weekly</b>
Biochemical Oxygen Demand (carbonaceous)	5.0 mg/L (15,429 lbs./day)	7.5 mg/l (23,143 lbs./day)
Total Suspended Solids (TSS)	7.0 mg/l (21,600 lbs./day)	10.5 mg/l (32,400 lbs./day)
Ammonia Nitrogen		
Summer (5/1 – 10/31)	4.2 mg/l (12,960 lbs./day)	6.1 mg/l (18,823 lbs./day)
Winter 1 (1/1 – 2/14)	11.1 mg/l (34,253 lbs./day)	14.8 mg/l (45,670 lbs./day)
Winter 2 (2/15 – 4/30)	12.8 mg/l (39,500 lbs./day)	17.0 mg/l (52,460 lbs./day)
Total Phosphorus (annual average)	0.18 mg/l (555 lbs./day)	0.35 mg/l (1080 lbs./day)
Dissolved Oxygen		
Minimum daily average	5.0 mg/l	
Not less than	4.0 mg/l	
pH		
Minimum	6.0 units	
Maximum	8.5 units	
Total Chlorine	Non detectable	
E.coli	123 cu/100ml Geometric (30 day)	
Chesapeake Bay Voluntary Agreement		
Total Nitrogen (Annual Average)	8,467,200 lbs./yr	
U.S. Environmental Protection Agency		
Total Nitrogen (Annual Average)	4,337,580 lbs./yr	

**Wastewater Plant Processes**

**Primary Treatment**

Influent Pumping Capacity	1,300 MGD
Number of bar screens	13
Number of aerated grit chambers	16
Total volume of aerated grit chambers	2.3 MG
Number of primary clarifiers	36
Average detention time (clarifiers)	2.5 hours
Average hydraulic loading (clarifiers)	1,008 gallons/square foot/day
Maximum hydraulic loading (clarifiers)	2,929 gallons/square foot/day

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 20  
MISCELLANEOUS STATISTICS ABOUT AUTHORITY OPERATIONS  
(CONTINUED)**

**Secondary Treatment**

Number of reactors	6
Total reactor volume	27.7 MG
Number of clarifiers	24
Average reactor detention time	1.6 hours
Average clarifier hydraulic loading	763 gal/sq ft./day
Number of centrifugal blowers	6
Total blower capacity	280,000 cu ft. /min
Average MLSS	2,200 mg/L
Average SRT	1.6 days
Average SVI	80-100 ml/g
Effluent dissolved oxygen	2-3 mg/L
Effluent alkalinity	140 mg/L as CaCO <sub>3</sub>

**Nitrification / Denitrification**

Number of Nitrification reactors	12
Total reactor volume	55.2 MG
Number of Denitrification reactors	8
Total reactor volume	36.7 MG
Number of clarifiers	28
Average reactor detention time	3.3 hours
Average clarifier hydraulic loading	755 gallons/square ft./day
Average MLSS	2000 mg/L
Average pH	7.0 units
Average SRT	21 days
Average SVI	80-110 ml/g
Effluent alkalinity	110 mg/L as CaCO <sub>3</sub>

Effluent dissolved oxygen (Post – Aeration)	3.8 – 7.2 mg/L
Dual Purpose sedimentation tanks	
	4 Secondary Treatments
	4 Nitrification Treatments
Total Dual Purpose Surface Area	197,160 sq. ft.

**Filtration & Disinfection**

Number of filters	40
Total filter area	83,200 sq. ft.
Average filtration rate	3.4 gal/ minute/ sq. ft.
Average filter run time	55 hours
Depth of anthracite media	24 inches
Depth of sand media	12 inches
Depth of Gravel Support Layer	12 inches
Number of chlorine contact tanks	4
Average contact time	42 minutes

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 21  
SCHEDULE OF INSURANCE  
AS OF SEPTEMBER 30, 2017**

<b>TYPE OF COVERAGE</b>	<b>COMPANY</b>	<b>POLICY PERIOD</b>	<b>COVERAGE LIMITS</b>
Blanket Property and Boiler & Machinery	Alliant Public Entity Property Insurance Program (PEPIP)	July 1, 2017– July 1, 2018	<p>\$1,000,000,000 Blanket Buildings and Contents – (Specified Locations) and Mobile Equipment</p> <p>\$100,000,000 Boiler and Machinery</p> <p>\$25,000,000 Miscellaneous Locations</p> <p>\$100,000,000 Earth Movement</p> <p>\$100,000,000 Excess Flood (over NFIP), except \$25,000,000 Locations within 100 Year Flood Zone (e.g. Blue Plains)</p> <p>Terrorism: \$650,000,000 per occurrence, \$1,250,000,000 annual aggregate (\$250,000,000 of occurrence and aggregate limit dedicated solely to DC Water)</p> <p>\$25,000,000 Transit Per Shipment</p> <p>Deductibles: \$1,000,000 Any Loss, except \$10,000 Equipment</p>
Fidelity & Crime Insurance	Travelers Insurance	July 1, 2017– July 1, 2018	<p>\$10,000,000 - Employee Dishonesty, Forgery, Funds Transfer, Fraud, Money &amp; Securities</p> <p>Deductible: \$200,000 Per Occurrence</p>
Commercial General Liability	Self-Funded		\$1,000,000 each occurrence
Commercial Automobile	Self-Funded		<p>\$1,000,000 any one accident</p> <p>100% Physical Damage - self-funded</p>
Worker's Compensation	Self-Funded		<p>\$1,000,000 each accident</p> <p>Statutory WC Benefits</p> <p>Employer's Liability - \$1,000,000 Each Accident; \$1,000,000 Disease/ Employee</p>
Excess Worker's Compensation Insurance	Safety National	July 1, 2017– July 1, 2018	<p>Unlimited - WC Benefits; \$3,000,000 - Employer's Liability (Included - Terrorism)</p> <p>Retentions: \$1,000,000/accident; \$1,000,000 Disease/ Employee.</p>
Excess General Liability, Automobile Liability, and Employers Liability Insurance	AEGIS	July 1, 2017– July 1, 2018	\$35,000,000 in excess of \$1,000,000
Excess Liability	EIM	July 1, 2017– July 1, 2018	\$65,000,000 in excess of \$35,000,000
Public Official Liability	RSUI Indemnity / Hiscox Insurance Company	July 1, 2017– July 1, 2018	<p>\$20,000,000 Each Loss / Aggregate</p> <p>Retentions: \$250,000 per wrongful act</p>
Fiduciary Liability	Travelers Insurance	July 1, 2017– July 1, 2018	<p>\$5,000,000 Each Loss / Aggregate</p> <p>Deductible: \$0 per claim</p>
Cyber	Beazley	July 1, 2017– July 1, 2018	<p>\$5,000,000 Each Loss/Aggregate</p> <p>Deductible: \$100,000</p>
Professional Liability	Lloyds of London	July 1, 2017– July 1, 2018	<p>\$2,000,000 Each Loss</p> <p>Deductible: \$10,000</p>
National Flood	NFIP	July 1, 2017– July 1, 2018	<p>\$500,000 building/contents</p> <p>Deductible: \$50,000 per building/contents</p>

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 22  
SUMMARY OF MAJOR PERMITS AND ADMINISTRATIVE ORDERS  
AS OF SEPTEMBER 30, 2017**

<b>Wastewater</b>	<b>Description</b>	<b>Expiration Date</b>	<b>Current Status</b>
<p><b>National Pollutant Discharge Elimination System</b></p> <p>Permit # DC0021199</p>	<p>Authorizes discharge of treated wastewater from Blue Plains Advanced Wastewater Treatment Plant (Plant) into the Potomac River and from the combined sewer system into Rock Creek, the Anacostia River, and the Potomac River. Prescribes operating conditions for the Plant and sewer system.</p>	September 30, 2015 <sup>(1)</sup>	In Compliance
<p><b>National Pollutant Discharge Elimination System</b></p> <p>Municipal Separate Storm Sewer (MS4)</p> <p>Permit # DC0000221</p>	<p>Permit issued to Government of District of Columbia which prescribes certain actions that DC Water has agreed to perform including:</p> <ul style="list-style-type: none"> <li>• Responding to sanitary sewer overflows (SSO)</li> <li>• Reporting SSOs that overflow to MS4 system to public health agencies</li> <li>• Cleaning catch basins and removing trash from waterbodies</li> <li>• Maintaining storm sewer system infrastructure</li> <li>• Collecting stormwater fees for the government of the District of Columbia</li> </ul>	October 7, 2016 <sup>(1)</sup>	In Compliance
<p><b>1995 Consent Decree</b></p> <p>Civil Action No.: 90-1643-JGP and 84-2842-JGP</p>	<p>Requires certain actions including:</p> <ul style="list-style-type: none"> <li>• Review procurement practices &amp; maintenance procedures</li> <li>• Undertake Operational Capability Review</li> <li>• Conduct a pilot project for biological nitrogen reduction</li> </ul>	N/A	In Compliance All items completed; awaiting action to terminate decree
<p><b>1996 Stipulated Agreement &amp; Order</b></p> <p>Civil Action No.: 96-669-TFH</p>	<p>Requires certain actions including:</p> <ul style="list-style-type: none"> <li>• Rehabilitate and maintain certain facilities and capital equipment in good operating condition</li> <li>• Maintain certain records and data for status reports and prepare monthly reports on status of compliance</li> <li>• Maintain user fees in separate accounts and make timely payment of invoices</li> </ul>	N/A	In Compliance All items completed; awaiting action to terminate agreement and order
<p><b>2003 Consent Decree</b></p> <p>Civil Action No.: 1:00CV00183TFH</p> <p>Civil Action No.: 02-2511 (TFH)</p>	<p>Requires certain actions including:</p> <ul style="list-style-type: none"> <li>• Replacement/repair of control structures</li> <li>• Cleaning/inspection of catch basins</li> <li>• Rehabilitation of pumping stations</li> <li>• Rehabilitation of Blue Plains grit chambers and influent screens</li> <li>• Inspection of certain sewers and siphons</li> <li>• Public education/outreach activities</li> <li>• Payment of civil penalty of \$250,000</li> <li>• Conduct/support of supplemental environmental projects</li> </ul>	N/A	In Compliance
<p><b>2005 Modified Consent Decree for CSS LTCP</b></p> <p>Consolidate Civil Action No; 1:00CV00183TFH</p>	<p>Requires implementing projects for various components of the combined sewer system (CSS) long term control plan (LTCP). On January 14, 2016, the Court entered the First Amendment to the Consent Decree to incorporate DC Water's Total Nitrogen Wet Weather Plan and modify the requirement for the Potomac and Rock Creek watersheds to include Green/Gray Infrastructure in Potomac watershed, and Gray Infrastructure in the Rock Creek watershed. The Consent Decree does not have an expiration date.</p>	N/A	In Compliance
<p><b>DC Department of Energy and the Environment</b></p>	<p>Permit to construct the enhanced nitrogen removal facility</p>	2/20/2015 <sup>(2)</sup>	In Compliance
<p><b>DC Department of Energy and the Environment</b></p>	<p>Permit to construct biosolids project – main process train/combined heat &amp; power/final dewatering facility</p>	3/15/2015 <sup>(2)</sup>	In Compliance

<sup>(1)</sup>Administratively extended in accordance with the terms of the permit.

<sup>(2)</sup>Extended monthly pending issuance of revised Air permit.



**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 23  
BUDGETARY COMPARISON SCHEDULE  
FOR FISCAL YEAR 2017**

	Approved Budget	Actual Expenditures	Variance
Expenditures			
Personnel services	\$ 144,761	\$ 149,294	\$ (4,532)
Contractual services	82,760	72,930	9,830
Water purchases	29,278	26,796	2,482
Chemicals and supplies	34,709	31,373	3,336
Utilities and rent	28,670	24,260	4,410
Small equipment	1,230	1,178	52
Interest and fiscal charges (debt service)	169,346	165,836	3,510
Payment in lieu of tax & right of way fee	21,057	21,057	(0)
Cash financed capital improvements	24,014	-	24,014
Total budgetary basis expenditures	<u>\$ 535,825</u>	<u>\$ 492,724</u>	<u>\$ 43,102</u>

Reconciliation between total budgetary basis expenditures and total expenses reported in statements of revenues, expenses and changes in net position

Capitalized personnel expenditures	(17,231)
Depreciation expense	97,900
Long-term debt - principal payments	(29,317)
Long-term debt - capitalized interest	(77,003)
Build America Bonds subsidy	5,316
Inventory issuances	814
Blue Drop	(241)
Non-budgeted expenses	<u>3,462</u>
Total expenses reported in statements of revenues, expenses and changes in net position	<u>\$ 476,424</u>

(CONTINUED ON NEXT PAGE)

## **DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

### **EXHIBIT 23 BUDGETARY COMPARISON SCHEDULE FOR FISCAL YEAR 2017 (CONTINUED)**

#### **BUDGETARY ACCOUNTING AND CONTROL**

##### **Budget Law**

The Authority prepares its operating and capital budgets under the provisions of its enabling legislation. In accordance with those provisions, the following process is used to adopt the annual budget.

- Development of the 10-year financial plan
- Development of individual departmental operating budgets, based on the financial framework in the 10-year financial plan
- Review and development of the Authority wide proposed budget by the General Manager
- Presentation of proposed budget to the Board of Directors
- Review and development of proposed budget by the Board of Directors
- Adoption of proposed budget by the Board of Directors
- Submission of proposed budget to the District of Columbia for inclusion in its budget
- District of Columbia budget submission to U.S. Congress
- Approval of proposed budget by U.S. Congress and President

##### **Budgetary Accounting**

The Authority is a single enterprise fund and maintains accounting records using the accrual basis of accounting, in accordance with U.S. generally accepted accounting principles (GAAP). Under this basis of accounting, revenues are recognized when earned, and expenses are recognized when goods and services are received. The Authority's expenditure budget is prepared on a comparable basis to GAAP, with the exception of debt service, which is budgeted in full when due, including principal and interest. Depreciation is not budgeted; depreciation is recorded as an expense for financial statement purposes. Certain other items are also not budgeted such as bad debt expense or (recovery) and loss (gain) on disposals of fixed assets or inventory.

##### **Budgetary Requirements**

After the U.S. Congress approves the budget, the operating and capital budgets are loaded into the Authority's financial management system, which prevents overspending without appropriate approvals. The Department of Finance, Accounting and Budget prepares monthly management reports for each operating unit, management staff, the Board of Directors, and its various committees. The reports are consistently reviewed each month to ensure the Authority complies with its authorized budget levels.