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COUNTY COUNCIL
OF
HARFORD COUNTY, MARYLAND

Resolution No. 012-18

Legislative Session Day 18-020

September 4, 2018

Introduced by Council President Slutzky at
the request of the County Executive

A RESOLUTION providing for the adoption of the Master Water and Sewer Plan Fall 2018 update, a copy of which is attached hereto, and for submission of the Plan to the Maryland Department of the Environment for its approval and implementation pursuant to Title 9 of the Environment Article of the Maryland Annotated Code.

RESOLUTION NO. 012-18

1 WHEREAS, the Harford County Code requires that the Water and Sewer Plan be updated
2 every 6 months; and

3 WHEREAS, the Code further provides that the revised Plan be submitted to the County
4 Council for their approval on the first Tuesday of March and September.

5 NOW, THEREFORE, BE IT RESOLVED by the County Council of Harford County,
6 Maryland, that the Master Water and Sewer Plan Fall 2018 update is hereby adopted and shall be
7 submitted to the Maryland Department of the Environment for its approval and implementation
8 pursuant to Title 9 of the Environment Article of the Maryland Annotated Code.

9 AND BE IT FURTHER RESOLVED that the County Council shall take final action on
10 this Resolution within 60 business days of introduction.

ATTEST:

Myliia Dixon
Council Administrator

Richard C. Slutzky
President of the Council

ADOPTED:

Below is a summary of the proposed changes for the Fall 2018 revision of the Water and Sewer Master Plan:

- **Table 3-1 “Planned Developments”** was revised to reflect the completion of water and sewer main construction for several projects in the last six months. The total number of remaining residential and industrially zoned units with approved preliminary plans was also updated.
- **Table 3-3** was updated to indicate the number of connections to the County water system during the 2017-2018 fiscal year as well as the water consumption associated with those connections. The data concerning the projected connections to the County water system through the year 2035 were also updated.
- **Table 3-8 “Planned Capital Water Projects”** was adjusted to update the timing of two Harford County water capital projects. Also, information concerning projects within the City of Aberdeen was revised in accordance with their request. The table in this workbook only includes the projects to which changes are proposed. A comprehensive table showing all capital water projects in the County and the three municipalities can be found in Chapter Three of the overall Water and Sewer Master Plan document.
- **Table 4-2 “Planned Capital Sewerage Projects”** was adjusted to add several new Harford County sewer projects and to revise the timing of existing projects. Also, several completed projects are being removed from the table. The table was also adjusted to indicate the completion and revised construction timing of several projects within the City of Aberdeen. Similar to Table 3-8, this table also includes only those projects to which changes are proposed.
- **Table 4-5** which shows the size and capacity of each of the County’s sewage pumping stations was revised to update the current flows into several of the stations and their new reserve capacities were calculated.

MASTER WATER & SEWER PLAN
FALL 2018 UPDATE WORKBOOK

CHAPTER 3

3.15 TABLE 3-1 PLANNED DEVELOPMENTS

DEVELOPMENT	COUNCIL DISTRICT	SERVICE ZONE	W1/S1 UNITS	W3/S3 UNITS	W5/S5 UNITS	TOTAL UNITS	MAP GRID	UNIT CODE
ABINGDON WOODS	F	H1		928		928	B-5, C-5	IND
BEECHTREE ESTATES	E	H1	361	385		746	D-4	SF, TH
BERKSHIRE MANOR	F	H1		290		290	D-4	SF, TH
BOX HILL SOUTH	B	H2	1,062	33		1095	B-5	SF, TH, SC, COM, AP
CONSTANT FRIENDSHIP BUSINESS	B	H1	619	33		652	B-5	COMM
COSENTINO PROPERTY	A	H1		4		4	B-6	SF
CROSSROADS AT HICKORY	D	H3	24	29		58	B-2	COMM
EAST GATE	F	H1	1080	1080 0		1080	D-4, D-5	IND
ENCLAVE AT BOX HILL	B	H2	240	149		389	B-5	AP
EVA MAR	E	H3	68 104	598 562		666	B-2	SF, TH, APP, COMM
EVERGREEN FARMS	B	H3	198		151	349	B-4	COMM
FLYING POINT MARINA	A	H1		200		200	C-6	AP
FOREST GREENS SECTION 1-D	F	H1	14		23	37	D-5	SF
FOSTERS RUN	A	H1		233		233	B-6	SF
GLENANGUS	C	H3	229	15		244	B-3	SF, TH
GRAY'S RUN OVERLOOK	E	H1	19 39	20 0		39	D-4	SF
HAMILTON RESERVE II	B	H4		25		25	A-4	SF
HOLLY WOODS	F	H1	823	196		1019	D-4	TH, AP
JAMES RUN	F	H2		444		444	C-4	IND
JOPPA CROSSING	A	H1	171	53		224	A-6	SF, COMM
LAKESIDE INDUSTRIAL PARK	F	H1	346	51		397	B-5	IND
LAUREL BUSH ESTATES	F	H2		136		136	C-4	SF

UNIT CODE

EQ-EQUIVALENT UNIT - S.F. UNIT
 MH - MOBILE HOME PARK
 SF - SINGLE FAMILY DWELLING
 TH - TOWNHOUSE
 AP - APARTMENTS/CONDOS
 COMM - COMMERCIAL/BUSINESS
 IND - INDUSTRIAL
 UNK - UNKNOWN
 SC - SCHOOL
 CH - CHURCH

WATER SOURCE

H-HARFORD COUNTY SYSTEM, ZONES 1,2,3 OR 4
 MA - MARYLAND-AMERICAN SYSTEM
 G - GREENRIDGE UTILITIES INC. SYSTEM
 C - CAMPUS HILLS WATER COMPANY

UNIT DEFINITIONS

W1/S1 - EXISTING WATER AND SEWER SERVICE
 W3/S3 - ANTICIPATED SERVICE WITHIN 1 TO 5 YEARS
 W5/S5 - ANTICIPATED SERVICE WITHIN 6 TO 10 YEARS

TABLE 3-1 PLANNED DEVELOPMENTS

DEVELOPMENT	COUNCIL DISTRICT	SERVICE ZONE	W1/S1 UNITS	W3/S3 UNITS	W5/S5 UNITS	TOTAL UNITS	MAP GRID	UNIT CODE
LAUREL RIDGE	F	H2	115 167	57 5		172	C-4	SF,TH
LOCUST VIEW	C	H4		9		9	A-2	SF
MAGNESS EXEMPTION	C	H3	166 251	134 49		300	B-4	SF,TH
MAGNOLIA LANDING	A	H1	104	197		301	B-7	TH
MARBLE ARCH/WEST PROPERTY	F	H1	86	4		90	C-4	COMM
MARINER'S REST	A	H1		12		12	A-6	SF
MELISSA MANOR	F	H1		9		9	B-5	SF
MILLER PROPERTY	E	H1		3		3	D-4	SF
MITCHELL PROPERTY	F	H1			816	816	D-5, D-6	SF
MONARCH GLEN	C	H3		124		124	B-4	SF,TH
OAK GROVE/STANCILLS	A	H1		242		242	B-6	SF
OSBORN PROPERTY	E	H1			490	490	D-4	UNK
PERRYMAN FOREST	F	H1		21	6	27	D-5	SF
PERRYMAN INDUSTRIAL PARK	F	H1	751	130		881	D-5, D-6	IND
POUSKA PROPERTY	F	H1			52	52	C-5	SF
RAVENS WOODS	A	H1		27		27	B-5	TH
RED PUMP CRESCENT	C	H4		46		46	A-2	SF,TH
RESERVE AT RIVERSIDE	F	H2	400	16		416	C-4	AP
RIVERSIDE IND. PARK	F	H1	1,387	288		1675	D-4, D-5	IND
RIVERWOODS AT TOLLGATE	B	H1	84	86		170	B-5	AP, COMM
SOMERSET HILL	C	H3	10	33 23		33	B-4	SF
TOWNES AT BYNUM RUN	E	H3	38	34		72	B-3	TH
TRIMBLE KNOLL	A	H1		16		16	B-6	SF
TRIMBLE MEADOWS	A	H1	114	67		181	B-6	TH

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 W5/S5 - ANTICIPATED SERVICE WITHIN 6 TO 10 YEARS

TABLE 3-1 PLANNED DEVELOPMENTS

DEVELOPMENT	COUNCIL DISTRICT	SERVICE ZONE	W1/S1 UNITS	W3/S3 UNITS	W5/S5 UNITS	TOTAL UNITS	MAP GRID	UNIT CODE
TWS TOLLGATE	C	H3		21		21	B-4	SF
VAN BIBBER	F	H1		9		9	B-6	SF
WARD PROPERTY	D	MA	25	0		25	A-1	SF
WEST SHORE	F	H1	553	23		576	B-6, C-6	TH, COMM
WYNDEMEDE	E	H4	142	10	16	142	B-2	COMM

TOTAL OF FALL 2017 SPRING 2018	6,760 6,520
PROPERTIES MADE OPERATIONAL, COMPLETED PROJECTS OR CORRECTIONS	-249 -1283
NEW AND REVISED PRELIMINARY PLAN APPROVALS	+90
TOTAL ADJUSTMENTS	-240 -1283
TOTAL OF SPRING FALL 2018	6,520 5,237

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TABLE 3-1 PLANNED DEVELOPMENTS

PLANNED DEVELOPMENTS IN W-3/S-3 CATEGORY			
BY ZONING CATEGORY			
ZONING CATEGORY	<u>Residential Units</u> R1,R2,R3,R4	<u>Eq. Residential Units in business zone (incl. schools)</u> B1,B2,B3	<u>Industrial Acreage*</u> CI,GI, MO
FALL 2017 SPRING 2018	3,541 -3,452	186 64	758.25
SPRING FALL 2018	3,452 3,249	64	758.25 481.00
UNITS CHANGED SINCE FALL 2017 SPRING 2018	-89 -203	-151 0	0 277.25

*DOES NOT INCLUDE APPROXIMATELY 971.9 ACRES OF UNPLANNED INDUSTRIAL ACREAGE CLASSIFIED IN THE 3 CATEGORY FOR WATER AND SEWER.

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TABLE 3-3 HISTORICAL AND PREDICTED TABLE OF CONNECTIONS TO COUNTY WATER AND SEWER

YEAR	NUMBER EQUIVALENT CONNECTIONS	NUMBER OF CONNECTIONS	AVERAGE WATER CONSUMPTION	AVERAGE CUSTOMER GAL/DAY	MGD PEAK DAY CONSUMPTION	GAL/DAY PEAK PER CUSTOMER	PEAK/AVG. RATIO
FY2009-2010	1,811 ¹⁵	42,591	11.7	275	15.1	354	1.29
FY2010-2011	747	42,975	12.3	286	17.2*	400	1.40
FY2011-2012	601	43,257	12.0	277	15.5	358	1.29
FY2012-2013	486	43,600	12.8	294	16.1 ¹⁶	369	1.26
FY2013-2014	580	43,912	13.2 ¹⁷	301	15.4 ¹⁸	351	1.17
FY2014-2015	1056	44,139	13.0	295	17.2*	390	1.32
FY2015-2016	291	44,430	12.1	272	14.3*	322	1.18
FY2016-2017	287	44,717	11.9	266	16.7*	373	1.40
+FY2017-2018	628 371	45,345 45,088	12.3 11.8	274 262	17.5* 16.5	386 366	1.42 1.40
+FY2018-2019	628	45,973 45,716	12.6 12.0	274	17.9 17.0*	389	1.42
+FY2019-2020	628	46,601 46,344	12.9 12.2	277	18.3 17.3*	393	1.42
+FY2020-2021	617	47,218 46,961	13.2 12.4	280	18.9 17.7*	400	1.43
+FY2021-2022	617	47,835 47,578	13.5 12.6	282	19.3 18.0*	403	1.43
+FY2022-2023	617	48,452 48,195	13.8 12.8	285	19.7 18.3*	407	1.43
+FY2023-2024	617	49,069 48,812	14.1 13.0	287	20.1 18.6*	410	1.43
+FY2024-2025	617	49,686 49,429	14.4 13.2	290	20.6 18.9*	415	1.43

9 SOLD WATER TO ABERDEEN AND MARYLAND AMERICAN. TRUE PEAK WAS 16.4 FROM COUNTY WITH AN AVERAGE OF 11 MGD.
 10 SOLD WATER TO ABERDEEN. TRUE COUNTY NEEDS 11 MGD AVE/14.35 MGD PK.
 11 JUNE 22, 2004 COUNTY ENTERED INTO AN AGREEMENT TO PROVIDE ABERDEEN/APG AN ADDITIONAL 1.5 MGD FOR A TOTAL OF 2.0 MGD. THIS FLOW IS EQUIVALENT TO AN ADDITIONAL 11,685 EDU.
 12 MARYLAND AMERICAN USED .15 OF IT'S .5 MGD ALLOCATION
 13 OCTOBER 1, 2007 - VAN BIBBER 1.56 MGD, CHAPEL HILL 1.07 OF ITS 1.5 MGD ALLOATION, MD.AMERICAN 0.37 OF ITS .5 MGD ALLOCATION, ABERDEEN CITY USED .25 OF ITS .5 MGD.
 14 AUGUST 25, 2008 - VAN BIBBER 1.12 MGD EMERGENCY USE

15 ABERDEEN PURCHASED 1111 EDU'S (400,000 GPD) OF ADDITIONAL WATER
 16 JULY 8, 2012: SOLD WATER TO VAN BIBBER, ABERDEEN & MARYLAND AMERICAN
 17 BEGINNING OCTOBER 2013 - SOLD AN AVERAGE OF 1.04 MGD TO VAN BIBBER
 18 MAY 27, 2014 - VAN BIBBER PURCHASED 1.33 MGD
 * MAY USE UP TO AN ADDITIONAL 2.6 MGD FOR ABERDEEN AND 0.5 MGD FOR MARYLAND AMERICAN BY CONTRACT.
 + ESTIMATED DATA

3.17.3

revised: 04/18/10/18

TABLE 3-3 HISTORICAL AND PREDICTED TABLE OF CONNECTIONS TO COUNTY WATER AND SEWER

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+FY2025-2026	581	50,26750,010	14.713.4	292	21.019.2*	418	1.43
+FY2026-2027	581	50,84850,591	15.013.6	295	21.619.6*	425	1.44
+FY2027-2028	581	51,42951,172	15.313.8	298	22.019.9*	428	1.44
+FY2028-2029	581	52,01051,753	15.614.0	300	22.520.2*	433	1.44
+FY2029-2030	581	52,59152,334	15.914.2	302	22.920.4*	435	1.44
+FY2030-2031	517	53,10852,851	16.214.4	305	23.520.9*	442	1.45
+FY2031-2032	517	53,6253,368	16.414.6	306	23.821.2*	444	1.45
+FY2032-2033	517	54,14253,885	16.614.8	307	24.121.5*	445	1.45
+FY2033-2034	517	54,65954,402	16.815.0	307	24.421.8*	446	1.45
+FY2034-2035	517	55,17654,919	17.015.2	308	24.722.0*	448	1.45

3.1.7.4

revised: 04/18/10/18

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15 ABERDEEN PURCHASED 1111 EDU'S (400,000 GPD) OF ADDITIONAL WATER

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* MAY USE UP TO AN ADDITIONAL 2.6 MGD FOR ABERDEEN AND 0.5 MGD FOR MARYLAND AMERICAN BY CONTRACT.

+ ESTIMATED DATA

1.01 TABLE 3-8 PLANNED WATER WORKS IMMEDIATE, 5 YEAR AND 10 YEAR PRIORITIES

SERVICE AREA	PROJECT NAME AND NUMBER	LOCATION	PRIORITY CLASS	DESCRIPTION	FUNDS SOURCE	TIMING SCHEDULE		
						PLAN	DES.	CONSTR.
ALL ZONES	REPLACEMENT OF WATER SCADA (SUPERVISORY CONTROL AND DATA ACQUISITION) SYSTEM	AT EACH WATER BOOSTER STATION	W-3	DESIGN AND INSTALLATION OF A NEW SCADA SYSTEM FOR ALL WATER BOOSTER STATIONS	COUNTY	2014	2015 2018	2017 2019-2020
H-1	MAGNOLIA BOOSTER STATION UPGRADE	MD ROUTE 152 SOUTH OF CSX RR	W-3	REPLACE EXISTING HYDROPNEUMATIC TANK AND RE-CONFIGURE PUMPS TO VARIABLE SPEED CONTROL	COUNTY	2006	2013 2017	2016 2018-2019
H-1	PERRYMAN AREA WATER MAIN LOOP	PEARCE PROPERTIES (TM 58, P. 503, AND TM 63, P. 11)	W-3	APPROXIMATELY 10,200 L.F. OF 12 INCH WATER MAIN TO INTERCONNECT WITH EXISTING WATER MAIN IN ADVANTAGE WAY AND EXISTING CONTACT 9576	DEVELOPER	2007	2008-2015	2009-2020
ABERDEEN	ELEVATED STORAGE TANK AT HEAT CENTER	CITY OF ABERDEEN	W-3	400,000 GALLON ELEVATED STORAGE TANK TO SUPPLY PLANNING AREA 11	DEVELOPER OR CITY	2004	2018	2018-2019 <u>2020-2021</u>
ABERDEEN/ APG	BUILDING #250 – GROUNDWATER TREATMENT PLANT AND WELLS	ABERDEEN PROVING GROUND MANAGED BY CITY OF ABERDEEN	W-3 W-1	UPGRADE AND RECOMMISSION GROUNDWATER TREATMENT PLANT AND WELLS KNOWN AS BUILDING #250. 3MGD CAPACITY.	APG	2011	2017	2018
ABERDEEN	ASHLEY TREATMENT CENTER	800 TYDINGS LANE TAX MAP 59 PARCELS 155,49,13, 146 and 157	W-3	INSTALL DISTRIBUTION LINES AND POST WTP TREATMENT FACILITY TO THE ASHLEY TREATMENT CENTER	DEVELOPER	2018	TBD	TBD

1.01 TABLE 3-8 PLANNED WATER WORKS IMMEDIATE, 5 YEAR AND 10 YEAR PRIORITIES

SERVICE AREA	PROJECT NAME AND NUMBER	LOCATION	PRIORITY CLASS	DESCRIPTION	FUNDS SOURCE	TIMING SCHEDULE		
						PLAN	DES.	CONSTR.
ABERDEEN	EAST ABERDEEN DISTRIBUTION SYSTEM (ROCK GLEN)	CITY OF ABERDEEN	W-5 W-3	INSTALL BOOSTER STATION, WATER METERS, WATER MAIN AND WATER TOWER	CITY	2008	2021 2019	2022
ABERDEEN/ APG	SPESUTIE ISLAND & MICHAELSVILLE ROAD BOOSTER STATIONS	ABERDEEN PROVING GROUND MANAGED BY CITY OF ABERDEEN	W-3	CONSTRUCT TWO BOOSTER STATIONS WITH FULL DISTRIBUTION LINE AND APPURTENANCES TO INCREASE WATER FLOW LOCATION TO BE DETERMINED	APG	2014	2018	2020
ABERDEEN	GRACEFORD DR. RAY AVENUE WATER BOOSTER STATION REPLACEMENT	GRACEFORD DRIVE CITY OF ABERDEEN	W-5 W-3	REPLACE GRACEFORD DRIVE RAY AVENUE WATER BOOSTER STATION	CITY	2018	2019	2020

CHAPTER 4

1.01 TABLE 4-2 PLANNED CAPITAL SEWERAGE PROJECTS IMMEDIATE, 5 YEAR AND 10 YEAR PRIORITIES

SERVICE AREA	PROJECT NAME AND NUMBER	LOCATION	PRIORITY CLASS	DESCRIPTION	FUNDS SOURCE	TIMING SCHEDULE		
						PLAN	DES.	CONSTR.
HARFORD COUNTY	JOPPATOWNE WWTP AND SOD RUN WWTP CHLORINE REPLACEMENT PROGRAM	VARIOUS LOCATIONS	S-3	GASEOUS CHLORINE CONVERSION	COUNTY	2004	2009 2018	2010-2012 2019-2020
HARFORD COUNTY	BYNUM RUN PARALLEL PHASE 7	PARALLEL TO EXISTING INTERCEPTOR SEWER FROM PHASE 6 TO MACPHAIL ROAD	S-3	7,100 LF OF 30 INCH INTERCEPTOR SEWER	COUNTY	1990	2009- 2012	2012-2015
HARFORD COUNTY	FREY'S ROAD SEWER PETITION	FREY'S ROAD IN EDGEWOOD	S-3	DESIGN AND CONSTRUCT A LOW PRESSURE SEWER SYSTEM TO 12 EXISTING HOMES	COUNTY	2017	2018	2019
HARFORD COUNTY	HICKORY AREA COLLECTOR SEWER IMPROVEMENTS	ALONG THE STREAM VALLEY FROM HICKORY TO SOUTHAMPTON ROAD	S-3	SEWER REPLACEMENT AS REQUIRED TO PROVIDE ADEQUATE CAPACITY TO THE DRAINAGE AREA	COUNTY	2018	TBD	TBD
HARFORD COUNTY	TOWNE CENTER DRIVE PUMP STATION REHABILITATION	JOPPATOWNE	S-3	REPLACE EXISTING MCC, PUMP MOTORS, AND CONTROL SYSTEM, UPGRADE HVAC, REPAINT INTERIOR	COUNTY	2006	2016 2018	2017 2019-2020
HARFORD COUNTY	BRENTWOOD PARK PUMPING STATION IMPROVEMENTS	OFF RED PUMP ROAD AT BRENTWOOD PARK SUBDIVISION	S-3	INSTALL LARGER PUMPS, MOTORS AND ELECTRICAL CONTROLS TO ACCOMMODATE THE PROJECTED FLOW TO THE STATION	COUNTY	2017	2018	2019-2020
HARFORD COUNTY	PLUMTREE PUMPING STATION UPDRADE	RING FACTORY ROAD NEAR ROUTE 24	S-3	INCREASE CAPACITY IN THE PLUMTREE PUMPING STATION	COUNTY	2017	TBD	TBD
HARFORD COUNTY	BYNUM RIDGE REPLACEMENT SEWER PHASE 1	BYNUM RIDGE SUBDIVISION NORTH OF THE ROUTE 1 BYPASS AND SOUTH OF BYNUM ROAD	S-3	REPLACE 835 LF OF EXISTING CLAY PIPE WITH 15" DIAMETER SEWER	COUNTY/ DEVELOPER	2012	2015	2015-2020
HARFORD COUNTY	BYNUM RIDGE REPLACEMENT SEWER PHASE 2	BYNUM RIDGE SUBDIVISION NORTH OF THE ROUTE 1 BYPASS AND SOUTH OF BYNUM ROAD	S-3	REPLACE 785 LF OF EXISTING CLAY PIPE WITH 15" DIAMETER SEWER	COUNTY/ DEVELOPER	2012	2015	2015-2020
ABERDEEN	ASHLEY TREATMENT CENTER	800 TYDINGS LANE TAX MAP 59 PARCELS 155, 49,13, 146 and 157	S-3	INSTALL SEWAGE LIFT STATION AT ASHLEY TREATMENT CENTER TO DELIVER WASTE TO AWWTP	DEVELOPER	2017	2018 TBD	TBD
ABERDEEN	CRANBERRY RUN	CITY OF ABERDEEN	S-3	REPLACE OR LINE FORCE MAIN 4,100'; 1,000' DONE BY SHA	CITY	2015	2015	2017-2018

1.01 TABLE 4-2 PLANNED CAPITAL SEWERAGE PROJECTS IMMEDIATE, 5 YEAR AND 10 YEAR PRIORITIES

SERVICE AREA	PROJECT NAME AND NUMBER	LOCATION	PRIORITY CLASS	DESCRIPTION	FUNDS SOURCE	TIMING SCHEDULE		
						PLAN	DES.	CONSTR.
ABERDEEN	CRANBERRY RUN	CITY OF ABERDEEN	S-3	REPLACE OR LINE FORCE MAIN. 3,100' DONE BY CITY OF ABERDEEN	CITY	2015	2016 2020	2017 2024
ABERDEEN	JAMES STREET INTERCEPTOR	CITY OF ABERDEEN	S-3	REPAIR/UPSIZE JAMES STREET INTERCEPTOR	CITY	2016	2017	2017-2018 2018-2019
ABERDEEN	AAWWTP	CITY OF ABERDEEN	S-4	REPLACE INFLUENT SCREEN	CITY	2016	2017	2018

4.17 TABLE 4-5 HARFORD COUNTY'S SEWAGE PUMPING STATIONS EXISTING FLOW AND DESIGN CAPACITY

(AS OF 2016/2017)

STATION NAME	NUMBER OF PUMPS	DESIGN CAPACITY EACH PUMP (GPM)	HIGHEST AVERAGE RUN TIME (HRS)	AUX. POWER	PUMP SPEED	HIGHEST EXISTING FLOW (MGD)	PEAK FACTOR (per MDE)	CALCULATED PEAK FLOW (MGD)	DESIGN CAPACITY (MGD)	2016/2017 PEAK RESERVE (MGD)
BAKER AVENUE	2	300	4.87	YES	CONSTANT	.0877	4.0	.3506	.4320	.0814
BEAR CABIN BRANCH	3	1700	6.26	YES	VARIABLE	0.275	3.97	1.092	3.492	2.400
BILL BASS	3	5,277	24.0	YES	2 VARIABLE, 1 CONSTANT	4.695	2.47	11.61	15.20	3.590
BOB BELL	2	1,622	2.70	YES	CONSTANT	.2628	4.0	1.051	2.336	1.285
BRENTWOOD PARK	2	730	10.8	YES	CONSTANT	0.472	3.62	1.71	1.051	0.0
BUSH CREEK	4	6,715	24.0	YES	VARIABLE	9.69	2.70	26.13	29.00	2.87
BUSH RIVER ESTATES	2	240	4.63	YES	VARIABLE	.0667	4.0	.2667	.3456	.0789
BYNUM RD. – PAUL'S UTILITY	2 (E-1's)	11	3.92	NO	CONSTANT	.0026	4.0	.0103	.0158	.0055
CHURCH CREEK	3	4,550	24.0	YES	VARIABLE	1.093	3.15	3.446	8.813	5.367
CLEARVIEW	2	34	3.98	NO	CONSTANT	.0081	4.0	.0325	.0490	.0165
COKESBURY	2	405	3.06	YES	CONSTANT	.0744	4.0	.2974	.5832	.2858
COUNTRY WALK	2	1,160	4.54	YES	CONSTANT	0.316	3.88	1.225	1.670	.4450
DEMBYTOWN #2 (JPT #41)	2	45	0.71	YES	CONSTANT	0.002	4.0	0.008	.0648	0.057
DEMBYTOWN #3 (JPT #42)	2	72	2.22	YES	CONSTANT	0.010	4.0	0.040	.1037	0.064

4.17.1

revised: 04/18/10/18

TABLE 4-5 HARFORD COUNTY’S SEWAGE PUMPING STATIONS EXISTING FLOW AND DESIGN CAPACITY

STATION NAME	NUMBER OF PUMPS	DESIGN CAPACITY EACH PUMP (GPM)	HIGHEST AVERAGE RUN TIME (HRS)	AUX. POWER	PUMP SPEED	HIGHEST EXISTING FLOW (MGD)	PEAK FACTOR (per MDE)	CALCULATED PEAK FLOW (MGD)	DESIGN CAPACITY (MGD)	2016 2017 PEAK RESERVE (MGD)
EVERGREEN HEIGHTS	2	225	1.88	YES	CONSTANT	.0254	4.0	.1015	.3240	.224
FLYING POINT	2	80	2.93	YES	CONSTANT	.0141	4.0	.0563	.1152	.0589
FOREST GREENS	2	92	4.15	YES	CONSTANT	.0229	4.0	.0916	.1325	0.0
FOSTER BRANCH	3	1,206	0.24	YES	VARIABLE	0.017	4.0	0.068	2.70	2.632
FOX BOW	2	730	2.26	YES	CONSTANT	.0990	4.0	.3960	1.051	0.655
GREENRIDGE	2	380	4.14	YES	CONSTANT	0.094	4.0	0.378	.547	0.169
GUNPOWDER	2	600	3.09	YES	CONSTANT	.1112	4.0	.4450	0.8640	.4190
HARFORD SQUARE	2	670	6.48	YES	CONSTANT	.2605	4.0	1.043	.9648	0.0
HAVERHILL (JPT#46)	2	150	5.4	YES	CONSTANT	.0486	4.0	.1944	.2160	.0216
HICKORY OVERLOOK	2	418	2.48 3.31	YES	CONSTANT	.0622 .0851	4.0	.2488 .340	.6019	.3531 .2619
JOPPATOWNE W.W.T.P.BYPASS (JPT #51A)	2	475	3.96	YES	CONSTANT	.1129	4.0	.4514	.6840	.2326
JOPPA FARM ROAD(JPT #52)	2	1,025	4.3	YES	CONSTANT	.2645	4.0	1.056	1.476	.4200
JOPPA FARM RD. (JPT#47)	3	1-714 2-1,280	24.0	YES	1-CONSTANT 2-VARIABLE	0.700	3.40	2.38	2.871	0.4910
OLD TRAILS	2	162	1.14	YES	CONSTANT	.0111	4.0	.0443	.2333	.1890
PARK FARM BEACH	2	165	1.09	YES	CONSTANT	.0108	4.0	.0432	.2376	.1944

4.17.2

revised: 04/18/18

TABLE 4-5 HARFORD COUNTY'S SEWAGE PUMPING STATIONS EXISTING FLOW AND DESIGN CAPACITY

STATION NAME	NUMBER OF PUMPS	DESIGN CAPACITY EACH PUMP (GPM)	HIGHEST AVERAGE RUN TIME (HRS)	AUX. POWER	PUMP SPEED	HIGHEST EXISTING FLOW (MGD)	PEAK FACTOR (per MDE)	CALCULATED PEAK FLOW (MGD)	DESIGN CAPACITY (MGD)	2016 2017 PEAK RESERVE (MGD)
PERRY AVENUE	2	385	6.83	YES	CONSTANT	.1578	4.0	.6311	.5544	0.0
PINE ROAD (JPT #53)	2	1,575	1.22	YES	CONSTANT	.1153	4.0	.4612	2.268	1.807
PLUMTREE	3	4,000	24.0	YES	VARIABLE	2.319	2.78	6.450	8.000	1.550
PLUMTREE ESTATES	2	100	2.02	YES	CONSTANT	.0121	4.0	.0485	.1440	.0955
RECKORD ROAD	2	750	2.29	YES	CONSTANT	.1031	4.0	.4122	1.080	.6678
RING FACTORY	2	897	0.33 1.54	YES	VARIABLE	0.011 0.0565	4.0	0.044 0.226	1.292	1.248 1.066
RIVERSIDE	2	1,250	4.48	YES	CONSTANT	.3360	3.84	1.290	1.800	.5098
RIVERSIDE SOUTH 40	2	700	2.00	YES	CONSTANT	.0840	4.0	.3360	1.008	.6720
RIVIERA DRIVE (JPT#45)	2	367	1.97	YES GAS ENGINE	CONSTANT	.0434	4.0	.1735	.5285	.3550
SINGER WOODS	2	350	6.30	YES	CONSTANT	.1323	4.0	.5292	.5040	0.0
TOLLGATE VILLAGE	2	300	0.77	YES	CONSTANT	.0139	4.0	.0554	.4320	.3766
TOWNE CENTER (JPT#43)	2	690	24.0	YES	VARIABLE	.249	4.0	.9960	.9940	0.0
TRAILS AT GLENEAGLES	2	255	5.89	YES	CONSTANT	.0901	4.0	.3605	.3672	.0067
VALE HILLS	2	42	7.80	YES	CONSTANT	.0197	4.0	.0786	.0605	0.0
VALE WOODS	2	56	2.21	YES	CONSTANT	.0074	4.0	.0297	.0806	.0509

4.17.3

revised: ~~04/18~~10/18

TABLE 4-5 HARFORD COUNTY'S SEWAGE PUMPING STATIONS EXISTING FLOW AND DESIGN CAPACITY

STATION NAME	NUMBER OF PUMPS	DESIGN CAPACITY EACH PUMP (GPM)	HIGHEST AVERAGE RUN TIME (HRS)	AUX. POWER	PUMP SPEED	HIGHEST EXISTING FLOW (MGD)	PEAK FACTOR (per MDE)	CALCULATED PEAK FLOW (MGD)	DESIGN CAPACITY (MGD)	2016 2017 PEAK RESERVE (MGD)
WASHINGTON AVENUE	2	250	3.99	YES	CONSTANT	.0599	4.0	.2394	.3600	.1206
WEST BAKER AVENUE	2	29	5.02	NO	CONSTANT	.0087	4.0	.0349	.0418	.0069
WILLIAM DENNY	2	75	6.59	YES	CONSTANT	.030	4.0	.12	.1080	0
WINTERS RUN	3	5,030	24.0	YES	VARIABLE	5.374	2.42	12.99	14.50	1.510
WOODCREST	2	170	3.42	YES	CONSTANT	.035	4.0	.1400	.2448	.1048
WOODLAND HILLS	2	400	6.15	YES	CONSTANT	.1476	4.0	.5904	.5760	0.0

4.17.4

revised: ~~04/18~~10/18

REQUESTS



CITY OF ABERDEEN

January 27, 2017

Darryl W. Ivins, Engineer
Harford County Government
Division of Water and Sewer
212 S. Bond Street
2nd Floor
Bel Air, MD 21014

Enclosed please find the City of Aberdeen's amendments to the 2018 Fall Water & Sewer Master Plan along with correspondence from Morris & Ritchie regarding the addition of Ashley Treatment Facility to the water and sewer tables.

If there are any questions, please feel free to contact the undersigned at 410-272-1600 X217.

Sincerely,

Kyle Torster
Director of Public Works

KET:ddw

Cc: Dave M. Burke
Randy Robertson
Curtis Ball
Fred Monath

TABLE 3-8
 PLANNED WATER WORKS IMMEDIATE, 5 YEAR AND 10 YEAR PRIORITIES

SERVICE AREA	PROJECT NAME AND NUMBER	LOCATION	PRIORITY CLASS	DESCRIPTION	FUNDS SOURCE	TIMING SCHEDULE		
						PLAN	DES.	CONSTR.
ABERDEEN	ELEVATED STORAGE TANK AT HEAT CENTER	CITY OF ABERDEEN	W-3	ELEVATED STORAGE TANK TO SUPPLY PLANNING AREA 11	DEVELOPER OR CITY	2004	2018	2020/2021
ABERDEEN	EAST ABERDEEN DISTRIBUTION SYSTEM (ROCK GLENN)	CITY OF ABERDEEN	W-3	INSTALL BOOSTER STATION, WATER METERS, WATER MAIN AND WATER TOWER	CITY	2008	2019	2022
ABERDEEN	REPLACE STANDPIPE ELEVATED TOWER	CITY OF ABERDEEN	W-6	REPLACE STANDPIPE ELEVATED TOWER AT NORTHEAST TOWER	CITY	2030	2030	2030
ABERDEEN	RAY AVENUE WATER BOOSTER STATION REPLACEMENT	CITY OF ABERDEEN	W-3	REPLACE RAY AVENUE WATER BOOSTER STATION	CITY	2018	2019	2020
ABERDEEN	COA WTP	CITY OF ABERDEEN	W-3	REPLACING DISINFECTION PROCESS FROM CHLORINE GAS TO SODIUM HYPOCHLORITE	COA	2016	2017	2019
ABERDEEN /APG	BUILDING #250 GROUNDWATER TREATMENT PLANT AND WELLS	ABERDEEN PROVING GROUND MANAGED BY CITY OF ABERDEEN	W-1	UPGRADE AND RECOMMISSION GROUNDWATER TREATMENT PLANT AND WELLS KNOWN AS BUILDING #250. 3MGD CAPACITY	APG	2011	2017	2018
ABERDEEN /APG	SPEUTIE ISLAND & MICHAELSVILLE ROAD BOOSTER STATIONS	ABERDEEN PROVING GROUND MANAGED BY CITY OF ABERDEEN	W-3	CONSTRUCT TWO BOOSTER STATIONS WITH FULL DISTRIBUTION LINE AND APPURTENANCES TO INCREASE WATER FLOW LOCATION TO BE DETERMINED	APG	2014	2018	2020
ABERDEEN /APG	REHABILITATE 20-INCH WATER TRANSMISSION MAIN	ABERDEEN PROVING GROUND MANAGED BY CITY OF ABERDEEN	W-3	INSTALL LINING, SLIPLINE OR REPLACE ROUGHLY 3200 LF OF THE EXISTING 20 INCH MAIN BETWEEN APPROX RT 40 AND THE NORTHGATE PROPERTY	APG	2015	2018	2020
ABERDEEN /APG	INTERCONNECTION BETWEEN APG AND CITY OF ABERDEEN WATER SYSTEMS	ABERDEEN PROVING GROUND MANAGED BY CITY OF ABERDEEN	W-3	INSTALL PERMANENT INTERCONNECT BETWEEN THE SYSTEMS ON NORTHGATE PROPERTY NEAR THE ROUTE 22 GATE TO APG	APG	2014	2018	2019
HARFORD COUNTY	ASHLEY TREATMENT CENTER	TAX MAP 59 PARCEL 155	W-3	INSTALL DISTRIBUTION LINES AND POST WTP TREATMENT FACILITY TO ASHLEY'S TREATMENT CENTER.	DEVELOPER	2018	UNKNOWN	UNKNOWN

TABLE 4-2
 PLANNED CAPITAL SEWERAGE PROJECTS IMMEDIATE, 5 YEAR AND 10 YEAR PRIORITIES

SERVICE AREA	PROJECT NAME AND NUMBER	LOCATION	PRIORITY CLASS	DESCRIPTION	FUNDS SOURCE	TIMING SCHEDULE		
						PLAN	DES.	CONSTR.
ABERDEEN	GRANBERRY RUN	CITY OF ABERDEEN	S-3	REPLACE OR LINE FORCE MAIN. 1000' DONE BY SHA COMPLETE	CITY	2015	2016	2017
ABERDEEN	CRANBERRY RUN	CITY OF ABERDEEN	S-3	REPLACE OR LINE FORCE MAIN. 3,100' DONE BY COA	CITY	2015	2020	2024
ABERDEEN	JAMES STREET INTERCEPTOR	CITY OF ABERDEEN	S-1	REPAIR/UPSIZE JAMES STREET INTERCEPTOR	CITY	2016	2017	2018-2019
ABERDEEN	WINDEMERE PUMP STATION	CITY OF ABERDEEN	S-6	INCREASE CAPACTIY REPLACE STATION	CITY	2013	2020	2025
ABERDEEN	CHESTNUT FORCE MAIN	CITY OF ABERDEEN	S-3	REPLACE FORCE MAIN	CITY	2013	2020	2021
ABERDEEN	GILES LANE PUMP STATION	CITY OF ABERDEEN	S-6	INCREASE CAPACTIY REPLACE STATION	CITY	2013	2020	2025
ABERDEEN	CHESTNUT PUMP STATION	CITY OF ABERDEEN	S-6	INCREASE CAPACTIY REPLACE STATION	CITY	2013	2020	2025
ABERDEEN	AAWWTP	CITY OF ABERDEEN	S-1	REPLACE INFLUENT SCREEN- COMPLETE	CITY	2016	2017	2018
HARFORD COUNTY	ASHLEY TREATMENT CENTER	TAX MAP 59 PARCEL 155 PARCEL 49 PARCEL 13 PARCEL 146 PARCEL 157	S-3	INSTALL SEWAGE LIFT STATION @ ASHLEY TREATMENT CENTER TO DELIVER WASTE TO AWWTP	DEVELOPER	2017	UNKNOWN	UNKNOWN

MORRIS & RITCHIE ASSOCIATES, INC.

ENGINEERS, ARCHITECTS, PLANNERS, SURVEYORS,
AND LANDSCAPE ARCHITECTS



August 2, 2018

City of Aberdeen
60 N. Parke Street
Aberdeen, MD 21001

Attn: Mr. Kyle Torster,
Director of Public Works

RE: Sewer Master Plan Update
Ashley Et al. Properties

Mr. Torster:

Harford County has agreed to include Parcel 49 (Ashley Inc.); Parcel 13 (Ward); Parcel 146 (Ward) and Parcel 157 (Pusey) as shown on Tax Map 59 on the 5-3 sewer category of the Sewer Master Plan. Also, Ashley would like to include their main campus at 800 Tydings Lane (PM 59 Parcel 155) into the W-3 water category. On behalf of Ashley Treatment Center we hereby request Aberdeen to include these properties in the City of Aberdeen's changes for the Fall 2018 Water & Sewer Plan.

I have included your previous request to Harford County as well as the property information for each parcel for your use. Also attached is July 26, 2018 letter from Darryl Ivins requesting updates by August 6, 2018.

Please feel free to contact me at 410.515.9000, should you need any further information.

Very truly yours,

MORRIS & RITCHIE ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read 'Paul T. Muddiman', written in a cursive style.

Paul T. Muddiman
Vice President

3445-A Box Hill Corporate Center Drive, Abingdon, MD 21009 (410) 515-9000 Fax: (410) 515-9002 www.mragta.com

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