

# **Cash Flow Projections FY 2012 to FY 2021**

*This page left intentionally blank*



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

208 PROJECTS	Est Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection									
				FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
<b>PROGRAM TOTAL</b>	\$1,402,421	\$241,715	\$1,160,706	\$158,381	\$114,706	\$95,238	\$95,238	\$116,190	\$95,238	\$133,333	\$152,381	\$104,762	\$95,238
<b>PROGRAM CONTINGENCY</b>			\$46,675	\$0	\$2,294	\$4,762	\$5,810	\$4,762	\$6,667	\$7,619	\$5,238	\$4,762	
<b>PROJECT TOTAL</b>	\$1,449,096	\$241,715	\$1,207,381	\$158,381	\$117,000	\$100,000	\$122,000	\$100,000	\$140,000	\$160,000	\$110,000	\$100,000	

**PROGRAM FUNDING SUMMARY (\$,000)**

	Sum FY12-FY21	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
<b>Total Uses of Funds</b>	\$1,207,381	\$158,381	\$117,000	\$100,000	\$122,000	\$100,000	\$140,000	\$160,000	\$110,000	\$100,000	\$100,000
<b>Sources of Funds</b>											
Cash - HRSD	\$360,614	\$23,757	\$17,550	\$15,000	\$19,985	\$41,739	\$42,407	\$48,882	\$49,843	\$44,014	\$57,437
Grants - WQIF											
Transfer from Reserves	\$44,500	\$44,500									
<b>Total Cash</b>	\$405,114	\$68,257	\$17,550	\$15,000	\$19,985	\$41,739	\$42,407	\$48,882	\$49,843	\$44,014	\$57,437
<b>Bonds</b>	\$802,267	\$90,124	\$99,450	\$85,000	\$80,015	\$80,261	\$57,593	\$91,118	\$110,157	\$65,986	\$42,563
<b>Total Sources</b>	\$1,207,381	\$158,381	\$117,000	\$100,000	\$122,000	\$100,000	\$140,000	\$160,000	\$110,000	\$100,000	\$100,000
<b>TOTAL CIP PROGRAM COST</b>	<b>\$1,449,096</b>	<b>*2011 dollars and includes prior year expenditures</b>									



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

**Administration**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection											
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21		
AD-104	Environmental Data Management System	\$3,314	\$929	\$2,385	\$680	\$457	\$673	\$450	\$63	\$63	\$0	\$0	\$0	\$0	\$0	\$0
AD-108	North Shore Maintenance Center Phase IV	\$9,677	\$3,742	\$5,935	\$5,935	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AD-112	Operations Center Phase VII	\$19,953	\$3,526	\$16,427	\$12,320	\$4,107	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>3 PROJECTS</b>		<b>\$32,944</b>	<b>\$8,197</b>	<b>\$24,747</b>	<b>\$18,935</b>	<b>\$4,564</b>	<b>\$673</b>	<b>\$450</b>	<b>\$63</b>	<b>\$63</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**Army Base**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection											
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21		
AB-100	Army Base 24-Inch and 20-Inch Transmission Main Replacements	\$8,493	\$0	\$8,493	\$0	\$0	\$283	\$3,524	\$4,686	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AB-101	Army Base Treatment Plant Improvements - Phase III	\$99,845	\$40,176	\$59,670	\$31,395	\$20,478	\$7,797	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AB-102	Army Base Treatment Plant Incinerator Improvements and Venturi Replacement	\$2,855	\$2,555	\$300	\$300	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AB-105	Section W Force Main Replacement	\$865	\$0	\$865	\$0	\$0	\$29	\$359	\$477	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AB-108	Army Base Treatment Plant Scum Concentrator Replacement	\$1,015	\$0	\$1,015	\$0	\$0	\$0	\$0	\$627	\$388	\$0	\$0	\$0	\$0	\$0	\$0
AB-109	Dovercourt Road Pump Station Replacement	\$2,625	\$0	\$2,625	\$0	\$0	\$0	\$0	\$0	\$166	\$2,255	\$205	\$0	\$0	\$0	\$0
AB-110	North Shore Road Pump Station Replacement	\$2,042	\$0	\$2,042	\$0	\$0	\$0	\$0	\$0	\$0	\$129	\$1,754	\$159	\$0	\$0	\$0
AB-111	Taussig Boulevard Pump Station Replacement	\$2,042	\$0	\$2,042	\$0	\$0	\$0	\$0	\$0	\$0	\$129	\$1,754	\$159	\$0	\$0	\$0

**CD** - Project Required in Consent Decree



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

**Army Base**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection												
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21			
AB-112	20-Inch Force Main (Ocean View via Granby Street) Relocation - Norfolk Mason Creek Culvert Replacement	\$442	\$39	\$403	\$403	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>9</b>	<b>PROJECTS</b>	<b>\$120,225</b>	<b>\$42,770</b>	<b>\$77,455</b>	<b>\$32,098</b>	<b>\$20,478</b>	<b>\$8,108</b>	<b>\$3,883</b>	<b>\$5,790</b>	<b>\$554</b>	<b>\$2,513</b>	<b>\$3,712</b>	<b>\$319</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**Atlantic**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection												
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21			
AT-107-1	East Princess Anne Trunk Force Main Reinforcement-Section A	\$1,400	\$150	\$1,250	\$714	\$536	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-107-2A	East Princess Anne Trunk Force Main Reinforcement (VDOT 0165-134-V05)	\$1,464	\$650	\$813	\$813	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-107-2B	East Princess Anne Trunk Force Main Reinforcement (VDOT 0165-134-108)	\$5,796	\$321	\$5,475	\$2,309	\$2,713	\$454	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-111	Great Bridge Interceptor Force Main Extension Directional Drill	\$2,108	\$190	\$1,918	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$958	\$960	\$0	\$0	\$0	\$0
AT-114-1	Providence Road Interim Pressure Reducing Station	\$4,546	\$736	\$3,810	\$3,810	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-114-2	Providence Road Pressure Reducing Station Modifications	\$3,446	\$0	\$3,446	\$0	\$0	\$0	\$631	\$2,805	\$10	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-115	Shippis Corner Pressure Reducing Station Modifications	\$1,524	\$0	\$1,524	\$0	\$0	\$0	\$0	\$47	\$1,116	\$361	\$0	\$0	\$0	\$0	\$0	\$0
AT-116-1	Elbow Road Interim Pressure Reducing Station	\$1,388	\$1	\$1,387	\$1,387	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-116-2	Elbow Road Pressure Reducing Station	\$3,133	\$0	\$3,133	\$0	\$0	\$0	\$0	\$0	\$224	\$1,977	\$932	\$0	\$0	\$0	\$0	\$0
AT-117	Arctic Ave Pump Station Environmental Assessment and Improvements	\$348	\$148	\$200	\$200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-118	Kempsville Road Interceptor Force Main Replacement - Phase I	\$7,558	\$0	\$7,558	\$0	\$0	\$0	\$0	\$0	\$61	\$348	\$5,362	\$1,787	\$0	\$0	\$0	\$0

**CD** - Project Required in Consent Decree



**CAPITAL IMPROVEMENT PROGRAM  
 FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)  
 Based on Program Cost Estimates (Project Contingencies not Included)**

**Atlantic**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection										
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	
AT-119	Great Bridge Interceptor Extension 16-Inch Replacement	\$3,794	\$0	\$3,794	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$146	\$1,854	\$1,794	\$0
AT-120	Atlantic Treatment Plant Administration Building Renovation and Expansion	\$1,305	\$20	\$1,285	\$10	\$179	\$0	\$0	\$183	\$914	\$0	\$0	\$0	\$0	\$0
AT-121	Atlantic Treatment Plant Secondary Clarifier Renovation	\$4,700	\$4,230	\$470	\$470	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-122	Atlantic Treatment Plant Digester Gas Combined Heat and Power	\$6,837	\$296	\$6,541	\$3,541	\$2,000	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-123	Dominion Boulevard Force Main Relocations (Chesapeake)	\$1,787	\$75	\$1,712	\$23	\$0	\$0	\$0	\$0	\$0	\$0	\$570	\$1,119	\$0	\$0
AT-124	Atlantic Treatment Plant Cake Storage Pad No. 1 Side Walls	\$219	\$0	\$219	\$0	\$0	\$0	\$0	\$0	\$219	\$0	\$0	\$0	\$0	\$0
AT-125	Atlantic Treatment Plant Digester Mixers Replacement	\$460	\$0	\$460	\$115	\$115	\$230	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>18 PROJECTS</b>		<b>\$51,814</b>	<b>\$6,818</b>	<b>\$44,995</b>	<b>\$13,392</b>	<b>\$5,542</b>	<b>\$1,684</b>	<b>\$814</b>	<b>\$3,985</b>	<b>\$1,410</b>	<b>\$4,359</b>	<b>\$10,228</b>	<b>\$3,582</b>	<b>\$0</b>	<b>\$0</b>

**Boat Harbor**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection										
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	
BH-100 <b>CD</b>	33rd Street Pump Station Replacement/Rehabilitation	\$3,180	\$76	\$3,104	\$149	\$633	\$2,323	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-101 <b>CD</b>	58th Street Connecting Sewer Rehabilitation	\$2,269	\$125	\$2,144	\$1,965	\$179	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-103	Boat Harbor Treatment Plant Biosolids Receiving Facility Improvements	\$3,996	\$447	\$3,550	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,550	\$0	\$0	\$0
BH-106	Boat Harbor Treatment Plant Odor Control Improvements Phase III	\$2,875	\$549	\$2,326	\$2,147	\$179	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-112 <b>CD</b>	Hampton Trunk Sewer Division A Replacement	\$2,542	\$73	\$2,468	\$46	\$46	\$19	\$0	\$1,310	\$1,048	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

**Boat Harbor**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection												
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21			
BH-114 <b>CD</b>	James River Diversion 35th Street Phase III and Boat Harbor Outlet Sewer Relocation I-664 Rehabilitation	\$901	\$552	\$349	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-116 <b>CD</b>	Bridge St. Pump Station Replacement/Rehabilitation	\$3,119	\$0	\$3,119	\$0	\$0	\$72	\$1,080	\$1,967	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-117	Boat Harbor Treatment Plant Mechanical Aerator and Sidesream Treatment Process Improvement	\$7,347	\$5,445	\$1,903	\$1,903	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-118	James River Diversion Sewer - 46th Street Diversion Sewer Study	\$132	\$110	\$23	\$23	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-120	Hampton Trunk Sewer Extension Division E Gravity Replacement	\$804	\$0	\$804	\$0	\$86	\$718	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-121	Hampton Trunk Sewer Extension Division M Replacement	\$1,580	\$1,377	\$203	\$203	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-123	Boat Harbor Treatment Plant Split Flow Channel Repair and Modifications	\$289	\$277	\$12	\$12	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-124	Boat Harbor Treatment Plant Grit System and Incinerator Building MCC Replacement	\$536	\$483	\$53	\$53	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-125	Bayshore, Copeland Park, and Newmarket Pump Station Electrical Equipment Improvements	\$612	\$0	\$612	\$612	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-127	Hampton Trunk Sewer Extension Division B - Claremont Force Main Replacement	\$3,742	\$172	\$3,570	\$0	\$0	\$0	\$2,381	\$1,189	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-128	Ivy Home-Shell Rd Extension Division I Improvements	\$758	\$605	\$154	\$154	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-129	Bridge St. Pump Station Off-line Storage Facility	\$6,477	\$0	\$6,477	\$0	\$0	\$0	\$249	\$1,852	\$3,501	\$875	\$0	\$0	\$0	\$0	\$0	\$0
BH-130	Willard Avenue Pump Station Upgrades/Replacement	\$3,119	\$0	\$3,119	\$0	\$0	\$0	\$168	\$2,319	\$632	\$0	\$0	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

**Boat Harbor**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection												
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21			
BH-131	Victoria Boulevard Pump Station	\$3,994	\$607	\$3,387	\$2,540	\$847	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-133	Boat Harbor Treatment Plant Substation #5 Transformer Replacement	\$95	\$58	\$37	\$37	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-134	Bridge Street Siphon and Vent Relocation/Replacement	\$1,098	\$35	\$1,064	\$19	\$0	\$418	\$626	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-135	Boat Harbor East and West Raw Influent Chamber Rehabilitation	\$1,345	\$0	\$1,345	\$1,345	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-136	Boat Harbor Grit Washer Replacement	\$276	\$0	\$276	\$207	\$68	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-137	Ferguson Park Interceptor Force Main - Bridge Span Relocation	\$882	\$0	\$882	\$0	\$0	\$12	\$407	\$464	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-139	Jefferson Avenue Emergency Gravity Repairs	\$1,105	\$101	\$1,003	\$1,003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-140	West Avenue and 35th Street Interceptor Force Main Replacement	\$2,800	\$0	\$2,800	\$0	\$0	\$54	\$980	\$1,766	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-141	Boat Harbor Treatment Plant DCS Upgrade	\$2,545	\$0	\$2,545	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$273	\$1,136	\$1,136	\$0	\$0	\$0
BH-142	Hampton Trunk Sewer Extension Divisions I and J Relocation	\$12,107	\$0	\$12,107	\$0	\$0	\$0	\$1,297	\$5,007	\$5,803	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>28 PROJECTS</b>	<b>TOTAL</b>	<b>\$70,527</b>	<b>\$11,092</b>	<b>\$59,435</b>	<b>\$12,767</b>	<b>\$2,037</b>	<b>\$3,615</b>	<b>\$3,093</b>	<b>\$9,601</b>	<b>\$11,415</b>	<b>\$13,759</b>	<b>\$2,012</b>	<b>\$1,136</b>	<b>\$2,012</b>	<b>\$1,136</b>	<b>\$0</b>	<b>\$0</b>

**Chesapeake-Elizabeth**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection												
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21			
CE-100	Chesapeake-Elizabeth Treatment Plant Chlorine Injection Vault Demolition	\$117	\$0	\$117	\$0	\$0	\$43	\$73	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CE-102	Chesapeake-Elizabeth Treatment Plant Outfall Pipe Repair and Replacement	\$3,124	\$2,132	\$992	\$992	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

**Chesapeake-Elizabeth**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection											
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21		
CE-104	Independence Boulevard Pressure Reducing Station Modifications	\$1,508	\$0	\$1,508	\$0	\$0	\$0	\$0	\$36	\$641	\$831	\$0	\$0	\$0	\$0	\$0
CE-105	Newtown Road Interceptor Force Main Relocation	\$6,018	\$0	\$6,018	\$0	\$0	\$0	\$0	\$0	\$0	\$36	\$288	\$5,219	\$474	\$0	\$0
CE-106	Chesapeake-Elizabeth Treatment Plant Odor Control Improvements Phase IV	\$4,927	\$169	\$4,758	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$264	\$3,231	\$1,262	\$0	\$0
CE-107	Quail Street Pressure Reducing Station Replacement/Rehabilitation	\$2,999	\$0	\$2,999	\$0	\$0	\$0	\$0	\$16	\$112	\$981	\$1,889	\$0	\$0	\$0	\$0
CE-110	Lynnhaven - Great Neck 18-Inch Interceptor Force Main Relocation - Virginia Beach Lesner Bridge Replacement	\$2,681	\$208	\$2,473	\$1,237	\$1,237	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CE-111-1	Chesapeake-Elizabeth Treatment Plant Nutrient Removal Pilot Testing	\$699	\$0	\$699	\$233	\$233	\$233	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CE-111-2	Chesapeake-Elizabeth Treatment Plant Nutrient Reduction Improvements	\$110,156	\$0	\$110,156	\$0	\$0	\$0	\$428	\$2,826	\$3,117	\$29,198	\$30,863	\$30,863	\$12,860	\$0	\$0
CE-112	Central Trunk Interceptor Force Main A & B Main Line Valves	\$1,315	\$0	\$1,315	\$0	\$221	\$1,094	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CE-113	Birchwood Trunk 24"/30" Force Main at Independence Boulevard Replacement Phase II	\$824	\$11	\$814	\$21	\$21	\$0	\$0	\$0	\$771	\$0	\$0	\$0	\$0	\$0	\$0
CE-114	Poplar Hall - Davis Corner Trunk 18-Inch Gravity Sewer Manhole Rehabilitation, Prompt Repairs Contract A	\$417	\$375	\$42	\$42	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>12 PROJECTS</b>		<b>TOTAL \$134,784</b>	<b>\$2,895</b>	<b>\$131,889</b>	<b>\$2,524</b>	<b>\$1,712</b>	<b>\$1,370</b>	<b>\$537</b>	<b>\$3,483</b>	<b>\$4,868</b>	<b>\$30,732</b>	<b>\$41,203</b>	<b>\$32,600</b>	<b>\$12,860</b>		

**James River**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection									
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21



**CAPITAL IMPROVEMENT PROGRAM  
FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)  
Based on Program Cost Estimates (Project Contingencies not Included)**

**James River**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection												
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21			
JR-100 <b>CD</b>	Center Avenue Pump Station Replacement	\$3,520	\$305	\$3,214	\$2,755	\$459	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-101	Center Avenue Pump Station Service Area I/I Remediation	\$4,109	\$2,017	\$2,091	\$2,091	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-103-1	James River Treatment Plant Improvements - Phase I	\$30,537	\$27,877	\$2,660	\$2,633	\$27	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-106 <b>CD</b>	Lucas Creek Pump Station Upgrade	\$2,013	\$11	\$2,002	\$0	\$0	\$171	\$44	\$896	\$890	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-108 <b>CD</b>	Normandy Lane Interceptor Force Main Replacement	\$12,836	\$757	\$12,078	\$451	\$1,315	\$7,734	\$2,578	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-109-2A <b>CD</b>	Williamsburg-James River Connection Force Main Section II and Lucas Creek-Woodhaven Interceptor Force Main Replacements - Phase 2A	\$3,290	\$3,184	\$107	\$107	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-110	Middle Ground Boulevard - City Center Interconnect Force Main	\$4,078	\$11	\$4,067	\$172	\$1,323	\$1,929	\$643	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-111	City Farm Interceptor Force Main Replacement	\$2,616	\$335	\$2,280	\$0	\$0	\$0	\$12	\$2,269	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-113	Patrick Henry Pump Station Interconnection Force Main	\$2,650	\$0	\$2,650	\$0	\$21	\$622	\$2,007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-114	James River Treatment Plant Primary Clarifier Odor Cover Rehabilitation	\$1,292	\$242	\$1,050	\$1,050	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-115	Center Ave I&I Remediation Phase II	\$2,960	\$0	\$2,960	\$0	\$159	\$2,801	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-116	Patrick Henry Pump Station/Pressure Reducing Station	\$5,785	\$0	\$5,785	\$0	\$0	\$0	\$0	\$0	\$31	\$253	\$4,133	\$1,368	\$0	\$0	\$0	\$0
JR-117	Jefferson Avenue Interceptor Force Main Replacement (City Center Interconnect - Phase II)	\$13,130	\$0	\$13,130	\$0	\$0	\$0	\$277	\$3,885	\$8,279	\$690	\$0	\$0	\$0	\$0	\$0	\$0
JR-118	Patrick Henry PS Influent Flume Abandonment & Residuals Pit Odor Control	\$462	\$0	\$462	\$462	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

**James River**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection												
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21			
JR-119	Triton Court Pump Station	\$1,506	\$0	\$1,506	\$376	\$1,129	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-120	Warwick 36" PCCP – Scuffield to Nettles Interceptor Force Main Replacement	\$5,264	\$0	\$5,264	\$0	\$0	\$0	\$0	\$102	\$1,510	\$3,651	\$0	\$0	\$0	\$0	\$0	\$0
<b>16 PROJECTS</b>	<b>TOTAL</b>	<b>\$96,046</b>	<b>\$34,740</b>	<b>\$61,306</b>	<b>\$10,098</b>	<b>\$4,434</b>	<b>\$13,257</b>	<b>\$5,560</b>	<b>\$7,152</b>	<b>\$10,710</b>	<b>\$4,594</b>	<b>\$4,133</b>	<b>\$4,594</b>	<b>\$2,365</b>	<b>\$1,368</b>	<b>\$0</b>	<b>\$0</b>

**Middle Peninsula**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection												
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21			
MP-101	King William Treatment Plant Expansion Phase II	\$3,348	\$0	\$3,348	\$0	\$0	\$0	\$0	\$0	\$0	\$14	\$968	\$2,365	\$0	\$0	\$0	\$0
MP-103-3	Mathews Treatment Plant Closure	\$139	\$37	\$103	\$103	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MP-107	King William and West Point Treatment Plants Expansion and Upgrade Outfall Studies	\$230	\$186	\$44	\$44	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MP-113	Mathews Davidson Corner Pump Station and Collection System	\$1,802	\$0	\$1,802	\$0	\$0	\$0	\$0	\$0	\$0	\$408	\$1,394	\$0	\$0	\$0	\$0	\$0
MP-114	Mathews Collection System Vacuum Valve Replacement	\$1,296	\$71	\$1,225	\$0	\$0	\$245	\$245	\$245	\$245	\$245	\$245	\$0	\$0	\$0	\$0	\$0
MP-115	King William Equalization Tank Addition	\$554	\$153	\$402	\$402	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MP-116	West Point Lee Street Sanitary Sewer 5th to 7th Replacement	\$231	\$138	\$93	\$93	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MP-117	Middle Peninsula Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements	\$2,621	\$0	\$2,621	\$250	\$750	\$500	\$500	\$621	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>8 PROJECTS</b>	<b>TOTAL</b>	<b>\$10,221</b>	<b>\$585</b>	<b>\$9,637</b>	<b>\$891</b>	<b>\$750</b>	<b>\$745</b>	<b>\$745</b>	<b>\$866</b>	<b>\$667</b>	<b>\$2,607</b>	<b>\$2,365</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



**CAPITAL IMPROVEMENT PROGRAM  
 FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)  
 Based on Program Cost Estimates (Project Contingencies not Included)**

**Nansemond**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection												
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21			
NP-106-1	Wilroy Interim Pressure Reducing Station	\$1,388	\$183	\$1,205	\$1,205	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>CD</b>																	
NP-106-2	Suffolk Pump Station Upgrades	\$4,567	\$0	\$4,567	\$50	\$125	\$125	\$125	\$2,134	\$2,134	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>CD</b>																	
NP-106-3	Wilroy Pressure Reducing Station	\$5,050	\$0	\$5,050	\$0	\$0	\$0	\$0	\$230	\$2,881	\$1,939	\$0	\$0	\$0	\$0	\$0	\$0
<b>CD</b>																	
NP-108	Smithfield Pressure Reducing Station	\$4,440	\$0	\$4,440	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$199	\$2,174	\$2,067	\$0	\$0	\$0
NP-113	Suffolk Interceptor Force Main Section I Main Line Valving Replacement	\$885	\$40	\$845	\$0	\$0	\$740	\$105	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NP-116	Nansemond Treatment Plant Odor Control Improvements	\$240	\$0	\$240	\$0	\$0	\$240	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NP-117	Deep Creek Canal Force Main Relocation (USACOE)	\$53	\$28	\$25	\$25	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NP-118	Holland Road 24" Interceptor Force Main - Section A	\$13,615	\$27	\$13,588	\$1,045	\$0	\$8,686	\$3,857	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NP-119	Nansemond Treatment Plant Regional Residuals Bulk Material Storage	\$245	\$0	\$245	\$245	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NP-120	Driver Pressure Reducing Station	\$4,568	\$0	\$4,568	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50	\$125	\$2,135	\$2,135	\$2,135	\$2,134
NP-121	Nansemond Treatment Plant Land Acquisition	\$10,798	\$0	\$10,798	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,798	\$0	\$0	\$0	\$0
NP-122	Pughsville Pressure Reducing Station Upgrades	\$4,568	\$0	\$4,568	\$50	\$125	\$125	\$2,135	\$2,134	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>12 PROJECTS</b>		<b>\$50,416</b>	<b>\$277</b>	<b>\$50,139</b>	<b>\$2,620</b>	<b>\$250</b>	<b>\$9,916</b>	<b>\$8,460</b>	<b>\$7,148</b>	<b>\$1,989</b>	<b>\$11,122</b>	<b>\$2,299</b>	<b>\$4,202</b>	<b>\$2,134</b>			

**VIP**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection												
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21			
VIP-104	North Trunk Sewer Section D 24-inch Interceptor Force Main Replacement	\$6,116	\$1,187	\$4,929	\$3,696	\$1,232	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>CD</b>																	

**CD** - Project Required in Consent Decree



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

**VIP**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection												
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21			
VIP-105 <b>CD</b>	North Trunk Sewer Section R 6-Inch Interceptor Force Main and 10-Inch Gravity Replacement	\$2,401	\$753	\$1,648	\$1,648	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-106 <b>CD</b>	North Trunk Sewer Section W 8-Inch and 12-Inch Force Mains and Larchmont Force Mains (Formerly Siphon Lines) Replacements	\$2,299	\$119	\$2,180	\$36	\$36	\$15	\$0	\$1,310	\$783	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-109	Norview Estabrook Division I 18-Inch Force Main Replacement Phase II (Norfolk Fairmount Park Phase IX)	\$832	\$2	\$830	\$108	\$721	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-110	Park Avenue Pump Station Replacement	\$3,359	\$39	\$3,320	\$0	\$410	\$2,910	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-115	Sewerage System Improvements Division C, Phase I and Suction Lines Jefferson Street/Camden/Peachtree Portsmouth VA Replacements (I-264 Crossing)	\$691	\$0	\$691	\$0	\$0	\$0	\$0	\$0	\$37	\$599	\$54	\$0	\$0	\$0	\$0	\$0
VIP-116	Sewerage System Improvements Division C, Phase II Replacement	\$1,464	\$0	\$1,464	\$0	\$0	\$0	\$0	\$78	\$1,271	\$115	\$0	\$0	\$0	\$0	\$0	\$0
VIP-120 <b>CD</b>	South Trunk Sewer Section F 20-Inch, Section H 8-Inch, and Section H 12-Inch Interceptor Force Main Replacement and Gravity Sewer Chesterfield Blvd. Replacement	\$5,260	\$4,260	\$1,000	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-121	State Street Pump Station Electrical Modifications	\$1,444	\$144	\$1,300	\$0	\$0	\$0	\$0	\$406	\$894	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-122	VIP Treatment Plant Concrete Repair and Coatings	\$809	\$623	\$186	\$186	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-128	VIP Treatment Plant Secondary Clarifier Repairs and Coating	\$951	\$841	\$110	\$110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-130 <b>CD</b>	Norchester St Pump Station Replacement/Rehabilitation	\$2,941	\$408	\$2,533	\$1,315	\$1,219	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

**VIP**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection												
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21			
VIP-131 <b>CD</b>	South Trunk Sewer Section C 42-Inch Force Main Replacement	\$9,628	\$1,295	\$8,333	\$3,846	\$4,487	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-132 <b>CD</b>	South Trunk Sewer Section G 36-Inch and 30-Inch Force Main Replacement	\$4,207	\$0	\$4,207	\$229	\$0	\$0	\$0	\$0	\$3,978	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-133 <b>CD</b>	Sanitary Sewer System Portsmouth VA Contract A Clifford Street Force Main	\$811	\$81	\$730	\$0	\$0	\$250	\$480	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-136	VIP Treatment Plant Incinerator Venturi Replacement	\$292	\$180	\$112	\$112	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-138	South Trunk Sewer Section C 24-Inch Force Main Replacement	\$1,435	\$298	\$1,137	\$1,050	\$87	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-140	Ferebee Avenue Pump Station Replacement/Rehabilitation	\$1,883	\$0	\$1,883	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$58	\$934	\$890	\$0	\$0
VIP-141	Rodman Avenue Pump Station Replacement/Rehabilitation	\$3,041	\$0	\$3,041	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$94	\$1,509	\$1,438	\$0	\$0
VIP-142	Colley Avenue Pump Station Rehabilitation	\$1,096	\$0	\$1,096	\$0	\$0	\$0	\$0	\$0	\$42	\$536	\$519	\$0	\$0	\$0	\$0	\$0
VIP-145	South Trunk Sewer Section Q 12-Inch Force Main Replacement	\$2,089	\$0	\$2,089	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$112	\$1,977	\$0	\$0	\$0	\$0
VIP-146	South Trunk Sewers Section B and C 48-Inch Force Main Replacement	\$12,235	\$1,336	\$10,899	\$5,030	\$5,869	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-147	Ingleside Road Pump Station Replacement	\$2,917	\$0	\$2,917	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$153	\$2,764	\$0	\$0	\$0	\$0
VIP-148	Lee Avenue/Wesley Street Horizontal Valve Replacement	\$874	\$12	\$862	\$14	\$21	\$0	\$0	\$0	\$0	\$551	\$276	\$0	\$0	\$0	\$0	\$0
VIP-149	VIP Treatment Plant Influent Channels Rehabilitation	\$916	\$215	\$701	\$701	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-150	Virginia Initiative Plant Dominion VA Power Utility Relocation	\$160	\$106	\$53	\$53	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-151	Bainbridge Boulevard Pump Station Replacement	\$2,042	\$0	\$2,042	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$129	\$1,754	\$159	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

**VIP**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection										
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	
VIP-152	Camden Avenue Pump Station Replacement	\$2,042	\$0	\$2,042	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$88	\$1,158	\$797	\$0
VIP-153	Larchmont Area Pump Station Replacements	\$7,468	\$0	\$7,468	\$0	\$0	\$173	\$309	\$3,645	\$3,341	\$0	\$0	\$0	\$0	\$0
VIP-154	Lafayette Norview-Estabrook Pump Station Replacements	\$7,293	\$0	\$7,293	\$0	\$0	\$166	\$297	\$3,563	\$3,266	\$0	\$0	\$0	\$0	\$0
VIP-155	Norview Avenue Pump Station Replacement and Norview Connecting Sewer Replacement	\$2,929	\$0	\$2,929	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$126	\$1,661	\$1,143
VIP-156	Quail Street Pump Station Replacement	\$2,042	\$0	\$2,042	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$88	\$1,158	\$797
VIP-157	Seay Avenue Pump Station Replacement	\$2,042	\$0	\$2,042	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$88	\$1,158	\$797	\$0
VIP-158	Sanitary Sewer System Portsmouth Va Western Diversion Force Main Relocation (VDOT Turnpike Road Betterment)	\$1,883	\$22	\$1,861	\$38	\$60	\$890	\$873	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-159	Steamboat Creek Pump Station Replacement	\$2,042	\$0	\$2,042	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$88	\$1,158	\$797	\$0
VIP-160	Willoughby Avenue Pump Station Replacement	\$2,042	\$0	\$2,042	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$88	\$1,158	\$797	\$0
VIP-161	Granby Street Pump Station Improvements	\$225	\$9	\$216	\$87	\$129	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-162	South Trunk Section G 30 and 24-inch Force Main Replacement	\$1,862	\$0	\$1,862	\$99	\$0	\$1,032	\$730	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-163	Virginia Initiative Plant Nutrient Reduction Improvements	\$68,981	\$0	\$68,981	\$2,053	\$4,199	\$17,318	\$18,791	\$18,791	\$18,791	\$7,829	\$0	\$0	\$0	\$0
<b>39 PROJECTS</b>		<b>\$173,044</b>	<b>\$11,931</b>	<b>\$161,113</b>	<b>\$21,412</b>	<b>\$18,470</b>	<b>\$22,755</b>	<b>\$21,480</b>	<b>\$31,812</b>	<b>\$18,509</b>	<b>\$2,404</b>	<b>\$13,837</b>	<b>\$8,493</b>	<b>\$1,940</b>	



**CAPITAL IMPROVEMENT PROGRAM  
FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)  
Based on Program Cost Estimates (Project Contingencies not Included)**

**Williamsburg**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection										
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	
WB-103	Lee Hall Pressure Reducing Station and Yard Piping Upgrades	\$5,331	\$0	\$5,331	\$0	\$0	\$0	\$0	\$0	\$104	\$185	\$3,362	\$1,681	\$0	\$0
WB-104	Rolling Hills Interceptor Force Main Parallel	\$2,002	\$0	\$2,002	\$0	\$0	\$0	\$0	\$0	\$77	\$978	\$947	\$0	\$0	\$0
WB-107	Williamsburg Interceptor Force Main Contract A Replacement	\$6,036	\$318	\$5,718	\$2,931	\$2,787	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WB-111	Williamsburg Treatment Plant Oxidation Tower Repairs	\$2,921	\$2,671	\$250	\$250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WB-114	Williamsburg Treatment Plant Improvements - Phase I	\$3,147	\$2,897	\$250	\$250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WB-115	Route 199 Pressure Reducing Station	\$5,825	\$0	\$5,825	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$47	\$264	\$2,759	\$2,756
WB-116	North Trunk Interceptor Force Main Part "B" Ironbound Road Replacement - VDOT Betterment	\$191	\$26	\$165	\$61	\$74	\$31	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WB-117	Williamsburg Treatment Plant Pressure Control Valve Replacement	\$638	\$574	\$64	\$64	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WB-118	Williamsburg Treatment Plant Outfall Protection Phase II	\$125	\$39	\$87	\$87	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WB-119	Williamsburg Treatment Plant - Oxidation Tower Denitrification Study	\$119	\$18	\$101	\$101	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WB-120	Williamsburg Treatment Plant Chemical Feed System	\$2,825	\$0	\$2,825	\$0	\$0	\$0	\$0	\$142	\$1,642	\$1,042	\$0	\$0	\$0	\$0
<b>11 PROJECTS</b>	<b>TOTAL</b>	<b>\$29,160</b>	<b>\$6,542</b>	<b>\$22,618</b>	<b>\$3,743</b>	<b>\$2,861</b>	<b>\$31</b>	<b>\$142</b>	<b>\$1,822</b>	<b>\$2,205</b>	<b>\$4,355</b>	<b>\$1,944</b>	<b>\$2,759</b>	<b>\$2,756</b>	

**York River**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection										
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	
YR-101	Coliseum Drive Pressure Reducing Station	\$7,939	\$793	\$7,147	\$3,494	\$3,653	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

**CD** - Project Required in Consent Decree



**CAPITAL IMPROVEMENT PROGRAM  
FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)  
Based on Program Cost Estimates (Project Contingencies not Included)**

**York River**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection											
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21		
YR-102	Fox Hill Road Interceptor Force Main Relocation	\$672	\$0	\$672	\$0	\$0	\$0	\$0	\$0	\$248	\$424	\$0	\$0	\$0	\$0	\$0
YR-103	Foxridge Sanitary Sewer System Sections 1, 4 & 5 Gravity and Woodland Road Fox Hill Road Gravity Sewer Rehabilitation	\$2,192	\$0	\$2,192	\$0	\$0	\$0	\$0	\$0	\$0	\$103	\$1,570	\$518	\$0	\$0	\$0
YR-104	Klin Creek Interceptor Force Main	\$4,387	\$4,337	\$50	\$50	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>CD</b> YR-105-1	Magruder Mercury Interceptor Force Main Replacement - Section A	\$2,713	\$2,703	\$10	\$10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-105-2	Magruder Mercury Interceptor Force Main Replacement - Section B	\$8,440	\$0	\$8,440	\$0	\$0	\$0	\$0	\$0	\$68	\$389	\$4,562	\$3,421	\$0	\$0	\$0
YR-106	Pine Chapel 10-Inch Force Main Replacement Phase II and Pine Chapel Force Main Replacement	\$710	\$199	\$511	\$511	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-108	Route 171 Interceptor Force Main	\$8,069	\$8,019	\$50	\$50	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>CD</b> YR-109	Tabb Pressure Reducing Station	\$5,020	\$0	\$5,020	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$273	\$3,798	\$949	\$0	\$0
YR-110-1	York River Treatment Plant Expansion Phase I Contract A	\$59,063	\$58,790	\$272	\$272	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-110-2	York River Treatment Plant Expansion Phase I Contract B - Composting and Dewatering Facility	\$45,708	\$4,108	\$41,600	\$13,200	\$21,500	\$6,900	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-110-3	York River Treatment Plant Expansion Phase I Contract C	\$29,658	\$1,663	\$27,994	\$610	\$7,702	\$11,247	\$8,435	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-114	Bethel-York County Interceptor Force Main Study	\$200	\$0	\$200	\$0	\$0	\$200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-116	York-Gloucester Interceptor System Improvements	\$3,462	\$0	\$3,462	\$0	\$0	\$75	\$580	\$1,871	\$936	\$0	\$0	\$0	\$0	\$0	\$0
YR-118	Fox Hill Rd Force Main Replacement- Contract A	\$1,277	\$1,272	\$5	\$5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM  
 FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)  
 Based on Program Cost Estimates (Project Contingencies not Included)**

**York River**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection											
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21		
YR-119	Bethel-Poquoson Force Main Part III Replacement	\$793	\$0	\$793	\$0	\$0	\$0	\$0	\$0	\$230	\$563	\$0	\$0	\$0	\$0	\$0
YR-120	Yorktown Interceptor Force Main Replacement	\$15,120	\$0	\$15,120	\$0	\$0	\$0	\$0	\$0	\$535	\$4,370	\$8,172	\$2,043	\$0	\$0	\$0
YR-121	Coliseum Pressure Reducing Station Off-line Storage Facility	\$6,936	\$543	\$6,392	\$1,545	\$4,847	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-122	York River Treatment Plant Digester Cover Replacement	\$1,008	\$163	\$845	\$845	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>19 PROJECTS</b>		<b>\$203,367</b>	<b>\$82,592</b>	<b>\$120,775</b>	<b>\$20,592</b>	<b>\$37,702</b>	<b>\$18,422</b>	<b>\$9,016</b>	<b>\$2,952</b>	<b>\$6,784</b>	<b>\$14,577</b>	<b>\$9,781</b>	<b>\$949</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**General**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection											
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21		
GN-100	Arc Flash Calculation	\$1,252	\$837	\$415	\$415	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-101	Army Base and Boat Harbor Treatment Plant Secondary Clarifier Renovation	\$2,128	\$2,022	\$106	\$106	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-103	Centrifuge Controls Replacements	\$1,132	\$980	\$151	\$151	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-104	Computerized Maintenance Management System	\$2,762	\$2,662	\$100	\$100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-107-3	Horizontal Valve Replacement (Phase III)	\$2,715	\$0	\$2,715	\$0	\$0	\$0	\$0	\$0	\$1,571	\$1,144	\$0	\$0	\$0	\$0	\$0
GN-110	Woodland Road and Ferguson Park Pump Station Hydraulic Study	\$100	\$0	\$100	\$0	\$0	\$100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-117	Pump Station Generators	\$3,691	\$176	\$3,515	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,751	\$1,764	\$0	\$0	\$0
GN-121-1	Regional Hydraulic Model and Other Consent Order Requirements	\$51,901	\$24,201	\$27,700	\$14,200	\$9,150	\$3,250	\$550	\$550	\$0	\$0	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

**General**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection											
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21		
GN-121-2	Private Property Inflow and Infiltration Program	\$45,600	\$0	\$45,600	\$0	\$375	\$375	\$375	\$14,950	\$14,950	\$14,950	\$0	\$0	\$0	\$0	\$0
GN-121-3	Interceptor Force Main Condition Assessment Program - Level Three	\$27,446	\$0	\$27,446	\$1,500	\$1,501	\$3,023	\$3,022	\$3,243	\$3,072	\$3,021	\$3,021	\$3,021	\$3,021	\$3,021	\$3,021
GN-127	York River Treatment Plant Regional Residuals Facility	\$3,421	\$0	\$3,421	\$0	\$0	\$0	\$0	\$0	\$149	\$1,445	\$1,827	\$0	\$0	\$0	\$0
GN-128	Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements	\$11,704	\$1,493	\$10,211	\$1,065	\$2,369	\$3,408	\$2,301	\$1,068	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-129	Trap Grease Study Phase II	\$157	\$37	\$121	\$0	\$0	\$66	\$55	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-131	South Shore Interceptor Force Main Structural Support Replacement	\$278	\$15	\$263	\$263	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-132	Arc Flash Electrical Equipment Improvements	\$476	\$76	\$400	\$100	\$100	\$100	\$100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-133	Treatment Plant Grease Handling Facilities	\$829	\$218	\$611	\$0	\$259	\$353	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-135	North Shore Manhole Rehabilitation Phase I	\$2,668	\$0	\$2,668	\$0	\$0	\$0	\$0	\$0	\$534	\$534	\$534	\$534	\$534	\$534	\$534
GN-136	North Shore Pump Station Wet Well Rehabilitation	\$1,697	\$0	\$1,697	\$0	\$0	\$0	\$0	\$37	\$456	\$1,204	\$0	\$0	\$0	\$0	\$0
GN-138	North Shore Odor Control and Chemical Injection Study	\$755	\$28	\$727	\$0	\$0	\$0	\$434	\$293	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-139	South Shore Interceptors Air Vent Rehabilitation	\$1,678	\$0	\$1,678	\$0	\$0	\$839	\$839	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-141-1	Biosolids Resource Recovery Master Plan (BRRMP)	\$652	\$533	\$118	\$118	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-141-2	Biosolids Resource Recovery Master Plan (BRRMP) Improvements	\$57,465	\$0	\$57,465	\$269	\$1,414	\$2,538	\$18,242	\$19,242	\$15,759	\$0	\$0	\$0	\$0	\$0	\$0
GN-142	North Shore Air Vent Replacements	\$799	\$0	\$799	\$400	\$400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

**General**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection											
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21		
GN-143	North Shore Operations Unvented High Spot Correction	\$1,680	\$0	\$1,680	\$342	\$342	\$342	\$342	\$342	\$313	\$0	\$0	\$0	\$0	\$0	\$0
GN-144	Pump Station & Plant Roof Replacement	\$1,020	\$0	\$1,020	\$279	\$0	\$268	\$225	\$249	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>25 PROJECTS</b>		<b>\$224,004</b>	<b>\$33,277</b>	<b>\$190,727</b>	<b>\$19,308</b>	<b>\$15,908</b>	<b>\$14,661</b>	<b>\$41,060</b>	<b>\$41,516</b>	<b>\$36,063</b>	<b>\$7,954</b>	<b>\$7,146</b>	<b>\$3,555</b>	<b>\$3,555</b>	<b>\$3,555</b>	<b>\$3,555</b>

**Future Improvements**

CIP No	Project Name	Est Program Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection											
					FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21		
IMP-100	Interceptor System Expansions and Improvements	\$30,881	\$0	\$30,881	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,153	\$8,058	\$6,870	\$10,799	\$10,799
IMP-101	Pump Station Expansions and Improvements	\$15,440	\$0	\$15,440	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,577	\$4,029	\$3,435	\$5,400	\$5,400
IMP-102	Treatment Plant Expansions and Improvements	\$46,321	\$0	\$46,321	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,730	\$12,087	\$10,305	\$16,199	\$16,199
IMP-103	General Expansions and Improvements	\$10,294	\$0	\$10,294	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,718	\$2,686	\$2,290	\$3,600	\$3,600
IMP-104	Interceptor System Rehabilitation and Replacement	\$30,881	\$0	\$30,881	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,153	\$8,058	\$6,870	\$10,799	\$10,799
IMP-105	Pump Station Rehabilitation and Replacement	\$15,440	\$0	\$15,440	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,577	\$4,029	\$3,435	\$5,400	\$5,400
IMP-106	Treatment Plant Rehabilitation and Replacement	\$46,321	\$0	\$46,321	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,730	\$12,087	\$10,305	\$16,199	\$16,199
IMP-107	General Rehabilitation and Replacement	\$10,294	\$0	\$10,294	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,718	\$2,686	\$2,290	\$3,600	\$3,600
<b>8 PROJECTS</b>		<b>\$205,870</b>	<b>\$0</b>	<b>\$205,870</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$34,357</b>	<b>\$53,721</b>	<b>\$45,799</b>	<b>\$71,995</b>	<b>\$71,995</b>



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2012 TO FY 2021 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

208 PROJECTS	Est Cost	Proj Exp to FY11	Sum FY12-FY21	10 Year Cash Flow Projection									
				FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
<b>PROGRAM TOTAL</b>	\$1,402,421	\$241,715	\$1,160,706	\$158,381	\$114,706	\$95,238	\$95,238	\$116,190	\$95,238	\$133,333	\$152,381	\$104,762	\$95,238
<b>PROGRAM CONTINGENCY</b>			\$46,675	\$0	\$2,294	\$4,762	\$5,810	\$4,762	\$6,667	\$7,619	\$5,238	\$4,762	
<b>PROJECT TOTAL</b>	\$1,449,096	\$241,715	\$1,207,381	\$158,381	\$117,000	\$100,000	\$122,000	\$100,000	\$140,000	\$160,000	\$110,000	\$100,000	

**PROGRAM FUNDING SUMMARY (\$,000)**

	Sum FY12-FY21	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
<b>Total Uses of Funds</b>	\$1,207,381	\$158,381	\$117,000	\$100,000	\$122,000	\$100,000	\$140,000	\$160,000	\$110,000	\$100,000	\$100,000
<b>Sources of Funds</b>											
Cash - HRSD	\$360,614	\$23,757	\$17,550	\$15,000	\$19,985	\$41,739	\$42,407	\$48,882	\$49,843	\$44,014	\$57,437
Grants - WQIF											
Transfer from Reserves	\$44,500	\$44,500									
<b>Total Cash</b>	\$405,114	\$68,257	\$17,550	\$15,000	\$19,985	\$41,739	\$42,407	\$48,882	\$49,843	\$44,014	\$57,437
<b>Bonds</b>	\$802,267	\$90,124	\$99,450	\$85,000	\$80,015	\$80,261	\$57,593	\$91,118	\$110,157	\$65,986	\$42,563
<b>Total Sources</b>	\$1,207,381	\$158,381	\$117,000	\$100,000	\$122,000	\$100,000	\$140,000	\$160,000	\$110,000	\$100,000	\$100,000
<b>TOTAL CIP PROGRAM COST</b>	<b>\$1,449,096</b>	<b>*2011 dollars and includes prior year expenditures</b>									

*This page left intentionally blank*