



**Statistical
Section
(Unaudited)**

Statistical Section (Unaudited)

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.

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

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

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Operating revenues										
Residential, commercial and multi-family customers	\$ 443,481	\$ 425,492	\$ 401,246	\$ 382,552	\$ 335,711	\$ 295,209	\$ 275,337	\$ 256,846	\$ 241,475	\$ 209,796
Federal government	73,393	73,551	67,672	63,417	54,274	39,001	45,187	48,381	43,033	37,845
District government and DC Housing Authority	45,816	42,710	40,483	38,185	32,948	28,852	21,677	24,713	25,123	21,947
Charges for wholesale wastewater treatment	114,766	121,961	101,619	91,873	112,522	96,845	87,178	94,549	90,414	87,505
Other	27,691	20,788	32,149	19,762	14,460	13,917	9,700	16,077	8,210	6,655
Total Operating Revenues	705,147	684,502	643,169	595,789	549,915	473,824	439,079	440,566	408,255	363,748
Operating expenses										
Personnel services	141,040	142,342	132,124	124,239	115,233	108,467	103,908	97,784	93,240	88,210
Contractual services	75,818	74,627	72,611	74,086	66,241	68,172	68,417	64,939	71,055	69,497
Chemicals, supplies and small equipment	36,579	31,152	33,381	29,524	32,935	31,748	28,987	28,815	28,188	29,003
Utilities and rent	25,813	26,163	24,262	23,934	30,848	29,939	26,098	26,786	29,429	29,929
Depreciation and amortization	127,501	115,453	97,900	89,512	83,857	77,833	77,330	74,342	70,209	64,425
Water purchases	32,430	28,357	26,796	26,345	29,109	28,407	27,223	28,389	27,170	27,587
Payment in lieu of taxes and right of way fee	21,702	21,376	21,057	20,744	20,437	11,458	21,982	21,982	21,982	20,474
Total operating expenses	460,883	439,470	408,131	388,384	378,660	356,024	353,945	343,037	341,273	329,125
Operating income	244,264	245,032	235,038	207,405	171,255	117,800	85,134	97,529	66,982	34,623
Non-operating revenue (expenses)										
Interest income	9,307	5,866	3,740	2,629	1,316	977	1,144	749	2,036	1,343
Interest expense and other nonoperating expenses	(104,630)	(93,956)	(68,293)	(69,118)	(61,409)	(69,288)	(63,905)	(74,001)	(73,335)	(57,479)
Total non-operating (expenses)	(95,323)	(88,090)	(64,553)	(66,489)	(60,093)	(68,311)	(62,761)	(73,252)	(71,299)	(56,136)
Change in net position before capital contributions	148,941	156,942	170,485	140,916	111,162	49,489	22,373	24,277	(4,317)	(21,513)
Capital contributions	16,313	30,419	24,066	32,431	67,965	94,690	58,310	58,957	47,374	30,403
Change in net position	165,254	187,361	194,551	173,347	179,127	144,179	80,683	83,234	43,057	8,890
Net position, beginning of year	2,085,201	1,897,840	1,703,289	1,529,942	1,350,815	1,206,636	1,125,953	1,042,719	999,662	990,772
Net position, end of year	\$ 2,250,455	\$ 2,085,201	\$ 1,897,840	\$ 1,703,289	\$ 1,529,942	\$ 1,350,815	\$ 1,206,636	\$ 1,125,953	\$ 1,042,719	\$ 999,662

Source: FY 2010 - 2019 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)**

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Net investments in capital assets	\$ 1,935,786	\$ 1,808,622	\$ 1,655,867	\$ 1,491,925	\$ 1,348,056	\$ 1,130,952	\$ 1,042,620	\$ 956,397	\$ 874,356	\$ 818,001
Restricted	43,762	38,907	33,276	33,135	27,054	28,863	29,010	27,297	26,825	17,257
Unrestricted	270,907	237,672	208,697	178,229	154,832	191,000	135,006	142,259	141,538	164,404
Total net position	<u>\$ 2,250,455</u>	<u>\$ 2,085,201</u>	<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>

Source: FY 2010 - 2019 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 2010 – 2019 Statements of Cash Flows.

2. Revenue Capacity

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

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

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

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Operating Revenues										
Retail Customers										
Residential, Commercial and Multifamily	\$ 443,481	\$425,492	\$401,246	\$382,552	\$335,711	\$295,209	\$275,337	\$256,846	\$241,475	\$209,796
Federal Government	73,393	73,551	67,672	63,417	54,274	39,001	45,187	48,381	43,033	37,845
DC Government	33,985	31,980	30,429	28,890	24,453	21,205	14,714	18,213	17,827	15,628
DC Housing Authority	11,831	10,730	10,054	9,295	8,495	7,647	6,963	6,500	7,296	6,319
Other Revenues	27,691	20,788	32,149	19,762	14,460	13,917	9,700	16,077	8,210	6,655
Total Retail Customers	590,381	562,541	541,550	503,916	437,393	376,979	351,901	346,017	317,841	276,243
Wholesale Customers	114,766	121,961	101,619	91,873	112,522	96,845	87,178	94,549	90,414	87,505
Total Operating Revenues	\$ 705,147	\$684,502	\$643,169	\$595,789	\$549,915	\$473,824	\$439,079	\$440,566	\$408,255	\$363,748
Retail Rate Increases	5.00%	5.00%	5.00%	6.50%	7.50%	5.50%	5.50%	4.50%	12.50%	9.00%

Source: FY 2010 - 2019 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

	2019	2018 ^(A)	2017	2016	2015	2014	2013	2012	2011	2010
Retail Accounts										
Residential	106,097	105,430	105,762	106,120	105,735	104,965	104,477	103,887	103,857	103,315
Commercial ^(B)	17,369	17,363	18,807	18,828	18,947	19,433	19,343	19,242	19,165	19,049
Governmental										
Federal	459	459	560	558	550	542	542	538	549	546
District of Columbia	523	517	650	641	638	641	630	605	607	603
DC Housing Authority	1,124	1,130	1,457	1,462	1,446	1,452	1,460	1,435	1,431	1,431
Total Retail Accounts	125,572	124,899	127,236	127,609	127,316	127,033	126,452	125,707	125,609	124,944
DC Water	29	30	39	39	39	37	36	36	35	35
Washington Aqueduct	2	2	2	2	2	2	2	2	2	1
Wholesale	7	7	7	7	7	7	7	7	7	7
Total Number of Accounts	125,610	124,938	127,284	127,657	127,364	127,079	126,497	125,752	125,653	124,987

^(A) DC Water began excluding inactive accounts in 2018 after conversion to new CIS.

^(B) 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

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Howard University	\$ 3,898,131	\$ 3,879,664	\$ 3,957,007	\$ 3,823,023	\$ 3,237,999	\$ 2,662,949	\$ 2,699,376	\$ 2,596,564	\$ 1,862,880	\$ 1,735,598
George Washington University	2,998,442	2,522,689	2,477,970	2,338,974	2,763,055	2,609,611	2,161,183	2,530,632	2,122,176	1,618,618
William C Smith & Co	2,441,968	2,078,614	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	2,078,916	2,003,551	1,624,588	1,991,344	1,830,586	1,671,855	1,693,655	933,027	1,270,788	1,113,672
Amtrak	1,924,967	1,046,179	983,224	1,019,570	1,028,989	984,336	1,004,177	937,430	903,475	761,235
Georgetown University	1,875,409	2,118,763	1,438,247	1,324,563	1,413,714	2,605,884	1,865,068	1,842,860	2,238,766	2,100,705
Horning Brothers	1,697,812	-	-	1,335,613	-	1,347,287	1,258,995	1,163,586	1,122,879	993,115
Catholic University	1,174,396	-	-	-	-	-	-	-	-	-
Georgetown University Hospital	1,010,696	-	808,884	920,681	720,247	955,353	1,053,659	1,643,380	1,371,035	-
American University	1,005,881	1,004,977	750,235	1,001,742	1,078,412	1,125,050	1,253,038	869,211	-	694,565
Children's Hospital	-	831,854	-	-	-	-	-	-	-	-
Metropolitan Washington Airports Authority	-	1,280,248	1,068,877	1,008,250	923,394	807,803	716,929	661,509	-	-
Medstar-Georgetown Medical Center	-	850,673	807,540	-	-	-	-	-	-	-
Shoreham Hotel	-	-	-	-	1,035,982	-	-	-	-	-
Soldiers Home	-	-	-	-	-	-	-	-	897,121	804,533
The Barac Company	-	-	-	-	-	-	-	-	927,022	776,134
Total	\$ 20,106,617	\$ 17,617,212	\$ 16,143,294	\$ 17,219,750	\$ 16,108,912	\$ 17,047,961	\$ 15,488,799	\$ 14,965,349	\$ 14,425,476	\$ 12,103,320
% of Total Operating Revenues	2.85%	2.57%	2.51%	2.89%	2.93%	3.60%	3.53%	3.40%	3.53%	3.33%

Source: DC Water Department of Customer Service

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

EXHIBIT 7 TEN LARGEST GOVERNMENT CUSTOMERS LAST TEN FISCAL YEARS

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
D.C. Housing Authority	\$ 9,203,222	\$ 5,176,951	\$ 7,492,820	\$ 6,999,037	\$ 6,922,176	\$ 6,308,902	\$ 5,879,383	\$ 5,669,475	\$ 6,277,722	\$ 5,750,927
U.S. General Services Administration	7,870,446	8,096,034	7,092,342	11,670,623	6,425,889	7,598,077	7,184,034	7,443,691	6,877,787	6,575,977
U.S. Congress	5,447,393	5,061,870	4,597,331	3,223,507	6,524,863	4,019,627	4,926,790	5,225,952	4,214,640	3,559,903
Smithsonian Institution	4,967,305	4,683,524	3,635,763	2,768,661	3,219,324	2,810,786	3,038,455	2,681,705	3,997,326	2,564,033
Bolling Air Force Base	4,279,384	4,187,710	3,115,393	2,602,439	2,509,536	1,928,617	2,265,348	2,925,847	-	-
Department Defense VA	2,834,531	2,082,125	-	-	4,020,624	3,275,936	3,275,936	3,527,613	2,873,310	2,759,264
Federal Naval Research Lab	2,779,271	2,209,408	1,853,214	1,975,742	1,802,150	1,542,370	1,833,491	1,788,497	-	-
National Park Service	2,342,203	3,298,927	4,621,035	3,656,234	2,233,857	1,363,657	2,577,096	2,481,144	2,217,698	2,384,771
Department of the Navy	1,951,907	1,732,073	1,662,225	1,708,908	-	-	1,521,264	1,886,750	3,832,568	2,851,611
D.C. Board of Education	1,866,303	1,569,405	2,497,561	2,228,498	2,166,846	2,391,393	2,092,748	2,213,636	2,142,907	2,534,044
D.C. Recreation and Parks	-	-	1,604,350	1,695,630	1,702,488	1,216,398	-	-	-	-
D.C. Department of Human Services	-	-	-	-	-	-	-	-	3,272,747	2,047,213
Department of Defense DC	-	-	-	-	-	-	-	-	2,151,529	1,608,642
Total	\$ 43,541,966	\$ 38,098,027	\$ 38,172,034	\$ 38,529,279	\$ 37,527,753	\$ 32,455,763	\$ 34,594,545	\$ 35,844,310	\$ 37,858,234	\$ 32,636,385
% of Total Operating Revenues	6.17%	5.57%	5.93%	6.47%	6.82%	6.85%	7.88%	8.14%	9.27%	8.97%

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 ²	AVERAGE MONTHLY BILL ¹
2010	2.010	-	0.57	2.51	3.61	6.12	2.200	45.69
2011	3.860	-	0.63	3.10	3.79	6.89	3.450	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	5.71	9.23	22.24	93.66
2018	3.860	6.30	0.67	3.70	6.00	9.70	25.18	99.63
2019	3.860	6.30	0.68	3.17 ³	7.75	10.92	23.00	96.03

¹ Average residential customer consumption is 6.2 Ccf per month for up to FY 2018 and 5.42 Ccf for FY 2019. The average monthly bill is calculated as follows (a)+(b)+(g)+(((c)+(f)) x 5.42 Ccf)

² Per Equivalent Residential Unit (ERU).

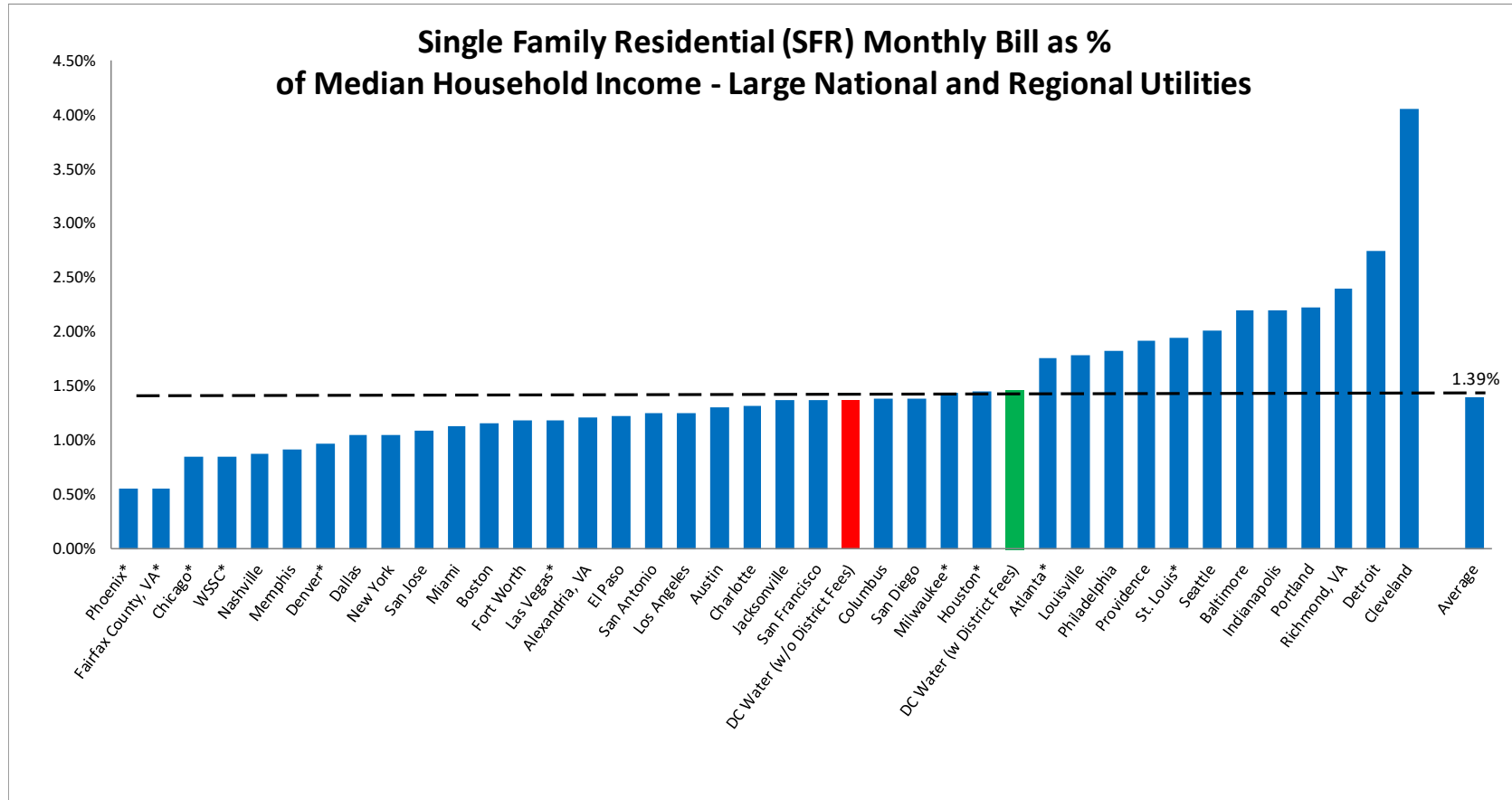
³ Weighted average water rate for residential customers.

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)

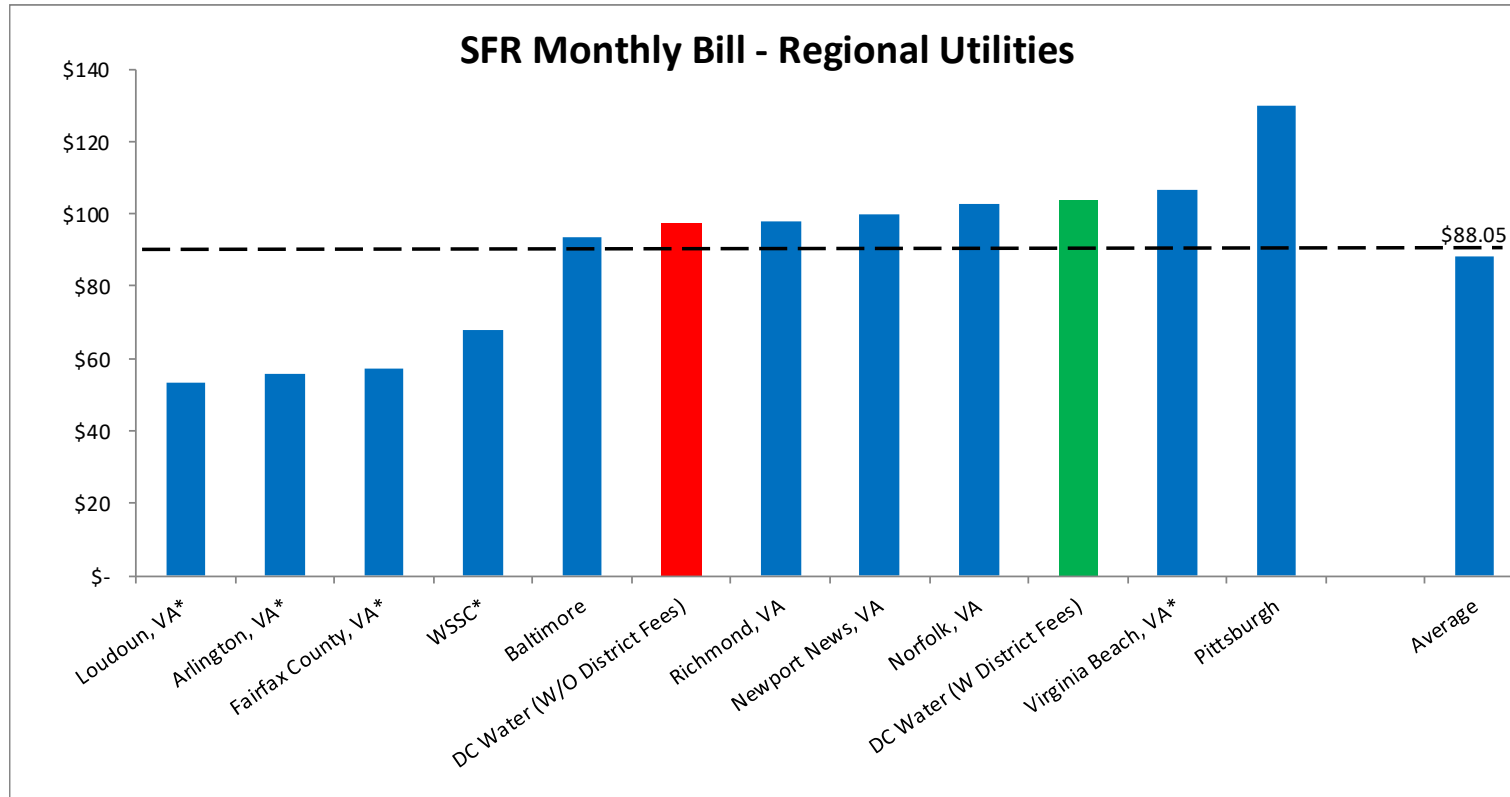


(1) This analysis is based on a single family residential monthly bill as a percentage of median household income for large national utilities based on rates in effect fall 2019.

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 2019.

Source: DC Water Department of Finance & Budget

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.

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

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

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Senior Debt:										
2018 Series A Public Utility Revenue Bonds	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018 Series B Public Utility Revenue Bonds	200,000	200,000	-	-	-	-	-	-	-	-
2017 Series A Public Utility Revenue Bonds	100,000	100,000	100,000	-	-	-	-	-	-	-
2017 Series B Public Utility Revenue Bonds	196,955	200,000	200,000	-	-	-	-	-	-	-
2014 Public Utility Revenue Bonds	350,000	350,000	350,000	350,000	350,000	350,000	-	-	-	-
2009 Series A Public Utility Revenue Bonds	-	4,225	8,040	11,535	159,520	291,145	293,720	296,205	298,225	300,000
1998 Public Utility Revenue Bonds	126,290	141,855	156,605	170,525	183,660	196,050	207,735	218,815	229,315	239,270
Total Senior Debt	1,073,245	1,096,080	814,645	532,060	693,180	837,195	501,455	515,020	527,540	539,270
Subordinate Debt:										
2016 Series A Public Utility Revenue Bonds	389,110	389,110	389,110	389,110	-	-	-	-	-	-
2016 Series B Public Utility Revenue Bonds	25,000	25,000	25,000	25,000	-	-	-	-	-	-
2015 Series A Public Utility Revenue Bonds	99,420	100,000	100,000	100,000	-	-	-	-	-	-
2015 Series B Public Utility Revenue Bonds	250,000	250,000	250,000	250,000	-	-	-	-	-	-
2014 Series B-1 Public Utility Revenue Bonds	50,000	50,000	50,000	50,000	50,000	50,000	-	-	-	-
2014 Series B-2 Public Utility Revenue Bonds	50,000	50,000	50,000	50,000	50,000	50,000	-	-	-	-
2014 Series C Public Utility Revenue Bonds	377,110	377,110	377,110	377,110	377,700	-	-	-	-	-
2013 Series A Public Utility Revenue Bonds	300,000	300,000	300,000	300,000	300,000	300,000	300,000	-	-	-
2012 Series A Public Utility Revenue Bonds	148,255	153,600	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	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	300,000	300,000	-
2008 Series A Public Utility Revenue Bonds	-	6,865	13,600	20,200	168,190	268,095	274,210	279,955	285,540	290,000
2007 Series A Public Utility Revenue Bonds	-	-	-	-	115,580	218,715	218,715	218,715	218,715	218,715
2003 Public Utility Revenue Bonds	-	-	-	-	-	-	-	-	176,220	176,220
Notes Payable to the Federal										
Government for Bloomington Dam	11,734	12,054	12,454	12,841	13,217	13,580	13,932	14,273	14,603	14,922
DC General Obligation Bonds	-	-	-	-	-	-	-	-	245	1,490
Notes Payable to WSSC for Little Seneca	-	-	-	-	-	-	-	63	104	142
Total Subordinate Debt	2,163,844	2,176,954	2,189,229	2,201,131	1,753,617	1,636,595	1,547,502	1,253,651	995,427	701,489
Total Senior and Subordinate debt	3,237,089	3,273,034	3,003,874	2,733,191	2,446,797	2,473,790	2,048,957	1,768,671	1,522,967	1,240,759
Unamortized bond premiums	246,460	259,578	222,786	198,677	104,060	76,098	79,313	79,674	28,255	29,929
Unamortized bond discounts	(1,835)	(1,964)	(2,093)	(2,222)	(2,351)	(2,480)	(2,608)	(2,784)	(2,879)	(2,968)
Total Debt	\$ 3,481,714	\$ 3,530,648	\$ 3,224,567	\$ 2,929,646	\$ 2,548,506	\$ 2,547,408	\$ 2,125,662	\$ 1,845,561	\$ 1,548,343	\$ 1,267,720
Debt - per capita										
	N/A	\$ 5,026	\$ 4,647	\$ 4,301	\$ 3,791	\$ 3,866	\$ 3,288	\$ 2,919	\$ 2,505	\$ 2,096
Debt - percentage of personal income										
	N/A	6.13%	5.81%	5.65%	5.17%	5.54%	4.37%	3.90%	3.40%	2.94%

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 2019 (\$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	\$ 543,130
Wholesale	82,116
Other Non-Operating	69,191
Transfer from (Contributions to) Rate Stabilization Fund	-

Total Cash Receipts (A)	694,437
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Cash Disbursements (Operating Expenses) (B)	314,529
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Cash Receipts Less Cash Disbursements (C=A-B)	\$ 379,908
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Debt Service:

Senior Debt Service (D)	\$ 75,282
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Subordinate Debt Service (E)	117,753
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Total Outstanding and Projected Debt Service (F=D+E)	\$ 193,035
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Calculation of Net Cash Receipts Available for Senior Debt Service:

Cash Receipts Less Cash Disbursements (C)	\$ 379,908
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Prior Year Federal Billing Reconciliation	(5,753)
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(Refund to)/Payment from Wholesale Customers	(10,940)
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Net Cash Receipts Available for Senior Debt Service (G)	\$ 363,215
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Senior Debt Service Coverage (G/D)	4.82
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Calculation of Subordinate Debt Service Coverage:

Net Cash Receipts Available for Senior Debt Service (G)	\$ 363,215
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Less Senior Debt Service (D)	(75,282)
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Net Cash Receipts Available for Subordinate Debt Service (G-D)	\$ 287,933
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Subordinate Debt Service Coverage ((G-D)/E)	2.45
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Combined Debt Service Coverage (G/F)	1.88
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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.

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

EXHIBIT 13 POPULATION OF SERVICE AREA JURISDICTIONS LAST TEN CALENDAR YEARS

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
District of Columbia	N/A	702,455	693,972	681,170	672,228	658,893	646,449	632,323	617,996	604,912
Montgomery County, MD	N/A	1,052,567	1,058,810	1,043,863	1,040,116	1,030,447	1,016,677	1,004,709	989,794	975,439
Prince George's County, MD	N/A	909,308	912,756	908,049	909,535	904,430	890,081	881,138	871,233	865,219
Fairfax County, VA	N/A	1,190,141	1,187,113	1,176,830	1,180,139	1,175,622	1,168,405	1,155,292	1,135,992	1,121,054
Loudoun County, VA	N/A	406,850	398,080	385,945	375,629	363,050	349,679	336,898	325,405	315,305

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)

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
District of Columbia	N/A	\$57,604,817	\$55,510,450	\$51,842,801	\$ 49,275,917	\$ 46,015,860	\$ 48,696,519	\$ 47,280,666	\$ 45,597,835	\$ 43,082,099
Montgomery County, MD	N/A	94,404,295	91,202,046	84,518,332	79,946,266	75,720,017	73,958,785	73,551,167	69,050,166	65,904,393
Prince George's County, MD	N/A	44,938,165	43,232,981	41,922,938	40,806,805	40,215,913	38,595,921	38,481,250	35,036,640	33,888,631
Fairfax County, VA	N/A	98,116,827	93,041,631	89,412,959	88,419,380	88,180,013	83,835,355	82,727,342	78,392,046	75,161,493
Loudoun County, VA	N/A	31,762,679	29,789,834	27,486,217	26,254,562	24,463,869	20,886,046	20,107,077	18,626,729	16,971,112

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

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
District of Columbia	N/A	\$ 82,005	\$ 79,989	\$ 76,108	\$ 73,302	\$ 69,838	\$ 75,329	\$ 74,773	\$ 73,783	\$ 71,220
Montgomery County, MD	N/A	89,690	86,136	80,967	76,863	73,483	72,746	73,206	69,762	67,564
Prince George's County, MD	N/A	49,420	47,365	46,168	44,866	44,465	43,362	43,672	40,215	39,168
Fairfax County, VA	N/A	82,441	78,376	75,978	74,923	75,007	71,752	71,607	69,008	67,045
Loudoun County, VA	N/A	78,070	74,834	71,218	69,895	67,384	59,729	59,683	57,242	53,824

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

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
District of Columbia	5.3%	6.0%	6.2%	6.5%	6.9%	7.0%	7.3%	8.2%	10.2%	10.1%
Montgomery County, MD	2.8%	3.2%	3.4%	3.2%	4.0%	4.1%	4.5%	4.7%	5.2%	5.8%
Prince George's County, MD	3.6%	4.1%	4.3%	4.1%	5.1%	5.5%	6.2%	6.5%	7.0%	7.7%
Fairfax County, VA	2.0%	2.3%	3.4%	3.3%	3.3%	3.6%	3.7%	3.6%	4.3%	4.9%
Loudoun County, VA	2.0%	2.3%	3.4%	3.3%	3.3%	3.6%	3.9%	3.7%	4.2%	4.8%

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.	0.05%	0.28%	0.09%	0.16%	0.69%
Construction	2.04%	5.55%	8.83%	4.50%	8.48%
Manufacturing	0.24%	2.04%	1.88%	0.86%	3.43%
Transportation & Public Utilities	2.14%	3.82%	7.61%	N/A	6.96%
Wholesale & Retail Trade	3.50%	8.62%	12.37%	9.91%	10.94%
Finance, Insurance & Real Estate	6.26%	11.70%	6.54%	10.00%	8.68%
Services	58.63%	54.40%	42.12%	61.24%	49.64%
Government (Federal, State & Local)	25.60%	12.51%	19.01%	12.13%	10.67%
Military	1.52%	1.08%	1.56%	1.18%	0.53%
TOTAL	100.00%	100.00%	100.00%	100.00%	100.00%

Source: U.S. Department of Commerce, Bureau of Economic Analysis
Latest available data is for 2018

N/A: Not Available

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.

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)	
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%
2018	34,343	25,526	74.33%
2019	35,189	25,067	71.24%

Source: DC Water Department of Customer Service

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

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

FISCAL YEAR	ANNUAL DELIVERIES TO SYSTEM (MG)	AVERAGE DAY (MG)	MAXIMUM MONTH AVERAGE (MGD)	MAXIMUM DAY (MGD)	TOTAL ANNUAL WATER SOLD (MG)	AVERAGE DAY (MGD)
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
2018	34,343	94.1	110.9	132.5	25,526	69.9
2019	35,189	96.4	115.9	133.3	25,067	68.7

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

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Utilities and supplies per day at Blue Plains										
Electric power (kwh) - Total Used	702,000	678,000	632,220	615,000	700,000	700,000	700,000	700,000	700,000	700,000
Electric power (kwh) - Generated On Site	153,000	158,000	138,347	-	-	-	-	-	-	-
Sodium hypochlorite (gallons)	16,688	14,580	12,880	10,051	10,051	6,850	6,850	6,850	6,850	6,850
Sodium bisulfite (pounds)	14,915	12,130	9,085	7,880	7,880	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
Lime (gallons), slurry	3,221	1,150	3,095	-	-	-	-	-	-	-
Sodium hydroxide (pounds)	6,975	9,350	2,854	14,766	14,766	26,100	26,100	26,100	26,100	26,100
Methanol (gallons)	18,447	19,100	20,705	19,428	19,428	10,000	10,000	10,000	10,000	10,000
Ferric chloride (10% Iron) (gallons)	14,265	15,770	16,054	19,060	19,060	12,900	12,900	12,900	12,900	12,900
Wastewater treatment capacity										
Average day (mgd)	336	384	384	370	370	370	370	370	370	370
Peak 4 hour flow, through complete process (mgd)	667	550	511	511	511	740	740	740	740	740
Excess storm flow, primary treatment only (mgd)	-	-	336	336	336	336	336	336	336	336
Peak flow (mgd)	906	-	847	847	847	1,076	1,076	1,076	1,076	1,076
Captured Combined Flow, through Wet Weather Treatment	239	225	-	-	-	-	-	-	-	-
DC Water employees	1,111	1,165	1,134	1,121	1,164	1,079	1,080	1,051	1,032	1,004

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 **August 26, 2018 through August 25, 2023**

Parameter	Monthly	Weekly
Biochemical Oxygen Demand (carbonaceous)	5.0 mg/L (16,013 lbs./day)	7.5 mg/l (24,019 lbs./day)
Total Suspended Solids (TSS)	6.1 mg/l (19,603 lbs./day)	NL (29,404 lbs./day)
Ammonia Nitrogen		
Summer (5/1 – 10/31)	4.1 mg/l (13,130 lbs./day)	6.1 mg/l (19,536 lbs./day)
Winter 1 (1/1 – 2/14)	12.8 mg/l (40,993 lbs./day)	19.3 mg/l (61,809 lbs./day)
Winter 2 (2/15 – 4/30)	10.3 mg/l (32,986 lbs./day)	15.4 mg/l (49,319 lbs./day)
Total Phosphorus (annual average)	0.17 mg/l (530 lbs./day)	0.34 mg/l (1,080 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	126 cu/100ml Geometric (30 day)	
Chesapeake Bay Voluntary Agreement	N/A	
Total Nitrogen (Annual Average)		
U.S. Environmental Protection Agency	4,370,078 lbs./yr	
Total Nitrogen (Annual Average)		

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 ₃

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 ₃

Effluent dissolved oxygen	3.8 – 7.2 mg/L
(Post – Aeration)	
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, 2019

TYPE OF COVERAGE	COMPANY	POLICY PERIOD	COVERAGE LIMITS
Blanket Property and Boiler & Machinery	Alliant Public Entity Property Insurance Program (PEPIP)	July 1, 2019– July 1, 2020	<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: \$700,000,000 per occurrence, \$1,600,000,000 annual aggregate (Alpha, Hiscox- \$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	AIG	July 1, 2019– July 1, 2020	<p>\$10,000,000 - Employee Dishonesty, Forgery, Funds Transfer, Fraud, Money & 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, 2019– July 1, 2020	<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, 2019– July 1, 2020	\$35,000,000 in excess of \$1,000,000
Excess Liability	EIM	July 1, 2019– July 1, 2020	\$65,000,000 in excess of \$35,000,000
Public Official Liability	RSUI Indemnity / Chubb Insurance Company	July 1, 2019– July 1, 2020	<p>\$20,000,000 Each Loss / Aggregate</p> <p>Retentions: \$250,000 per wrongful act</p>
Fiduciary Liability	Travelers Insurance	July 1, 2019– July 1, 2020	<p>\$5,000,000 Each Loss / Aggregate</p> <p>Deductible: \$0 per claim</p>
Cyber	XL	July 1, 2019– July 1, 2020	<p>5,000,000 Each Loss/Aggregate</p> <p>Deductible: \$50,000</p>
Professional Liability	Lloyds of London	July 1, 2019– July 1, 2020	<p>\$2,000,000 Each Loss</p> <p>Deductible: \$10,000</p>
National Flood	NFIP	July 1, 2019– July 1, 2020	<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, 2019

Wastewater	Description	Expiration Date	Current Status
National Pollutant Discharge Elimination System Permit # DC0021199	Permit issued to DC Water. 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.	August 25, 2023	In Compliance
National Pollutant Discharge Elimination System Permit # DC0000221	Permit issued to Government of District of Columbia. Authorizes discharge from municipal separate storm sewer system (MS4) and prescribes certain actions that DC Water has agreed to perform including: Responding to sanitary sewer overflows (SSO) Reporting SSOs that overflow to MS4 system to public health agencies Cleaning catch basins and removing trash from waterbodies Maintaining storm sewer system infrastructure Collection of stormwater fees for the District of Columbia	June 22, 2023	In Compliance
1995 Consent Decree Civil Action No.: 90-1643-JGP and 84-2842-JGP	Requires certain actions including: Review procurement practices & maintenance procedures Undertake Operational Capability Review Conduct a pilot project for biological nitrogen reduction	N/A	In Compliance All items completed; awaiting action to terminate decree
1996 Stipulated Agreement & Order Civil Action No.: 96-669-TFH	Requires certain actions including: Rehabilitate and maintain certain facilities and capital equipment in good operating condition Maintain certain records and data for status reports and prepare monthly reports on status of compliance Maintain user fees in separate accounts and make timely payment of invoices	N/A	In Compliance All items completed; awaiting action to terminate agreement and order
2003 Consent Decree Civil Action No.: 1:00CV00183TFH Civil Action No.: 02-2511 (TFH)	Requires certain actions including: Replacement/repair of control structures Cleaning/inspection of catch basins Rehabilitation of pumping stations Rehabilitation of Blue Plains grit chambers and influent screens Inspection of certain sewers and siphons Public education/outreach activities Payment of civil penalty of \$250,000 Conduct/support of supplemental environmental projects	N/A	In Compliance
2005 Modified Consent Decree for CSS LTCP Consolidate Civil Action No: 1:00CV00183TFH	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.	N/A	In Compliance
DC Department of Energy and the Environment	Permit to operate the enhanced nitrogen removal facility	12/13/2023	In Compliance
DC Department of Energy and The Environment	Permit to construct and operate biosolids project – main process train/combined heat & power/final dewatering facility	4/19/2023	In Compliance

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

**EXHIBIT 23
BUDGETARY COMPARISON SCHEDULE
FOR FISCAL YEAR 2019**

	Approved Budget	Actual Expenditures	Variance
Expenditures			
Personnel services	\$ 162,620	\$ 157,979	\$ 4,641
Contractual services	81,679	76,204	5,475
Water purchases	30,520	32,430	(1,910)
Chemicals and supplies	32,091	34,979	(2,888)
Utilities and rent	26,905	25,778	1,127
Small equipment	1,240	731	509
Interest and fiscal charges (debt service)	199,025	178,359	20,666
Payment in lieu of tax & right of way fee	21,702	21,702	-
Cash financed capital improvements	26,999	-	26,999
Total budgetary basis expenditures	<u>\$ 582,780</u>	<u>\$ 528,161</u>	<u>\$ 54,619</u>

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

Capitalized personnel expenditures	(17,589)
Depreciation and amortization expense	127,501
Long-term debt - principal payments	(36,038)
Long-term debt - capitalized interest	(50,571)
Build America Bonds subsidy	5,356
Inventory issuances	844
Blue Drop	324
Non-budgeted expenses	<u>7,525</u>
Total expenses reported in statements of revenues, expenses and changes in net position	<u>\$ 565,513</u>

(CONTINUED ON NEXT PAGE)

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

EXHIBIT 23 BUDGETARY COMPARISON SCHEDULE FOR FISCAL YEAR 2019 (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 Chief Executive Officer (CEO) and General Manager
- Presentation of proposed budget to the Board of Directors
- Review and recommendation of proposed budget by the various Board Committees
- 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 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.