

# FY 2018 CAPITAL & DEBT



*ENGINE 501B*

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# CAPITAL PROGRAM

## City Gas Tax Projections

<b>Revenue by Source</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Gas Tax Receipts	725,000	739,500	754,290	769,376	784,763	800,459
<b>General Fund</b>	<b>-</b>	<b>450,000</b>	<b>685,000</b>	<b>760,000</b>	<b>911,000</b>	<b>968,000</b>
NVTA 30% Funds	325,000	-	-	-	-	-
Gas Tax Fund Balance	299,669	56,888	-	-	-	-
Grant, Interest, Misc	125,000	150,000	150,000	150,000	150,000	150,000
<b>TOTAL:</b>	<b>1,474,669</b>	<b>1,396,388</b>	<b>1,589,290</b>	<b>1,679,376</b>	<b>1,845,763</b>	<b>1,918,459</b>

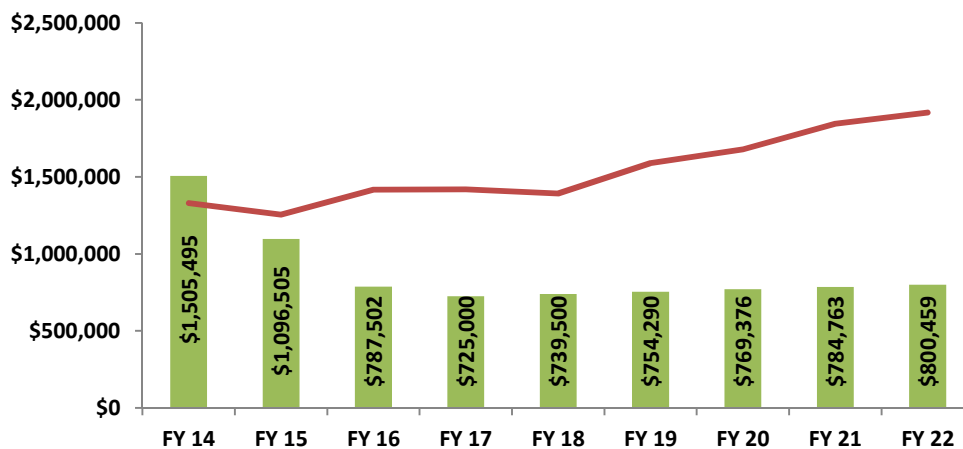
<b>Change from Prior</b>	-5%	14%	6%	10%	4%
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<b>Expenditure by Type</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
PRTC Administration	21,300	21,900	23,100	24,300	25,600	27,800
PRTC Marketing	21,400	18,600	24,700	25,700	26,900	27,800
Local Capital Match	11,600	23,000	23,000	18,100	13,800	17,100
Omni Link	328,300	355,700	376,600	376,600	385,300	387,100
Virginia Railway Express	749,371	684,586	852,322	942,823	1,100,184	1,162,252
Buchanan Lease	60,570	62,387	64,259	66,186	68,172	70,217
Norfolk Southern Lease	2,700	2,970	3,267	3,594	3,953	4,348
Parking Garage Debt	222,540	222,070	221,630	221,620	221,220	221,230
<b>TOTAL:</b>	<b>1,417,781</b>	<b>1,391,213</b>	<b>1,588,878</b>	<b>1,678,923</b>	<b>1,845,129</b>	<b>1,917,848</b>

<b>Change from Prior</b>	-2%	14%	6%	10%	4%
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<b>Surplus / (Deficit)</b>	<b>\$ 56,888</b>	<b>\$ 5,175</b>	<b>\$ 412</b>	<b>\$ 453</b>	<b>\$ 634</b>	<b>\$ 611</b>
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### Gas Tax Receipts vs. Expenditures



CAPITAL PROGRAM  
FY 2018 Capital Projects Pay-Go

The Five-Year Capital Improvement program includes projects that the City has identified that meet the definition of a capital project. A capital project is defined as a project with a total cost in excess of \$100,000 **and** a useful life of at least 10 years. Projects that are capital in nature but do not meet this criteria are considered maintenance capital projects.

Fund / Project	CIP #	Amount
<b>General Fund</b>		
Lee Manor Park	C-038	150,000
City Hall Renovations/Improvements	G-016	120,000
Police Headquarter Improvements	P-017	60,000
<b>Total General Fund</b>		<b>330,000</b>
<b>General Fund - Use of Capital Reserves</b>		
Manassas Museum/Library	C-006	175,000
Stonewall Park/Pool	C-029	250,000
Wakeman Drive Bike Lane	T-081	500,000
<b>Total General Fund</b>		<b>925,000</b>
<b>Sewer Fund</b>		
Public Works & Utilities Facility Improvements	G-020	75,000
Dean Drive Extended (Existing Cul-de-sac to Animal Shelter)	T-030	20,000
Upper Flat Branch Interceptor Replacement	S-016	450,000
<b>Total Sewer Fund</b>		<b>545,000</b>
<b>Water Fund</b>		
Public Works & Utilities Facility Improvements	G-020	75,000
Water Plant Improvements	W-026	245,000
24" Transmission Main Replacement	W-042	960,000
Finished Water Capacity Increases	W-047	100,000
Clear-Well Addition and Roof Renovation	W-065	2,350,000
Interconnecting Meter Vaults	W-068	30,000
<b>Total Water Fund</b>		<b>3,760,000</b>
<b>Electric Fund</b>		
City Hall Renovations/Improvements	G-016	280,000
Public Works & Utilities Facility Improvements	G-020	350,000
Fairview/Tudor Lane Signal	T-075	750,000
New Generation Initiatives	E-031	236,120
LED Streetlight Replacement	E-034	100,000
<b>Total Electric Fund</b>		<b>1,716,120</b>

CAPITAL PROGRAM  
 FY 2018 Capital Projects Pay-Go

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The Five-Year Capital Improvement program includes projects that the City has identified that meet the definition of a capital project. A capital project is defined as a project with a total cost in excess of \$100,000 **and** a useful life of at least 10 years. Projects that are capital in nature but do not meet this criteria are considered maintenance capital projects.

<b>Fund / Project</b>	<b>CIP #</b>	<b>Amount</b>
<b>Stormwater Fund</b>		
Hazel Drive Channel Improvements	D-021	30,000
<b>Total Stormwater Fund</b>		<b>30,000</b>
<b>Airport Fund</b>		
North End West Apron Rehabilitation and Expansion	A-040	6,000
Mid-Field West Apron Rehabilitation	A-067	4,000
Installation of Security Fiber line	A-080	24,000
<b>Total Airport Fund</b>		<b>34,000</b>
<b>Total Local Share - FY 2018 Capital Projects Pay-Go</b>		<b>\$ 7,340,120</b>

*This does not include the Schools Capital Improvement Program. Their CIP will be presented to the Council in April.*

**CAPITAL PROGRAM**  
**FY 2018 Maintenance Capital Projects Pay-Go**

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The Five-Year Capital Improvement program includes projects that the City has identified that meet the definition of a capital project. A capital project is defined as a project with a total cost in excess of \$100,000 **and** a useful life of at least 10 years. Projects that are capital in nature but do not meet this criteria are considered maintenance capital projects.

<b>Fund / Project</b>	<b>CIP #</b>	<b>Amount</b>
<b>General Fund</b>		
School Playground Equipment	C-007	30,000
Museum Improvements	C-025	90,000
Train Depot Improvements	C-031	30,000
Candy Factory Improvements	C-032	60,000
Park Improvements	P-018	60,000
Supplemental Street Paving*	T-066	300,000
<b>Total General Fund</b>		<b>570,000</b>
<b>Electric Fund</b>		
Replace / Automate Pad Mount Fuse Cabinets	E-004	55,000
<b>Total Electric Fund</b>		<b>55,000</b>
<b>Airport Fund</b>		
Airport Paving Program (Outside Airfield)	A-058	35,000
Replace Tower Rooftop A/C Unit	A-081	7,000
Installation of Additional Perimeter Security Gates	A-083	7,000
Airfield Paving Program	A-084	20,000
<b>Total Airport Fund</b>		<b>69,000</b>
<b>Total Local Share - FY 2018 Maintenance Capital Projects Pay-Go</b>		<b>\$ 694,000</b>

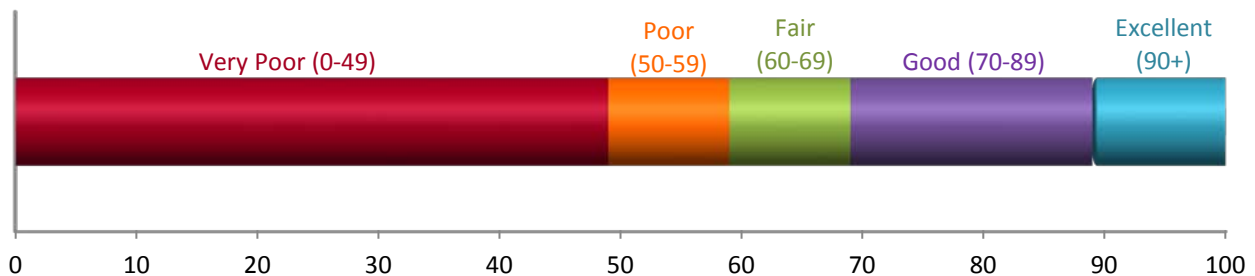
\*Paving List for Supplemental Street Paving can be found on the next page with the paving list in the operating budget.

*This does not include the Schools Capital Improvement Program. Their CIP will be presented to the Council in April.*

The industry standard for paving roads is every 15-20 years. In the City, the average cycle for paving a street is 22.7 years. The City aims to achieve an average paving rate of 60. Several factors are taken into consideration when scheduling paving including pavement ratings as determined by the CCI (Critical Condition Index).

<u>Street Name and Section</u>	<u>Rating</u>	<u>Sq. Yards</u>	<u>Amount</u>
Godwin Drive (Wellington Rd to Sudley Rd)	11	22,800	305,000
Sudley Road (Grant Ave to Portner Ave)	13	9,310	125,000
Godwin Drive (Nokesville Road to Wellington Rd)	14	23,800	320,000
Dean Park Drive (Wellington Rd to Dead End)	15	6,610	90,000
Digges Road (Sudley Rd to Dead End)	15	4,600	60,000
Miscellaneous Sections of Residential Street			400,000
<b>Total Local Share - FY 2018 Street Paving Program</b>			<b><u><u>\$ 1,300,000</u></u></b>

**VDOT PAVEMENT RATINGS - CCI INDEX**



The above listing includes the streets planned for paving under the Supplemental Street Paving project (\$300,000) shown on the Maintenance Capital Projects listing. In addition, \$1 million of funding can be found in the Public Works - Streets budget in the General Fund.

CAPITAL PROGRAM  
FY 2018 Vehicles

The Vehicle Maintenance Fund purchases all vehicles for the City of Manassas with the exception of fire engines and ambulances. Factors taken into consideration for determining replacement are age, mileage, and general vehicle condition. Utility and Airport funds reimburse the Vehicle Maintenance Fund for vehicle replacements directly whereas other departments pay higher support costs to fund future vehicle replacements. The Fire and Rescue Fund fully funds the replacement of fire apparatus.

Description (Vehicle #)	Quantity	Unit Cost	Amount
Ford Interceptor ISD (PD8, PD9, PD15)	3	26,000	78,000
Ford Utility (PD22, PD80)	2	43,000	86,000
F150 4 x4 rdr (R1)	1	32,000	32,000
F150 4 x4 rdr (S1)	1	32,000	32,000
John Deere 50G Excavator/Trailer (S57)	1	85,000	85,000
Mini Van (SS6)	1	26,000	26,000
<b>Total Vehicle Maintenance Fund</b>	<b>9</b>		<b>339,000</b>
Engine 501B	1	650,000	650,000
Medic 501B	1	250,000	250,000
<b>Total Fire &amp; Rescue Fund</b>	<b>2</b>		<b>900,000</b>
Equipment Trailer (W12A)	1	8,000	8,000
F450 4 x4 Utility/Cap/Plow (W18)	1	65,000	65,000
Walk-In Van (W6)	1	90,000	90,000
Excavac (W34A)	1	75,000	75,000
F250 Cap with bins (E10)	1	32,000	32,000
F150 4x4 Ext Cab Short Bed (E17)	1	29,000	29,000
F150 (E28)	1	25,000	25,000
F150 4 dr 4x4 Short Bed (E41)	1	32,000	32,000
<b>Total Utility Funds</b>	<b>8</b>		<b>356,000</b>
<b>Total Local Share - FY 2018 Vehicles</b>	<b>19</b>		<b>\$ 1,595,000</b>



CAPITAL PROGRAM  
 FY 2018 Capital Equipment (Purchases)

The City identifies a capital asset as a tangible or intangible asset that has an initial useful life of more than one year **and** has an initial cost of \$5,000 or more. The cost of a capital asset includes all necessary charges incurred to acquire or construct an asset. In the case of computers, these devices are not capitalized individually; instead the entire computer system is treated as a single capital asset.

<b>Fund / Equipment Description</b>	<b>Amount</b>
<b>PEG Fund</b>	
Equipment for PEG Channel Broadcasting	165,000
<b>Total PEG Fund</b>	<b>165,000</b>
<b>Fire and Rescue Fund</b>	
SCBA (Self-Contained Breathing Apparatus)	44,300
<b>Total Fire &amp; Rescue Fund</b>	<b>44,300</b>
<b>Sewer Fund</b>	
Leak Detection Equipment	30,000
<b>Total Sewer Fund</b>	<b>30,000</b>
<b>Water Fund</b>	
Confined Space Entry Equipment	7,000
Pump Replacement (Pump 3)	18,000
Olympus Microscope	6,000
SC2000 Controllers (pump controllers)	30,000
AMC5500SC Monchloramine Analyzer	20,000
CA610 Fluoride Analyzer	6,500
Scatter 7 Turbidimeter	6,000
AF7000 Streaming Current Monitor	12,500
<b>Total Water Fund</b>	<b>106,000</b>
<b>Electric Fund</b>	
Line Switch Replacement; 8 Group-Operated Air-Break (GOAB) Switches	40,000
Roof repairs for diesel building at Central Park Drive and VMEA Building	30,000
Generator PLC (Programmable Logic Controller) Replacements	100,000
<b>Total Electric Fund</b>	<b>170,000</b>
<b>Stormwater Fund</b>	
Stormwater Camera Base with Cable	35,000
<b>Total Stormwater Fund</b>	<b>35,000</b>

CAPITAL PROGRAM  
*FY 2018 Capital Equipment (Purchases)*

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The City identifies a capital asset as a tangible or intangible asset that has an initial useful life of more than one year **and** has an initial cost of \$5,000 or more. The cost of a capital asset includes all necessary charges incurred to acquire or construct an asset. In the case of computers, these devices are not capitalized individually; instead the entire computer system is treated as a single capital asset.

<b>Fund / Equipment Description</b>	<b>Amount</b>
<b>Airport Fund</b>	
Zero-Turn Mower (Replacement)	30,000
Snow Equipment	5,000
<b>Total Airport Fund</b>	<b>35,000</b>
 <b>Solid Waste Fund</b>	
Leaf Box	12,000
<b>Total Solid Waste Fund</b>	<b>12,000</b>
 <b>Building Maintenance Fund</b>	
Cooling Tower at City Hall	50,000
Dumpster Enclosure at City Hall	10,000
Curtains for Harris Pavilion	30,000
Vertical Exterior Masonry at Police Headquarters	10,000
<b>Total Building Maintenance Fund</b>	<b>100,000</b>
 <b>Information Technology Fund</b>	
Network Infrastructure (Servers/Switches/etc)	30,000
Computer and MDT (Mobile Data Terminal) Replacements	165,000
<b>Total Information Technology Fund</b>	<b>195,000</b>
 <b>Total Local Share - FY 2018 Capital Equipment (Purchases)</b>	 <b>\$ 892,300</b>

**CAPITAL PROGRAM**  
**FY 2018 Capital Equipment (Leases)**

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There are instances when it is in the best interest of the City to lease capital equipment instead of purchasing it outright. All leases are non-cancelable, however, they are contingent upon the City Council appropriating funds for each year's payments.

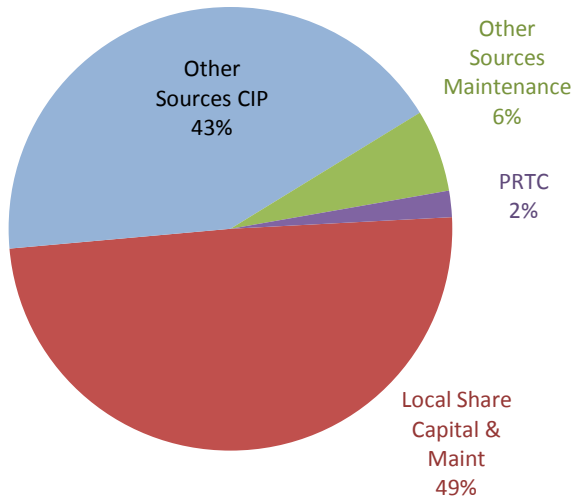
**Vehicle Maintenance Fund**

Street Sweeper	60,000
<b>Total Vehicle Maintenance Fund</b>	<b>60,000</b>

<b>Total Local Share - FY 2018 Capital Equipment (Leases)</b>	<b>\$ 60,000</b>
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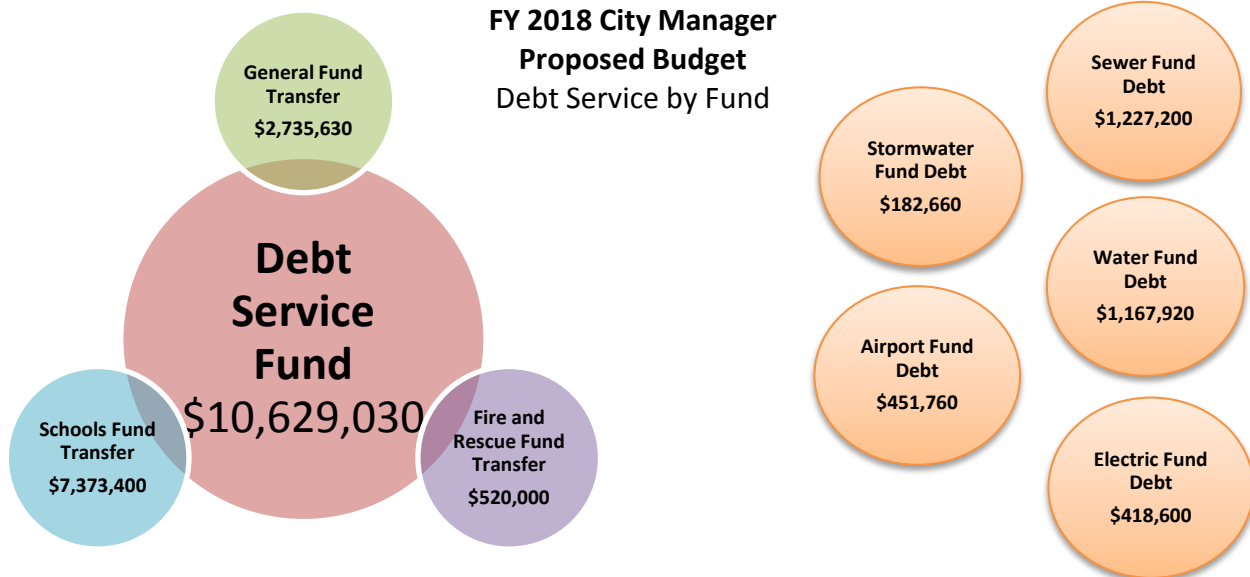
**FY 2018 Capital Program Expenditure Summary**

Capital Projects Pay-Go	7,340,120
Maintenance Capital Projects Pay-Go	394,000
Street Paving (including Local Contribution for Supplemental Paving)	1,300,000
Vehicles	1,595,000
Equipment Purchases	892,300
Equipment Leases	60,000
<b>Total Local Share</b>	<b>11,581,420</b>
Other Sources for Capital Projects	10,004,000
Other Sources for Maintenance Capital Projects	1,408,000
Contribution to PRTC	450,000
<b>Total Other Sources</b>	<b>11,862,000</b>
<b>TOTAL</b>	<b>\$23,443,420</b>



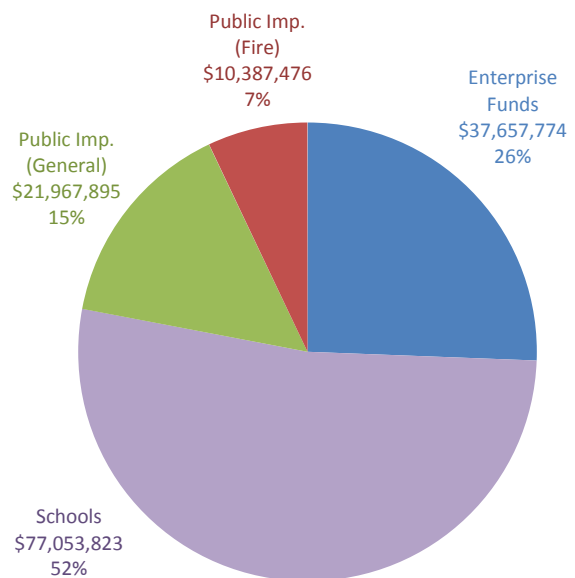
**DEBT OVERVIEW**

The City will have \$113,000,576 (principal only) of outstanding bonded debt as of June 30, 2017. The Enterprise Funds (Sewer, Water, Electric, Airport, and Stormwater) pay the debt service on the bonds related to their function. Of the total debt, \$29,498,561, or 26%, is enterprise debt. The remaining debt of \$83,502,015 is supported by the taxpayers thru the General Fund and Fire and Rescue Fund. This tax supported debt is paid out of the debt service fund with transfers from the respective governmental funds. The per capita outstanding bonds supported by taxpayers at June 30, 2017 will be approximately **\$2,006**.



**OUTSTANDING DEBT**

	Principal	Interest	Total
FY 2018	\$ 9,176,368	\$ 4,320,339	\$ 13,496,707
FY 2019	7,075,589	3,994,497	11,070,086
FY 2020	7,239,907	3,743,635	10,983,542
FY 2021	7,379,324	3,493,822	10,873,146
FY 2022	7,568,843	3,185,479	10,754,322
FY 2023	7,598,466	2,820,797	10,419,263
FY 2024	7,845,967	2,449,107	10,295,074
FY 2025	8,027,955	2,061,192	10,089,147
FY 2026	6,744,926	1,713,484	8,458,410
FY 2027	5,431,928	1,427,472	6,859,400
FY 2028	5,653,960	1,178,296	6,832,256
FY 2029	4,621,023	972,081	5,593,104
FY 2030	4,753,118	806,276	5,559,394
FY 2031	4,525,246	640,300	5,165,546
FY 2032	4,372,956	495,553	4,868,509
FY 2033	4,355,000	363,085	4,718,085
FY 2034	4,470,000	237,588	4,707,588
FY 2035	3,645,000	106,631	3,751,631
FY 2036	1,250,000	42,526	1,292,526
FY 2037	1,265,000	14,231	1,279,231
<b>TOTAL</b>	<b>\$113,000,576</b>	<b>\$34,066,392</b>	<b>\$147,066,968</b>



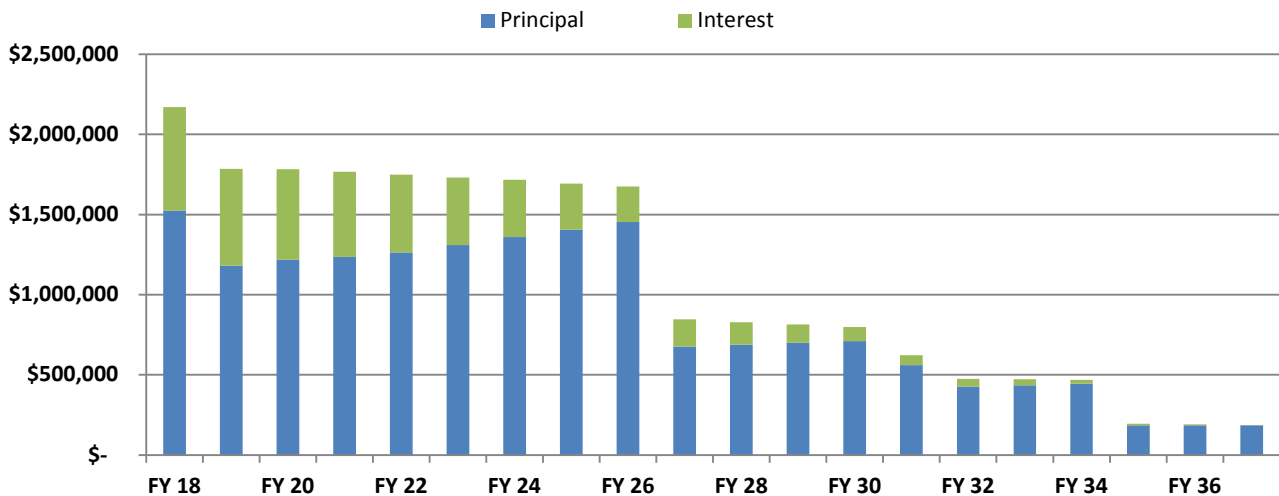
**Public Improvement Bonds - General Fund Debt Service**

The General Fund Debt Service for FY 2018 will be \$2,171,106, reflecting an increase of \$223,386 or 11.5% from prior year debt service costs. This increase is due to the bond issue in FY 2017 for the land for the Public Safety Facility and City Hall Renovations/Improvements. General Fund Service is tax-supported debt. The General Fund will transfer \$2,735,630 to the Debt Service Fund in FY 2018, \$564,524 above current debt service to cover fiscal agent fees and build future debt capacity. FY 2018 General Fund debt issues are as follows:

	<u>Amount</u>	<u>Pay Off Year</u>
2010 E- Refunding Public Improvements	\$ 375,429	FY 2018
2010 D - Public Improvements	\$ 193,494	FY 2025
2016 - Refunding Public Improvements	\$ 204,090	FY 2026
2010 VML/VACO - Public Improvements	\$ 184,248	FY 2030
2014 C - Public Improvements	\$ 682,919	FY 2031
2014 A - Public Improvements	\$ 229,445	FY 2034
2016 - Public Improvements	\$ 301,481	FY 2037

Year	Principal	Interest	Total	Year	Principal	Interest	Total
FY 2018	\$ 1,525,920	\$ 645,186	\$ 2,171,106	FY 2028	\$ 688,320	\$ 140,919	\$ 829,239
FY 2019	1,182,570	601,855	1,784,425	FY 2029	699,670	113,850	813,520
FY 2020	1,217,920	564,557	1,782,477	FY 2030	710,160	87,953	798,113
FY 2021	1,234,860	532,137	1,766,997	FY 2031	560,720	62,325	623,045
FY 2022	1,263,250	485,013	1,748,263	FY 2032	427,520	48,167	475,687
FY 2023	1,309,010	422,318	1,731,328	FY 2033	435,980	36,167	472,147
FY 2024	1,359,180	357,307	1,716,487	FY 2034	444,440	23,649	468,089
FY 2025	1,404,940	287,999	1,692,939	FY 2035	185,000	10,406	195,406
FY 2026	1,453,880	220,190	1,674,070	FY 2036	185,000	6,244	191,244
FY 2027	676,230	170,001	846,231	FY 2037	185,000	2,081	187,081
	<b>12,627,760</b>	<b>4,286,563</b>	<b>16,914,323</b>		<b>4,521,810</b>	<b>531,762</b>	<b>5,053,572</b>
				<b>Total</b>	<b>\$ 17,149,570</b>	<b>\$ 4,818,325</b>	<b>\$ 21,967,895</b>

**General Fund Debt Service Payments**



# DEBT MANAGEMENT

## Debt Service

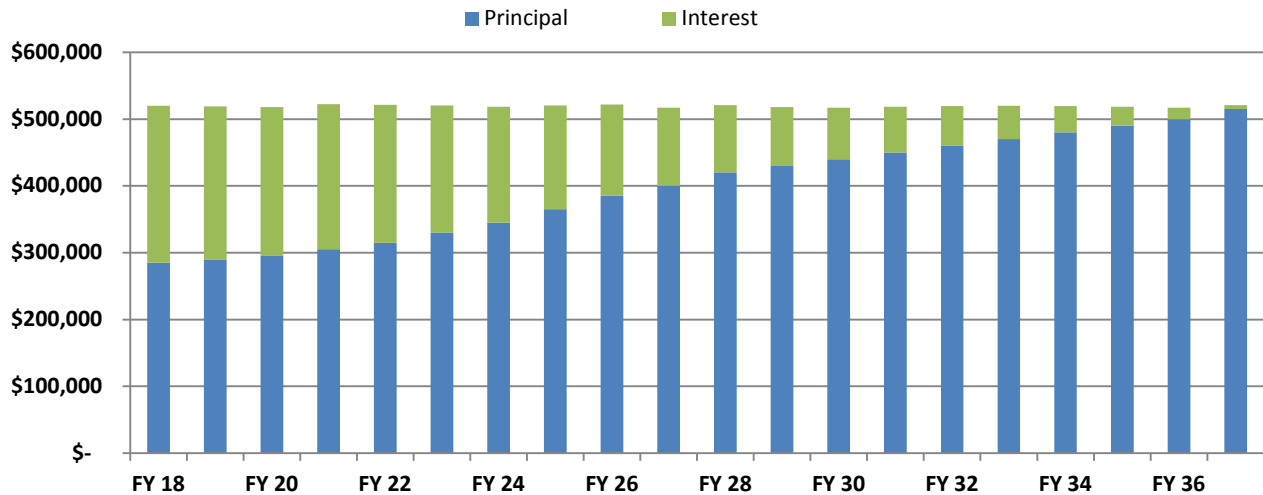
### Public Improvement Bonds - Fire and Rescue Fund Debt Service

The Fire and Rescue Fund Debt Service for FY 2018 will be \$519,800, reflecting an increase of \$439,923 from prior year debt service costs. FY 2017 actual debt service costs only included an interest payment. Compared to the FY 2017 Adopted Budget, however, this is a decrease of almost \$134,000 due to lower than anticipated borrowing costs and the first year not including any principal payments. Fire and Rescue Fund Debt Service is tax-supported debt. FY 2018 Fire and Rescue Fund debt issues are as follows:

	<b>Amount</b>	<b>Pay Off Year</b>
2016 - Public Improvements	\$ 519,800	FY 2037

Year	Principal	Interest	Total	Year	Principal	Interest	Total
FY 2018	\$ 285,000	\$ 234,800	\$ 519,800	FY 2028	\$ 420,000	\$ 100,850	\$ 520,850
FY 2019	290,000	229,050	519,050	FY 2029	430,000	88,100	518,100
FY 2020	295,000	223,200	518,200	FY 2030	440,000	77,250	517,250
FY 2021	305,000	217,200	522,200	FY 2031	450,000	68,350	518,350
FY 2022	315,000	206,275	521,275	FY 2032	460,000	59,250	519,250
FY 2023	330,000	190,150	520,150	FY 2033	470,000	49,656	519,656
FY 2024	345,000	173,275	518,275	FY 2034	480,000	39,263	519,263
FY 2025	365,000	155,525	520,525	FY 2035	490,000	28,350	518,350
FY 2026	385,000	136,775	521,775	FY 2036	500,000	17,213	517,213
FY 2027	400,000	117,150	517,150	FY 2037	515,000	5,794	520,794
	<b>\$ 3,315,000</b>	<b>\$ 1,883,400</b>	<b>\$ 5,198,400</b>		<b>\$ 4,655,000</b>	<b>\$ 534,076</b>	<b>\$ 5,189,076</b>
				<b>Total</b>	<b>\$ 7,970,000</b>	<b>\$ 2,417,476</b>	<b>\$ 10,387,476</b>

### Fire and Rescue Fund Debt Service



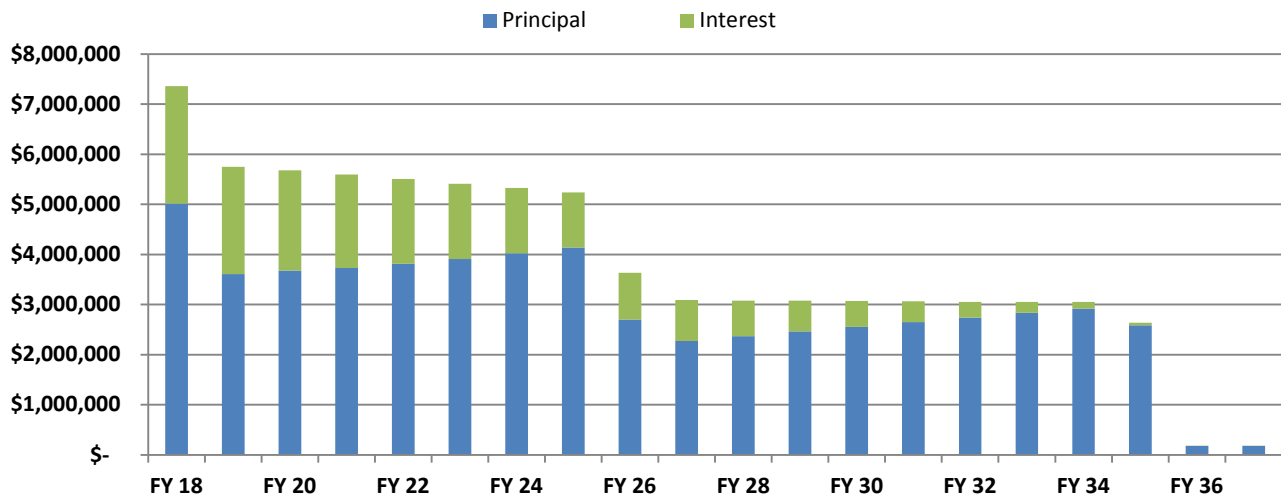
**School Bonds - Schools Funds**

The Schools Debt Service for FY 2018 will be \$7,357,675, reflecting a decrease of \$193,084 or 2.7% from prior year debt service costs. This decrease is due to the roll-off of 2005B bonds. Schools Debt Service is tax-supported debt. Debt service for the Schools is paid out of the Debt Service Fund. The proposed budget for the Debt Service Fund assumes a flat transfer from the Schools, which would include a small contribution towards future debt capacity. FY 2018 School debt issues are as follows:

	<u>Amount</u>	<u>Pay Off Year</u>
2005 A - Refunding School Facilities	\$ 1,526,651	FY 2018
2014 C - Refunding School Facilities	\$ 427,735	FY 2019
2010 D - Refunding School Facilities	\$ 2,139,075	FY 2025
2016 - Refunding School Facilities	\$ 136,060	FY 2026
2014 A - School Facilities	\$ 384,179	FY 2034
2014 C - New School Facilities	\$ 2,448,400	FY 2035
2016 - New School Facilities	\$ 295,575	FY 2037

Year	Principal	Interest	Total	Year	Principal	Interest	Total
FY 2018	\$ 5,016,620	\$ 2,341,055	\$ 7,357,675	FY 2028	\$ 2,372,560	\$ 708,900	\$ 3,081,460
FY 2019	3,609,585	2,143,256	5,752,841	FY 2029	2,468,335	608,123	3,076,458
FY 2020	3,676,360	2,003,449	5,679,809	FY 2030	2,556,955	513,948	3,070,903
FY 2021	3,732,980	1,860,691	5,593,671	FY 2031	2,649,885	416,805	3,066,690
FY 2022	3,810,600	1,693,761	5,504,361	FY 2032	2,740,660	315,559	3,056,219
FY 2023	3,910,530	1,501,056	5,411,586	FY 2033	2,833,590	221,487	3,055,077
FY 2024	4,024,615	1,303,055	5,327,670	FY 2034	2,916,520	135,453	3,051,973
FY 2025	4,139,545	1,099,274	5,238,819	FY 2035	2,590,000	46,275	2,636,275
FY 2026	2,699,165	934,513	3,633,678	FY 2036	180,000	6,075	186,075
FY 2027	2,273,940	816,618	3,090,558	FY 2037	180,000	2,025	182,025
	<b>36,893,940</b>	<b>15,696,728</b>	<b>52,590,668</b>		<b>21,488,505</b>	<b>2,974,650</b>	<b>24,463,155</b>
				<b>Total</b>	<b>\$58,382,445</b>	<b>\$18,671,378</b>	<b>\$77,053,823</b>

**School Fund Debt Service**



# DEBT MANAGEMENT

## Debt Service

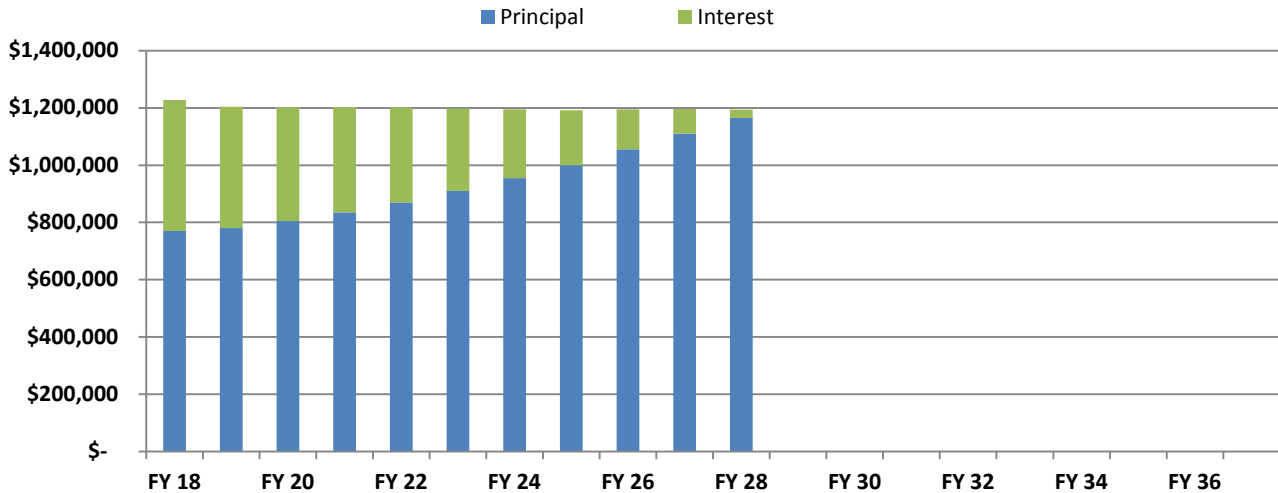
### Sewer Bonds - Sewer Fund Debt Service

The Sewer Fund Debt Service for FY 2018 will be \$1,227,200, reflecting a decrease of \$2,625 or less than 1% from prior year debt service costs. Sewer Fund Debt Service is supported by charges for services and sales/connections. The debt service schedule for the Sewer Fund does not include UOSA Debt. FY 2018 Sewer debt issues are as follows:

	<u>Amount</u>	<u>Pay Off Year</u>
2007 VML/VACO - Sewer System	\$ 789,250	FY 2018
2014 C - Refunding Sewer System	\$ 437,950	FY 2028

<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>	<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
FY 2018	\$ 770,000	\$ 457,200	\$ 1,227,200	FY 2028	\$ 1,165,000	\$ 29,125	\$ 1,194,125
FY 2019	780,000	424,300	1,204,300	FY 2029	-	-	-
FY 2020	805,000	396,563	1,201,563	FY 2030	-	-	-
FY 2021	835,000	367,863	1,202,863	FY 2031	-	-	-
FY 2022	870,000	331,500	1,201,500	FY 2032	-	-	-
FY 2023	910,000	287,000	1,197,000	FY 2033	-	-	-
FY 2024	955,000	240,375	1,195,375	FY 2034	-	-	-
FY 2025	1,000,000	191,500	1,191,500	FY 2035	-	-	-
FY 2026	1,055,000	140,125	1,195,125	FY 2036	-	-	-
FY 2027	1,110,000	86,000	1,196,000	FY 2037	-	-	-
	<b>9,090,000</b>	<b>2,922,426</b>	<b>12,012,426</b>		<b>1,165,000</b>	<b>29,125</b>	<b>1,194,125</b>
				<b>Total</b>	<b>\$ 10,255,000</b>	<b>\$ 2,951,551</b>	<b>\$ 13,206,551</b>

### Sewer Fund Debt Service





# DEBT MANAGEMENT

## Debt Service

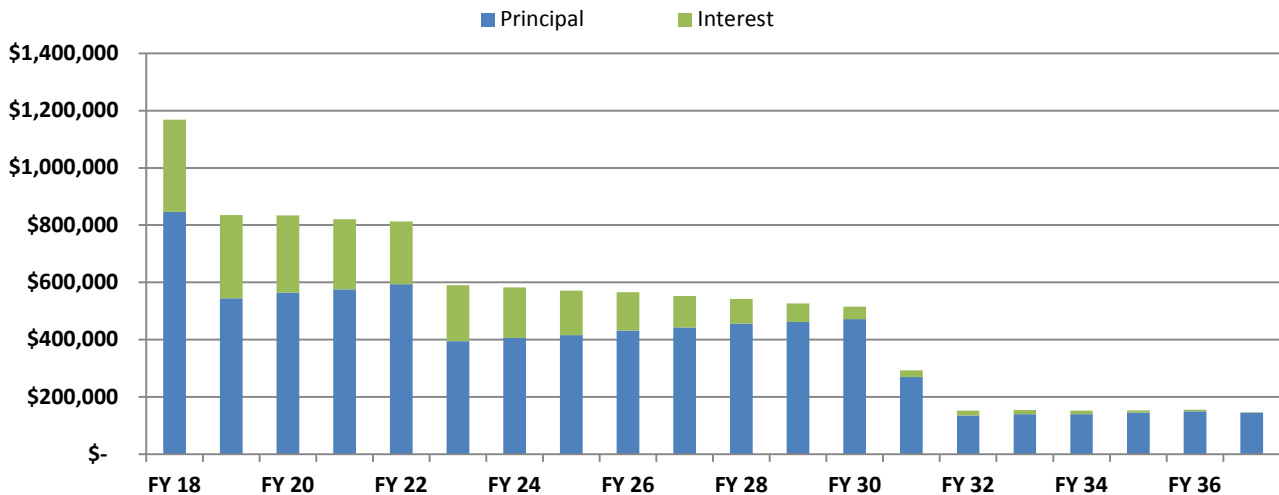
### Water Bonds - Water Fund Debt Service

The Water Fund Debt Service for FY 2018 will be \$1,167,916, reflecting a decrease of \$13,853 or 1.2% from prior year debt service costs. Water Fund Debt Service is supported by charges for services and sales/connections. FY 2018 Water Fund debt issues are as follows:

	<u>Amount</u>	<u>Pay Off Year</u>
2005 A Refunding Water System	\$ 157,349	FY 2018
2010 E - Refunding Water System	\$ 165,891	FY 2018
2009 VRA - Refunding Water System	\$ 216,303	FY 2022
2010 D - Water System	\$ 185,906	FY 2025
2010 VML/VACO - Water System	\$ 248,846	FY 2030
2014C - Refunding Water System	\$ 39,696	FY 2031
2016 - Water System	\$ 153,925	FY 2037

<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>	<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
FY 2018	\$ 846,540	\$ 321,376	\$ 1,167,916	FY 2028	\$ 456,000	\$ 86,394	\$ 542,394
FY 2019	544,300	291,338	835,638	FY 2029	461,700	64,506	526,206
FY 2020	565,000	269,363	834,363	FY 2030	471,850	43,527	515,377
FY 2021	575,700	245,135	820,835	FY 2031	269,750	22,770	292,520
FY 2022	593,950	218,556	812,506	FY 2032	135,000	17,375	152,375
FY 2023	394,650	195,310	589,960	FY 2033	140,000	14,538	154,538
FY 2024	405,350	176,963	582,313	FY 2034	140,000	11,475	151,475
FY 2025	416,050	155,494	571,544	FY 2035	145,000	8,269	153,269
FY 2026	431,750	133,386	565,136	FY 2036	150,000	4,950	154,950
FY 2027	442,450	109,565	552,015	FY 2037	145,000	1,631	146,631
	<b>5,215,740</b>	<b>2,116,486</b>	<b>7,332,226</b>		<b>2,514,300</b>	<b>275,435</b>	<b>2,789,735</b>
				<b>Total</b>	<b>\$ 7,730,040</b>	<b>\$ 2,391,921</b>	<b>\$ 10,121,961</b>

### Water Fund Debt Service



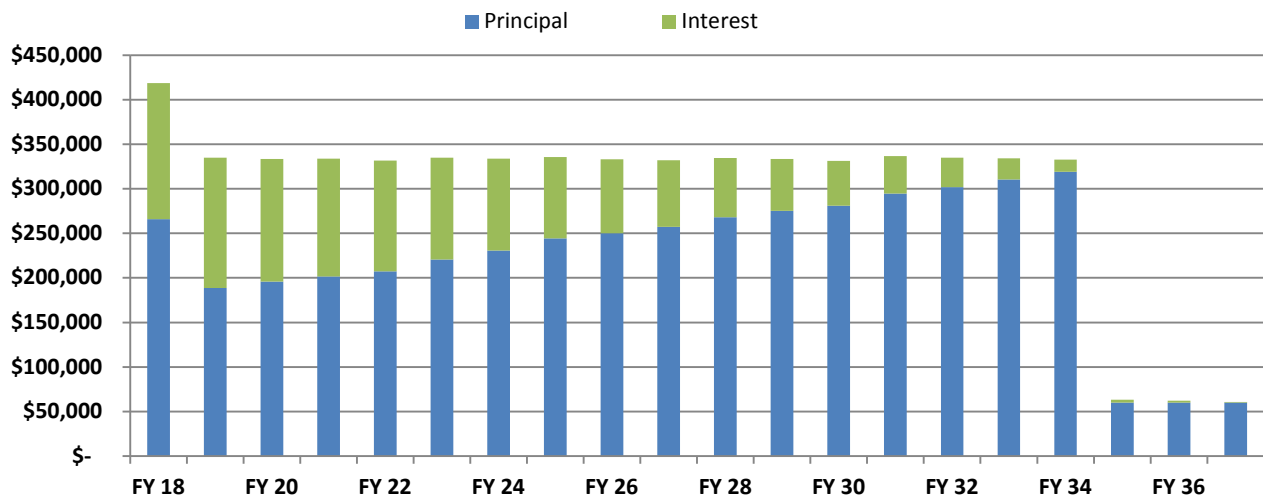
**Electric Bonds - Electric Fund Debt Service**

The Electric Fund Debt Service for FY 2018 will be \$418,593, reflecting an increase of \$49,366 or 3.4% from prior year debt service costs. This increase is due to the FY 2017 bond issue for undergrounding of electric services. Electric Fund Debt Service is supported by charges for services and sales/connections. FY 2018 Electric Fund debt issues are as follows:

	<u>Amount</u>	<u>Pay Off Year</u>
2010 E - Refunding Electric System	\$ 82,905	FY 2018
2014 A - Electric System	\$ 273,082	FY 2034
2016 - Electric System	\$ 62,606	FY 2037

Year	Principal	Interest	Total	Year	Principal	Interest	Total
FY 2018	\$ 265,920	\$ 152,674	\$ 418,594	FY 2028	\$ 268,120	\$ 66,409	\$ 334,529
FY 2019	188,545	146,271	334,816	FY 2029	275,295	58,366	333,661
FY 2020	195,720	137,894	333,614	FY 2030	281,035	50,357	331,392
FY 2021	201,460	132,373	333,833	FY 2031	294,645	42,087	336,732
FY 2022	207,200	124,489	331,689	FY 2032	301,820	33,199	335,019
FY 2023	220,810	114,004	334,814	FY 2033	310,430	23,734	334,164
FY 2024	230,855	102,964	333,819	FY 2034	319,040	13,910	332,950
FY 2025	244,465	91,296	335,761	FY 2035	60,000	3,375	63,375
FY 2026	250,205	83,062	333,267	FY 2036	60,000	2,025	62,025
FY 2027	257,380	74,656	332,036	FY 2037	60,000	675	60,675
	<b>2,262,560</b>	<b>1,159,683</b>	<b>3,422,243</b>		<b>2,230,385</b>	<b>294,137</b>	<b>2,524,522</b>
				<b>Total</b>	<b>\$ 4,492,945</b>	<b>\$ 1,453,820</b>	<b>\$ 5,946,765</b>

**Electric Fund Debt Service**



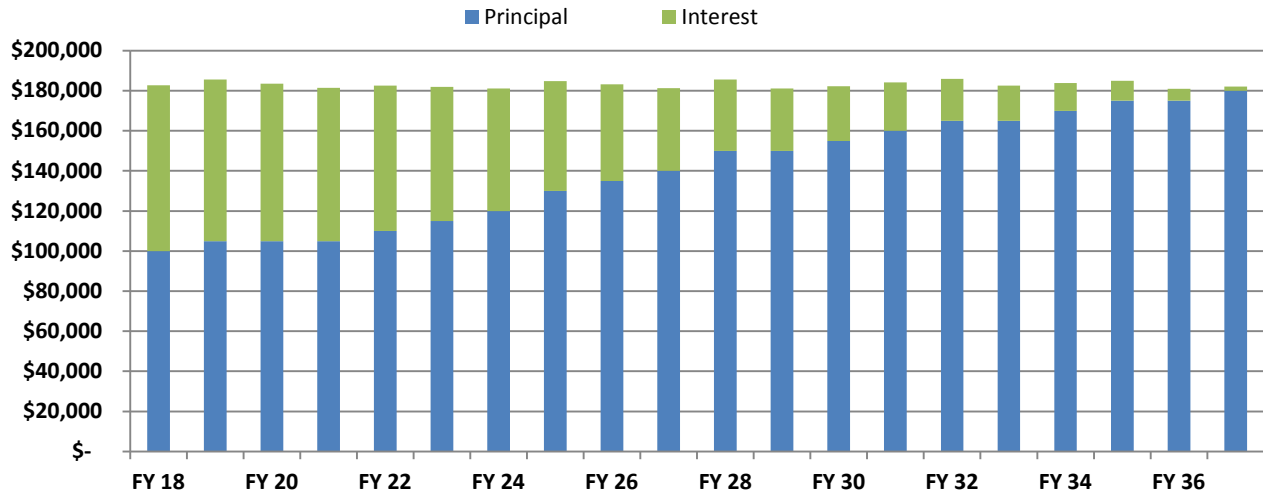
**Stormwater Bonds - Stormwater Fund Debt Service**

The Stormwater Fund Debt Service for FY 2018 will be \$182,656, reflecting an increase of \$154,538 from prior year debt service. FY 2017 actual debt service costs only included an interest payment. Compared to the FY 2018 Adopted Budget, however, this is a decrease of \$45,344 due to lower than anticipated borrowing costs. Stormwater Fund Debt Service is supported by charges for services. FY 2018 Stormwater Fund debt issues are as follows:

	<u>Amount</u>	<u>Pay Off Year</u>
2016 - Stormwater Improvements	\$ 182,656	FY 2037

Year	Principal	Interest	Total	Year	Principal	Interest	Total
FY 2018	\$ 100,000	\$ 82,656	\$ 182,656	FY 2028	\$ 150,000	\$ 35,606	\$ 185,606
FY 2019	105,000	80,606	185,606	FY 2029	150,000	31,106	181,106
FY 2020	105,000	78,506	183,506	FY 2030	155,000	27,306	182,306
FY 2021	105,000	76,406	181,406	FY 2031	160,000	24,156	184,156
FY 2022	110,000	72,606	182,606	FY 2032	165,000	20,906	185,906
FY 2023	115,000	66,981	181,981	FY 2033	165,000	17,503	182,503
FY 2024	120,000	61,106	181,106	FY 2034	170,000	13,838	183,838
FY 2025	130,000	54,856	184,856	FY 2035	175,000	9,956	184,956
FY 2026	135,000	48,231	183,231	FY 2036	175,000	6,019	181,019
FY 2027	140,000	41,356	181,356	FY 2037	180,000	2,025	182,025
	<b>1,165,000</b>	<b>663,310</b>	<b>1,828,310</b>		<b>1,645,000</b>	<b>188,421</b>	<b>1,833,421</b>
				<b>Total</b>	<b>\$ 2,810,000</b>	<b>\$ 851,731</b>	<b>\$ 3,661,731</b>

**Stormwater Fund Debt Service**



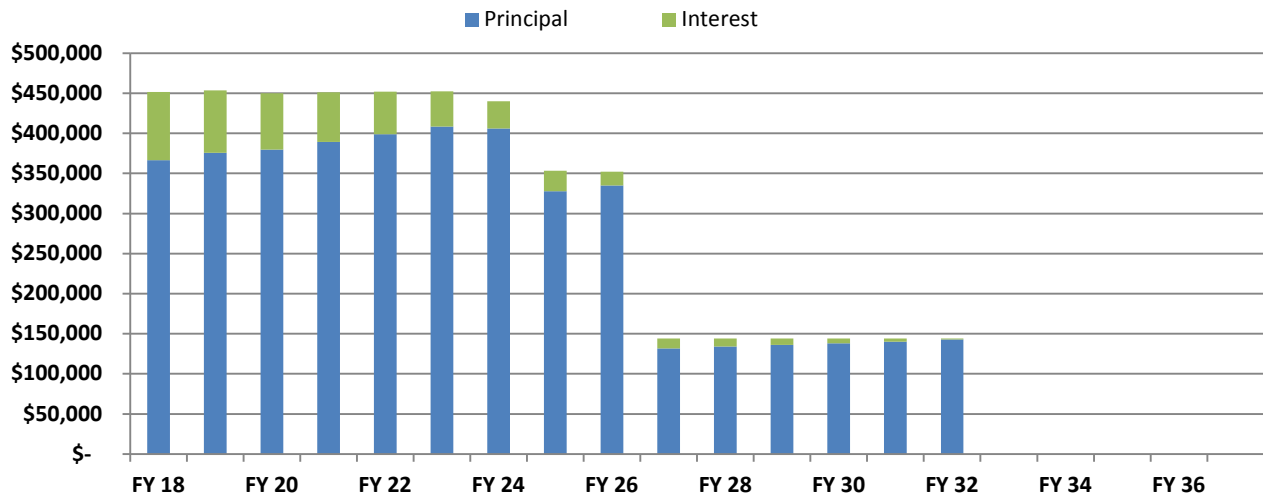
**Airport Bonds - Airport Fund Debt Service**

The Airport Fund Debt Service for FY 2018 will be \$451,759, reflecting an increase of \$44,070 or 10.8% from prior year debt service. This increase is due to the FY 2017 bond issue to refund a prior bridge loan. Airport Fund Debt Service is supported by rentals and charges for services. FY 2018 Airport Fund debt issues are as follows:

	<u>Amount</u>	<u>Pay Off Year</u>
2004 VRA - Refunding Airport System	\$ 103,255	FY 2024
2014 D - Refunding Airport System	\$ 204,451	FY 2026
2016 VARFL - Airport System	\$ 144,053	FY 2032

Year	Principal	Interest	Total	Year	Principal	Interest	Total
FY 2018	\$ 366,368	\$ 85,392	\$ 451,760	FY 2028	\$ 133,960	\$ 10,093	\$ 144,053
FY 2019	375,589	77,821	453,410	FY 2029	136,023	8,030	144,053
FY 2020	379,907	70,103	450,010	FY 2030	138,118	5,935	144,053
FY 2021	389,324	62,017	451,341	FY 2031	140,246	3,807	144,053
FY 2022	398,843	53,279	452,122	FY 2032	142,956	1,097	144,053
FY 2023	408,466	43,978	452,444	FY 2033	-	-	-
FY 2024	405,967	34,062	440,029	FY 2034	-	-	-
FY 2025	327,955	25,248	353,203	FY 2035	-	-	-
FY 2026	334,926	17,202	352,128	FY 2036	-	-	-
FY 2027	131,928	12,126	144,054	FY 2037	-	-	-
	<b>3,519,273</b>	<b>481,228</b>	<b>4,000,501</b>		<b>691,303</b>	<b>28,962</b>	<b>720,265</b>
				<b>Total</b>	<b>\$ 4,210,576</b>	<b>\$ 510,190</b>	<b>\$ 4,720,766</b>

**Airport Fund Debt Service**



DEBT MANAGEMENT

*Proposed General Fund Bond Issues in Five-Year CIP*

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**GENERAL FUND**

	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Total</b>
<b>General Government</b>						
Public Safety Facility	-	20,000,000	-	-	-	20,000,000
Dean Park	-	-	4,000,000	-	-	4,000,000
Manassas Museum/Library	-	-	-	10,000,000	-	10,000,000
	-	20,000,000	4,000,000	10,000,000	-	34,000,000
<b>Transportation</b>						
Grant Avenue	-	3,850,000	-	-	-	3,850,000
Downtown Streetscape	-	1,150,000	-	-	-	1,150,000
	-	5,000,000	-	-	-	5,000,000
<b>Total Bonds Proposed</b>	<b>-</b>	<b>25,000,000</b>	<b>4,000,000</b>	<b>10,000,000</b>	<b>-</b>	<b>39,000,000</b>

## City Case 1 - Debt Affordability Analysis

**Assumptions**

- Assumes full funding of all City CIP bond funded projects from FY 2018 - FY 2022
- Debt funded projects after FY 2022 to be considered during annual CIP Process
- FY 2017 Value of 1¢ = \$460,000
- Assumes 2.00% annual growth in value of the City's tax base

**Proposed Tax Changes to Fund CIP**

- 3.7¢ Increase in FY 2021
- 1.4¢ Increase in FY 2022

Fiscal Year	Beginning Fund Balance	Existing Debt	New Proposed Debt	Total Existing & Proposed	Current Funding	Tax Impact	Ending Fund Balance
2017	68,051	1,947,720	-	1,947,720	2,535,630	-	655,961
2018	655,961	2,171,106	-	2,171,106	2,735,630	-	1,220,485
2019	1,220,485	1,784,425	562,500	2,346,925	2,735,630	-	1,609,190
2020	1,609,190	1,782,477	2,465,000	4,247,477	2,735,630	-	97,343
2021	97,343	1,766,997	2,923,750	4,690,747	2,735,630	1,857,774	(0)
2022	(0)	1,748,263	3,583,500	5,331,763	2,735,630	2,596,133	0
2023	0	1,731,328	3,495,750	5,227,078	2,735,630	2,648,055	156,608
2024	156,608	1,716,487	3,408,000	5,124,487	2,735,630	2,701,016	468,767
2025	468,767	1,692,939	3,320,250	5,013,189	2,735,630	2,755,037	946,245
2026	946,245	1,674,070	3,232,500	4,906,570	2,735,630	2,810,137	1,585,442
2027	1,585,442	846,231	3,144,750	3,990,981	2,735,630	2,866,340	3,196,430
2028	3,196,430	829,239	3,057,000	3,886,239	2,735,630	2,923,667	4,969,488
2029	4,969,488	813,520	2,969,250	3,782,770	2,735,630	2,982,140	6,904,488
2030	6,904,488	798,113	2,881,500	3,679,613	2,735,630	3,041,783	9,002,288
2031	9,002,288	623,045	2,793,750	3,416,795	2,735,630	3,102,619	11,423,742
2032	11,423,742	475,687	2,706,000	3,181,687	2,735,630	3,164,671	14,142,356
2033	14,142,356	472,147	2,618,250	3,090,397	2,735,630	3,227,965	17,015,554
2034	17,015,554	468,089	2,530,500	2,998,589	2,735,630	3,292,524	20,045,119
2035	20,045,119	195,406	2,442,750	2,638,156	2,735,630	3,358,374	23,500,966
2036	23,500,966	191,244	2,355,000	2,546,244	2,735,630	3,425,542	27,115,895
2037	27,115,895	187,081	2,267,250	2,454,331	2,735,630	3,494,053	30,891,246
2038	30,891,246		2,179,500	2,179,500	2,735,630	3,563,934	35,011,310
2039	35,011,310		2,091,750	2,091,750	2,735,630	3,635,212	39,290,402
2040	39,290,402		754,000	754,000	2,735,630	3,707,917	44,979,949
2041	44,979,949		522,500	522,500	2,735,630	3,782,075	50,975,154
2042	50,975,154		-	-	2,735,630	3,857,717	57,568,501

Source: Davenport & Company - Capital Planning Discussion Materials 2/28/2017

## City Case 2 - Debt Affordability Analysis

**Assumptions**

- Assumes full funding of all City CIP bond funded projects from FY 2018 - FY 2022
- Debt funded projects after FY 2022 to be considered during annual CIP Process
- FY 2017 Value of 1¢ = \$460,000
- Assumes 2.00% annual growth in value of the City's tax base

**Proposed Tax Changes to Fund CIP**

- 3.0¢ Increase in FY 2018

Fiscal Year	Beginning Fund Balance	Existing Debt	New Proposed Debt	Total Existing & Proposed	Current Funding	Tax Impact	Ending Fund Balance
2017	68,051	1,947,720	-	1,947,720	2,535,630	-	655,961
2018	655,961	2,171,106	-	2,171,106	2,735,630	1,412,941	2,633,426
2019	2,633,426	1,784,425	562,500	2,346,925	2,735,630	1,441,199	4,463,330
2020	4,463,330	1,782,477	2,465,000	4,247,477	2,735,630	1,470,023	4,421,506
2021	4,421,506	1,766,997	2,923,750	4,690,747	2,735,630	1,499,424	3,965,813
2022	3,965,813	1,748,263	3,583,500	5,331,763	2,735,630	1,529,412	2,899,092
2023	2,899,092	1,731,328	3,495,750	5,227,078	2,735,630	1,560,001	1,967,646
2024	1,967,646	1,716,487	3,408,000	5,124,487	2,735,630	1,591,201	1,169,990
2025	1,169,990	1,692,939	3,320,250	5,013,189	2,735,630	1,623,025	515,456
2026	515,456	1,674,070	3,232,500	4,906,570	2,735,630	1,655,485	(0)
2027	(0)	846,231	3,144,750	3,990,981	2,735,630	1,688,595	433,243
2028	433,243	829,239	3,057,000	3,886,239	2,735,630	1,722,367	1,005,001
2029	1,005,001	813,520	2,969,250	3,782,770	2,735,630	1,756,814	1,714,675
2030	1,714,675	798,113	2,881,500	3,679,613	2,735,630	1,791,950	2,562,642
2031	2,562,642	623,045	2,793,750	3,416,795	2,735,630	1,827,789	3,709,266
2032	3,709,266	475,687	2,706,000	3,181,687	2,735,630	1,864,345	5,127,554
2033	5,127,554	472,147	2,618,250	3,090,397	2,735,630	1,901,632	6,674,419
2034	6,674,419	468,089	2,530,500	2,998,589	2,735,630	1,939,665	8,351,125
2035	8,351,125	195,406	2,442,750	2,638,156	2,735,630	1,978,458	10,427,056
2036	10,427,056	191,244	2,355,000	2,546,244	2,735,630	2,018,027	12,634,470
2037	12,634,470	187,081	2,267,250	2,454,331	2,735,630	2,058,388	14,974,156
2038	14,974,156		2,179,500	2,179,500	2,735,630	2,099,555	17,629,841
2039	17,629,841		2,091,750	2,091,750	2,735,630	2,141,546	20,415,267
2040	20,415,267		754,000	754,000	2,735,630	2,184,377	24,581,274
2041	24,581,274		522,500	522,500	2,735,630	2,228,065	29,022,469
2042	29,022,469		-	-	2,735,630	2,272,626	34,030,725

Source: Davenport & Company - Capital Planning Discussion Materials 2/28/2017

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