CSS Long Term Control Plan Update

Flow Projections

City of Alexandria
Department of Transportation and Environmental Quality

FINAL – September 2014

GREELEY AND HANSEN

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Executive Summary

Average daily flow projections from 2015 to 2040 were calculated for all the City of Alexandria sewersheds served by the Alexandria Renew Enterprises (AlexRenew) Water Resources Recovery Facility (WRRF) as shown on Table ES-1. Average daily flow projections establish the baseline flows in the system and serve as a basis for any wastewater storage and/or capacity planning that will occur in the future. The 2040 flow values will be used in the SWMM model for evaluating alternatives under the City's Long Term Control Plan Update (LTCPU).

Table ES-1
Total Average Daily Flow Projections

	2015 Total Average Flow (MGD)	2020 Total Average Flow (MGD)	2025 Total Average Flow (MGD)	2030 Total Average Flow (MGD)	2035 Total Average Flow (MGD)	2040 Total Average Flow (MGD)
City of Alexandria	16.2	17.1	18.1	19.0	19.9	20.8

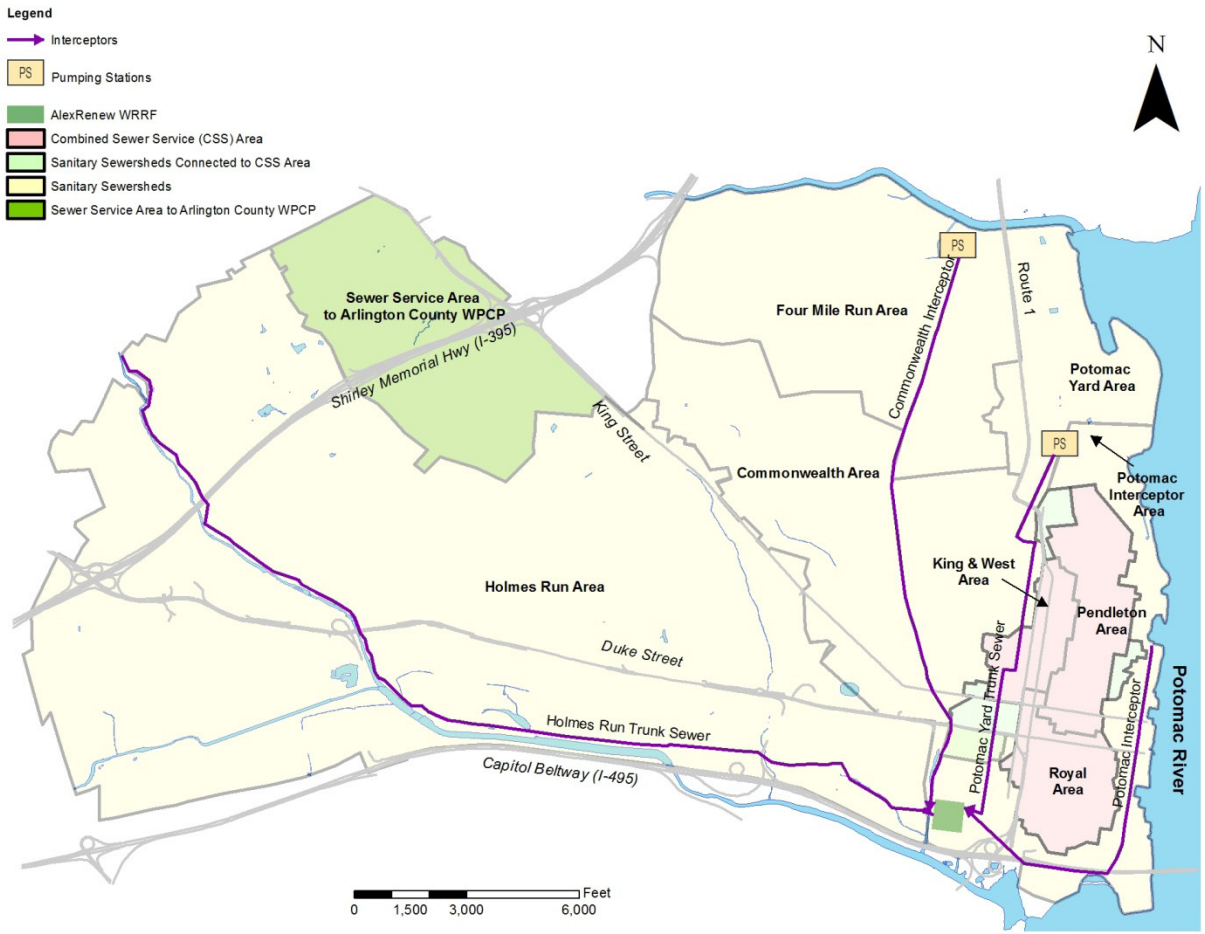
Peak flow projections from 2015 to 2040 were also calculated for the combined sewersheds. For the basis of the report, a simple calculation was used; the values were estimated by setting peak flows equal to the full pipe capacities of the pipes upstream and downstream of the different combined sewer overflow (CSO) regulator structures. Peak flows are based on a variety of factors such as specific rain events and the sewer system configuration. A more detailed analysis of actual peak flows, which will involve hydraulic modeling, will be documented in a future report.

Additionally, based on the above estimates, it is noted that the City of Alexandria is not expected to exceed its current wastewater allocation of 21.6 million gallons per day (MGD) of annual average daily flow (AADF) until sometime after Year 2040, which is beyond the planning period of this LTCPU.

Section 1 Introduction

For use in the City's LTCPU, existing and future average daily flows for all City sewersheds served by the AlexRenew WRRF have been estimated. The City has three combined sewersheds, Pendleton, Royal, and King and West. There are five separate sanitary sewersheds, which are composed of Commonwealth, Four Mile Run, Holmes Run, Potomac Interceptor, and Potomac Yard. The City also has a sewershed that flows into Arlington County. The future average flows for this specific sewershed are not included since this technical memorandum only is applicable to the AlexRenew WRRF sewer service area. All the sewersheds located in the City can be found in Figure 1-1.

Figure 1-1
City of Alexandria Sewersheds



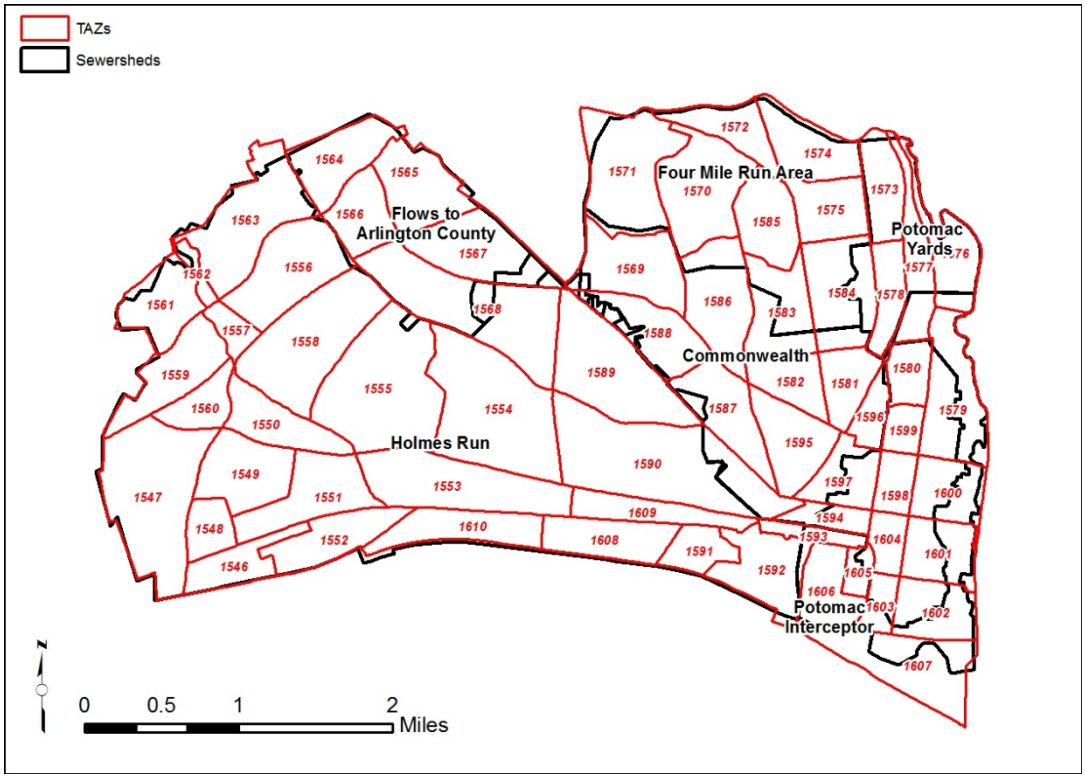
Section 2 Average Daily Flow

Average daily flow (ADF) is composed of base dry weather flow and base infiltration and inflow (I/I). Average daily flows were estimated in five year increments from 2015 to 2040. The current capacity of the AlexRenew WRRF is 54 MGD of annual ADF. Of this 54 MGD, the City is allocated 40% or approximately 21.6 MGD. The process of estimating both dry weather flows and base I/I are described in more detail in the following subsections.

2.1 Base Dry Weather Flow

To estimate dry weather flows, employee and household projections obtained from the Metropolitan Washington Council of Governments (MWCOG) Round 8.2 Forecasting were used. MWCOG publishes reports that forecast the total population and the total number of employees and households for the Washington, D.C. metropolitan area using information provided by the City's Planning and Zoning Department. This data is available for various geographic areas identified as Transportation Analysis Zones (TAZs). The TAZs in the City can be seen in Figure 2-1.

Figure 2-1
TAZs in the City of Alexandria



It was assumed that the number of employees and households was equally distributed within each individual TAZ. To get employee and household projections for each sewershed, the percentage of each TAZ located in each sewershed was first calculated. These percentages were then multiplied by the employee and household projections. The resulting numbers were then summed for each sewershed to obtain the estimated projections for each sewershed. The projection calculations can be seen in Attachment A and Attachment B.

To estimate dry weather flows from employees, a dry weather flow factor of 20 gallons per employee per day was multiplied by the number of employees. Similarly, to estimate the dry weather flows from households, a dry weather flow factor of 184 gallons per household per day was multiplied by the number of households. The estimated total dry weather flows were obtained by adding these two numbers. The dry weather flow factors were obtained from a 2006 Greeley and Hansen report titled "*Holmes Run Trunk Sewer Capacity Improvements - Technical Memorandum on Wet Weather Alternatives*", which was prepared for AlexRenew. The relationship between total dry weather flow and time can be seen in Figure 2-2, while the total estimated dry weather flows from 2015 to 2040 can be seen in Table 2-1. Figure 2-2 also shows the measured City average daily flow rates at the AlexRenew WRRF over the last ten years for reference. As evident in the figure, the City began an extensive inflow and infiltration (I/I) reduction program throughout the City. This resulted in the City's annual average flow dropping as the I/I program progressed. Additionally many of the new development/redevelopment projects throughout the City are installing low flow fixtures; this also contributed to lowering the City's annual average flow over the last decade.

Figure 2-2
Average Daily Flow Projections

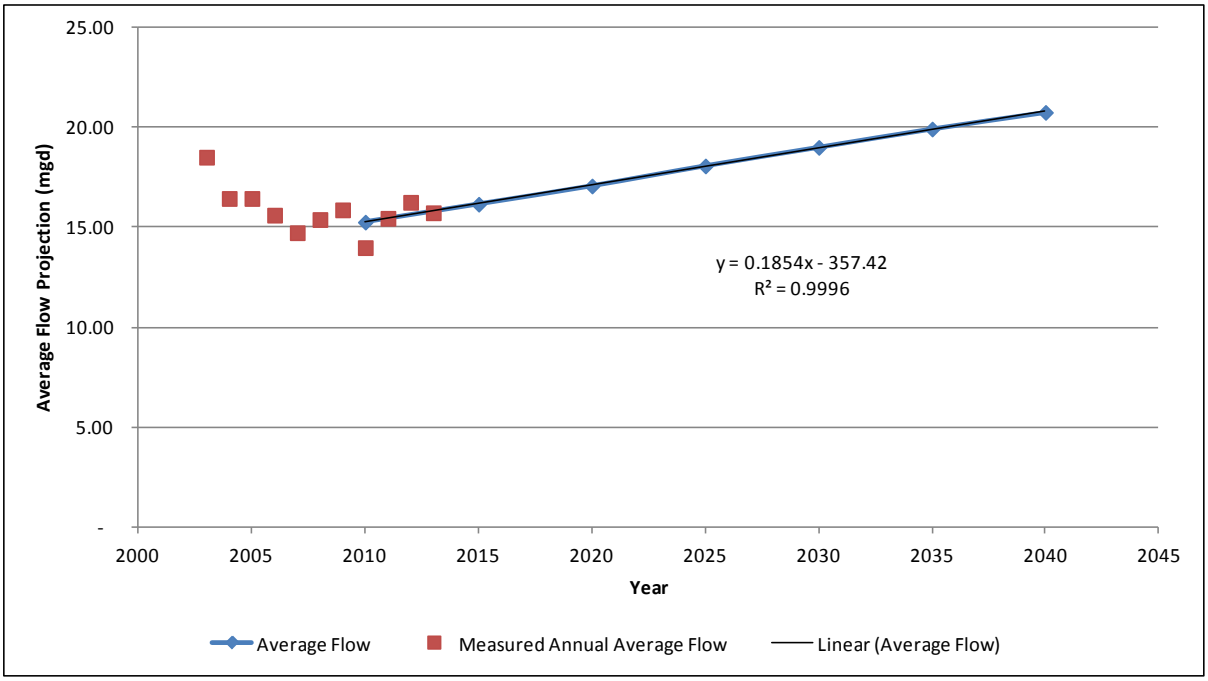


Table 2-1
Dry Weather Flow Projections

Sewershed	2015 Estimated Flow (MGD)	2020 Estimated Flow (MGD)	2025 Estimated Flow (MGD)	2030 Estimated Flow (MGD)	2035 Estimated Flow (MGD)	2040 Estimated Flow (MGD)
Pendleton	0.63	0.64	0.68	0.69	0.72	0.75
Royal	0.47	0.47	0.48	0.49	0.50	0.51
King and West	0.46	0.47	0.47	0.49	0.54	0.54
Commonwealth	1.63	1.70	1.74	1.79	1.87	1.97
Four Mile Run	2.00	2.01	2.08	2.08	2.16	2.22
Holmes Run	7.08	7.77	8.33	8.89	9.33	9.74
Potomac Interceptor	0.83	0.86	0.90	0.92	0.96	1.00
Potomac Yard	0.47	0.55	0.80	1.05	1.25	1.44
TOTAL	**13.57**	**14.48**	**15.48**	**16.41**	**17.33**	**18.17**

2.2 Base Infiltration and Inflow

The base I/I was calculated by multiplying a base I/I flow factor by the basin's area. A base I/I flow factor of 292 gallons per acre per day was used. It was assumed that this flow factor was similar for all sewersheds. It was also assumed that this flow factor would be uniform throughout 2015 to 2040. The base I/I flow factors were obtained from a 2006 Greeley and Hansen report titled "*Holmes Run Trunk Sewer Capacity Improvements - Technical Memorandum on Wet Weather Alternatives*", which was prepared for AlexRenew. This value is based on prior flow monitoring conducted in the City. The total estimated base I/I from 2015 to 2040 can be seen in Table 2-2.

Table 2-2
Base I/I Estimates

Sewershed	2015 - 2040 Estimated Base I/I (MGD)
Pendleton	0.075
Royal	0.061
King and West	0.055
Commonwealth	0.365
Four Mile Run	0.354
Holmes Run	1.413
Potomac Interceptor	0.158
Potomac Yards	0.119
TOTAL	**2.600**

2.3 Average Daily Flow Estimates

Total average daily flow is the sum of dry weather flows and base I/I estimates. The total average daily flow projections from 2015 to 2040 can be seen in Table 2-3.

Table 2-3
Total Average Daily Flow Projections

Sewershed	2015 Total Average Flow (MGD)	2020 Total Average Flow (MGD)	2025 Total Average Flow (MGD)	2030 Total Average Flow (MGD)	2035 Total Average Flow (MGD)	2040 Total Average Flow (MGD)
Pendleton	0.71	0.72	0.75	0.77	0.79	0.82
Royal	0.53	0.54	0.54	0.55	0.57	0.57
King and West	0.52	0.52	0.53	0.55	0.60	0.60
Commonwealth	2.00	2.07	2.11	2.16	2.24	2.34
Four Mile Run	2.36	2.37	2.43	2.44	2.52	2.57
Holmes Run	8.49	9.18	9.74	10.30	10.74	11.15
Potomac Interceptor	0.99	1.02	1.06	1.08	1.12	1.16
Potomac Yards	0.59	0.67	0.92	1.17	1.37	1.56
TOTAL	**16.17**	**17.08**	**18.08**	**19.01**	**19.93**	**20.77**

Section 3 Existing CSO Capacity

Peak flows were estimated for the combined sewersheds in five year increments from 2015 to 2040. The current capacity of the AlexRenew WRRF is 108 MGD of peak instantaneous flow.

For the combined sewersheds, the peak flows are primarily comprised of stormwater. It was assumed that the peak flow would be limited by the pipe capacity. Thus, peaking factors and wet weather I/I were not calculated for the three sewersheds and the peak flow was set equal to the pipe capacity of the sewers upstream of the regulator structures and outfalls. The process of estimating the peak flows for the combined sewersheds are described in more detail in the following subsections.

3.1 Peak Flow Estimates

The peak flow in the combined sewersheds was set equal to the full pipe capacities of the pipes directly upstream of the different CSO regulator structures. Manning's equation was used to estimate pipe capacity:

$$Q = A\frac{k}{n}R^{\frac{2}{3}}S^{\frac{1}{2}}$$

Where: Q is the volumetric flow rate in cubic feet per second (cfs)
A is the cross sectional area of flow in square feet (sf)
k is a conversion factor of 1.4859 $ft^{1/3}$ per second
n is the roughness coefficient
R is the hydraulic radius in feet (ft)
S is the slope of the pipe in ft per ft

Hydraulic radius can be expressed as

$$R = \frac{A}{P}$$

Where: A is the cross sectional area of flow in sf
P is the wetter perimeter in ft

The assumptions used for the calculations as well as the resulting flow rates can be found in Table 3-1.

Table 3-1
Full Pipe Capacity Estimates for Pipes Directly Upstream of CSO Regulator Structures

Outfall	Combined Sewershed	Pipe Shape	Width (ft)	Height (ft)	Diameter (ft)	Roughness Coefficient ('n')	Slope (%)	Peak Flow Rate (MGD)
CSO 001	Pendleton	Rectangular	5.83	6.00	-	0.014	0.120	108.0
CSO 002	Royal	Rectangular	7.00	5.13	-	0.014	0.500	225.9
CSO 003	King and West	Circular	-	-	4.28	0.013	1.000	111.4
CSO 004	King and West	Circular	-	-	2.25	0.012	0.545	16.0
TOTAL								**461.3**

**The pipes directly upstream of the four CSO regulator structures are composed of concrete. The roughness coefficient of concrete pipes range from 0.012 and 0.014. The actual roughness coefficient is dependent on a number of parameters such as finishing of the concrete surface, age of the pipe, encrustation, etc.*

It is important to note that these peak flow rates are not the peak flow rates that are delivered to the AlexRenew WRRF; these are the maximum peak flow rates that could be delivered to each regulator structure. A portion of that flow will be conveyed to the AlexRenew WRRF while the rest of it will be discharged as CSO. It is important to understand the flows entering each regulator structure for designing future CSO controls, in order to maximize flow conveyed to the AlexRenew WRRF without causing sewer back-ups into homes and businesses.

Peak flows conveyed to the AlexRenew WRRF were also calculated for the three combined sewersheds. WRRF peak flows refer to the peak flows ending up at the WRRF. WRRF peak flows for the combined sewersheds are assumed to be equal to the full pipe capacities of the pipes downstream of the different CSO regulator structures. Due to their configuration, CSO 003 and CSO 004 are grouped together and the peak flow rate is the full pipe capacity of the two siphons at the Duke Street Siphon Chamber. Manning's Equation was used for the calculations. The assumptions used for the calculations as well as the resulting peak flow rates can be found in Table 3-2.

Table 3-2
Full Pipe Capacity Estimates for Pipes Directly Downstream of CSO Regulator Structures

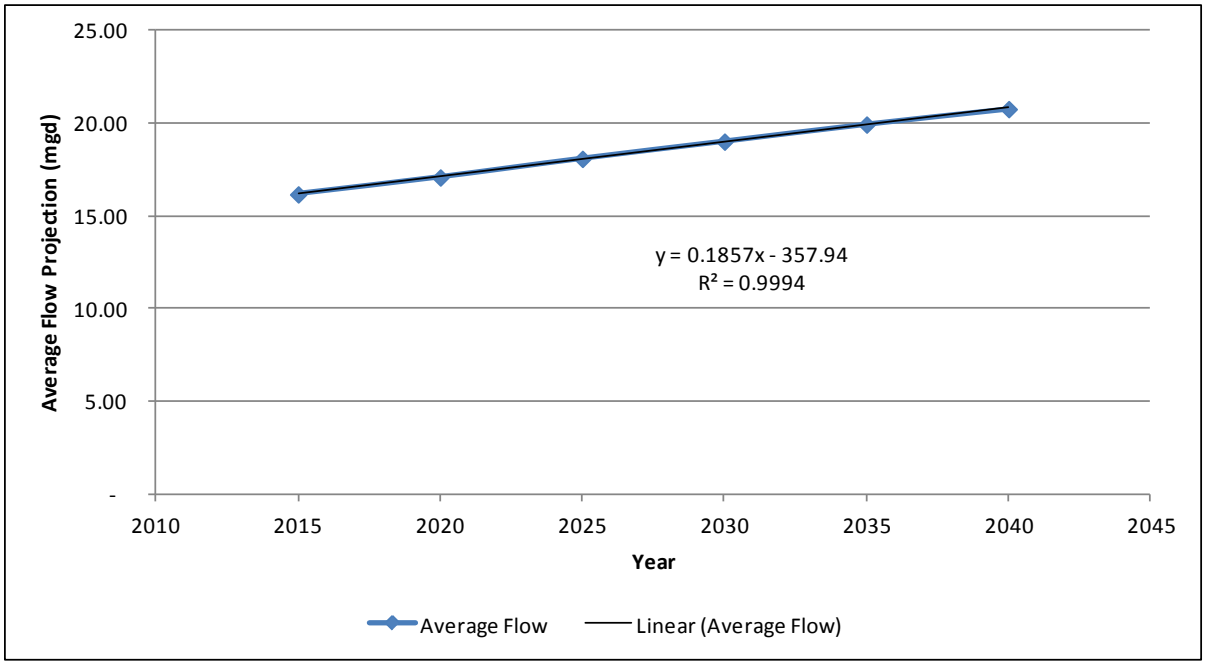
Outfall	Combined Sewershed	Diameter (ft)	Roughness Coefficient ('n')	Slope (%)	Peak Flow Rate (MGD)
CSO 001	Pendleton	2.50	0.014	0.155	9.69
CSO 002	Royal	1.25	0.014	2.300	5.88
CSO 003	King and West	1.17	0.014	1.042	3.84
CSO 004	King and West	1.75	0.014	1.146	10.18
TOTAL					**29.59**

**The pipes directly downstream of the four CSO regulator structures are composed of concrete. The roughness coefficient of concrete pipes range from 0.012 and 0.014. The actual roughness coefficient is dependent on a number of parameters such as finishing of the concrete surface, age of the pipe, encrustation, etc.*

Section 4 Discussion

With respect to average daily flow projected through 2040, the City will be within its current allocation of 21.6 MGD at the AlexRenew WRRF. The relationship between the average daily flow projection and time is fairly linear and can be seen in Figure 4-1.

Figure 4-1
Average Daily Flow Projections



To calculate the estimated CSO maximum peak flow rate for the combined sewersheds, the WRRF peak flow estimates were subtracted from the total hydraulic capacity of each sewershed as shown in Table 4-1.

Table 4-1
Summary of Combined Sewershed Hydraulic Capacity Projections

Outfall	Sewershed	2015 - 2040 Estimated Maximum Hydraulic Capacity (MGD)	2015 - 2040 Estimated WRRF Peak Flow Rate (MGD)	2015 - 2040 Estimated Theoretical Maximum CSO Peak Flow Rate* (MGD)
CSO 001	Pendleton	107.96	9.69	98.27
CSO 002	Royal	225.93	5.88	220.05
CSO 003 & CSO 004	King and West	127.43	14.02	113.41
	TOTAL	**461.32**	**29.59**	**431.73**

*The theoretical maximum flow rate is greater than a 100-year wet weather event.

For maximum hydraulic capacity in the combined sewersheds, the majority of the flows eventually discharge out of the four outfalls. It is estimated that the total peak discharge rate is approximately 431.7 MGD during very large wet weather events in which the combined sewer system is operating at maximum hydraulic capacity. These are theoretical peak flow rates based on the existing geometry of the regulator structures. These flow rates are typically not seen; typically the flow rates entering the regulator structures are much lower and the flow rates to the WRRF are typically higher. It would take a >100 year event to observe the peak flow rates reported in the table above. It is necessary to calculate these theoretical flow rates because any new CSO control alternative that is evaluated needs to be able to convey at least the maximum hydraulic capacity flow rates in Table 4-1. A detailed hydraulic evaluation will be required if any proposed improvements potentially reduce the current maximum hydraulic capacity. The portion of total flow treated for a typical year will be summarized in a future technical memorandum.

Attachment A

Attachment A
Household Projections

	TAZ	Total Area (Square Miles)	Area in Sewershed (Square Miles)	Percentage of Area in Sewershed	Number of Households 2015	Number of Households 2020	Number of Households 2025	Number of Households 2030	Number of Households 2035	Number of Households 2040	Number of Households in Sewershed 2015	Number of Households in Sewershed 2020	Number of Households in Sewershed 2025	Number of Households in Sewershed 2030	Number of Households in Sewershed 2035	Number of Households in Sewershed 2040
Pendleton																
	1577	0.18454	0.00171	0.93%	642	642	642	642	642	642	6	6	6	6	6	6
	1579	0.31164	0.13162	42.23%	1,892	1,914	2,148	2,218	2,218	2,593	799	808	907	937	937	1,095
	1579	0.31164	0.00005	0.02%	1,892	1,914	2,148	2,218	2,218	2,593	0	0	0	0	0	0
	1580	0.11074	0.03462	31.26%	838	874	889	889	889	889	262	273	278	278	278	278
	1580	0.11074	0.06932	62.59%	838	874	889	889	889	889	525	547	556	556	556	556
	1581	0.14702	0.00005	0.03%	728	728	728	728	867	1,074	0	0	0	0	0	0
	1596	0.08642	0.00323	3.74%	1,655	2,059	2,240	2,472	2,675	2,824	62	77	84	92	100	106
	1598	0.09557	0.03460	36.20%	514	514	514	514	514	514	186	186	186	186	186	186
	1598	0.09557	0.00000	0.00%	514	514	514	514	514	514	0	0	0	0	0	0
	1599	0.07464	0.01754	23.50%	585	590	593	644	923	923	137	139	139	151	217	217
	1599	0.07464	0.00001	0.01%	585	590	593	644	923	923	0	0	0	0	0	0
	1600	0.18421	0.07582	41.16%	1,058	1,061	1,189	1,189	1,273	1,273	435	437	489	489	524	524
	1601	0.18653	0.01841	9.87%	832	905	939	996	1,185	1,213	82	89	93	98	117	120
	1604	0.08619	0.01283	14.89%	631	636	640	640	640	640	94	95	95	95	95	95
											2,589	2,658	2,835	2,890	3,017	3,184
Royal																
	1579	0.31164	0.00007	0.02%	1,892	1,914	2,148	2,218	2,218	2,593	0	0	0	1	1	1
	1593	0.06450	0.00014	0.21%	250	251	253	253	332	332	1	1	1	1	1	1
	1594	0.08431	0.00023	0.27%	291	298	306	306	306	306	1	1	1	1	1	1
	1598	0.09557	0.00909	9.51%	514	514	514	514	514	514	49	49	49	49	49	49
	1600	0.18421	0.02492	13.53%	1,058	1,061	1,189	1,189	1,273	1,273	143	144	161	161	172	172
	1601	0.18653	0.08031	43.05%	832	905	939	996	1,185	1,213	358	390	404	429	510	522
	1602	0.19369	0.08118	41.91%	1,120	1,122	1,126	1,126	1,126	1,126	469	470	472	472	472	472
	1603	0.07624	0.04447	58.33%	590	594	598	598	598	598	344	346	349	349	349	349
	1604	0.08619	0.07336	85.11%	631	636	640	640	640	640	537	541	545	545	545	545
	1605	0.05575	0.01488	26.69%	341	342	343	343	343	343	91	91	92	92	92	92
	1606	0.16825	0.00001	0.01%	77	77	77	77	77	77	0	0	0	0	0	0
											1,994	2,033	2,073	2,097	2,190	2,202
King and West																
	1580	0.11074	0.00418	3.78%	838	874	889	889	889	889	32	33	34	34	34	34
	1592	0.25399	0.00046	0.18%	1,874	3,179	4,137	4,299	4,507	4,507	3	6	8	8	8	8
	1593	0.06450	0.02835	43.95%	250	251	253	253	332	332	110	110	111	111	146	146
	1594	0.08431	0.05185	61.50%	291	298	306	306	306	306	179	183	188	188	188	188
	1594	0.08431	0.00001	0.01%	291	298	306	306	306	306	0	0	0	0	0	0
	1596	0.08642	0.00194	2.25%	1,655	2,059	2,240	2,472	2,675	2,824	37	46	50	56	60	63
	1597	0.16443	0.00894	5.44%	1,101	1,109	1,116	1,207	1,207	1,207	60	60	61	66	66	66
	1597	0.16443	0.07099	43.17%	1,101	1,109	1,116	1,207	1,207	1,207	475	479	482	521	521	521
	1597	0.16443	0.00000	0.00%	1,101	1,109	1,116	1,207	1,207	1,207	0	0	0	0	0	0
	1598	0.09557	0.05189	54.29%	514	514	514	514	514	514	279	279	279	279	279	279
	1598	0.09557	0.00000	0.00%	514	514	514	514	514	514	0	0	0	0	0	0
	1599	0.07464	0.05707	76.46%	585	590	593	644	923	923	447	451	453	492	706	706
	1599	0.07464	0.00001	0.01%	585	590	593	644	923	923	0	0	0	0	0	0
	1605	0.05575	0.00214	3.84%	341	342	343	343	343	343	13	13	13	13	13	13
	1606	0.16825	0.01413	8.40%	77	77	77	77	77	77	6	6	6	6	6	6
											1,642	1,668	1,685	1,774	2,027	2,031
Commonwealth																
	1569	0.28403	0.26992	95.03%	865	865	865	865	865	865	822	822	822	822	822	822
	1570	0.34737	0.00067	0.19%	899	899	899	899	899	899	2	2	2	2	2	2
	1571	0.40436	0.02140	5.29%	2,283	2,283	2,283	2,283	2,283	2,283	121	121	121	121	121	121
	1577	0.18454	0.00003	0.01%	642	642	642	642	642	642	0	0	0	0	0	0
	1578	0.13038	0.00036	0.27%	880	1,112	1,112	1,112	1,112	1,112	2	3	3	3	3	3
	1580	0.11074	0.00068	0.62%	838	874	889	889	889	889	5	5	5	5	5	5
	1581	0.14702	0.14682	99.86%	728	728	728	728	867	1,074	727	727	727	727	866	1,073
	1582	0.14654	0.14654	100.00%	760	760	760	760	760	760	760	760	760	760	760	760
	1583	0.25156	0.11597	46.10%	1,076	1,076	1,076	1,076	1,076	1,076	496	496	496	496	496	496
	1584	0.30211	0.04480	14.83%	1,101	1,101	1,157	1,157	1,543	1,929	163	163	172	172	229	286
	1586	0.29785	0.23259	78.09%	449	449	449	449	449	449	351	351	351	351	351	351

Attachment A
Household Projections

	TAZ	Total Area (Square Miles)	Area in Sewershed (Square Miles)	Percentage of Area in Sewershed	Number of Households 2015	Number of Households 2020	Number of Households 2025	Number of Households 2030	Number of Households 2035	Number of Households 2040	Number of Households in Sewershed 2015	Number of Households in Sewershed 2020	Number of Households in Sewershed 2025	Number of Households in Sewershed 2030	Number of Households in Sewershed 2035	Number of Households in Sewershed 2040
	1587	0.24250	0.22254	91.77%	383	383	383	383	383	383	351	351	351	351	351	351
	1588	0.23688	0.19188	81.00%	447	447	447	447	447	447	362	362	362	362	362	362
	1589	0.43136	0.00058	0.14%	458	458	458	458	458	458	1	1	1	1	1	1
	1590	0.68467	0.13063	19.08%	1,866	1,866	1,866	1,866	1,866	2,009	356	356	356	356	356	383
	1593	0.06450	0.00009	0.14%	250	251	253	253	332	332	0	0	0	0	0	0
	1594	0.08431	0.03104	36.82%	291	298	306	306	306	306	107	110	113	113	113	113
	1595	0.22833	0.22833	100.00%	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013
	1596	0.08642	0.08125	94.02%	1,655	2,059	2,240	2,472	2,675	2,824	1,556	1,936	2,106	2,324	2,515	2,655
	1597	0.16443	0.08450	51.39%	1,101	1,109	1,116	1,207	1,207	1,207	566	570	574	620	620	620
	1597	0.16443	0.00000	0.00%	1,101	1,109	1,116	1,207	1,207	1,207	0	0	0	0	0	0
	1599	0.07464	0.00002	0.03%	585	590	593	644	923	923	0	0	0	0	0	0
											7,762	8,149	8,334	8,599	8,986	9,418
Four Mile Run																
	1569	0.28403	0.00021	0.07%	865	865	865	865	865	865	1	1	1	1	1	1
	1570	0.34737	0.34670	99.81%	899	899	899	899	899	899	897	897	897	897	897	897
	1571	0.40436	0.38274	94.65%	2,283	2,283	2,283	2,283	2,283	2,283	2,161	2,161	2,161	2,161	2,161	2,161
	1572	0.15970	0.15941	99.82%	1,648	1,648	1,702	1,702	1,867	1,867	1,645	1,645	1,699	1,699	1,864	1,864
	1573	0.16909	0.00328	1.94%	810	869	1,911	2,712	3,363	4,014	16	17	37	53	65	78
	1574	0.21569	0.21513	99.74%	1,423	1,434	1,632	1,632	1,632	1,694	1,419	1,430	1,628	1,628	1,628	1,690
	1575	0.18605	0.18605	100.00%	1,334	1,385	1,418	1,418	1,418	1,418	1,334	1,385	1,418	1,418	1,418	1,418
	1578	0.13038	0.00170	1.31%	880	1,112	1,112	1,112	1,112	1,112	11	15	15	15	15	15
	1578	0.13038	0.00001	0.01%	880	1,112	1,112	1,112	1,112	1,112	0	0	0	0	0	0
	1583	0.25156	0.13559	53.90%	1,076	1,076	1,076	1,076	1,076	1,076	580	580	580	580	580	580
	1584	0.30211	0.18492	61.21%	1,101	1,101	1,157	1,157	1,543	1,929	674	674	708	708	944	1,181
	1585	0.20529	0.20529	100.00%	1,527	1,527	1,527	1,527	1,527	1,527	1,527	1,527	1,527	1,527	1,527	1,527
	1586	0.29785	0.06526	21.91%	449	449	449	449	449	449	98	98	98	98	98	98
											10,364	10,430	10,769	10,784	11,198	11,509
Holmes Run																
	1546	0.15113	0.14798	97.92%	189	189	189	189	189	189	185	185	185	185	185	185
	1547	0.55146	0.54932	99.61%	5,164	5,287	5,375	5,647	5,849	6,474	5,144	5,267	5,354	5,625	5,826	6,449
	1548	0.10600	0.10600	100.00%	0	300	494	718	967	1,261	0	300	494	718	967	1,261
	1549	0.25134	0.25134	100.00%	2,812	3,580	3,588	3,588	3,588	3,801	2,812	3,580	3,588	3,588	3,588	3,801
	1550	0.19809	0.19809	100.00%	2,857	2,857	2,858	2,858	2,858	2,858	2,857	2,857	2,858	2,858	2,858	2,858
	1551	0.27332	0.27333	100.00%	1,728	1,728	1,728	1,728	1,728	1,728	1,728	1,728	1,728	1,728	1,728	1,728
	1552	0.20670	0.20482	99.09%	592	593	595	595	595	595	587	588	590	590	590	590
	1553	0.40696	0.37316	91.69%	1,424	1,424	1,424	1,424	1,424	1,424	1,306	1,306	1,306	1,306	1,306	1,306
	1553	0.40696	0.03381	8.31%	1,424	1,424	1,424	1,424	1,424	1,424	118	118	118	118	118	118
	1554	0.58330	0.05905	10.12%	826	826	826	826	826	826	84	84	84	84	84	84
	1554	0.58330	0.52387	89.81%	826	826	826	826	826	826	742	742	742	742	742	742
	1555	0.57790	0.57067	98.75%	3,030	3,030	3,030	3,030	3,030	3,030	2,992	2,992	2,992	2,992	2,992	2,992
	1556	0.33144	0.32563	98.25%	1,075	1,175	1,205	1,341	1,624	1,714	1,056	1,154	1,184	1,317	1,596	1,684
	1557	0.06751	0.06751	100.00%	398	398	399	516	764	807	398	398	399	516	764	807
	1558	0.46538	0.46374	99.65%	2,501	2,563	2,912	3,111	3,111	3,111	2,492	2,554	2,902	3,100	3,100	3,100
	1559	0.24260	0.24193	99.72%	2,642	2,642	2,642	2,642	2,642	2,642	2,635	2,635	2,635	2,635	2,635	2,635
	1560	0.12269	0.12269	100.00%	0	400	500	700	900	1,200	0	400	500	700	900	1,200
	1561	0.21009	0.20851	99.25%	336	336	336	336	336	336	333	333	333	333	333	333
	1562	0.04018	0.03981	99.08%	24	24	24	24	24	24	24	24	24	24	24	24
	1563	0.39249	0.38429	97.91%	1,618	1,973	2,372	2,943	3,355	3,259	1,584	1,932	2,322	2,882	3,285	3,191
	1564	0.22390	0.00120	0.54%	511	756	1,039	1,221	1,403	2,835	3	4	6	7	8	15
	1566	0.17238	0.00002	0.01%	3,278	3,278	3,278	3,278	3,278	3,278	0	0	0	0	0	0
	1567	0.30200	0.04855	16.08%	1,021	1,021	1,021	1,021	1,021	1,021	164	164	164	164	164	164
	1568	0.53053	0.25769	48.57%	599	603	607	607	654	701	291	293	295	295	318	340
	1568	0.53053	0.02171	4.09%	599	603	607	607	654	701	25	25	25	25	27	29
	1569	0.28403	0.01184	4.17%	865	865	865	865	865	865	36	36	36	36	36	36
	1587	0.24250	0.01997	8.23%	383	383	383	383	383	383	32	32	32	32	32	32
	1588	0.23688	0.04500	19.00%	447	447	447	447	447	447	85	85	85	85	85	85
	1589	0.43136	0.43078	99.87%	458	458	458	458	458	458	457	457	457	457	457	457
	1590	0.68467	0.51771	75.61%	1,866	1,866	1,866	1,866	1,866	2,009	1,411	1,411	1,411	1,411	1,411	1,519

Attachment A
Household Projections

	TAZ	Total Area (Square Miles)	Area in Sewershed (Square Miles)	Percentage of Area in Sewershed	Number of Households 2015	Number of Households 2020	Number of Households 2025	Number of Households 2030	Number of Households 2035	Number of Households 2040	Number of Households in Sewershed 2015	Number of Households in Sewershed 2020	Number of Households in Sewershed 2025	Number of Households in Sewershed 2030	Number of Households in Sewershed 2035	Number of Households in Sewershed 2040
	1590	0.68467	0.03634	5.31%	1,866	1,866	1,866	1,866	1,866	2,009	99	99	99	99	99	107
	1591	0.11054	0.00037	0.33%	581	610	629	629	865	865	2	2	2	2	3	3
	1591	0.11054	0.11017	99.67%	581	610	629	629	865	865	579	608	627	627	862	862
	1592	0.25399	0.22418	88.27%	1,874	3,179	4,137	4,299	4,507	4,507	1,654	2,806	3,652	3,795	3,978	3,978
	1593	0.06450	0.02550	39.53%	250	251	253	253	332	332	99	99	100	100	131	131
	1594	0.08431	0.00102	1.21%	291	298	306	306	306	306	4	4	4	4	4	4
	1606	0.16825	0.00002	0.01%	77	77	77	77	77	77	0	0	0	0	0	0
	1608	0.20600	0.01344	6.52%	412	421	427	427	427	427	27	27	28	28	28	28
	1608	0.20600	0.19256	93.48%	412	421	427	427	427	427	385	394	399	399	399	399
	1609	0.16460	0.13045	79.26%	0	0	0	0	0	0	0	0	0	0	0	0
	1609	0.16460	0.03415	20.74%	0	0	0	0	0	0	0	0	0	0	0	0
	1610	0.21289	0.21289	100.00%	210	210	210	210	210	210	210	210	210	210	210	210
											32,639	35,932	37,968	39,815	41,871	43,487
Potomac Interceptor																
	1576	0.19350	0.02799	14.47%	0	0	0	0	0	0	0	0	0	0	0	0
	1577	0.18454	0.06251	33.87%	642	642	642	642	642	642	217	217	217	217	217	217
	1578	0.13038	0.00015	0.11%	880	1,112	1,112	1,112	1,112	1,112	1	1	1	1	1	1
	1579	0.31164	0.16102	51.67%	1,892	1,914	2,148	2,218	2,218	2,593	978	989	1,110	1,146	1,146	1,340
	1579	0.31164	0.00005	0.02%	1,892	1,914	2,148	2,218	2,218	2,593	0	0	0	0	0	0
	1580	0.11074	0.00194	1.75%	838	874	889	889	889	889	15	15	16	16	16	16
	1592	0.25399	0.01699	6.69%	1,874	3,179	4,137	4,299	4,507	4,507	125	213	277	288	301	301
	1593	0.06450	0.01042	16.16%	250	251	253	253	332	332	40	41	41	41	54	54
	1594	0.08431	0.00017	0.20%	291	298	306	306	306	306	1	1	1	1	1	1
	1600	0.18421	0.06596	35.81%	1,058	1,061	1,189	1,189	1,273	1,273	379	380	426	426	456	456
	1601	0.18653	0.07543	40.44%	832	905	939	996	1,185	1,213	336	366	380	403	479	491
	1602	0.19369	0.10332	53.34%	1,120	1,122	1,126	1,126	1,126	1,126	597	598	601	601	601	601
	1603	0.07624	0.03133	41.09%	590	594	598	598	598	598	242	244	246	246	246	246
	1605	0.05575	0.03873	69.47%	341	342	343	343	343	343	237	238	238	238	238	238
	1606	0.16825	0.15350	91.23%	77	77	77	77	77	77	70	70	70	70	70	70
	1607	0.34161	0.09366	27.42%	745	752	644	644	983	983	204	206	177	177	270	270
											3,444	3,579	3,800	3,870	4,096	4,301
Potomac Yards																
	1573	0.16909	0.15645	92.52%	810	869	1,911	2,712	3,363	4,014	749	804	1,768	2,509	3,112	3,714
	1574	0.21569	0.00044	0.20%	1,423	1,434	1,632	1,632	1,632	1,694	3	3	3	3	3	3
	1576	0.19350	0.16136	83.39%	0	0	0	0	0	0	0	0	0	0	0	0
	1577	0.18454	0.11806	63.98%	642	642	642	642	642	642	411	411	411	411	411	411
	1578	0.13038	0.12816	98.30%	880	1,112	1,112	1,112	1,112	1,112	865	1,093	1,093	1,093	1,093	1,093
	1581	0.14702	0.00015	0.10%	728	728	728	728	867	1,074	1	1	1	1	1	1
	1584	0.30211	0.07187	23.79%	1,101	1,101	1,157	1,157	1,543	1,929	262	262	275	275	367	459
	1584	0.30211	0.00052	0.17%	1,101	1,101	1,157	1,157	1,543	1,929	2	2	2	2	3	3
											2,293	2,575	3,553	4,294	4,989	5,684

Attachment B

Attachment B
Employees Projections

	TAZ	Total Area (Square Miles)	Area in Sewershed (Square Miles)	Percentage of Area in Sewershed	Number of Employees 2015	Number of Employees 2020	Number of Employees 2025	Number of Employees 2030	Number of Employees 2035	Number of Employees 2040	Number of Employees in Sewershed 2015	Number of Employees in Sewershed 2020	Number of Employees in Sewershed 2025	Number of Employees in Sewershed 2030	Number of Employees in Sewershed 2035	Number of Employees in Sewershed 2040
Pendleton																
	1577	0.18454	0.00171	0.93%	250	250	250	250	250	250	2	2	2	2	2	2
	1579	0.31164	0.13162	42.23%	7,796	7,796	8,090	8,468	8,468	8,472	3,293	3,293	3,417	3,576	3,576	3,578
	1579	0.31164	0.00005	0.02%	7,796	7,796	8,090	8,468	8,468	8,472	1	1	1	1	1	1
	1580	0.11074	0.03462	31.26%	611	611	611	611	611	611	191	191	191	191	191	191
	1580	0.11074	0.06932	62.59%	611	611	611	611	611	611	382	382	382	382	382	382
	1581	0.14702	0.00005	0.03%	460	460	460	460	480	482	0	0	0	0	0	0
	1596	0.08642	0.00323	3.74%	3,431	3,410	3,631	3,682	4,034	5,077	128	127	136	138	151	190
	1598	0.09557	0.03460	36.20%	2,213	2,213	2,213	2,213	2,213	2,213	801	801	801	801	801	801
	1598	0.09557	0.00000	0.00%	2,213	2,213	2,213	2,213	2,213	2,213	0	0	0	0	0	0
	1599	0.07464	0.01754	23.50%	552	552	697	697	904	904	130	130	164	164	212	212
	1599	0.07464	0.00001	0.01%	552	552	697	697	904	904	0	0	0	0	0	0
	1600	0.18421	0.07582	41.16%	5,000	5,000	4,929	4,929	4,928	4,928	2,058	2,058	2,029	2,029	2,028	2,028
	1601	0.18653	0.01841	9.87%	4,600	4,616	4,641	4,772	4,835	4,840	454	456	458	471	477	478
	1604	0.08619	0.01283	14.89%	1,800	1,800	1,800	1,800	1,800	1,800	268	268	268	268	268	268
											7,709	7,710	7,849	8,024	8,092	8,133
Royal																
	1579	0.31164	0.00007	0.02%	7,796	7,796	8,090	8,468	8,468	8,472	2	2	2	2	2	2
	1593	0.06450	0.00014	0.21%	3,499	3,499	3,499	3,499	3,391	3,391	7	7	7	7	7	7
	1594	0.08431	0.00023	0.27%	5,518	5,690	5,747	5,902	5,902	5,902	15	15	16	16	16	16
	1598	0.09557	0.00909	9.51%	2,213	2,213	2,213	2,213	2,213	2,213	210	210	210	210	210	210
	1600	0.18421	0.02492	13.53%	5,000	5,000	4,929	4,929	4,928	4,928	676	676	667	667	667	667
	1601	0.18653	0.08031	43.05%	4,600	4,616	4,641	4,772	4,835	4,840	1,980	1,987	1,998	2,054	2,082	2,084
	1602	0.19369	0.08118	41.91%	501	501	501	501	501	501	210	210	210	210	210	210
	1603	0.07624	0.04447	58.33%	555	555	555	555	555	555	324	324	324	324	324	324
	1604	0.08619	0.07336	85.11%	1,800	1,800	1,800	1,800	1,800	1,800	1,532	1,532	1,532	1,532	1,532	1,532
	1605	0.05575	0.01488	26.69%	60	60	60	60	65	65	16	16	16	16	17	17
	1606	0.16825	0.00001	0.01%	150	150	150	150	150	150	0	0	0	0	0	0
											4,973	4,981	4,982	5,039	5,067	5,069
King and West																
	1580	0.11074	0.00418	3.78%	611	611	611	611	611	611	23	23	23	23	23	23
	1592	0.25399	0.00046	0.18%	10,497	13,927	15,993	16,082	16,085	16,683	19	25	29	29	29	30
	1593	0.06450	0.02835	43.95%	3,499	3,499	3,499	3,499	3,391	3,391	1,538	1,538	1,538	1,538	1,490	1,490
	1594	0.08431	0.05185	61.50%	5,518	5,690	5,747	5,902	5,902	5,902	3,393	3,499	3,534	3,630	3,630	3,630
	1594	0.08431	0.00001	0.01%	5,518	5,690	5,747	5,902	5,902	5,902	0	0	0	0	0	0
	1596	0.08642	0.00194	2.25%	3,431	3,410	3,631	3,682	4,034	5,077	77	77	82	83	91	114
	1597	0.16443	0.00894	5.44%	2,556	2,556	2,556	2,523	2,523	2,523	139	139	139	137	137	137
	1597	0.16443	0.07099	43.17%	2,556	2,556	2,556	2,523	2,523	2,523	1,103	1,103	1,103	1,089	1,089	1,089
	1597	0.16443	0.00000	0.00%	2,556	2,556	2,556	2,523	2,523	2,523	0	0	0	0	0	0
	1598	0.09557	0.05189	54.29%	2,213	2,213	2,213	2,213	2,213	2,213	1,201	1,201	1,201	1,201	1,201	1,201
	1598	0.09557	0.00000	0.00%	2,213	2,213	2,213	2,213	2,213	2,213	0	0	0	0	0	0
	1599	0.07464	0.05707	76.46%	552	552	697	697	904	904	422	422	533	533	691	691
	1599	0.07464	0.00001	0.01%	552	552	697	697	904	904	0	0	0	0	0	0
	1605	0.05575	0.00214	3.84%	60	60	60	60	65	65	2	2	2	2	2	2
	1606	0.16825	0.01413	8.40%	150	150	150	150	150	150	13	13	13	13	13	13
											7,932	8,044	8,198	8,279	8,398	8,422
Commonwealth																
	1569	0.28403	0.26992	95.03%	1,005	1,005	1,005	1,005	1,005	1,005	955	955	955	955	955	955
	1570	0.34737	0.00067	0.19%	100	100	100	100	100	100	0	0	0	0	0	0
	1571	0.40436	0.02140	5.29%	814	814	814	814	814	814	43	43	43	43	43	43
	1577	0.18454	0.00003	0.01%	250	250	250	250	250	250	0	0	0	0	0	0
	1578	0.13038	0.00036	0.27%	387	389	2,363	4,288	4,288	4,288	1	1	6	12	12	12
	1580	0.11074	0.00068	0.62%	611	611	611	611	611	611	4	4	4	4	4	4
	1581	0.14702	0.14682	99.86%	460	460	460	460	480	482	459	459	459	459	479	481
	1582	0.14654	0.14654	100.00%	200	200	200	200	200	200	200	200	200	200	200	200
	1583	0.25156	0.11597	46.10%	1,000	1,000	1,000	1,000	1,000	1,000	461	461	461	461	461	461
	1584	0.30211	0.04480	14.83%	1,349	1,349	1,350	1,350	1,354	1,358	200	200	200	200	201	201

Attachment B
Employees Projections

	TAZ	Total Area (Square Miles)	Area in Sewershed (Square Miles)	Percentage of Area in Sewershed	Number of Employees 2015	Number of Employees 2020	Number of Employees 2025	Number of Employees 2030	Number of Employees 2035	Number of Employees 2040	Number of Employees in Sewershed 2015	Number of Employees in Sewershed 2020	Number of Employees in Sewershed 2025	Number of Employees in Sewershed 2030	Number of Employees in Sewershed 2035	Number of Employees in Sewershed 2040
	1586	0.29785	0.23259	78.09%	400	400	400	400	400	400	312	312	312	312	312	312
	1587	0.24250	0.22254	91.77%	450	450	450	450	450	450	413	413	413	413	413	413
	1588	0.23688	0.19188	81.00%	100	100	100	100	100	100	81	81	81	81	81	81
	1589	0.43136	0.00058	0.14%	800	800	800	800	800	800	1	1	1	1	1	1
	1590	0.68467	0.13063	19.08%	1,200	1,200	1,200	1,200	1,200	1,480	229	229	229	229	229	282
	1593	0.06450	0.00009	0.14%	3,499	3,499	3,499	3,499	3,391	3,391	5	5	5	5	5	5
	1594	0.08431	0.03104	36.82%	5,518	5,690	5,747	5,902	5,902	5,902	2,032	2,095	2,116	2,173	2,173	2,173
	1595	0.22833	0.22833	100.00%	230	230	230	230	230	230	230	230	230	230	230	230
	1596	0.08642	0.08125	94.02%	3,431	3,410	3,631	3,682	4,034	5,077	3,226	3,206	3,414	3,462	3,793	4,773
	1597	0.16443	0.08450	51.39%	2,556	2,556	2,556	2,523	2,523	2,523	1,314	1,314	1,314	1,297	1,297	1,297
	1597	0.16443	0.00000	0.00%	2,556	2,556	2,556	2,523	2,523	2,523	0	0	0	0	0	0
	1599	0.07464	0.00002	0.03%	552	552	697	697	904	904	0	0	0	0	0	0
											10,166	10,209	10,444	10,537	10,888	11,925
Four Mile Run																
	1569	0.28403	0.00021	0.07%	1,005	1,005	1,005	1,005	1,005	1,005	1	1	1	1	1	1
	1570	0.34737	0.34670	99.81%	100	100	100	100	100	100	100	100	100	100	100	100
	1571	0.40436	0.38274	94.65%	814	814	814	814	814	814	770	770	770	770	770	770
	1572	0.15970	0.15941	99.82%	549	549	547	597	673	673	548	548	546	596	672	672
	1573	0.16909	0.00328	1.94%	1,355	2,886	4,549	8,809	12,459	15,879	26	56	88	171	241	308
	1574	0.21569	0.21513	99.74%	838	828	841	841	841	850	836	826	839	839	839	848
	1575	0.18605	0.18605	100.00%	788	788	788	788	788	788	788	788	788	788	788	788
	1578	0.13038	0.00170	1.31%	387	389	2,363	4,288	4,288	4,288	5	5	31	56	56	56
	1578	0.13038	0.00001	0.01%	387	389	2,363	4,288	4,288	4,288	0	0	0	0	0	0
	1583	0.25156	0.13559	53.90%	1,000	1,000	1,000	1,000	1,000	1,000	539	539	539	539	539	539
	1584	0.30211	0.18492	61.21%	1,349	1,349	1,350	1,350	1,354	1,358	826	826	826	826	829	831
	1585	0.20529	0.20529	100.00%	341	341	341	341	341	341	341	341	341	341	341	341
	1586	0.29785	0.06526	21.91%	400	400	400	400	400	400	88	88	88	88	88	88
											4,868	4,887	4,957	5,115	5,264	5,342
Holmes Run																
	1546	0.15113	0.14798	97.92%	901	901	901	901	1,272	1,272	882	882	882	882	1,246	1,246
	1547	0.55146	0.54932	99.61%	3,600	3,601	3,622	4,047	4,405	5,923	3,586	3,587	3,608	4,031	4,388	5,900
	1548	0.10600	0.10600	100.00%	756	759	1,111	1,649	1,652	1,492	756	759	1,111	1,649	1,652	1,492
	1549	0.25134	0.25134	100.00%	2,000	1,708	1,481	1,561	1,561	1,576	2,000	1,708	1,481	1,561	1,561	1,576
	1550	0.19809	0.19809	100.00%	401	401	401	401	401	401	401	401	401	401	401	401
	1551	0.27332	0.27333	100.00%	250	250	250	250	250	250	250	250	250	250	250	250
	1552	0.20670	0.20482	99.09%	4,684	4,684	6,478	6,478	6,478	6,478	4,641	4,641	6,419	6,419	6,419	6,419
	1553	0.40696	0.03381	8.31%	2,192	2,192	2,192	2,192	2,192	2,192	182	182	182	182	182	182
	1553	0.40696	0.37316	91.69%	2,192	2,192	2,192	2,192	2,192	2,192	2,010	2,010	2,010	2,010	2,010	2,010
	1554	0.58330	0.05905	10.12%	400	400	400	400	400	400	40	40	40	40	40	40
	1554	0.58330	0.52387	89.81%	400	400	400	400	400	400	359	359	359	359	359	359
	1555	0.57790	0.57067	98.75%	2,513	2,588	2,588	2,588	2,588	2,588	2,482	2,556	2,556	2,556	2,556	2,556
	1556	0.33144	0.32563	98.25%	10,118	10,756	11,394	11,394	11,395	11,395	9,941	10,567	11,194	11,194	11,195	11,195
	1557	0.06751	0.06751	100.00%	0	0	0	0	2	2	0	0	0	0	2	2
	1558	0.46538	0.46374	99.65%	758	759	762	764	764	764	755	756	759	761	761	761
	1559	0.24260	0.24193	99.72%	609	609	609	609	609	609	607	607	607	607	607	607
	1560	0.12269	0.12269	100.00%	301	694	2,485	3,887	4,978	5,681	301	694	2,485	3,887	4,978	5,681
	1561	0.21009	0.20851	99.25%	16	16	16	16	16	16	16	16	16	16	16	16
	1562	0.04018	0.03981	99.08%	60	60	60	60	60	60	59	59	59	59	59	59
	1563	0.39249	0.38429	97.91%	1,796	2,019	2,550	6,923	7,594	7,694	1,758	1,977	2,497	6,778	7,435	7,533
	1564	0.22390	0.00120	0.54%	1,801	1,835	2,131	2,133	2,285	2,171	10	10	11	11	12	12
	1566	0.17238	0.00002	0.01%	599	599	955	1,072	1,097	1,097	0	0	0	0	0	0
	1567	0.30200	0.04855	16.08%	1,452	1,452	1,452	1,452	1,452	1,510	233	233	233	233	233	243
	1568	0.53053	0.25769	48.57%	1,249	1,617	1,617	1,692	1,693	1,693	607	785	785	822	822	822
	1568	0.53053	0.02171	4.09%	1,249	1,617	1,617	1,692	1,693	1,693	51	66	66	69	69	69
	1569	0.28403	0.01184	4.17%	1,005	1,005	1,005	1,005	1,005	1,005	42	42	42	42	42	42
	1587	0.24250	0.01997	8.23%	450	450	450	450	450	450	37	37	37	37	37	37
	1588	0.23688	0.04500	19.00%	100	100	100	100	100	100	19	19	19	19	19	19

Attachment B
Employees Projections

	TAZ	Total Area (Square Miles)	Area in Sewershed (Square Miles)	Percentage of Area in Sewershed	Number of Employees 2015	Number of Employees 2020	Number of Employees 2025	Number of Employees 2030	Number of Employees 2035	Number of Employees 2040	Number of Employees in Sewershed 2015	Number of Employees in Sewershed 2020	Number of Employees in Sewershed 2025	Number of Employees in Sewershed 2030	Number of Employees in Sewershed 2035	Number of Employees in Sewershed 2040
	1589	0.43136	0.43078	99.87%	800	800	800	800	800	800	799	799	799	799	799	799
	1590	0.68467	0.51771	75.61%	1,200	1,200	1,200	1,200	1,200	1,480	907	907	907	907	907	1,119
	1590	0.68467	0.03634	5.31%	1,200	1,200	1,200	1,200	1,200	1,480	64	64	64	64	64	79
	1591	0.11054	0.00037	0.33%	4,827	4,827	7,227	11,561	11,962	14,670	16	16	24	39	40	49
	1591	0.11054	0.11017	99.67%	4,827	4,827	7,227	11,561	11,962	14,670	4,811	4,811	7,203	11,522	11,922	14,621
	1592	0.25399	0.22418	88.27%	10,497	13,927	15,993	16,082	16,085	16,683	9,265	12,293	14,116	14,195	14,198	14,725
	1593	0.06450	0.02550	39.53%	3,499	3,499	3,499	3,499	3,391	3,391	1,383	1,383	1,383	1,383	1,341	1,341
	1594	0.08431	0.00102	1.21%	5,518	5,690	5,747	5,902	5,902	5,902	67	69	69	71	71	71
	1606	0.16825	0.00002	0.01%	150	150	150	150	150	150	0	0	0	0	0	0
	1608	0.20600	0.01344	6.52%	1,900	1,900	1,900	1,946	1,946	1,946	124	124	124	127	127	127
	1608	0.20600	0.19256	93.48%	1,900	1,900	1,900	1,946	1,946	1,946	1,776	1,776	1,776	1,819	1,819	1,819
	1609	0.16460	0.13045	79.26%	1,600	1,600	1,600	1,600	1,600	1,600	1,268	1,268	1,268	1,268	1,268	1,268
	1609	0.16460	0.03415	20.74%	1,600	1,600	1,600	1,600	1,600	1,600	332	332	332	332	332	332
	1610	0.21289	0.21289	100.00%	901	901	901	901	901	901	901	901	901	901	901	901
											53,740	57,989	67,079	78,306	81,142	86,781
Potomac Interceptor																
	1576	0.19350	0.02799	14.47%	20	20	20	20	20	20	3	3	3	3	3	3
	1577	0.18454	0.06251	33.87%	250	250	250	250	250	250	85	85	85	85	85	85
	1578	0.13038	0.00015	0.11%	387	389	2,363	4,288	4,288	4,288	0	0	3	5	5	5
	1579	0.31164	0.16102	51.67%	7,796	7,796	8,090	8,468	8,468	8,472	4,028	4,028	4,180	4,375	4,375	4,377
	1579	0.31164	0.00005	0.02%	7,796	7,796	8,090	8,468	8,468	8,472	1	1	1	1	1	1
	1580	0.11074	0.00194	1.75%	611	611	611	611	611	611	11	11	11	11	11	11
	1592	0.25399	0.01699	6.69%	10,497	13,927	15,993	16,082	16,085	16,683	702	931	1,070	1,076	1,076	1,116
	1593	0.06450	0.01042	16.16%	3,499	3,499	3,499	3,499	3,391	3,391	566	566	566	566	548	548
	1594	0.08431	0.00017	0.20%	5,518	5,690	5,747	5,902	5,902	5,902	11	11	11	12	12	12
	1600	0.18421	0.06596	35.81%	5,000	5,000	4,929	4,929	4,928	4,928	1,790	1,790	1,765	1,765	1,764	1,764
	1601	0.18653	0.07543	40.44%	4,600	4,616	4,641	4,772	4,835	4,840	1,860	1,867	1,877	1,930	1,955	1,957
	1602	0.19369	0.10332	53.34%	501	501	501	501	501	501	267	267	267	267	267	267
	1603	0.07624	0.03133	41.09%	555	555	555	555	555	555	228	228	228	228	228	228
	1605	0.05575	0.03873	69.47%	60	60	60	60	65	65	42	42	42	42	45	45
	1606	0.16825	0.15350	91.23%	150	150	150	150	150	150	137	137	137	137	137	137
	1607	0.34161	0.09366	27.42%	90	90	89	89	92	92	25	25	24	24	25	25
											9,755	9,992	10,269	10,525	10,537	10,582
Potomac Yards																
	1573	0.16909	0.15645	92.52%	1,355	2,886	4,549	8,809	12,459	15,879	1,254	2,670	4,209	8,150	11,527	14,692
	1574	0.21569	0.00044	0.20%	838	828	841	841	841	850	2	2	2	2	2	2
	1576	0.19350	0.16136	83.39%	20	20	20	20	20	20	17	17	17	17	17	17
	1577	0.18454	0.11806	63.98%	250	250	250	250	250	250	160	160	160	160	160	160
	1578	0.13038	0.12816	98.30%	387	389	2,363	4,288	4,288	4,288	380	382	2,323	4,215	4,215	4,215
	1581	0.14702	0.00015	0.10%	460	460	460	460	480	482	0	0	0	0	0	1
	1584	0.30211	0.07187	23.79%	1,349	1,349	1,350	1,350	1,354	1,358	321	321	321	321	322	323
	1584	0.30211	0.00052	0.17%	1,349	1,349	1,350	1,350	1,354	1,358	2	2	2	2	2	2
											2,136	3,555	7,034	12,868	16,246	19,411

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