

# **Cash Flow Projections FY 2019 to FY 2028**



**CAPITAL IMPROVEMENT PROGRAM**  
 FY19 TO FY28 (\$,000)  
 Based on Program Cost Estimates (Project Contingencies not Included)

	Regulatory Type	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	Proj Exp to Prev Yr	Sum FY19 to FY28	Est Program Cost
<b>Administration</b>														
PR_AD010400 Environmental Data Management System	None	\$328	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,031	\$328	\$4,359
PR_AD012100 Asset Management Implementation	None	\$669	\$669	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$362	\$1,338	\$1,700
PR_AD012200 Water Quality Services Building Phase II	None	\$4,388	\$2,925	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,587	\$7,313	\$8,900
PR_AD012300 Central Environmental Laboratory Phase II	None	\$117	\$815	\$1,280	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,212	\$2,212
PR_AD012400 Capital Program Management Improvements Phase I	None	\$1,600	\$800	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,400	\$2,400
<b>Administration Subtotal</b>		<b>\$7,102</b>	<b>\$5,210</b>	<b>\$1,280</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$5,979</b>	<b>\$13,592</b>	<b>\$19,571</b>
<b>Army Base</b>														
PR_AB010000 Army Base 24-Inch and 20-Inch Transmission Main Replacements	Rehab Plan Phase Two	\$0	\$1,607	\$4,832	\$13,629	\$2,271	\$0	\$0	\$0	\$0	\$0	\$834	\$22,339	\$23,173
PR_AB010100 Army Base Treatment Plant Improvements - Phase III	Nutrient Reduction	\$1,244	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$121,278	\$1,244	\$122,522
PR_AB010500 Section W Force Main Replacement	None	\$97	\$218	\$1,253	\$522	\$0	\$0	\$0	\$0	\$0	\$0	\$95	\$2,090	\$2,185
PR_AB011700 Army Base Treatment Plant Solids Dewatering and Loading Facility	None	\$0	\$0	\$0	\$0	\$0	\$413	\$4,167	\$8,000	\$0	\$0	\$0	\$12,580	\$12,580
<b>Army Base Subtotal</b>		<b>\$1,341</b>	<b>\$1,825</b>	<b>\$6,085</b>	<b>\$14,151</b>	<b>\$2,271</b>	<b>\$413</b>	<b>\$4,167</b>	<b>\$8,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$122,207</b>	<b>\$38,253</b>	<b>\$160,460</b>
<b>Atlantic</b>														
PR_AT011510 Shippis Corner Interim Pressure Reducing Station	Rehab Plan Phase Two	\$283	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,228	\$283	\$2,510
PR_AT011520 Shippis Corner Pressure Reducing Station Modifications	Rehab Plan Phase Two	\$0	\$9	\$104	\$652	\$652	\$0	\$0	\$0	\$0	\$0	\$0	\$1,416	\$1,416
PR_AT011900 Great Bridge Interceptor Extension 16-Inch Replacement	Rehab Plan Phase Two	\$0	\$0	\$0	\$61	\$221	\$2,036	\$1,997	\$0	\$0	\$0	\$0	\$4,315	\$4,315
PR_AT012000 Atlantic Treatment Plant Administration Building Renovation and Expansion	None	\$268	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,620	\$268	\$2,887
PR_AT012910 Atlantic Treatment Plant FOG Receiving Station	None	\$1,866	\$1,847	\$440	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,204	\$4,153	\$6,357
PR_AT012920 Atlantic Treatment Plant Access Road Extension	None	\$33	\$0	\$555	\$125	\$3,073	\$0	\$0	\$0	\$0	\$0	\$0	\$3,786	\$3,786
PR_AT013000 Washington District Pump Station Area Sanitary Sewer Improvements	Rehab Plan Phase Two	\$72	\$83	\$864	\$1,013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,032	\$2,032
PR_AT013100 South Norfolk Area Gravity Sewer Improvements	Rehab Plan Phase Two	\$0	\$0	\$324	\$288	\$3,126	\$1,563	\$0	\$0	\$0	\$0	\$0	\$5,301	\$5,301
PR_AT013200 Doziers Corner PS and Washington District PS Flooding Mitigation Improvements	Rehab Plan Phase Two	\$0	\$0	\$0	\$0	\$16	\$38	\$196	\$0	\$0	\$0	\$0	\$251	\$251
PR_AT013500 Atlantic Treatment Plant Thermal Hydrolysis Process	None	\$20,000	\$19,800	\$4,708	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,990	\$44,508	\$58,498
PR_AT013600 Atlantic Treatment Plant Motor Control Center Replacements	None	\$335	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$149	\$335	\$484
PR_AT013700 Atlantic Trunk Interceptor Force Main Relocation-VDOT Laskin Road Betterment	None	\$107	\$107	\$36	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$48	\$250	\$298
PR_AT013900 Atlantic Treatment Plant Influent Screen Expansion	None	\$1,486	\$180	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$243	\$1,666	\$1,909
PR_AT014000 Lynnhaven-Great Neck IFM (SF-021) Relocation	None	\$403	\$450	\$75	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$72	\$928	\$1,000
PR_AT014100 Suffolk Regional Landfill Transmission Force Main	None	\$717	\$1,533	\$2,500	\$1,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,000	\$6,000
<b>Atlantic Subtotal</b>		<b>\$25,570</b>	<b>\$24,009</b>	<b>\$9,606</b>	<b>\$3,388</b>	<b>\$7,088</b>	<b>\$3,637</b>	<b>\$2,193</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$21,553</b>	<b>\$75,492</b>	<b>\$97,045</b>
<b>Boat Harbor</b>														
PR_BH011600 Bridge Street Pump Station Replacement	Consent Decree 2008	\$15	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,523	\$15	\$13,538
PR_BH012700 Hampton Trunk Sewer Extension Division B-Claremont Force Main Replacement	Rehab Plan Phase One	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,742	\$2	\$4,743
PR_BH013000 Willard Avenue Pump Station Upgrades	None	\$502	\$2,751	\$2,067	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$143	\$5,320	\$5,463
PR_BH013400 Bridge Street Siphon and Vent Relocation/Replacement	None	\$13	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$839	\$13	\$852
PR_BH014000 West Avenue and 35th Street Interceptor Force Main Replacement	Rehab Plan Phase Two	\$0	\$0	\$225	\$814	\$2,454	\$3	\$0	\$0	\$0	\$0	\$0	\$3,496	\$3,496
PR_BH014220 Hampton Trunk Sewer Extension Divisions I and J Relocation Phase II	None	\$745	\$2,572	\$4,277	\$3,572	\$8	\$0	\$0	\$0	\$0	\$0	\$86	\$11,173	\$11,259
PR_BH014500 Ivy Home-Shell Road Sewer Extension Division I Replacement	Rehab Plan Phase Two	\$0	\$0	\$16	\$585	\$1,414	\$0	\$0	\$0	\$0	\$0	\$74	\$2,014	\$2,088
PR_BH014600 46th Street Diversion Sewer Rehabilitation/Replacement	Rehab Plan Phase Two	\$671	\$1,468	\$4,865	\$2,843	\$0	\$0	\$0	\$0	\$0	\$0	\$194	\$9,847	\$10,041
PR_BH014700 Boat Harbor Outlet Sewer Improvements	Rehab Plan Phase One	\$400	\$4,134	\$983	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$124	\$5,517	\$5,641
PR_BH014800 Jefferson Avenue Extension Gravity Improvements	Rehab Plan Phase One	\$1,358	\$1,058	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$229	\$2,416	\$2,645
PR_BH014900 Hampton Trunk Sewer Extension Division K Gravity Improvements	Rehab Plan Phase Two	\$0	\$176	\$179	\$1,141	\$2,193	\$0	\$0	\$0	\$0	\$0	\$0	\$3,689	\$3,689
PR_BH015000 Orcutt Avenue and Mercury Blvd Gravity Sewer Improvements	Rehab Plan Phase One	\$3,540	\$2,258	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$659	\$5,798	\$6,457
PR_BH015100 Bloxoms Corner Force Main Replacement	Rehab Plan Phase Two	\$0	\$105	\$177	\$755	\$1,747	\$0	\$0	\$0	\$0	\$0	\$0	\$2,784	\$2,784
PR_BH015300 Boat Harbor Treatment Plant Switchgear and Controls Replacements	None	\$4,707	\$3,775	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$754	\$8,482	\$9,236
PR_BH015500 LaSalle Avenue IFM Replacement	None	\$0	\$80	\$1,092	\$661	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,832	\$1,832
PR_BH015600 Hampton Trunk A and B - Jefferson Ave. to Buxton	None	\$578	\$1,348	\$6,026	\$2,019	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,971	\$9,971
PR_BH015700 Boat Harbor Treatment Plant Effluent PS and Transmission FM	None	\$1,762	\$1,762	\$1,762	\$1,762	\$9,797	\$17,219	\$24,642	\$24,642	\$24,642	\$24,642	\$0	\$132,629	\$132,629

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	Regulatory Type	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	Proj Exp to Prev Yr	Sum FY19 to FY28	Est Program Cost
<b>Boat Harbor Subtotal</b>		<b>\$14,291</b>	<b>\$21,487</b>	<b>\$21,669</b>	<b>\$14,152</b>	<b>\$17,612</b>	<b>\$17,222</b>	<b>\$24,642</b>	<b>\$24,642</b>	<b>\$24,642</b>	<b>\$24,642</b>	<b>\$21,366</b>	<b>\$204,998</b>	<b>\$226,364</b>
<b>Chesapeake-Elizabeth</b>														
PR_CE010400 Independence Boulevard Pressure Reducing Station Modifications	Rehab Plan Phase One	\$114	\$434	\$775	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$234	\$1,323	\$1,557
PR_CE010520 Newtown Road Interceptor Force Main Relocation	None	\$876	\$4	\$6,996	\$7,630	\$0	\$0	\$0	\$0	\$0	\$0	\$550	\$15,506	\$16,056
PR_CE011300 Birchwood Trunk 24 and 30-In. FM at Independence Boulevard Replacement Phase II	Rehab Plan Phase Two	\$0	\$0	\$0	\$509	\$916	\$0	\$0	\$0	\$0	\$0	\$0	\$1,425	\$1,425
PR_CE011600 Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements	Rehab Plan Phase Two	\$0	\$0	\$21	\$130	\$624	\$962	\$0	\$0	\$0	\$0	\$0	\$1,737	\$1,737
PR_CE011700 Western Trunk Force Main Replacement	Rehab Plan Phase One	\$1,359	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$316	\$1,359	\$1,675
PR_CE011810 Chesapeake-Elizabeth Treatment Plant Decommissioning	Regional Wet Weather Management Plan	\$478	\$1,674	\$717	\$1,722	\$1,722	\$1,722	\$1,722	\$1,004	\$0	\$0	\$0	\$10,759	\$10,759
PR_CE011821 Elbow Road Pressure Reducing Station	Regional Wet Weather Management Plan	\$526	\$3,659	\$2,919	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$383	\$7,104	\$7,487
PR_CE011822 Providence Road PRS Upgrades and Interconnect Force Main	Regional Wet Weather Management Plan	\$1,364	\$2,444	\$1,431	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$697	\$5,239	\$5,936
PR_CE011823 Virginia Beach Boulevard Force Main Phase VI	Regional Wet Weather Management Plan	\$825	\$5,459	\$6,529	\$1,635	\$0	\$0	\$0	\$0	\$0	\$0	\$704	\$14,447	\$15,151
PR_CE011825 Salem Road Interconnect Force Main	Regional Wet Weather Management Plan	\$188	\$943	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$98	\$1,132	\$1,229
PR_CE011826 Providence Road Off-Line Storage Facility	Regional Wet Weather Management Plan	\$2,357	\$9,467	\$11,161	\$1,125	\$0	\$0	\$0	\$0	\$0	\$0	\$365	\$24,110	\$24,475
PR_CE011827 Atlantic PRS Reliability Modifications	Regional Wet Weather Management Plan	\$1,021	\$1,788	\$2,781	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$879	\$5,593	\$6,472
PR_CE011828 Kempsville PRS Reliability Modifications	Regional Wet Weather Management Plan	\$581	\$889	\$1,368	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$442	\$2,840	\$3,282
PR_CE011829 Laskin Road PRS Reliability Modifications	Regional Wet Weather Management Plan	\$947	\$395	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$741	\$1,342	\$2,083
PR_CE011830 Little Creek Pump Station Modifications	Regional Wet Weather Management Plan	\$44	\$116	\$485	\$5	\$0	\$0	\$0	\$0	\$0	\$0	\$87	\$650	\$737
PR_CE011835 Virginia Beach City Pump Station Upgrades Phase V	Regional Wet Weather Management Plan	\$220	\$373	\$1,084	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$226	\$1,680	\$1,906
PR_CE011840 Oceana Off-Line Storage Facility	Regional Wet Weather Management Plan	\$1,638	\$4,544	\$8,130	\$50	\$0	\$0	\$0	\$0	\$0	\$0	\$333	\$14,362	\$14,696
PR_CE012000 Poplar Hall Davis Corner Trunk 24-in. GS Imp-1-264 VDOT	Rehab Plan Phase Two	\$0	\$0	\$11	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$111	\$11	\$122
PR_CE012110 Witchduck Rd IFM Improvements Phase I	None	\$127	\$733	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7	\$860	\$867
PR_CE012120 Witchduck Rd IFM Improvements Phase II	None	\$25	\$100	\$214	\$687	\$687	\$172	\$0	\$0	\$0	\$0	\$0	\$1,885	\$1,885
PR_CE012200 Pine Tree PRS Reliability Modifications	Regional Wet Weather Management Plan	\$647	\$1,261	\$320	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$352	\$2,228	\$2,580
<b>Chesapeake-Elizabeth Subtotal</b>		<b>\$13,338</b>	<b>\$34,283</b>	<b>\$44,941</b>	<b>\$13,501</b>	<b>\$3,948</b>	<b>\$2,856</b>	<b>\$1,722</b>	<b>\$1,004</b>	<b>\$0</b>	<b>\$0</b>	<b>\$6,525</b>	<b>\$115,593</b>	<b>\$122,118</b>
<b>James River</b>														
PR_JR010600 Lucas Creek Pump Station Upgrade	Rehab Plan Phase Two	\$0	\$133	\$303	\$5,912	\$0	\$0	\$0	\$0	\$0	\$0	\$88	\$6,347	\$6,436
PR_JR011300 Patrick Henry Pump Station Interconnection Force Main	None	\$330	\$1,370	\$1,504	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$117	\$3,207	\$3,324
PR_JR011730 Jefferson Avenue Interceptor Force Main Replacement Phase III	None	\$601	\$2,135	\$5,442	\$917	\$0	\$0	\$0	\$0	\$0	\$0	\$312	\$9,095	\$9,407
PR_JR012100 Huxley Place to Middle Ground Boulevard Force Main Extension	Rehab Plan Phase One	\$1,032	\$2,942	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$208	\$3,976	\$4,184
PR_JR013000 Morrison Pump Station Discharge Force Main Replacement and Capacity Enhancements	None	\$47	\$126	\$443	\$619	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,236	\$1,236
PR_JR013100 Lucas Creek-Woodhaven Interceptor Force Main Replacement Phase I	None	\$1,134	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,533	\$1,134	\$3,667
PR_JR013200 Lucas Creek-Woodhaven Interceptor Force Main Replacement Phase II	None	\$206	\$392	\$1,319	\$2,497	\$838	\$0	\$0	\$0	\$0	\$0	\$0	\$5,252	\$5,252
<b>James River Subtotal</b>		<b>\$3,350</b>	<b>\$7,098</b>	<b>\$9,015</b>	<b>\$9,947</b>	<b>\$838</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,258</b>	<b>\$30,247</b>	<b>\$33,505</b>
<b>Middle Peninsula</b>														
PR_MP011400 Mathews Collection System Vacuum Valve Replacement	None	\$81	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,438	\$81	\$1,518
PR_MP011700 Middle Peninsula Interceptor Systems PS Control and SCADA Upgrades/Enhancements	None	\$2,359	\$20	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,136	\$2,379	\$5,516
PR_MP011800 Kirby Street Sanitary Sewer Rehabilitation	None	\$695	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$209	\$695	\$904
PR_MP012000 King William Treatment Plant Improvements Phase I	None	\$1,388	\$5,070	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$292	\$6,458	\$6,749
PR_MP012400 West Point Treatment Plant Tertiary Filter	None	\$221	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$302	\$221	\$523
PR_MP012500 Mathews Main Vacuum Pump Station Replacement	None	\$760	\$1,517	\$5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$439	\$2,283	\$2,722
PR_MP012700 Middle Peninsula Sewer Lateral Improvements	None	\$0	\$0	\$0	\$0	\$0	\$2,664	\$2,664	\$0	\$0	\$0	\$0	\$5,327	\$5,327
PR_MP012900 Mathews Nursing Home Line Vacuum Sewer Main Improvements	None	\$624	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$92	\$626	\$718
PR_MP013000 Small Communities Collection System Rehabilitation Phase I	None	\$647	\$647	\$449	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$165	\$1,742	\$1,907
PR_MP013100 Small Communities Mobile Dewatering Facilities Installation	None	\$1,079	\$135	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$139	\$1,214	\$1,353
PR_MP013200 Middlesex County Sewer Service Expansion Study	None	\$146	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$104	\$146	\$250
PR_MP013300 King William Treatment Plant Improvements Phase II	None	\$0	\$0	\$245	\$1,005	\$900	\$0	\$0	\$0	\$0	\$0	\$0	\$2,150	\$2,150
PR_MP013400 Small Communities Operation Center Parking and Laydown Area	None	\$225	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$225	\$225
<b>Middle Peninsula Subtotal</b>		<b>\$8,224</b>	<b>\$7,391</b>	<b>\$699</b>	<b>\$1,005</b>	<b>\$900</b>	<b>\$2,664</b>	<b>\$2,664</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$6,315</b>	<b>\$23,546</b>	<b>\$29,861</b>
<b>Nansemond</b>														

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	Regulatory Type	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	Proj Exp to Prev Yr	Sum FY19 to FY28	Est Program Cost
PR_NP010620 Suffolk Pump Station Replacement	Rehab Plan Phase Two	\$719	\$4,332	\$4,698	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$527	\$9,749	\$10,277
PR_NP011300 Suffolk Interceptor Force Main Section I Main Line Valving Replacement	Rehab Plan Phase One	\$282	\$968	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$40	\$1,250	\$1,290
PR_NP012400 Western Branch Sewer System Gravity Improvements	Rehab Plan Phase Two	\$0	\$0	\$0	\$156	\$156	\$2,394	\$0	\$0	\$0	\$0	\$0	\$2,707	\$2,707
PR_NP012500 Shingle Creek and Hickman's Branch Gravity Sewer Improvements	Rehab Plan Phase Two	\$1,606	\$5,220	\$435	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$416	\$7,261	\$7,677
PR_NP012600 Deep Creek Interceptor Force Main Replacement	Rehab Plan Phase One	\$2,055	\$2,098	\$50	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,125	\$4,203	\$5,327
PR_NP013000 Nansemond Treatment Plant Motor Control Center Replacements	None	\$421	\$421	\$421	\$421	\$351	\$0	\$0	\$0	\$0	\$0	\$176	\$2,036	\$2,211
PR_NP013400 Deep Creek IFM Risk Mitigation	None	\$483	\$1,808	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$159	\$2,291	\$2,450
PR_NP013500 Nansemond Treatment Plant Land Acquisition-Land Stabilization	None	\$1,420	\$3,212	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$274	\$4,632	\$4,906
PR_NP013600 Nansemond Treatment Plant Land Acquisition-Structure Demolition	None	\$1,840	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,840	\$1,840
PR_NP013700 Nansemond Treatment Plant Struvite Recovery Facility Improvements	None	\$1,588	\$3,933	\$333	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$207	\$5,854	\$6,060
<b>Nansemond Subtotal</b>		<b>\$10,415</b>	<b>\$21,991</b>	<b>\$5,937</b>	<b>\$577</b>	<b>\$507</b>	<b>\$2,394</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,923</b>	<b>\$41,822</b>	<b>\$44,746</b>
<b>Surry</b>														
PR_SU010200 Surry Hydraulic Improvements and Interceptor Force Main	Consent Decree - Surry	\$4,131	\$8,307	\$4,061	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$16,500	\$16,500
<b>Surry Subtotal</b>		<b>4,131</b>	<b>8,307</b>	<b>4,061</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16,500</b>	<b>16,500</b>
<b>Virginia Initiative Plant</b>														
PR_VP010920 Norview Estabrook Division I 18-Inch Force Main Replacement Phase II, Section 2	Rehab Plan Phase Two	\$0	\$0	\$0	\$73	\$146	\$554	\$646	\$0	\$0	\$0	\$0	\$1,420	\$1,420
PR_VP014010 Ferebee Avenue Pump Station Replacement	Rehab Plan Phase One	\$313	\$2,248	\$2,248	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$145	\$4,809	\$4,954
PR_VP014020 Sanitary Sewer Project 1950 12 Inch FM and 24 and 18 Inch Gravity Replacement	Rehab Plan Phase Two	\$447	\$2,524	\$3,144	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$114	\$6,115	\$6,229
PR_VP014700 Ingleside Road Pump Station Replacement	Rehab Plan Phase Two	\$0	\$133	\$65	\$65	\$668	\$1,564	\$521	\$0	\$0	\$0	\$0	\$3,015	\$3,015
PR_VP014800 Lee Avenue/Wesley Street Horizontal Valve Replacement	Rehab Plan Phase Two	\$0	\$0	\$0	\$103	\$926	\$0	\$0	\$0	\$0	\$0	\$29	\$1,029	\$1,058
PR_VP015310 Larchmont Sanitary Sewer Master Plan Study	None	\$84	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$111	\$84	\$195
PR_VP015320 Larchmont Area Sanitary Sewer Improvements	Rehab Plan Phase Two	\$281	\$375	\$2,574	\$5,780	\$4,255	\$0	\$0	\$0	\$0	\$0	\$0	\$13,265	\$13,265
PR_VP015400 Lafayette Norview-Estabrook Pump Station Replacements	Rehab Plan Phase Two	\$615	\$349	\$5,367	\$6,766	\$2,752	\$0	\$0	\$0	\$0	\$0	\$56	\$15,849	\$15,905
PR_VP016320 Virginia Initiative Plant Nutrient Reduction Improvements Contract B	Nutrient Reduction	\$6,379	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$116,956	\$6,379	\$123,335
PR_VP016500 Norview-Estabrook Division I 12-Inch Force Main Replacement	Rehab Plan Phase Two	\$0	\$37	\$101	\$1,267	\$559	\$0	\$0	\$0	\$0	\$0	\$0	\$1,964	\$1,964
PR_VP016700 Norview-Estabrook Division I 18-Inch Force Main Replacement Phase III	Rehab Plan Phase Two	\$0	\$0	\$45	\$15	\$120	\$1,718	\$516	\$0	\$0	\$0	\$0	\$2,414	\$2,414
PR_VP017100 Central Norfolk Area Gravity Sewer Improvements	Rehab Plan Phase Two	\$0	\$0	\$0	\$47	\$205	\$1,036	\$1,172	\$0	\$0	\$0	\$0	\$2,460	\$2,460
PR_VP017300 Rodman Avenue Pump Station Wet Well Rehabilitation	None	\$176	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,106	\$176	\$1,282
PR_VP018000 Park Avenue Pump Station Replacement	Rehab Plan Phase Two	\$229	\$662	\$2,287	\$1,715	\$0	\$0	\$0	\$0	\$0	\$0	\$146	\$4,894	\$5,040
PR_VP018200 Eflingham Interceptor Vault Removal	None	\$802	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$802	\$802
<b>Virginia Initiative Plant Subtotal</b>		<b>\$9,326</b>	<b>\$6,328</b>	<b>\$15,831</b>	<b>\$15,831</b>	<b>\$9,631</b>	<b>\$4,872</b>	<b>\$2,855</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$118,663</b>	<b>\$64,673</b>	<b>\$183,337</b>
<b>Williamsburg</b>														
PR_WB010700 Williamsburg Interceptor Force Main Contract A Replacement	Consent Decree 2008	\$18	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,851	\$18	\$8,869
PR_WB012200 North Trunk Force Main Part B Replacement	Rehab Plan Phase One	\$1,030	\$347	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$102	\$1,378	\$1,479
PR_WB012400 Williamsburg Treatment Plant Generator and Switchgear Replacement	None	\$588	\$1,850	\$2,918	\$740	\$0	\$0	\$0	\$0	\$0	\$0	\$49	\$6,095	\$6,144
PR_WB012500 Lodge Road Pump Station Upgrades	None	\$68	\$126	\$954	\$323	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,472	\$1,472
PR_WB012600 Kingsmill PS Piping Replacement and Wet Well Rehabilitation	None	\$175	\$540	\$360	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,075	\$1,075
PR_WB012700 WBTP Advanced Nutrient Reduction Improvements	None	\$200	\$755	\$3,100	\$3,100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,155	\$7,155
PR_WB012800 Williamsburg Treatment Plant Outfall and Diffuser Repair 2018	None	\$125	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$125	\$125	\$250
<b>Williamsburg Subtotal</b>		<b>\$2,204</b>	<b>\$3,618</b>	<b>\$7,332</b>	<b>\$4,163</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$9,127</b>	<b>\$17,318</b>	<b>\$26,444</b>
<b>York River</b>														
PR_YR010300 Foxridge, Woodland Road and Fox Hill Road Gravity Sewer Rehabilitation	Rehab Plan Phase Two	\$0	\$0	\$0	\$221	\$1,458	\$1,353	\$0	\$0	\$0	\$0	\$0	\$3,031	\$3,031
PR_YR010520 Magruder Mercury Interceptor Force Main Replacement-Section B	None	\$0	\$66	\$322	\$1,357	\$2,383	\$3	\$0	\$0	\$0	\$0	\$0	\$4,131	\$4,131
PR_YR010530 Magruder Mercury Interceptor Force Main Replacement-Section C	None	\$0	\$0	\$0	\$31	\$56	\$494	\$1,555	\$2,325	\$969	\$0	\$0	\$5,429	\$5,429
PR_YR011900 Bethel-Poquoson Force Main Part III Replacement	None	\$82	\$221	\$784	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50	\$1,087	\$1,137
PR_YR012220 York River Treatment Plant Digester Cover Replacement Phase II	None	\$572	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,000	\$572	\$1,572

**CAPITAL IMPROVEMENT PROGRAM**  
 FY19 TO FY28 (\$,000)  
 Based on Program Cost Estimates (Project Contingencies not Included)

	Regulatory Type	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	Proj Exp to Prev Yr	Sum FY19 to FY28	Est Program Cost
PR_YR013140 York River Treatment Plant Environmental Studies and Habitat Enhancement	None	\$305	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$695	\$305	\$1,000
PR_YR013500 Westminister Drive Force Main Replacement	None	\$0	\$99	\$585	\$5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$688	\$688
PR_YR013600 YRTP Solids Handling Electrical Improvements	None	\$360	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$360	\$360
<b>York River Subtotal</b>		<b>\$1,318</b>	<b>\$386</b>	<b>\$1,691</b>	<b>\$1,614</b>	<b>\$3,897</b>	<b>\$1,850</b>	<b>\$1,555</b>	<b>\$2,325</b>	<b>\$969</b>	<b>\$0</b>	<b>\$1,745</b>	<b>\$15,603</b>	<b>\$17,348</b>
<b>General</b>														
PR_GN010730 Horizontal Valve Replacement Phase III	Rehab Plan Phase Two	\$365	\$605	\$605	\$605	\$605	\$353	\$0	\$0	\$0	\$0	\$0	\$3,136	\$3,136
PR_GN011700 Pump Station Generators and Standby Pump Upgrades	Rehab Plan Phase One	\$2,027	\$1,858	\$929	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,239	\$4,814	\$6,053
PR_GN012130 Manhole Rehab/Replacement Phase I and North Shore Siphon Chamber Rehab Phase I	Rehab Plan Phase One	\$207	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$401	\$207	\$609
PR_GN012131 Manhole Rehabilitation Phase 1A (North Shore)	Rehab Plan Phase One	\$712	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$593	\$712	\$1,305
PR_GN012132 Manhole Rehabilitation Phase 1B	Rehab Plan Phase One	\$913	\$391	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,305	\$1,305
PR_GN012133 Manhole Rehabilitation Phase 1C	Rehab Plan Phase One	\$0	\$1,174	\$130	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,305	\$1,305
PR_GN012134 North Shore Siphon Chamber Rehabilitation Phase 1	Rehab Plan Phase One	\$507	\$797	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,305	\$1,305
PR_GN012140 Pump Station Wet Well Rehabilitation Phase I	Rehab Plan Phase One	\$855	\$855	\$712	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$671	\$2,422	\$3,093
PR_GN012800 Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements	Consent Decree 2008	\$5,729	\$1,016	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,239	\$6,745	\$26,983
PR_GN013300 Treatment Plant Grease Handling Facilities	None	\$867	\$2,741	\$924	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$104	\$4,532	\$4,636
PR_GN014500 Renewable Energy Facility and Associated Plant Improvements	Clean Air Act	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PR_GN014900 North Shore Gravity Sewer Improvements Phase I	Rehab Plan Phase Two	\$80	\$222	\$214	\$2,477	\$1,493	\$0	\$0	\$0	\$0	\$0	\$0	\$4,487	\$4,487
PR_GN015000 South Shore Gravity Sewer Improvements Phase I	Rehab Plan Phase Two	\$0	\$0	\$37	\$65	\$236	\$394	\$0	\$0	\$0	\$0	\$0	\$732	\$732
PR_GN015100 Arctic Avenue Pump Station and Newtown Road Pump Station Electrical Improvements	Rehab Plan Phase One	\$457	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$65	\$457	\$522
PR_GN015300 Interceptor System Valve Improvements Phase I	Rehab Plan Phase Two	\$74	\$157	\$539	\$1,367	\$456	\$0	\$0	\$0	\$0	\$0	\$0	\$2,592	\$2,592
PR_GN015400 South Shore Aerial Crossing Improvements	Rehab Plan Phase Two	\$0	\$4	\$15	\$11	\$137	\$94	\$0	\$0	\$0	\$0	\$0	\$260	\$260
PR_GN015800 North Shore Automated Diversion Facilities	None	\$148	\$1,040	\$235	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9	\$1,422	\$1,432
PR_GN016200 Sustainable Water Phase 3 - Demonstration Facility (SWIFT)	Regional Wet Weather Management Plan	\$188	\$31	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$26,178	\$219	\$26,396
PR_GN016300 Sustainable Water Initiative for Tomorrow (SWIFT)	Regional Wet Weather Management Plan	\$0	\$0	\$0	\$0	\$12,115	\$39,827	\$67,195	\$122,491	\$146,312	\$167,630	\$0	\$555,569	\$555,569
PR_GN016310 Integrated Planning of SWIFT	Regional Wet Weather Management Plan	\$3,000	\$2,000	\$1,500	\$1,000	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$8,500	\$8,500
PR_GN016320 Program Management of SWIFT Full Scale Implementation	Regional Wet Weather Management Plan	\$6,154	\$6,154	\$6,154	\$6,154	\$6,154	\$6,154	\$6,154	\$6,154	\$6,154	\$6,154	\$0	\$61,538	\$61,538
PR_GN016330 Well Services for SWIFT	Regional Wet Weather Management Plan	\$2,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,500	\$2,500
PR_GN016341 VIP SWIFT Land Acquisition	Regional Wet Weather Management Plan	\$0	\$0	\$0	\$0	\$15,000	\$0	\$0	\$0	\$0	\$0	\$15,000	\$15,000	\$30,000
PR_GN016350 Williamsburg SWIFT Facility	Regional Wet Weather Management Plan	\$4,560	\$10,890	\$15,150	\$40,550	\$44,510	\$8,915	\$0	\$0	\$0	\$0	\$0	\$124,575	\$124,575
PR_GN016360 James River SWIFT Facility	Regional Wet Weather Management Plan	\$0	\$6,340	\$20,646	\$15,534	\$56,360	\$61,860	\$12,390	\$0	\$0	\$0	\$0	\$173,130	\$173,130
PR_GN016370 York River SWIFT Facility	Regional Wet Weather Management Plan	\$0	\$0	\$0	\$6,000	\$19,533	\$14,697	\$53,320	\$58,540	\$11,716	\$0	\$0	\$163,806	\$163,806
PR_GN016400 Treatment Plant Dewatering Replacement Phase I	None	\$254	\$1,594	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$71	\$1,848	\$1,919
PR_GN016500 JR and NTP Dewatering Building Mod and Centrifuge Replacement	None	\$763	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$178	\$763	\$941
PR_GN016600 South Shore High Point Air Vent Installation Phase I	None	\$188	\$263	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$450	\$450
PR_GN016700 Treatment Plant Solids Handling Replacement Phase II	None	\$0	\$721	\$849	\$1,496	\$249	\$0	\$0	\$0	\$0	\$0	\$0	\$3,315	\$3,315
PR_GN016800 Fleet Management (FY19-FY22)	None	\$612	\$1,372	\$1,307	\$1,090	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,381	\$4,381
PR_GN016900 Mobile Workforce Implementation	None	\$1,750	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,750	\$1,750
PR_GN017000 Water Quality Department Instrumentation and Monitoring Equipment (FY19)	None	\$285	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$285	\$285
<b>General Subtotal</b>		<b>\$33,194</b>	<b>\$40,225</b>	<b>\$49,945</b>	<b>\$76,348</b>	<b>\$157,847</b>	<b>\$132,294</b>	<b>\$139,059</b>	<b>\$187,184</b>	<b>\$164,182</b>	<b>\$173,784</b>	<b>\$64,748</b>	<b>\$1,154,062</b>	<b>\$1,218,811</b>
<b>Future Improvements</b>														
PR_IP010200 Treatment Plant Expansions and Improvements	None	\$0	\$0	\$752	\$3,311	\$1,701	\$6,124	\$1,379	\$407	\$515	\$2,178	\$0	\$16,368	\$16,368
PR_IP010300 General Expansions and Improvements	None	\$0	\$0	\$0	\$338	\$138	\$680	\$153	\$45	\$57	\$242	\$0	\$1,653	\$1,653
PR_IP010600 Treatment Plant Rehabilitation and Replacement	None	\$0	\$0	\$752	\$3,311	\$1,701	\$6,124	\$1,379	\$407	\$515	\$2,178	\$0	\$16,368	\$16,368
PR_IP010700 General Rehabilitation and Replacement	None	\$0	\$0	\$0	\$338	\$138	\$680	\$153	\$45	\$57	\$242	\$0	\$1,653	\$1,653
PR_IP010800 Regional Wet Weather Improvements	Regional Wet Weather Management Plan	\$0	\$1,773	\$3,218	\$15,553	\$27,490	\$29,516	\$27,012	\$31,655	\$32,730	\$27,926	\$0	\$196,873	\$196,873
PR_IP011000 Advanced Treatment Infrastructure Upgrades	None	\$196	\$3,323	\$17,185	\$22,471	\$50,008	\$74,387	\$76,783	\$30,000	\$62,048	\$45,000	\$0	\$381,402	\$381,402
<b>Future Improvements Subtotal</b>		<b>\$196</b>	<b>\$5,096</b>	<b>\$21,908</b>	<b>\$45,323</b>	<b>\$81,175</b>	<b>\$117,512</b>	<b>\$106,860</b>	<b>\$62,560</b>	<b>\$95,922</b>	<b>\$77,765</b>	<b>\$0</b>	<b>\$614,318</b>	<b>\$614,318</b>
<b>CIP Totals</b>		<b>\$134,000</b>	<b>\$187,255</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$285,714</b>	<b>\$285,714</b>	<b>\$285,714</b>	<b>\$285,714</b>	<b>\$285,714</b>	<b>\$276,190</b>	<b>\$384,411</b>	<b>\$2,426,017</b>	<b>\$2,810,427</b>

