

# **Cash Flow Projections FY-2011 to FY-2020**

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**CAPITAL IMPROVEMENT PROGRAM  
 FY 2011 TO FY 2020 CASH FLOW PROJECTIONS (\$,000)  
 Based on Program Cost Estimates (Project Contingencies not Included)**

195 PROJECTS	Est Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection							FY19	FY20		
				FY11	FY12	FY13	FY14	FY15	FY16	FY17			FY18	
PROGRAM TOTAL	\$1,333,121	\$348,139	\$967,034	\$159,024	\$117,506	\$81,442	\$98,230	\$79,166	\$98,333	\$83,333	\$83,333	\$83,333	\$83,333	\$83,333
PROGRAM CONTINGENCY			\$138,873	\$7,951	\$5,875	\$8,145	\$14,734	\$15,834	\$19,667	\$16,667	\$16,667	\$16,667	\$16,667	\$16,667
PROJECT TOTAL	\$1,454,047	\$348,139	\$1,105,907	\$166,975	\$123,381	\$89,587	\$112,964	\$95,000	\$118,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000

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

	Sum FY11-FY20	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
<b>Total Uses of Funds</b>	\$1,105,907	\$166,975	\$123,381	\$89,587	\$112,964	\$95,000	\$118,000	\$100,000	\$100,000	\$100,000	\$100,000
<b>Sources of Funds</b>											
Cash - HRSD	\$412,744	\$29,000	\$18,507	\$13,479	\$20,951	\$44,755	\$50,302	\$58,251	\$58,885	\$59,029	\$59,585
Grants - WQIF	\$37,500	\$37,500									
<b>Total Cash</b>	\$450,244	\$66,500	\$18,507	\$13,479	\$20,951	\$44,755	\$50,302	\$58,251	\$58,885	\$59,029	\$59,585
<b>Bonds</b>	\$655,663	\$100,475	\$104,874	\$76,108	\$92,013	\$50,245	\$67,698	\$41,749	\$41,115	\$40,971	\$40,415
<b>Total Sources</b>	\$1,105,907	\$166,975	\$123,381	\$89,587	\$112,964	\$95,000	\$118,000	\$100,000	\$100,000	\$100,000	\$100,000
<b>TOTAL CIP PROGRAM COST</b>	<b>\$1,454,047</b>	*2010 dollars and includes prior year expenditures									



**CAPITAL IMPROVEMENT PROGRAM  
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Based on Program Cost Estimates (Project Contingencies not Included)**

**Administration**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection												
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20			
AD-100	Business Process and System Integration Evaluation	\$902	\$574	\$329	\$200	\$129	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AD-104	Environmental Data Management System	\$3,249	\$405	\$2,844	\$1,558	\$1,137	\$150	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AD-108	North Shore Maintenance Center Phase IV	\$8,485	\$57	\$8,428	\$1,092	\$3,827	\$3,508	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AD-112	Operations Center Phase VII	\$19,000	\$363	\$18,637	\$5,000	\$8,637	\$5,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AD-116	Enterprise Data Storage and Infrastructure Improvements	\$2,813	\$2,613	\$200	\$200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	PROJECTS	\$34,450	\$4,013	\$30,437	\$8,050	\$13,730	\$8,658	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

**Army Base**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection												
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20			
AB-100	Army Base 24-Inch and 20-Inch Transmission Main Replacements	\$8,326	\$0	\$8,326	\$0	\$0	\$0	\$315	\$4,071	\$3,940	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AB-101	Army Base Treatment Plant Improvements - Phase III	\$100,644	\$12,484	\$88,160	\$21,690	\$35,090	\$24,890	\$6,490	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AB-102	Army Base Treatment Plant Incinerator Improvements and Venturi Replacement	\$1,771	\$1,330	\$441	\$441	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AB-105	Section W Force Main Replacement	\$848	\$0	\$848	\$0	\$0	\$0	\$32	\$415	\$401	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AB-108	Army Base Treatment Plant Scum Concentrator Replacement	\$1,015	\$0	\$1,015	\$0	\$0	\$1,015	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AB-109	Dovercourt Road Pump Station Replacement	\$2,574	\$0	\$2,574	\$0	\$0	\$0	\$0	\$0	\$109	\$1,460	\$1,005	\$0	\$0	\$0	\$0	\$0
AB-110	North Shore Road Pump Station Replacement	\$2,002	\$0	\$2,002	\$0	\$0	\$0	\$0	\$0	\$0	\$85	\$1,136	\$782	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM  
FY 2011 TO FY 2020 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 FY10	Sum FY11-FY20	10 Year Cash Flow Projection										
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	
AB-111	Taussig Boulevard Pump Station Replacement	\$2,002	\$0	\$2,002	\$0	\$0	\$0	\$0	\$0	\$0	\$85	\$1,136	\$782	\$0	\$0
AB-112	20-Inch Force Main (Ocean View via Granby Street) Relocation - Norfolk Mason Creek Culvert Replacement	\$260	\$0	\$260	\$260	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	PROJECTS	\$119,443	\$13,814	\$105,629	\$22,391	\$35,090	\$25,905	\$6,837	\$4,486	\$4,535	\$2,681	\$2,922	\$782	\$0	\$0

**Atlantic**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection										
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	
AT-104-3	Atlantic Treatment Plant Expansion Phase I Contract C	\$160,850	\$158,890	\$1,960	\$1,960	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-106	Atlantic Trunk Force Main Replacement/Relocation	\$219	\$33	\$187	\$187	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-107-1	East Princess Anne Trunk Force Main Reinforcement - Section A	\$1,214	\$130	\$1,084	\$0	\$0	\$0	\$610	\$474	\$0	\$0	\$0	\$0	\$0	\$0
AT-107-2A	East Princess Anne Trunk Force Main Reinforcement (VDOT 0165-134-V05)	\$1,025	\$130	\$895	\$504	\$392	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-107-2B	East Princess Anne Trunk Force Main Reinforcement (VDOT 0165-134-106)	\$4,934	\$240	\$4,694	\$222	\$1,493	\$2,234	\$745	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-108	Eastern Branch Sections A & B, Green Run Section C, and 24-Inch Kempsville Road Force Main Replacements	\$4,739	\$2,179	\$2,560	\$2,560	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-111	Great Bridge Interceptor Force Main Extension Directional Drill	\$1,377	\$338	\$1,039	\$0	\$0	\$0	\$0	\$1,039	\$0	\$0	\$0	\$0	\$0	\$0
AT-112	Hilltop Point OWoods Interceptor Force Main Replacement - Phase I & II	\$11,604	\$6,400	\$5,205	\$5,205	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-114	Providence Road Pressure Reducing Station Modifications	\$2,659	\$0	\$2,659	\$500	\$0	\$0	\$11	\$104	\$1,249	\$795	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2011 TO FY 2020 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

**Atlantic**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection										
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	
AT-115	Shippis Corner Pressure Reducing Station Modifications	\$1,526	\$0	\$1,526	\$0	\$0	\$0	\$8	\$395	\$1,123	\$0	\$0	\$0	\$0	\$0
AT-116	Elbow Road Pressure Reducing Station	\$4,109	\$0	\$4,109	\$0	\$0	\$21	\$1,066	\$3,022	\$0	\$0	\$0	\$0	\$0	\$0
AT-117	Arctic Ave Pump Station Environmental Assessment and Improvements	\$631	\$3	\$627	\$80	\$547	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-118	Kempsville Road Interceptor Force Main Replacement - Phase I	\$7,410	\$0	\$7,410	\$0	\$0	\$0	\$131	\$1,143	\$5,260	\$877	\$0	\$0	\$0	\$0
AT-119	Great Bridge Interceptor Extension 16 inch Replacement	\$3,720	\$0	\$3,720	\$0	\$0	\$66	\$720	\$2,934	\$0	\$0	\$0	\$0	\$0	\$0
AT-120	Atlantic Treatment Plant Administration Building Renovation and Expansion	\$1,250	\$0	\$1,250	\$35	\$0	\$52	\$970	\$194	\$0	\$0	\$0	\$0	\$0	\$0
AT-121	Atlantic Treatment Plant Secondary Clarifier Renovation	\$3,570	\$0	\$3,570	\$3,570	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-122	Atlantic Treatment Plant Digester Gas Combined Heat and Power	\$5,900	\$74	\$5,826	\$223	\$759	\$3,633	\$1,211	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AT-123	Dominion Boulevard Force Main Relocations (Chesapeake)	\$2,332	\$27	\$2,305	\$81	\$0	\$125	\$1,482	\$618	\$0	\$0	\$0	\$0	\$0	\$0
<b>18 PROJECTS</b>		<b>\$219,070</b>	<b>\$168,445</b>	<b>\$50,626</b>	<b>\$15,127</b>	<b>\$3,190</b>	<b>\$5,868</b>	<b>\$2,847</b>	<b>\$6,381</b>	<b>\$10,283</b>	<b>\$6,054</b>	<b>\$877</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**Boat Harbor**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection										
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	
BH-100	33rd Street Pump Station Replacement/Rehabilitation	\$3,105	\$126	\$2,979	\$173	\$0	\$236	\$2,570	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-101	58th Street Connecting Sewer Rehabilitation	\$1,919	\$134	\$1,786	\$0	\$0	\$0	\$1,340	\$446	\$0	\$0	\$0	\$0	\$0	\$0
BH-103	Boat Harbor Treatment Plant Biosolids Receiving Facility Improvements	\$3,599	\$165	\$3,434	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$289	\$3,145	\$0



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**Boat Harbor**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection												
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20			
BH-106	Boat Harbor Treatment Plant Odor Control Improvements Phase III	\$2,701	\$293	\$2,408	\$2,007	\$401	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-112	Hampton Trunk Sewer Division A Replacement	\$2,230	\$118	\$2,112	\$82	\$0	\$0	\$903	\$1,127	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-114	James River Diversion 35th Street Phase III and Boat Harbor Outlet Sewer Relocation I-664 Rehabilitation	\$482	\$88	\$394	\$394	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-116	Bridge St. Pump Station Replacement/Rehabilitation	\$3,060	\$0	\$3,060	\$0	\$0	\$0	\$70	\$819	\$2,171	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-117	Boat Harbor Treatment Plant Mechanical Aerator and Sidesream Treatment Process Improvement	\$7,268	\$2,906	\$4,363	\$4,363	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-120	Hampton Trunk Sewer Extension Division E Gravity	\$785	\$0	\$785	\$0	\$0	\$4	\$25	\$322	\$434	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-121	Hampton Trunk Sewer Extension Division M Replacement	\$866	\$132	\$734	\$734	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-122	Hampton Trunk Sewer Extension Division J Replacement - John's Creek Crossing	\$2,056	\$144	\$1,912	\$56	\$0	\$1,238	\$618	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-123	Boat Harbor Treatment Plant Split Flow Channel Repair and Modifications	\$345	\$273	\$72	\$72	\$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	\$525	\$49	\$476	\$476	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-125	North Shore Pump Stations Motor Control Center Replacement	\$318	\$0	\$318	\$318	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-126	Boat Harbor Outlet Gravity Sewer-41st Street Replacement	\$226	\$19	\$207	\$207	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-127	Hampton Trunk Sewer Extension Division B - Claremont Force Main Replacement	\$3,698	\$196	\$3,502	\$0	\$0	\$0	\$2,627	\$875	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM  
 FY 2011 TO FY 2020 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 FY10	Sum FY11-FY20	10 Year Cash Flow Projection										
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	
BH-128	Ivy Home-Shell Rd Extension Division I Improvements	\$4,000	\$300	\$3,700	\$1,200	\$0	\$0	\$0	\$0	\$900	\$1,600	\$0	\$0	\$0	\$0
BH-129	Bridge St. Pump Station Off-line Storage Facility	\$6,350	\$0	\$6,350	\$0	\$0	\$0	\$192	\$1,150	\$4,007	\$1,002	\$0	\$0	\$0	\$0
BH-130	Willard Avenue Pump Station Upgrades/Replacement	\$3,060	\$0	\$3,060	\$0	\$0	\$0	\$148	\$2,188	\$724	\$0	\$0	\$0	\$0	\$0
BH-131	Sunset Creek Pump Station	\$1,620	\$0	\$1,620	\$28	\$313	\$1,279	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-132	Hampton Trunk Sewer Extension Division P Replacement	\$614	\$0	\$614	\$0	\$0	\$0	\$23	\$591	\$0	\$0	\$0	\$0	\$0	\$0
BH-133	Boat Harbor Treatment Plant Substation #5 Transformer Replacement	\$118	\$0	\$118	\$118	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BH-134	Bridge Street Siphon and Vent Relocation/Replacement	\$952	\$0	\$952	\$45	\$727	\$180	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>23 PROJECTS</b>		<b>\$49,897</b>	<b>\$4,942</b>	<b>\$44,955</b>	<b>\$10,272</b>	<b>\$1,441</b>	<b>\$2,937</b>	<b>\$8,516</b>	<b>\$8,418</b>	<b>\$8,936</b>	<b>\$1,002</b>	<b>\$0</b>	<b>\$289</b>	<b>\$3,145</b>	

**Chesapeake-Elizabeth**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection										
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	
CE-100	Chesapeake-Elizabeth Treatment Plant Chlorine Injection Vault Demolition	\$114	\$0	\$114	\$0	\$0	\$0	\$60	\$54	\$0	\$0	\$0	\$0	\$0	\$0
CE-102	Chesapeake-Elizabeth Treatment Plant Outfall Pipe Repair and Replacement	\$2,690	\$188	\$2,502	\$1,877	\$625	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CE-103	Chesapeake-Elizabeth Treatment Plant Solids Handling Motor Control Center Replacements	\$551	\$381	\$170	\$170	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



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**Based on Program Cost Estimates (Project Contingencies not Included)**

**Chesapeake-Elizabeth**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection											
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20		
CE-104	Independence Boulevard Pressure Reducing Station Modifications	\$1,478	\$0	\$1,478	\$0	\$0	\$0	\$0	\$0	\$34	\$629	\$816	\$0	\$0	\$0	\$0
CE-105	Newtown Road Interceptor Force Main Relocation	\$5,900	\$0	\$5,900	\$0	\$0	\$0	\$179	\$2,464	\$3,257	\$0	\$0	\$0	\$0	\$0	\$0
CE-106	Chesapeake-Elizabeth Treatment Plant Odor Control Improvements Phase IV	\$4,948	\$89	\$4,859	\$0	\$0	\$0	\$113	\$113	\$3,476	\$1,158	\$0	\$0	\$0	\$0	\$0
CE-107	Quail Street Pressure Reducing Station Replacement/Rehabilitation	\$2,940	\$0	\$2,940	\$0	\$0	\$0	\$0	\$20	\$127	\$1,249	\$1,545	\$0	\$0	\$0	\$0
CE-109	Birchwood Trunk 24"/30" Force Main (SF-120) at Independence Boulevard Emergency Replacement	\$850	\$62	\$788	\$788	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CE-110	Lynnhaven - Great Neck 18-inch Interceptor Force Main Relocation - Virginia Beach Lesner Bridge Replacement	\$3,156	\$0	\$3,156	\$0	\$0	\$0	\$0	\$2,666	\$489	\$0	\$0	\$0	\$0	\$0	\$0
<b>9 PROJECTS</b>		<b>\$22,628</b>	<b>\$720</b>	<b>\$21,908</b>	<b>\$2,835</b>	<b>\$0</b>	<b>\$0</b>	<b>\$351</b>	<b>\$5,351</b>	<b>\$7,979</b>	<b>\$3,222</b>	<b>\$1,545</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**James River**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection												
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20			
JR-100	Center Avenue Pump Station Replacement	\$3,646	\$388	\$3,258	\$2,240	\$1,018	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-101	Center Avenue Pump Station Service Area I/II Remediation	\$2,740	\$311	\$2,430	\$1,822	\$607	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-103-1	James River Treatment Plant Improvements - Phase I	\$32,016	\$16,377	\$15,639	\$8,990	\$6,649	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-106	Lucas Creek Pump Station Upgrade	\$1,734	\$11	\$1,723	\$0	\$0	\$0	\$66	\$842	\$815	\$0	\$0	\$0	\$0	\$0	\$0	\$0



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**James River**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection												
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20			
JR-108	Normandy Lane Interceptor Force Main Replacement	\$13,050	\$581	\$12,468	\$561	\$1,332	\$7,931	\$2,644	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-109-2A	Williamsburg-James River Connection Force Main Section II and Lucas Creek-Woodhaven Interceptor Force Main Replacements - Phase 2A	\$2,620	\$2,061	\$559	\$512	\$46	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-110	Middle Ground Boulevard - City Center Interconnect Force Main	\$3,998	\$0	\$3,998	\$7	\$196	\$1,187	\$1,841	\$767	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-111	City Farm Interceptor Force Main Replacement	\$3,918	\$216	\$3,702	\$119	\$0	\$0	\$1,793	\$1,790	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-112	James River Treatment Plant Secondary Clarifier Renovation	\$530	\$324	\$206	\$206	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-113	Patrick Henry Pump Station Interconnection Force Main	\$2,122	\$0	\$2,122	\$0	\$0	\$0	\$79	\$1,038	\$1,005	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-114	James River Treatment Plant Primary Clarifier Odor Cover Rehabilitation	\$880	\$0	\$880	\$880	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-115	Center Ave I&I Remediation Phase II	\$2,900	\$0	\$2,900	\$0	\$0	\$0	\$88	\$754	\$2,059	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JR-116	Patrick Henry Pump Station/Pressure Reducing Station	\$5,820	\$0	\$5,820	\$0	\$0	\$0	\$131	\$1,556	\$4,133	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>13 PROJECTS</b>		<b>\$75,974</b>	<b>\$20,270</b>	<b>\$55,704</b>	<b>\$15,337</b>	<b>\$9,849</b>	<b>\$9,118</b>	<b>\$6,641</b>	<b>\$6,747</b>	<b>\$8,011</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**Middle Peninsula**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection												
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20			
MP-101	King William Treatment Plant Expansion Phase II	\$3,283	\$0	\$3,283	\$0	\$0	\$0	\$0	\$0	\$39	\$1,383	\$1,861	\$0	\$0	\$0	\$0	\$0
MP-103-1	Mathews Transmission Force Main and Pump Stations Contract A - Pipeline	\$7,064	\$4,260	\$2,804	\$2,804	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM  
 FY 2011 TO FY 2020 CASH FLOW PROJECTIONS (\$,000)  
 Based on Program Cost Estimates (Project Contingencies not Included)**

**Middle Peninsula**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection												
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20			
MP-103-2	Mathews Transmission Force Main and Pump Stations Contract B- Pump Stations	\$6,005	\$3,837	\$2,168	\$2,168	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MP-106	West Point Taylor Avenue and Thompson Avenue Trunk Sewer Replacement	\$378	\$298	\$80	\$80	\$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	\$39	\$191	\$153	\$38	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MP-111	Central Middlesex Treatment and Land Application Facilities	\$12,900	\$107	\$495	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$33	\$462
MP-112	Central Middlesex Collection System and Transmission Force Main	\$3,909	\$0	\$163	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15	\$148
MP-113	Mathews Davidson Corner Pump Station and Collection System	\$883	\$0	\$883	\$0	\$0	\$0	\$117	\$766	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MP-114	Mathews Collection System Vacuum Valve Replacement	\$1,440	\$0	\$1,440	\$80	\$0	\$0	\$288	\$288	\$288	\$288	\$288	\$208	\$0	\$0	\$0	\$0
MP-115	King William Equalization Tank Addition	\$457	\$0	\$457	\$457	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MP-116	West Point Lee Street Sanitary Sewer 5th to 7th Replacement	\$196	\$0	\$196	\$196	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>11 PROJECTS</b>		<b>\$36,744</b>	<b>\$8,541</b>	<b>\$12,159</b>	<b>\$5,938</b>	<b>\$38</b>	<b>\$0</b>	<b>\$405</b>	<b>\$1,093</b>	<b>\$1,671</b>	<b>\$2,149</b>	<b>\$208</b>	<b>\$47</b>	<b>\$610</b>			

**Nansemond**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection												
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20			
NP-102	Nansemond Treatment Plant Digester Rehabilitation	\$696	\$559	\$137	\$137	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NP-104	Nansemond Treatment Plant Nutrient Reduction Improvements Phase I	\$43,339	\$33,356	\$9,984	\$9,984	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM  
FY 2011 TO FY 2020 CASH FLOW PROJECTIONS (\$,000)  
Based on Program Cost Estimates (Project Contingencies not Included)**

**Nansemond**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection												
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20			
NP-106	Wilroy Pressure Reducing Station, Pughsville PRS Upgrades, Suffolk PS Upgrades	\$13,535	\$0	\$13,535	\$68	\$496	\$161	\$8,540	\$4,270	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NP-108	Smithfield Pressure Reducing Station	\$4,329	\$0	\$4,329	\$0	\$0	\$0	\$193	\$2,108	\$2,028	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NP-112	Nansemond Treatment Plant Roof Rehabilitations	\$387	\$375	\$12	\$12	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NP-113	Suffolk Interceptor Force Main Section I Main Line Valving Replacement	\$386	\$33	\$353	\$0	\$0	\$0	\$353	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NP-115	Nansemond Treatment Plant Secondary Clarifier Solids Collection Header Replacement	\$358	\$248	\$110	\$110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NP-116	Nansemond Treatment Plant Odor Control Improvements	\$240	\$0	\$240	\$0	\$0	\$0	\$240	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NP-117	Deep Creek Canal Force Main Relocation (USACOE)	\$550	\$4	\$546	\$23	\$99	\$425	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>9 PROJECTS</b>		<b>TOTAL</b>	<b>\$63,820</b>	<b>\$34,574</b>	<b>\$29,245</b>	<b>\$10,333</b>	<b>\$595</b>	<b>\$586</b>	<b>\$9,325</b>	<b>\$6,378</b>	<b>\$2,028</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**VIP**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection												
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20			
VIP-104	North Trunk Sewer Section D 24-Inch Interceptor Force Main Replacement	\$5,998	\$458	\$5,540	\$4,617	\$923	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-105	North Trunk Sewer Section R 6-Inch Interceptor Force Main and 10-Inch Gravity Replacement	\$1,472	\$178	\$1,294	\$1,152	\$143	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-106	North Trunk Sewer Section W 8-Inch and 12-Inch Force Mains and Larchmont Force Mains (Formerly Siphon Lines) Replacements	\$2,223	\$265	\$1,958	\$0	\$0	\$0	\$1,469	\$489	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM  
 FY 2011 TO FY 2020 CASH FLOW PROJECTIONS (\$,000)  
 Based on Program Cost Estimates (Project Contingencies not Included)**

**VIP**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection												
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20			
VIP-109	Norview Estabrook Division I 18-Inch Force Main Replacement Phase II (Norfolk Fairmount Park Phase IX)	\$816	\$0	\$816	\$12	\$289	\$515	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-110	Park Avenue Pump Station Replacement	\$3,359	\$39	\$3,320	\$0	\$0	\$0	\$407	\$2,689	\$224	\$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)	\$677	\$0	\$677	\$0	\$0	\$0	\$36	\$641	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-116	Sewerage System Improvements Division C, Phase II Replacement	\$1,428	\$0	\$1,428	\$0	\$0	\$0	\$76	\$1,352	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-120	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	\$5,181	\$2,237	\$2,944	\$2,944	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-121	State Street Pump Station Electrical Modifications	\$1,265	\$234	\$1,031	\$1,031	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-122	VIP Treatment Plant Concrete Repair and Coatings	\$796	\$123	\$673	\$673	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-127	VIP Treatment Plant Roof Repair/Replacement	\$2,146	\$2,081	\$64	\$64	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-128	VIP Treatment Plant Secondary Clarifier Repairs and Coating	\$899	\$636	\$263	\$263	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-130	Norchester St Pump Station Replacement/Rehabilitation	\$2,057	\$231	\$1,826	\$366	\$1,460	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-131	South Trunk Sewer Section C-42 inch Force Main Replacement	\$6,514	\$253	\$6,262	\$2,192	\$4,070	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-132	South Trunk Sewer Section G 36-Inch and 30-Inch Force Main Replacement	\$4,196	\$0	\$4,196	\$191	\$32	\$0	\$2,650	\$1,324	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2011 TO FY 2020 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

**VIP**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection													
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20				
VIP-133 <b>CD</b>	Sanitary Sewer System Portsmouth VA Contract A Clifford Street Force Main	\$953	\$0	\$953	\$51	\$0	\$0	\$0	\$902	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-134	VIP Gravity Influent Study	\$135	\$0	\$135	\$0	\$0	\$0	\$0	\$0	\$67	\$67	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-136	VIP Treatment Plant Incinerator Venturi Replacement	\$385	\$21	\$364	\$243	\$121	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-138	South Trunk Sewer Section C 24-Inch Force Main Replacement	\$2,285	\$112	\$2,174	\$54	\$0	\$0	\$0	\$707	\$1,413	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-140	Ferebee Avenue Pump Station Replacement/Rehabilitation	\$1,847	\$0	\$1,847	\$0	\$0	\$0	\$0	\$12	\$378	\$1,456	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-141	Rodman Avenue Pump Station Replacement/Rehabilitation	\$2,981	\$0	\$2,981	\$0	\$0	\$0	\$0	\$20	\$610	\$2,351	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-142	Colley Avenue Pump Station Rehabilitation	\$1,075	\$0	\$1,075	\$0	\$0	\$0	\$0	\$42	\$524	\$508	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-144	Sanitary Sewer Project 1950 Section G Gravity Line Replacement	\$281	\$137	\$144	\$144	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-145	South Trunk Sewer Section Q 12 inch Force Main Replacement	\$2,048	\$0	\$2,048	\$0	\$0	\$0	\$0	\$0	\$67	\$1,119	\$861	\$0	\$0	\$0	\$0	\$0	\$0
VIP-146	South Trunk Sewers Section B and C 48 inch Force Main Replacement	\$9,212	\$309	\$8,902	\$3,115	\$5,787	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-147	Submersible Pump Station Replacements	\$2,860	\$0	\$2,860	\$0	\$0	\$0	\$0	\$149	\$2,712	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-148	Lee Avenue/Wesley Street Horizontal Valve Replacement	\$857	\$45	\$811	\$0	\$0	\$0	\$0	\$811	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-149	VIP Treatment Plant Influent Channels Rehabilitation	\$347	\$231	\$116	\$116	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-150	Virginia Initiative Plant Dominion VA Power Utility Relocation	\$211	\$0	\$211	\$211	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-151	Bainbridge Boulevard Pump Station Replacement	\$2,002	\$0	\$2,002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$85	\$1,136	\$782	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM  
FY 2011 TO FY 2020 CASH FLOW PROJECTIONS (\$,000)  
Based on Program Cost Estimates (Project Contingencies not Included)**

**VIP**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection										
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	
VIP-152	Camden Avenue Pump Station Replacement	\$2,002	\$0	\$2,002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$85	\$1,136	\$782
VIP-153	Larchmont Area Pump Station Replacements	\$7,436	\$0	\$7,436	\$0	\$0	\$0	\$165	\$303	\$3,484	\$3,484	\$0	\$0	\$0	\$0
VIP-154	Lafayette Norview-Estabrook Pump Station Replacements	\$7,150	\$0	\$7,150	\$0	\$0	\$0	\$159	\$291	\$3,350	\$3,350	\$0	\$0	\$0	\$0
VIP-155	Norview Avenue Pump Station Replacement and Norview Connecting Sewer Replacement	\$2,872	\$0	\$1,751	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$121	\$1,629
VIP-156	Quail Street Pump Station Replacement	\$2,002	\$0	\$1,220	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$85	\$1,136
VIP-157	Seay Avenue Pump Station Replacement	\$2,002	\$0	\$2,002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$85	\$1,136	\$782
VIP-158	Sanitary Sewer System Portsmouth Va Western Diversion Force Main Relocation (VDOT Tumpike Road Betterment)	\$1,846	\$6	\$1,840	\$46	\$707	\$1,087	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VIP-159	Steamboat Creek Pump Station Replacement	\$2,002	\$0	\$2,002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$85	\$1,136	\$782	\$0
VIP-160	Willoughby Avenue Pump Station Replacement	\$2,002	\$0	\$2,002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$85	\$1,136	\$782
<b>39 PROJECTS</b>		<b>\$95,820</b>	<b>\$7,598</b>	<b>\$86,319</b>	<b>\$17,484</b>	<b>\$13,531</b>	<b>\$1,602</b>	<b>\$7,604</b>	<b>\$12,861</b>	<b>\$12,561</b>	<b>\$7,865</b>	<b>\$2,525</b>	<b>\$5,177</b>	<b>\$5,110</b>	<b>\$5,110</b>

**Williamsburg**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection										
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	
WB-101	Ford's Colony Pump Station Improvements	\$386	\$156	\$230	\$230	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WB-103	Lee Hall Pressure Reducing Station and Yard Piping Upgrades	\$5,222	\$0	\$5,222	\$0	\$0	\$0	\$0	\$98	\$180	\$3,296	\$1,648	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM  
FY 2011 TO FY 2020 CASH FLOW PROJECTIONS (\$,000)  
Based on Program Cost Estimates (Project Contingencies not Included)**

**Williamsburg**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection											
					FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	
WB-104	Rolling Hills Interceptor Force Main Parallel	\$1,347	\$0	\$1,347	\$0	\$0	\$0	\$3	\$61	\$857	\$425	\$0	\$0	\$0	\$0	\$0
WB-107	Williamsburg Interceptor Force Main Contract A Replacement	\$5,930	\$432	\$5,498	\$916	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WB-111	Williamsburg Treatment Plant Oxidation Tower Repairs	\$2,649	\$775	\$1,874	\$846	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WB-114	Williamsburg Treatment Plant Improvements - Phase I	\$3,129	\$985	\$2,144	\$969	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WB-115	Route 199 Pressure Reducing Station	\$6,569	\$0	\$6,569	\$0	\$0	\$0	\$0	\$0	\$30	\$200	\$1,830	\$4,162	\$347	\$0	\$0
WB-116	North Trunk Interceptor Force Main Part "B" Ironbound Road Replacement - VDOT Betterment	\$314	\$89	\$225	\$117	\$29	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WB-117	Williamsburg Treatment Plant Pressure Control Valve Replacement	\$984	\$67	\$917	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WB-118	Williamsburg Treatment Plant Outfall Protection Phase II	\$125	\$13	\$113	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>10 PROJECTS</b>		<b>\$26,655</b>	<b>\$2,516</b>	<b>\$24,139</b>	<b>\$2,848</b>	<b>\$33</b>	<b>\$61</b>	<b>\$986</b>	<b>\$805</b>	<b>\$5,126</b>	<b>\$5,810</b>	<b>\$347</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**York River**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection											
					FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	
YR-101	Coliseum Drive Pressure Reducing Station	\$6,186	\$424	\$5,762	\$3,262	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-102	Fox Hill Road Interceptor Force Main Relocation	\$660	\$0	\$660	\$0	\$0	\$0	\$0	\$0	\$30	\$629	\$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	\$2,814	\$0	\$2,814	\$0	\$0	\$0	\$0	\$106	\$1,376	\$1,332	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM  
 FY 2011 TO FY 2020 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 FY10	Sum FY11-FY20	10 Year Cash Flow Projection												
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20			
YR-104	Klin Creek Interceptor Force Main	\$5,820	\$3,884	\$1,936	\$0	\$0	\$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	\$2,486	\$399	\$2,087	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-105-2	Magruder Mercury Interceptor Force Main Replacement - Section B	\$8,274	\$0	\$8,274	\$0	\$10	\$115	\$317	\$4,787	\$3,045	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-106	Pine Chapel 10-Inch Force Main Replacement Phase II and Pine Chapel Force Main Replacement	\$622	\$214	\$408	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-108	Route 171 Interceptor Force Main	\$5,580	\$3,474	\$2,106	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>CD</b>																	
YR-109	Tabb Pressure Reducing Station	\$5,966	\$0	\$5,966	\$0	\$0	\$0	\$181	\$2,962	\$2,823	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-110-1	York River Treatment Plant Expansion Phase I Contract A	\$58,959	\$50,730	\$8,229	\$0	\$0	\$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	\$34,500	\$0	\$34,500	\$2,228	\$12,909	\$6,455	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-110-3	York River Treatment Plant Expansion Phase I Contract C	\$23,600	\$216	\$23,384	\$971	\$1,219	\$7,267	\$6,661	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-111	York River Treatment Plant Water Reclamation Facility Phase III	\$87	\$0	\$87	\$2	\$85	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-114	Bethel-York County Interceptor Force Main Study	\$200	\$0	\$200	\$0	\$200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-116	York-Gloucester Interceptor System Improvements	\$3,468	\$0	\$3,468	\$0	\$0	\$72	\$132	\$2,176	\$1,088	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-118	Fox Hill Rd Force Main Replacement- Contract A	\$1,500	\$34	\$1,466	\$1,229	\$237	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-119	Bethel-Poquoson Force Main Part III Replacement	\$777	\$0	\$777	\$0	\$0	\$42	\$736	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-120	Yorktown Interceptor Force Main Replacement	\$14,823	\$0	\$14,823	\$0	\$0	\$0	\$224	\$568	\$8,576	\$5,456	\$0	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2011 TO FY 2020 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 FY10	Sum FY11-FY20	10 Year Cash Flow Projection													
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20				
YR-121	Coliseum Pressure Reducing Station Off-line Storage Facility	\$5,887	\$112	\$5,774	\$2,539	\$3,236	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
YR-122	York River Treatment Plant Digester Cover Replacement	\$1,008	\$53	\$955	\$955	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>20 PROJECTS</b>		<b>\$183,218</b>	<b>\$59,542</b>	<b>\$123,676</b>	<b>\$25,190</b>	<b>\$20,946</b>	<b>\$20,386</b>	<b>\$14,056</b>	<b>\$9,656</b>	<b>\$12,454</b>	<b>\$15,533</b>	<b>\$5,456</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**General**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection													
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20				
GN-100	Arc Flash Calculation	\$1,004	\$566	\$438	\$390	\$48	\$0	\$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	\$1,789	\$339	\$339	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-103	Centrifuge Controls Replacements	\$1,085	\$837	\$248	\$248	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-104	Computerized Maintenance Management System	\$2,612	\$2,570	\$43	\$43	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-107-3	Horizontal Valve Replacement (Phase III)	\$2,561	\$0	\$2,561	\$0	\$0	\$0	\$1,484	\$1,077	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-110	Woodland Road and Ferguson Park Pump Station Hydraulic Study	\$100	\$0	\$100	\$100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-115	Pump Station Diesel Generator Replacements	\$216	\$37	\$179	\$179	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-117	Pump Station Generators	\$3,662	\$232	\$3,430	\$0	\$0	\$0	\$229	\$1,771	\$1,430	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-119	Pump Station Roof Replacements	\$712	\$306	\$406	\$0	\$0	\$0	\$160	\$133	\$114	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-121	Regional Hydraulic Model and Other Consent Order Requirements	\$50,027	\$16,346	\$33,681	\$14,529	\$12,432	\$1,820	\$2,900	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-127	York River Treatment Plant Regional Residuals Facility	\$3,450	\$0	\$3,450	\$0	\$0	\$0	\$223	\$1,660	\$1,568	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM  
FY 2011 TO FY 2020 CASH FLOW PROJECTIONS (\$,000)  
Based on Program Cost Estimates (Project Contingencies not Included)**

**General**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection												
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20			
GN-128	Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements	\$9,084	\$384	\$8,699	\$887	\$2,350	\$3,913	\$1,550	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-129	Trap Grease Study Phase II	\$157	\$84	\$73	\$73	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-130	Boat Harbor and Chesapeake-Elizabeth Treatment Plant DCS Upgrade	\$6,120	\$0	\$6,120	\$0	\$0	\$0	\$0	\$86	\$1,761	\$3,944	\$329	\$0	\$0	\$0	\$0	\$0
GN-131	South Shore Interceptor Force Main Structural Support Replacement	\$274	\$15	\$260	\$238	\$22	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-132	Arc Flash Electrical Equipment Improvements	\$533	\$0	\$533	\$133	\$133	\$133	\$133	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-133	Treatment Plant Grease Handling Facilities	\$829	\$0	\$829	\$200	\$200	\$200	\$229	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-135	Manhole Rehabilitation	\$523	\$0	\$523	\$523	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-136	North Shore Pump Station Wet Well Rehabilitation	\$1,034	\$0	\$1,034	\$0	\$0	\$34	\$592	\$408	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-138	North Shore Odor Control and Chemical Injection Study	\$750	\$0	\$750	\$62	\$438	\$250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GN-139	Air Vent Rehabilitation	\$1,645	\$0	\$1,645	\$0	\$0	\$0	\$1,645	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>21 PROJECTS</b>		<b>\$88,508</b>	<b>\$23,165</b>	<b>\$65,342</b>	<b>\$17,943</b>	<b>\$15,623</b>	<b>\$6,350</b>	<b>\$9,146</b>	<b>\$7,135</b>	<b>\$4,873</b>	<b>\$3,944</b>	<b>\$329</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**Future Improvements**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection												
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20			
IMP-100	Interceptor System Expansions and Improvements	\$76,050	\$0	\$76,050	\$0	\$0	\$0	\$8,596	\$0	\$3,015	\$7,785	\$15,795	\$20,344	\$20,514	\$0	\$0	\$0
IMP-101	Pump Station Expansions and Improvements	\$6,372	\$0	\$6,372	\$0	\$0	\$0	\$1,497	\$0	\$537	\$586	\$1,016	\$1,338	\$1,397	\$0	\$0	\$0



**CAPITAL IMPROVEMENT PROGRAM**  
**FY 2011 TO FY 2020 CASH FLOW PROJECTIONS (\$,000)**  
**Based on Program Cost Estimates (Project Contingencies not Included)**

**Future Improvements**

CIP No	Project Name	Est Program Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection									
					FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
IMP-102	Treatment Plant Expansions and Improvements	\$65,310	\$0	\$65,310	\$0	\$0	\$0	\$4,765	\$4,838	\$7,517	\$8,384	\$13,069	\$14,096	\$12,642
IMP-103	Administrative Expansions and Improvements	\$10,715	\$0	\$10,715	\$0	\$0	\$1,361	\$0	\$1,030	\$1,125	\$1,950	\$2,568	\$2,681	
IMP-104	Interceptor System Rehabilitation and Replacement	\$76,050	\$0	\$76,050	\$0	\$0	\$8,596	\$0	\$3,015	\$7,785	\$15,795	\$20,344	\$20,514	
IMP-105	Pump Station Rehabilitation and Replacement	\$6,372	\$0	\$6,372	\$0	\$0	\$1,497	\$0	\$537	\$586	\$1,016	\$1,338	\$1,397	
IMP-106	Treatment Plant Rehabilitation and Replacement	\$65,310	\$0	\$65,310	\$0	\$0	\$4,765	\$4,838	\$7,517	\$8,384	\$13,069	\$14,096	\$12,642	
IMP-107	Administrative Rehabilitation and Replacement	\$10,715	\$0	\$10,715	\$0	\$0	\$1,361	\$0	\$1,030	\$1,125	\$1,950	\$2,568	\$2,681	
<b>8 PROJECTS</b>	<b>TOTAL</b>	<b>\$316,894</b>	<b>\$0</b>	<b>\$316,894</b>	<b>\$0</b>	<b>\$0</b>	<b>\$32,440</b>	<b>\$9,675</b>	<b>\$24,198</b>	<b>\$35,759</b>	<b>\$63,662</b>	<b>\$76,692</b>	<b>\$74,468</b>	



**CAPITAL IMPROVEMENT PROGRAM  
 FY 2011 TO FY 2020 CASH FLOW PROJECTIONS (\$,000)  
 Based on Program Cost Estimates (Project Contingencies not Included)**

195 PROJECTS	Est Cost	Proj Exp to FY10	Sum FY11-FY20	10 Year Cash Flow Projection							FY19	FY20		
				FY11	FY12	FY13	FY14	FY15	FY16	FY17			FY18	
PROGRAM TOTAL	\$1,333,121	\$348,139	\$967,034	\$159,024	\$117,506	\$81,442	\$98,230	\$79,166	\$98,333	\$83,333	\$83,333	\$83,333	\$83,333	\$83,333
PROGRAM CONTINGENCY			\$138,873	\$7,951	\$5,875	\$8,145	\$14,734	\$15,834	\$19,667	\$16,667	\$16,667	\$16,667	\$16,667	\$16,667
PROJECT TOTAL	\$1,454,047	\$348,139	\$1,105,907	\$166,975	\$123,381	\$89,587	\$112,964	\$95,000	\$118,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000

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

	Sum FY11-FY20	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
<b>Total Uses of Funds</b>	\$1,105,907	\$166,975	\$123,381	\$89,587	\$112,964	\$95,000	\$118,000	\$100,000	\$100,000	\$100,000	\$100,000
<b>Sources of Funds</b>											
Cash - HRSD	\$412,744	\$29,000	\$18,507	\$13,479	\$20,951	\$44,755	\$50,302	\$58,251	\$58,885	\$59,029	\$59,585
Grants - WQIF	\$37,500	\$37,500									
<b>Total Cash</b>	\$450,244	\$66,500	\$18,507	\$13,479	\$20,951	\$44,755	\$50,302	\$58,251	\$58,885	\$59,029	\$59,585
<b>Bonds</b>	\$655,663	\$100,475	\$104,874	\$76,108	\$92,013	\$50,245	\$67,698	\$41,749	\$41,115	\$40,971	\$40,415
<b>Total Sources</b>	\$1,105,907	\$166,975	\$123,381	\$89,587	\$112,964	\$95,000	\$118,000	\$100,000	\$100,000	\$100,000	\$100,000
<b>TOTAL CIP PROGRAM COST</b>	<b>\$1,454,047</b>	*2010 dollars and includes prior year expenditures									

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