

Department of Environmental Services

FY 2018 Proposed Budget Work Session

Tuesday, March 28th

DES Strategic Direction

Vision:

Our service makes Arlington a leading community that is vibrant, accessible, and resilient, today and in the future.

Mission:

DES strives for excellence as we plan, build, operate, and maintain Arlington's utility, facility and transportation infrastructure, and protect and sustain our natural and built environment.

Strategic Goals:



- 1: We deliver highly-effective, safe, and environmentally-sustainable programs and services.
- 2: We provide effective communication and inclusive public engagement to promote transparency and trust.
- 3: We support and invest in a high performing workforce.
- 4: We foster a culture of innovation.
- 5: We strategically and responsibly manage resources to provide excellent service.

DEPARTMENT OF ENVIRONMENTAL SERVICES FY16 ACCOMPLISHMENTS



STREET CONDITIONS

- **68** Pavement Condition Index
- **9,988** potholes filled
- **89.4** lane miles paved



3.1 million ART bus trips



SOLID WASTE

- **46.5%** recycling rate
- **2,883** tons of curbside yard waste
- **11,404** lane miles swept



STREET OPERATIONS

- **8** Transportation Capital Projects completed
- **6** new traffic signal installs & upgrades



ENERGY

- **55** Green Home Choice homes certified, bringing total to **257**
- **18%** reduction in greenhouse gas emissions since 2007



STORMWATER

- **607** new water quality facilities constructed
- **57,057** linear feet of storm sewers inspected
- **1,210** catch basins cleaned



Agenda

Tuesday, March 28, 2017
4:00 – 6:00 PM

Related FAAC Report:

DES

Department / Topic	Book pgs	Web pgs	Web Link
DES General Fund	219 - 222	437 - 504	<u>Click here</u>
Stormwater	295 - 300	833 - 842	<u>Click here</u>
Utilities Fund	315 - 318	865 - 884	<u>Click here</u>
Auto Fund	327 - 329	911 - 922	<u>Click here</u>
Printing Fund	331 - 333	923 - 928	<u>Click here</u>
Ballston Public Parking Garage Funds	319 - 322	885 - 894	<u>Click here</u> & <u>here</u>
TDP Update			

Department of Environmental Services General Fund

Proposed FY 2018 Budget Highlights

March 14, 2017

DES Budget at a Glance

- Proposed budget totals \$97M
 - 6% increase from FY 2017 due to:
 - Externalities
 - Salaries, health insurance, non-discretionary contracts
 - Basic Services:
 - Maintaining what we have
 - Streetlight Program: Addition of 5.0 FTEs and one-time funding for vehicles + trail light assessment
 - Maintenance of 2020 14th Street N
 - Preventive and corrective maintenance of radio sites
 - Refuse and recycling share of new Utility Billing System
 - Increasing services
 - ART 43 and ART 92 service expansions
 - ART light maintenance facility operating expenses

Alternative Plan Reductions

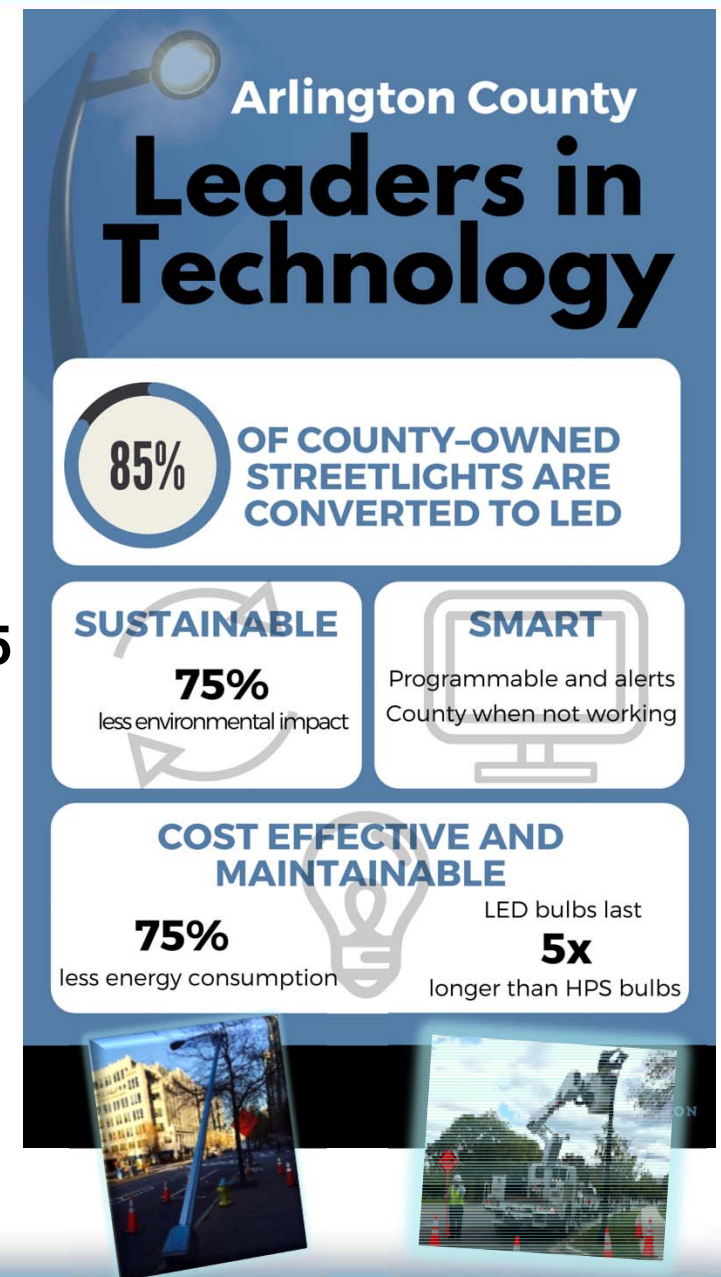
- County Manager's alternative plan to offset one cent property tax increase includes the following for DES:
 - Eliminates all new Streetlight funding except \$80k for a Trail Light assessment
 - Eliminates Environmental Management Program position (1.0 FTE) to save \$150K/year
 - Reduces one-time PAYG Paving funds by \$325k

Budget Priorities

- **Basic services to meet expectations**
 - Maintenance of existing assets
 - Expansion of baseline services
 - Accountability to service standards
 - Aligning the standard with community expectations
- **Better linkage between operating & capital**
 - Balancing revenue/program input with organizational throughput
 - Strategy to address capital backlog
 - Providing **efficient operating space** as services and capabilities grow

Budget Priority: Streetlights

- **Leaders in LED Technology** →
- Newer technology **does not** address pole maintenance & aging infrastructure
- **Response times slower compared to peer communities**
 - 30 days for routine repairs
 - Up to 120 days for major outages
 - 2015 Customer Satisfaction Survey: Top 5 areas for improvement
- **Funding: \$910K in FY18 will improve response times**
 - 30 days to 3 days for routine outages
 - Four months to 30 days for underground outages



Streetlight Benchmark Comparisons

Jurisdiction	Streetlights	LEDs	Maintenance Staff FTEs	Response (Days)
Seattle	86,000	51,600	13	3
Philadelphia	105,000	2,000	14	1
Boston	63,000	59,850	29	10
Cambridge, MA	7,000	5,500	8	3
Arlington (Current)	7,350	6,250	1	30
Arlington (Proposed)	7,350	6,250	4	3



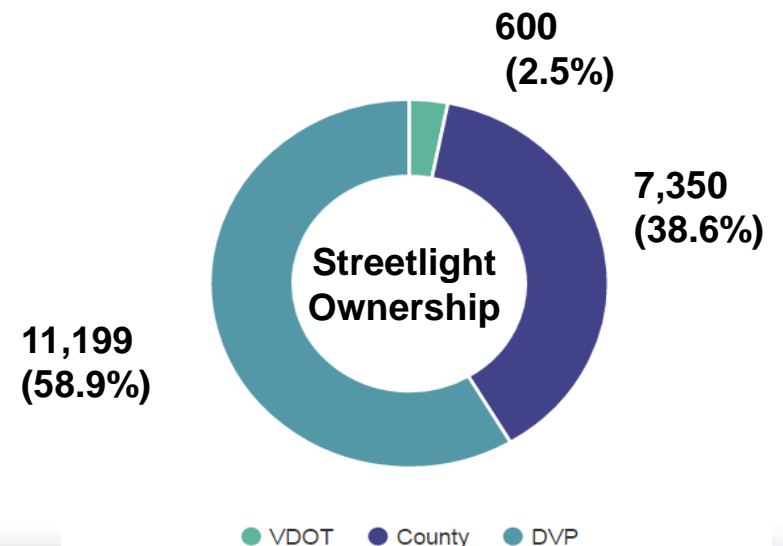
Streetlight – Resources & Goals

Resources will provide



Resources	Consultant Recommended	Recommended	Cost
Staff			
*Program Supervisor	1	1	
*Engineer	1	2 **	
*Maintenance Techs	3	4 **	
*Other Support Staff	2	0	
Total Staff & Ongoing Support	7	7	\$650k
Vehicles	2	2	\$180k
Trail Light Assessment Study			\$80k
Total			\$910k

- Improved response time for outages
- Enhanced oversight/coordination of DVP outages
- Improved site plan & CIP project development
- Improved capacity to design/manage more complex underground outages
- Eliminate borrowing from other Traffic Ops resources



* Other Support Staff: Inspector and Clerk

** One existing FTE

Budget Priority: Safety

- **New fleet safety initiative in 2016**
 - **Goal Zero Philosophy:** Bring proactive safety management to fleet & drivers
 - Conducted a video technology pilot (DriveCam) to proactively identify driving behaviors that lead up to incidents
 - Coachable events captured, drivers coached in positive fashion
 - **Pilot March-July 2016:** Significant reduction in preventable vehicle incidents

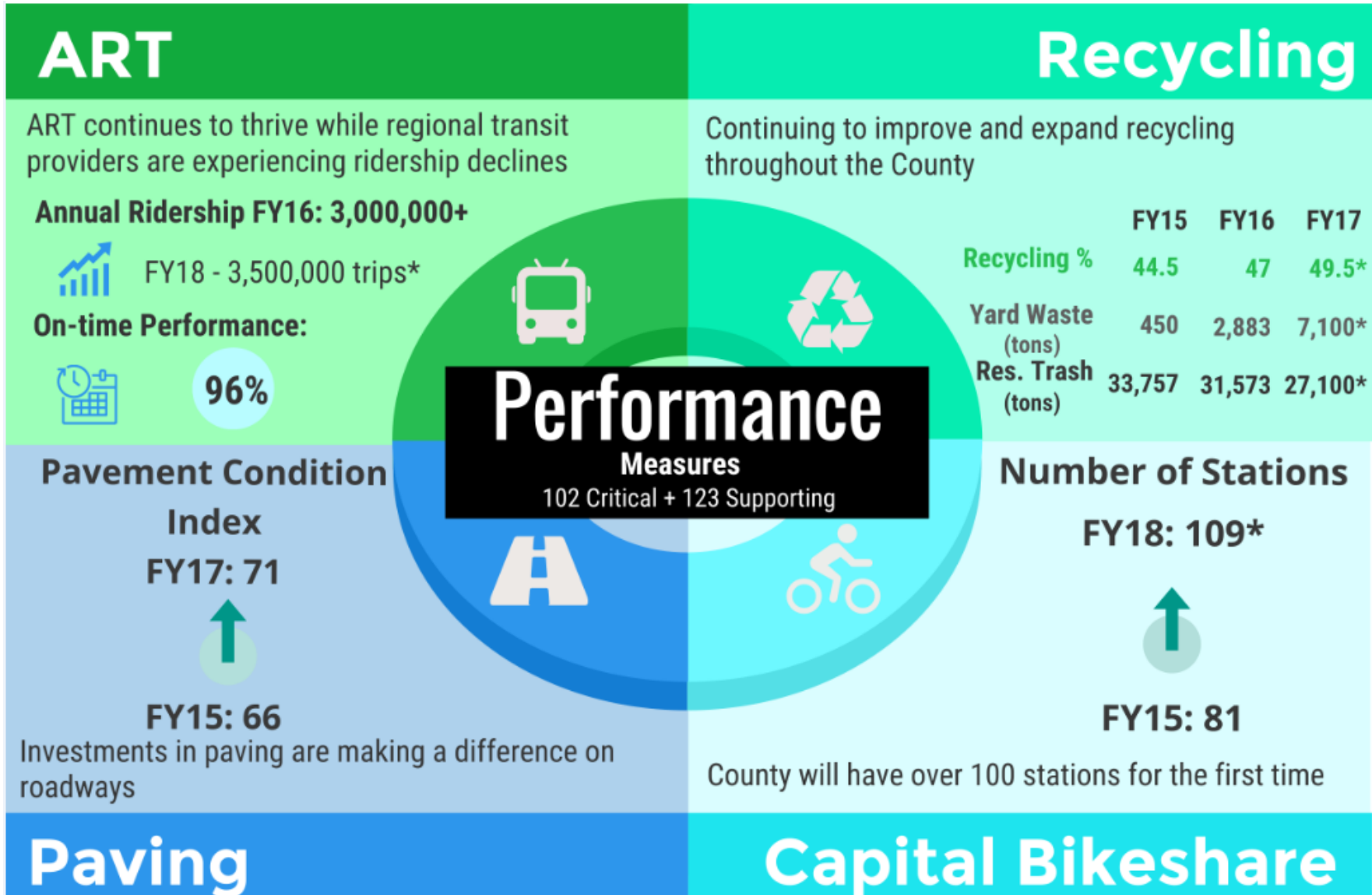
Supporting Measures	FY 2012 Actual	FY 2013 Actual	FY 2014 Actual	FY 2015 Actual	FY 2016 Actual
Number of preventable accidents (vehicle)	37	33	29	36	21

- Drivecam installed in all CDL vehicles as of Feb 10th

GOAL
Zero

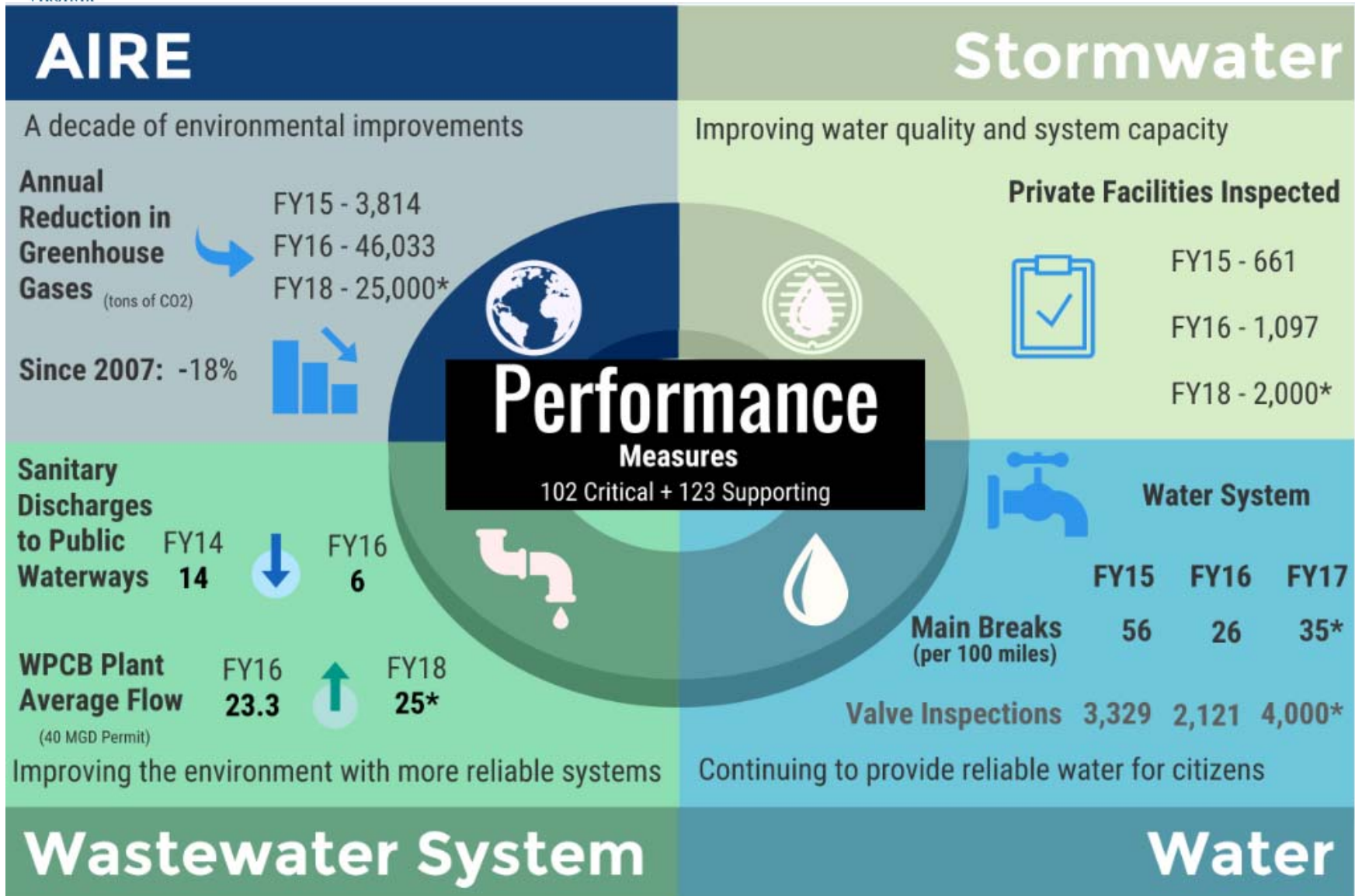


Performance Measures



*Projected

Performance Measures

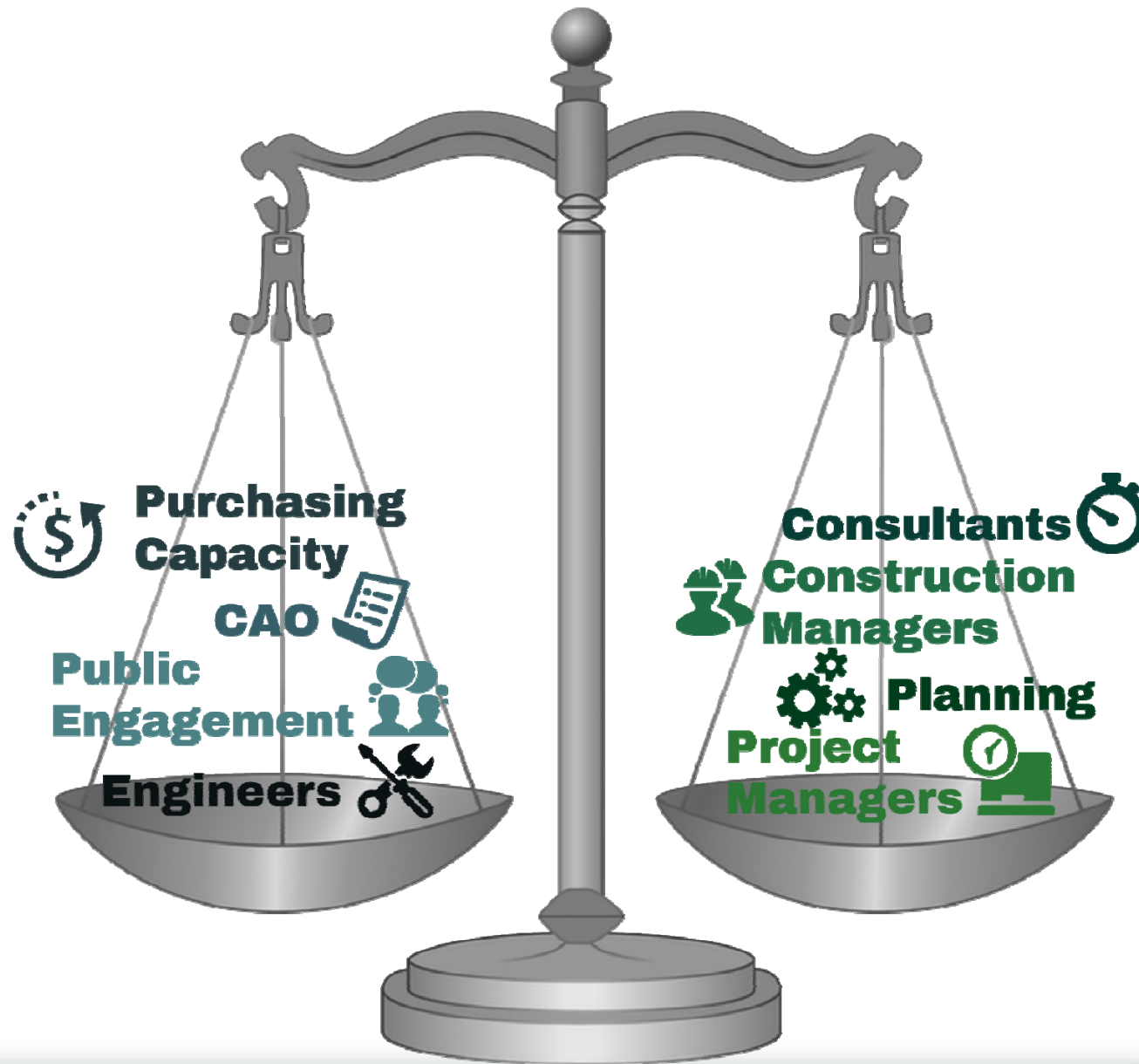


*Projected

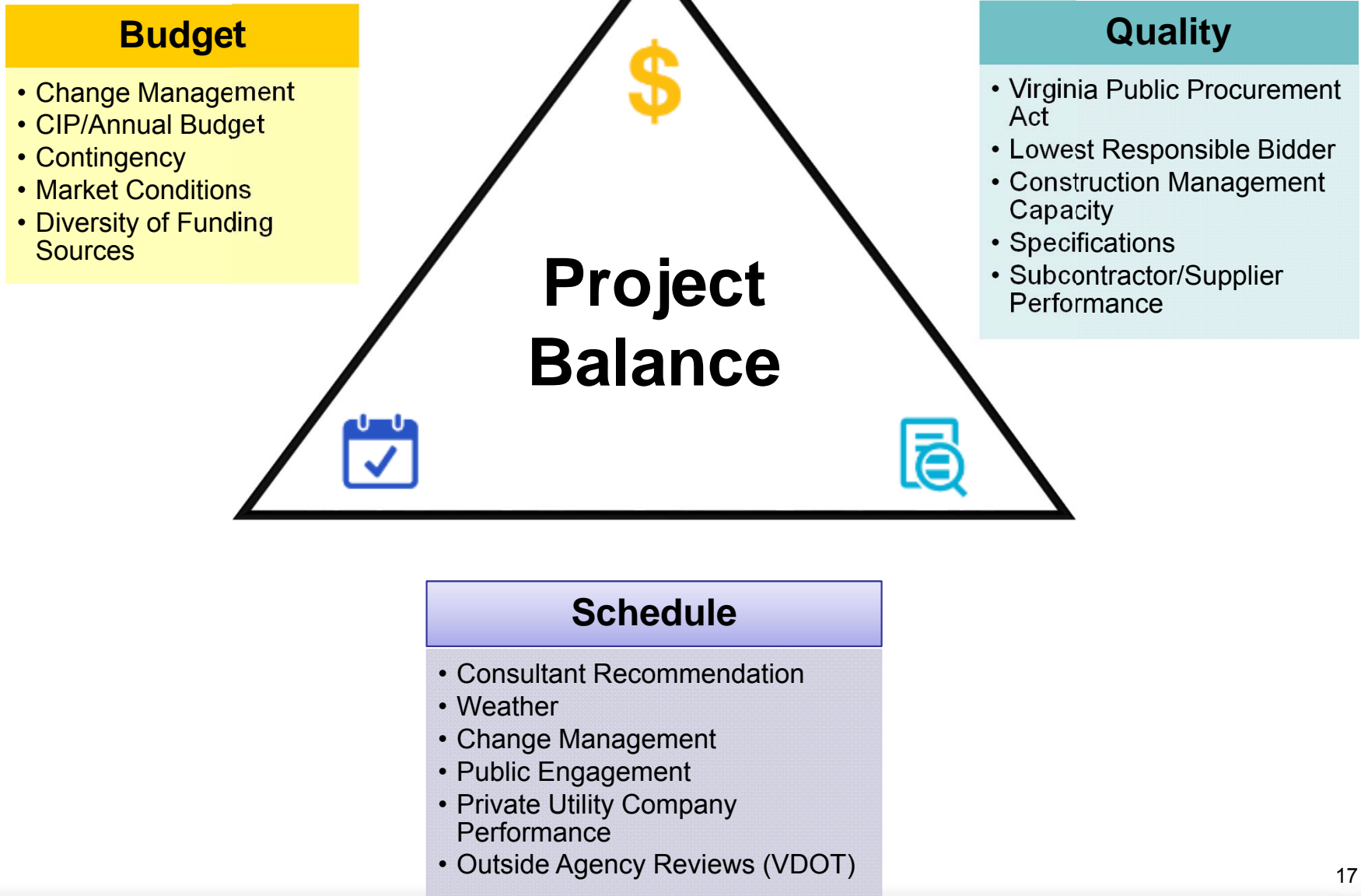
Operating/Capital Update

- Balancing revenue/program input with organizational throughput
- Strategy to address capital backlog:
 - Expand contracts and hire right mix of skilled FTEs
 - Provide sufficient oversight
 - Monitor/adjust output by program
- Engineering Bureau Design Section restructured and staff increases in progress
 - Dedicated program teams established to improve throughput
 - Various Standard Operating Procedures and project processes implemented to streamline delivery- more in development

Balancing Capital Resources



Project Management Dynamics



- Balancing is work in progress
 - ✓ Majority of Authorized FTEs hired (some in recruitment)
 - ✓ Dedicated Program Teams Established
- Integrated Transportation Program
- Results are mixed, programs differ
 - Multi-year and multi-party project/programs take more time

Structured for sufficient oversight

- Adding construction/contract management resources to improve project execution & contract administration

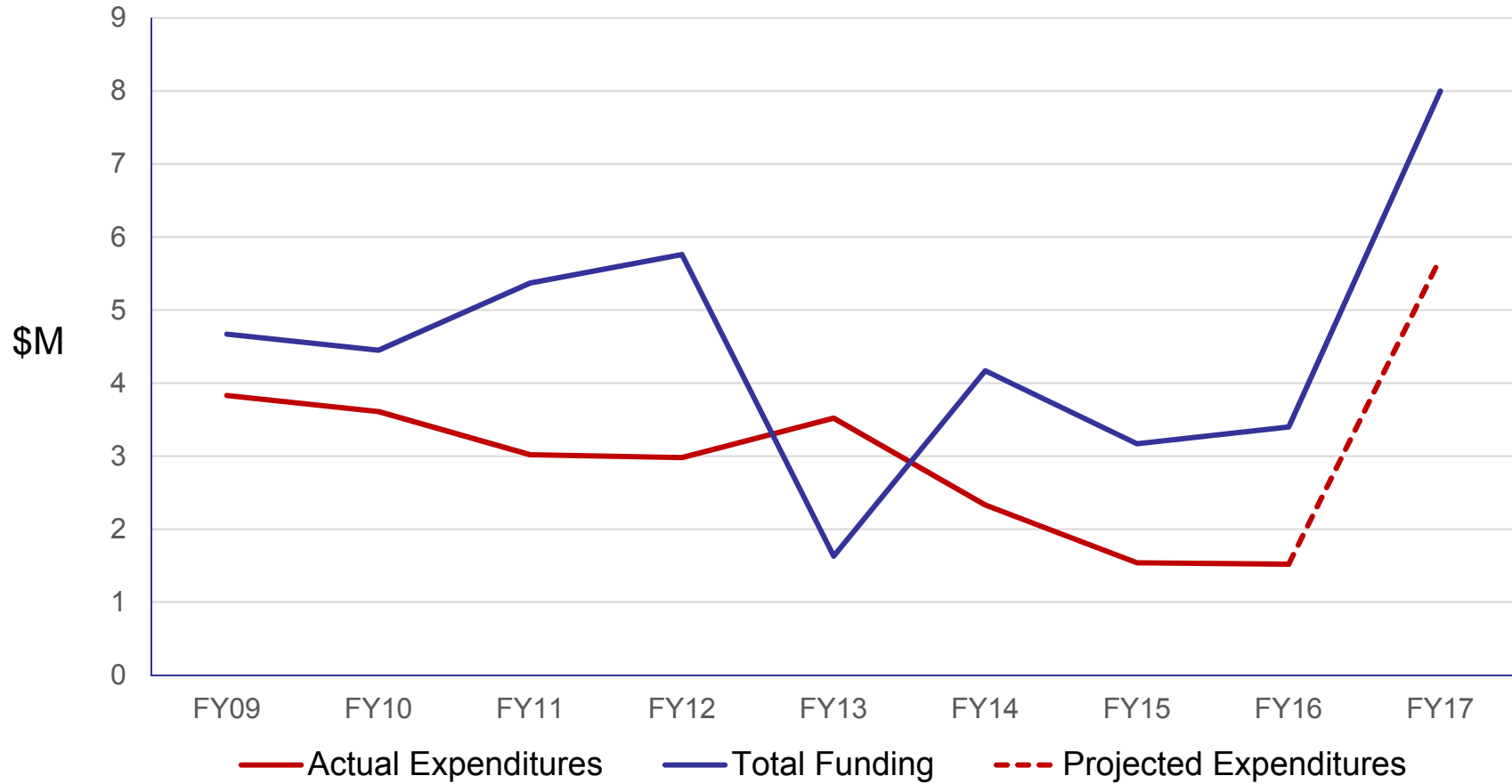
- Contract policies and procedures have been developed/implemented by DMF/DES with ongoing training:
 - DES training: 275 attendees to date
 - DMF training of DES staff: 142 attendees to date

- Working with DMF to improve efficiency & effectiveness in contract process by:
 - Enhancing communications & coordination
 - Determining best procurement options available

Operating/Capital Update

Engineering Design Resource Progress		
Division/Bureau/Team	Staffing	Update
Transportation	3 dedicated teams -1 fully staffed -1 partial -1 forming	-Interim results show adequate resources for current program levels -Workload influenced by alternate delivery mix (developer, VDOT,APS)
Stormwater	1 dedicated team -fully staffed in Jan 2017	-Interim results show adequate resources for current program level
Water and Sewer	1 dedicated team -will be fully staffed in 2017	-Results will be monitored
Flex-Team	1 fully staffed	-Needed to balance variation in demand for each program
Neighborhood Conservation	2 dedicated teams -fully staffed	-Shifting 2 FTEs from in-house design to consultant mgmt

Neighborhood Conservation Expenditures & Funding 2009 - 2017



Current and Future Challenges

- Limited land to support essential support functions
 - Siting process for service space is challenging
- Interim and long-term solution dynamics
 - ART and APS buses: Shirlington lease expires 1 Aug 2023
 - Trades Center 3rd level nearing completion
 - Fort Barnard reflects land use challenges
 - JFAC process underway, Buck and Carlin Springs
 - APS bus fleet continues to grow
 - Competition with APS for growth/land use
 - Support spaces will always be the least preferred public use
 - Public space zoning study will be proposed in work plan

Current and Future Challenges

WORKING
for You

STORAGE NEEDS

26 TOTAL SQUARE MILES

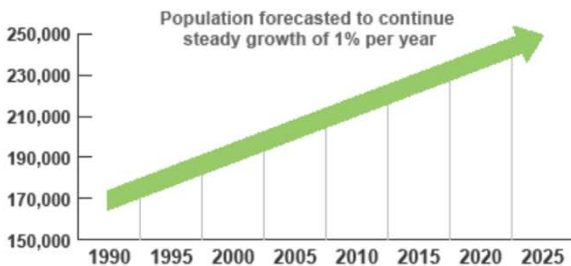
8%
(2.2 Sq. Mi.)
COUNTY AND SCHOOL LAND

- 62% Park Land
- 26% School Land
- 12% Essential Operations and Support Services

ARLINGTON

92% NON-COUNTY LAND

POPULATION ANNUAL GROWTH



Vehicles

- 1 Command Bus
- 1 Armored Vehicle
- 1 Tactical Vehicle
- 22 10 Foot Trailers
- 100 Impound Vehicle Spaces
- 1 Ambulance
- 1 Ladder Truck
- 1 Rescue Squad
- 4 Pumpers
- 7 Trailers
- 5 Utility Vehicles
- 1 Reserve Battalion Buggy
- 5 All Terrain Vehicles
- 1 Fork Lift

10 FIRE STATIONS
33 SCHOOLS
142 PARKS
974 LANE MILES OF ROAD

65 ART Buses → **Up to 90** by 2020

171 School Buses

Material Staging and Storage Area

(water pipes, street lights, traffic signals, light poles, catch basins, cold mix asphalt)

Salt Storage Capacity

9,200 Tons (currently)
→ **16,000** Tons (needed)

Snow

Arlington received **15** inches of snow and **15** snow events a year on average

Schools

Enrollment Up **42%** in Past Decade

Current Enrollment **26,152** (from 24,529)

Projected to Exceed **30,000** Students in Fall 2021, increasing capacity needs

Current and Future Challenges



Trades Center Garage Addition

Trades is home to public works services, police impound lot, fire academy, DPR, school buses & Animal Welfare



Former LaPorte site

2629 Shirlington Rd

WPCP

ART buses relocated from LaPorte to Shirlington Rd & WPCP

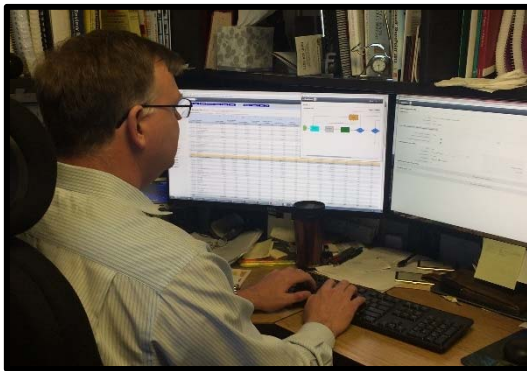


Aged Salt Dome at 26th & Old Dominion

Current and Future Challenges

- **Internal**

- DES Goal 3: We support and invest in a high performing workforce
 - Recruitment and retention across approximately 67 job classes
- Simultaneous implementation of business applications
 - Permitting aka OSAPI, e-Builder, Cartegraph, Utility Billing
 - Integration of GIS Based Business Applications



e-Builder



Cartegraph

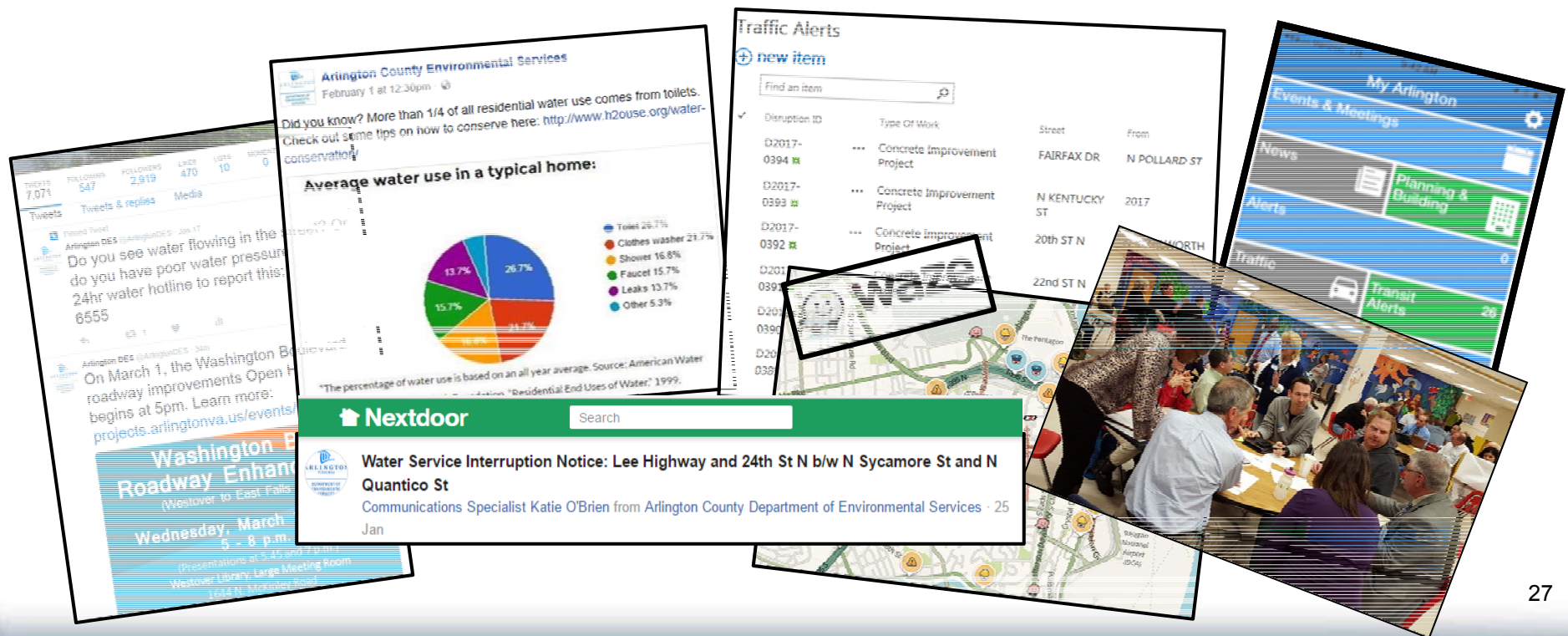


- **External**
 - Long-range regulatory framework
 - Chesapeake Bay TMDL and MS4 permit requirements
 - WMATA: For TDP & Metro Entrance Program
 - Serving wide-range of customer preferences & rapidly evolving customer service expectations
 - Online, smart phone, personal touch, voice response, after hours
 - Customer CARES training
 - Study opportunities for better customer experience
 - Competition for space in right-of-way

Current and Future Challenges

Goal 2: We provide effective communication and inclusive public engagement to promote transparency and trust

- Robust communications platforms - reaching more people everyday
- Enhanced public engagement processes
 - Mostly occurs on capital side
 - Impacts on staffing



FY 2019 and Beyond

- Provide basic services to meet expectations
 - Streetlights—basics first, then capital informed by master plan
 - Commercial sidewalk maintenance
 - Maintaining and operating the fiber network
 - Ensuring long-term sustainability of asset base
 - Call center excellence and customer convenience/responsiveness
- Achieve better linkage between operating and capital
 - Balancing revenue/program input with organizational throughput
 - Assess and update our strategy to address capital backlog
 - Providing efficient operating space as services and capabilities grow
- Plus
 - Transit Development Plan Implementation
 - Effectively managing the WMATA relationship to advance our priorities
 - Continuing to support the APS capital program at all stages, and their operations—from bus operations to TDM (JCTC)

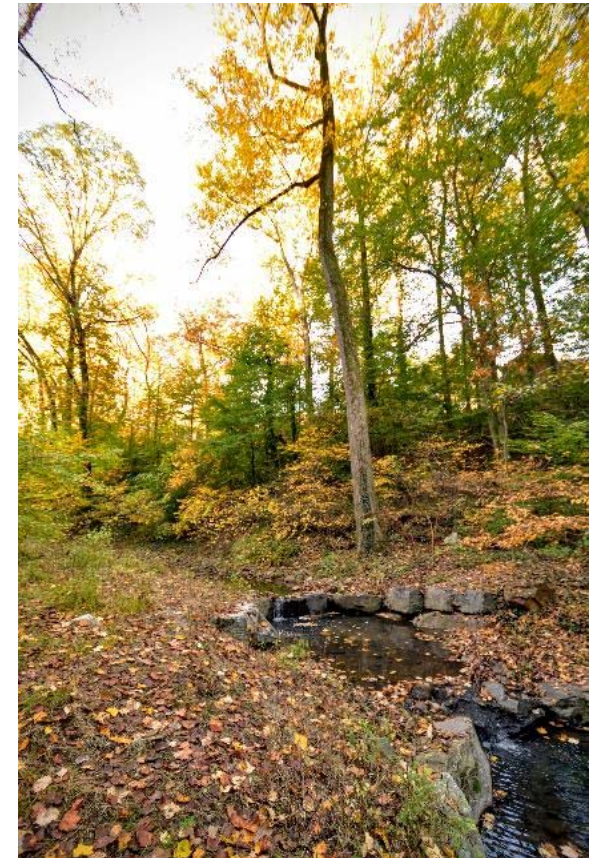
Department of Environmental Services Stormwater Fund

Proposed FY 2018 Budget Highlights

March 14, 2017

Stormwater Fund Budget at a Glance

- Proposed budget totals \$10.2M
 - A 4% increase from FY 2017 due to:
 - Revenue growth from increasing assessments & fees
 - Transfer of cost of maintaining DES & DPR stormwater facilities to Stormwater Fund
 - Capital budget decreases 11% to \$2.1M due to an increase in the budget for personnel and non-personnel expenses



Stormwater Program currently supports 42.0 FTEs

- All 5 positions approved in FY 2017 budget are now filled, enhancing support for:
 - Dedicated engineering team to support stormwater projects (2 FTEs)
 - Construction site compliance inspections (1 FTE)
 - Management of new maintenance contract for County-owned stormwater facilities; inspection/maintenance of privately-owned facilities (1 FTE)
 - Enhanced capacity in DPR for MS4 permit & stormwater ordinance compliance (1 FTE)





Stormwater Project Delivery

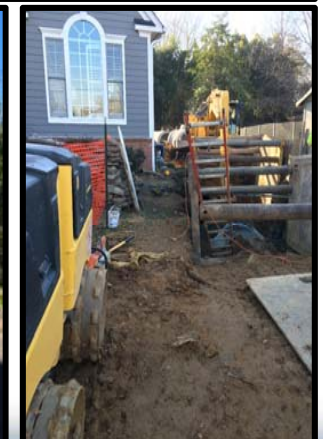
	Construction Completed or Underway (FY17)	Construction Scheduled to Begin (FY18)	Total
Environmental Quality	\$3,920,000	\$4,380,000	\$8,300,000
Stormwater Infrastructure	\$4,750,000	\$1,720,000	\$6,470,000
Total	\$8,670,000	\$6,100,000	\$14,770,000

FY17

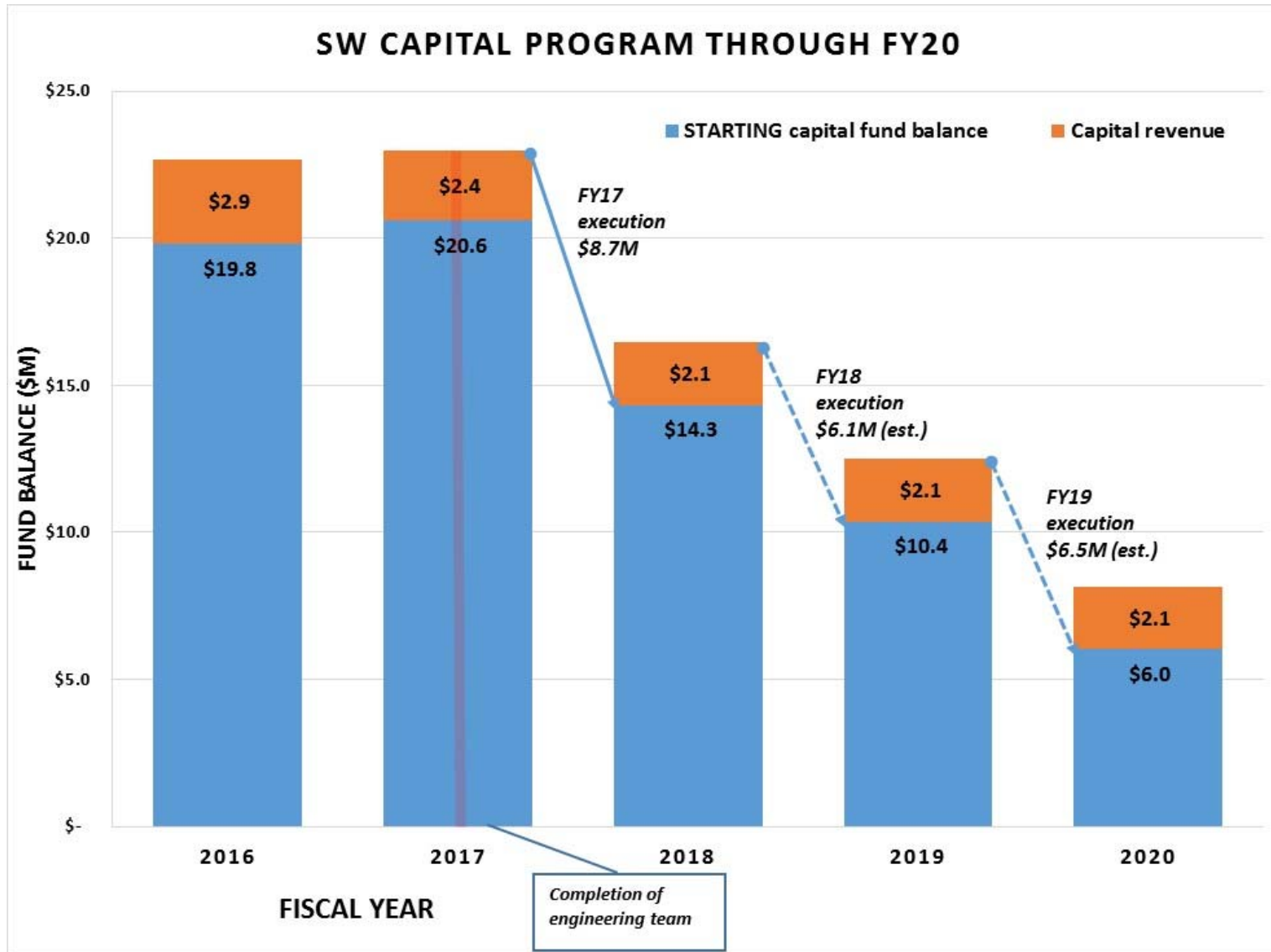
- Patrick Henry Drive watershed retrofit
- Northside leaf mulch site watershed retrofit
- 11th Street North Park watershed retrofit
- Four Mile Run tidal restoration project
- West Little Pimmit Run Phases I & II
- 24th & N Sycamore

FY18

- Donaldson Run Tributary B stream restoration project
- Windy Run stream restoration project
- Williamsburg 1 & 2 watershed retrofits
- Woodmont Swale
- 9th Rd N @ N Liberty St
- Capital maintenance program



Projected Stormwater Fund Balance



Department of Environmental Services Utilities Fund

Proposed FY 2018 Budget Highlights

March 14, 2017

Water & Sewer

By the Numbers



525 miles of water pipes



12 sewer & **5** water pump stations



7.7 billion gallons of water purchased in 2016



16,000 valves



32 million gallons of water storage



470 miles of sanitary sewers



13,000 manholes



12 miles of sanitary sewers rehabilitated by cured-in-place lining in 2016

Utilities Fund Budget at a Glance

The total Water-Sewer rate is proposed to increase \$0.35/TG (2.6%):

Current: \$13.27 per Thousand Gallons (TG)

Proposed: \$13.62 per Thousand Gallons (TG)

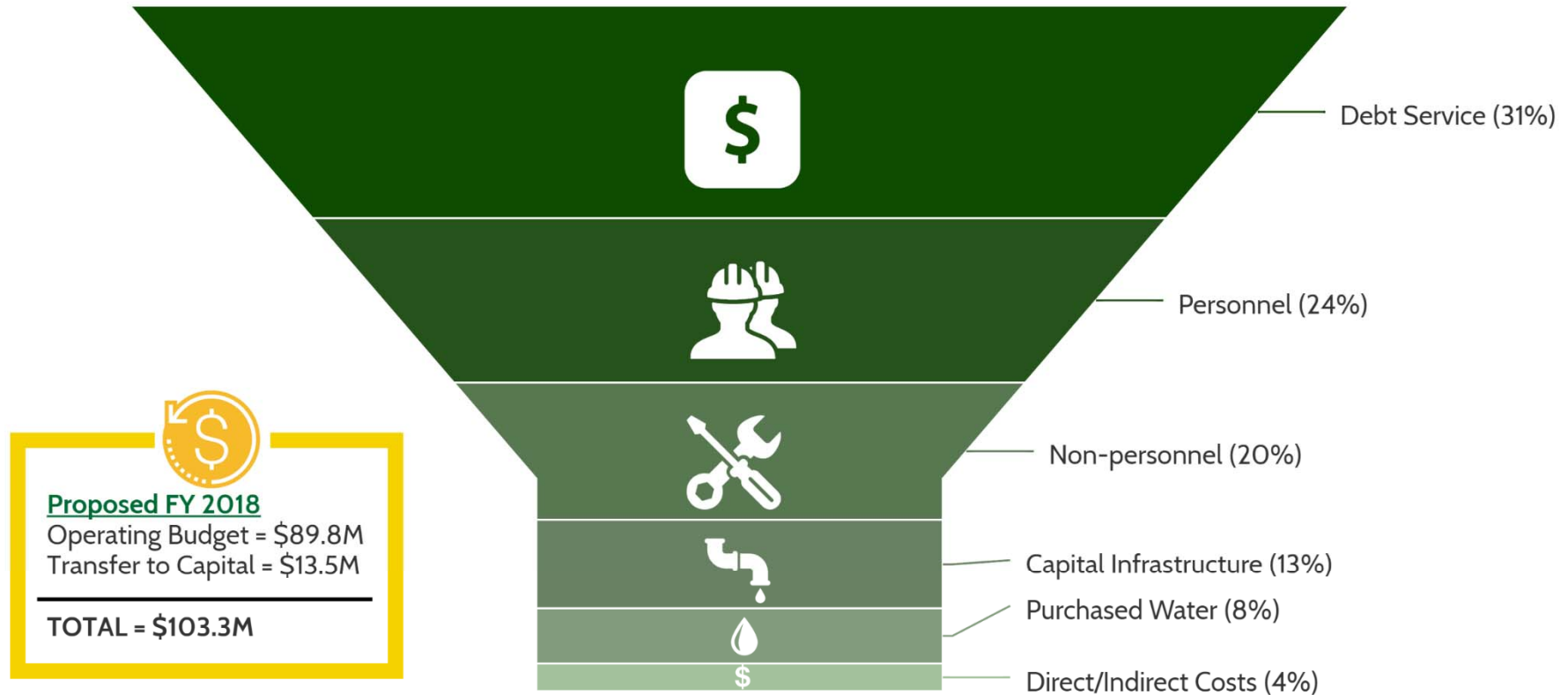
	<u>Current:</u>	<u>Proposed:</u>
Water	\$4.21/TG	\$4.53/TG
Sewer	\$9.06/TG	\$9.09/TG
Combined	\$13.27/TG	\$13.62/TG

Utilities Fund Budget at a Glance

- FY 2018 expenditure budget totals \$89.8M (<1% increase) and focuses on:
 - Core operations and maintenance of the water and sewer system
 - Investment in workforce
 - Normal salary increases
 - Add 3 FTEs
 - Total Utilities employees = 246.95 FTEs
 - Infrastructure, including Utility Billing System replacement, improvements at Washington Aqueduct & Water Pollution Control Plant
 - Offset by reductions in debt service, non-personnel, and use of excess fund balance

Utilities Expenses by Category

What Does it Cost to Operate and Maintain Our Water & Sewer System?



**= \$13.62 per
Thousand Gallons**

based on projected water and sewer consumption



Arlington County W-S Rate History

Fiscal Year	Water Rate/TG	Sewer Rate/TG	Combined rate/TG	\$ Change from Prior Year/TG	% Change from Prior Year	\$ Est. Annual Cost to Homeowner*
FY 2013	\$3.98	\$8.63	\$12.61	\$0.42	3.4%	\$883
FY 2014	\$3.98	\$8.63	\$12.61	-	-	\$883
FY 2015	\$4.10	\$8.94	\$13.04	\$0.43	3.4%	\$913
FY 2016	\$4.21	\$9.06	\$13.27	\$0.23	1.8%	\$929
FY 2017	\$4.21	\$9.06	\$13.27	-	-	\$929
FY 2018	\$4.53	\$9.09	\$13.62	\$0.35	2.6%	\$953

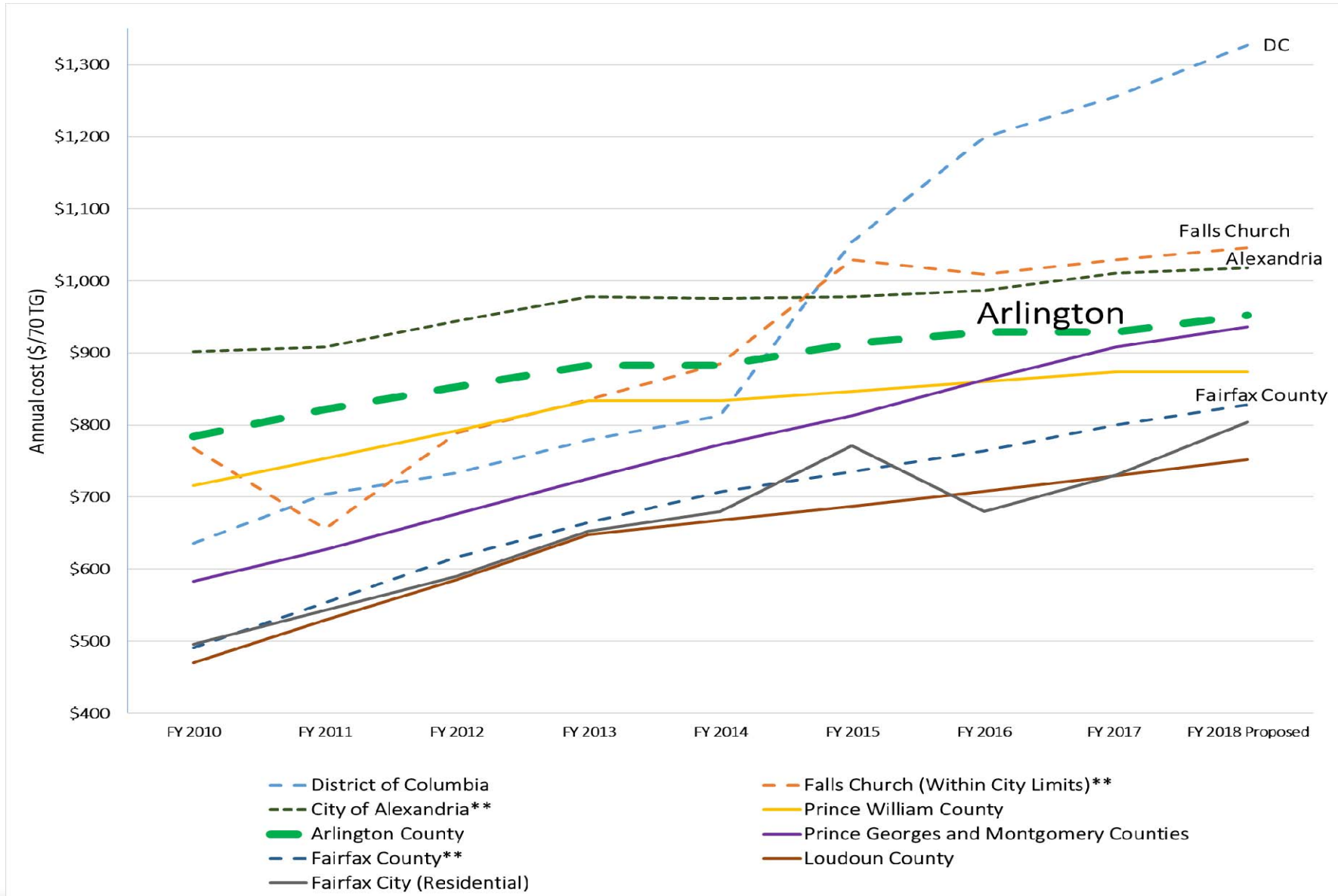
*For an average household using 70 Thousand Gallons/year. Estimated FY 2018 quarterly bills are \$238 for water and sewer, an increase of \$6 per quarter (\$24 annually).

Annual Household Cost Comparison

Jurisdiction	Current Annual Cost (FY 2017)	Proposed Annual Cost (FY 2018)	% Change
District of Columbia	\$1,256	\$1,328	5.7%
Falls Church	1,029	1,047	1.7%
City of Alexandria *	1,011	1,018	0.7%
Arlington County	929	953	2.6%
Prince Georges & Montgomery Counties (MD)	908	936	3.1%
Prince William County *	874	874	-%
Fairfax County	800	828	3.6%
Fairfax City	730	804	10.1%
Loudoun County	730	750	2.7%

- Calculated for the average household using 70,000 gallons annually.
- *Prince William has not yet proposed their water and sewer rate. Alexandria has not yet proposed their water rate.

Jurisdiction Comparison



FY 2018 Major Initiatives

- **Technology enhancements**
 - Utility Billing System
 - SCADA upgrades at water pump stations and control center
- **Currently updating Master Plans:**
 - WPCP Master Plan (solids treatment only)
 - Sanitary Sewer Master Plan (last update: 2002)
- **Executing Water Master Plan projects**
(Plan adopted by County Board: September 2014)
- **Water and Sewer Rate Study**

Why do we need this?

- Anticipate & plan for future challenges
 - Population changes
 - Changing usage patterns; e.g. low flow fixtures
- Best practice

What will the study include?

- Cost of Service Study
- Continued fiscal policy compliance
- Financial analysis/forecasts
- Align rate model with fiscal year (July 1 rate)
- Public engagement
- Rate Structure Alternatives
 - Current is consumption based
 - Rate structure considerations:
 - Base rate + consumption
 - Infrastructure charge
 - Winter/summer rates
 - Irrigation/sprinkler option
 - Customer equity

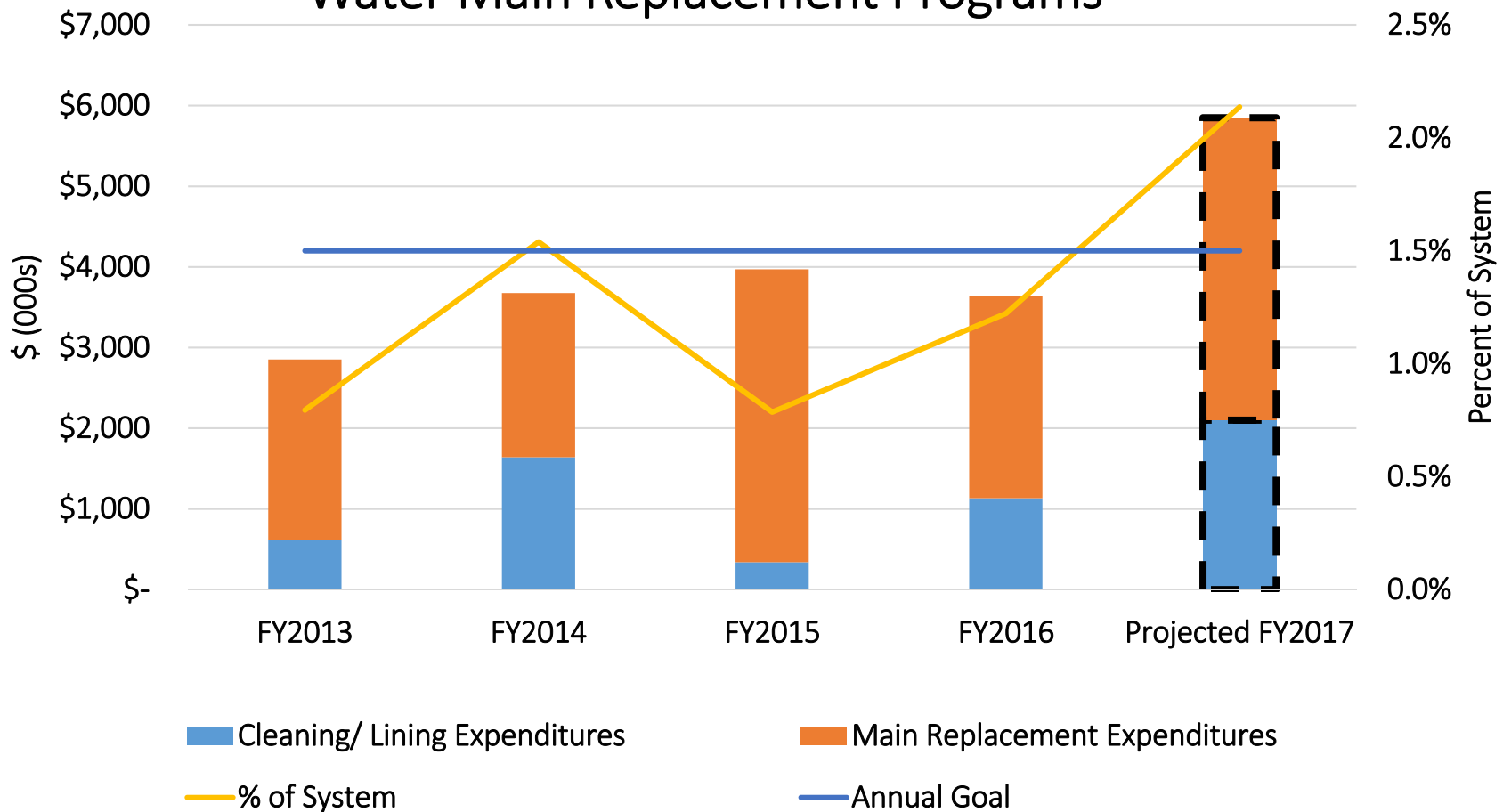
FY 2018 Major Initiatives (cont'd)

- Solids treatment projects at WPCP (WPCP Master Plan, Phase I projects)
- Secondary Clarifiers at WPCP



Utilities Capital Execution

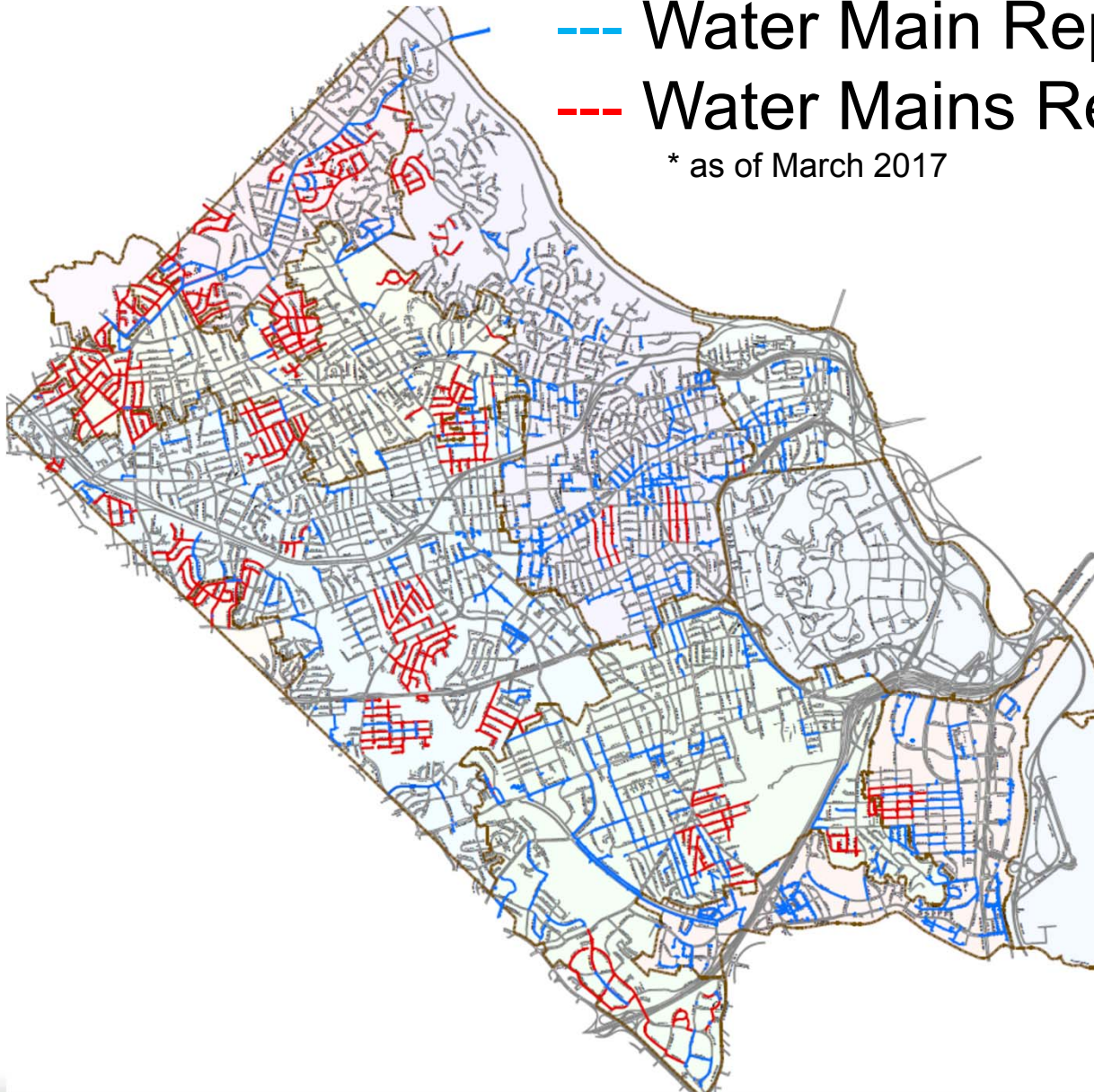
Water Main Cleaning/ Lining and Water Main Replacement Programs



Water Main Relining & Replacement Programs

- Water Main Replaced: 12%
- Water Mains Relined: 11%

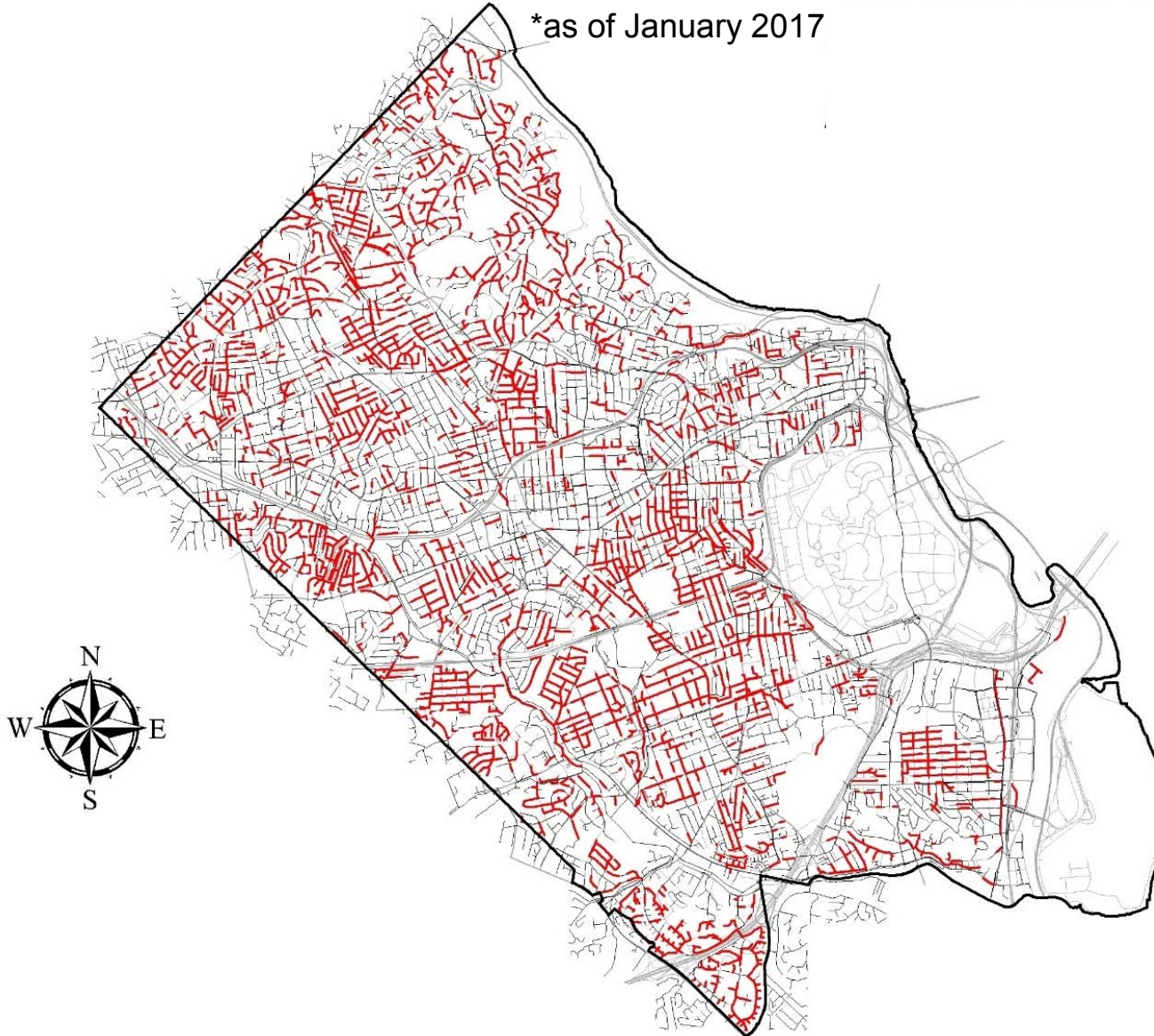
* as of March 2017



Sewer Relining Program

--- Sewer Mains Relined: 37.1%

*as of January 2017



FY 2019 and Beyond



- Upgrades at Washington Aqueduct: Advanced Treatment
- Solids treatment projects resulting from WPCP Master Plan update
- Fairfax interconnect for water redundancy
- Continuing focus on maintenance of existing infrastructure



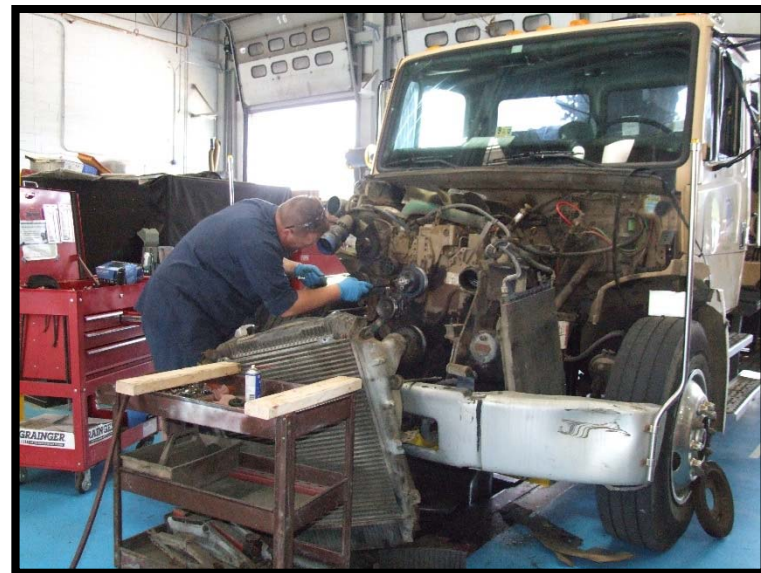
Department of Environmental Services Auto Fund

Proposed FY 2018 Budget Highlights

March 14, 2017

Auto Fund Budget at a Glance

- Proposed budget totals \$16.1M
 - A 6% decrease from FY 2017 due to:
 - Vehicle replacement expenses decrease relative to the number and configuration of vehicles replaced in FY 2017
- Total FTEs: 63.00
 - No increase from FY 2017



Department of Environmental Services Printing Fund

Proposed FY 2018 Budget Highlights

March 14, 2017

Printing Fund Budget at a Glance

- **Proposed budget totals \$2.5M**
 - An 16% increase from FY 2017 due to:
 - Contractual obligations for equipment and supplies as a result of the new photocopier/printer contract that requires all County photocopiers and printers be leased through the Print Shop.
 - County revenue increases from County departments due to the new photocopier/printer contract
- **Total FTEs: 8.00**
 - No increase from FY 2016

Ballston Public Parking Garage Funds

Proposed FY 2018 Budget Highlights

March 14, 2017

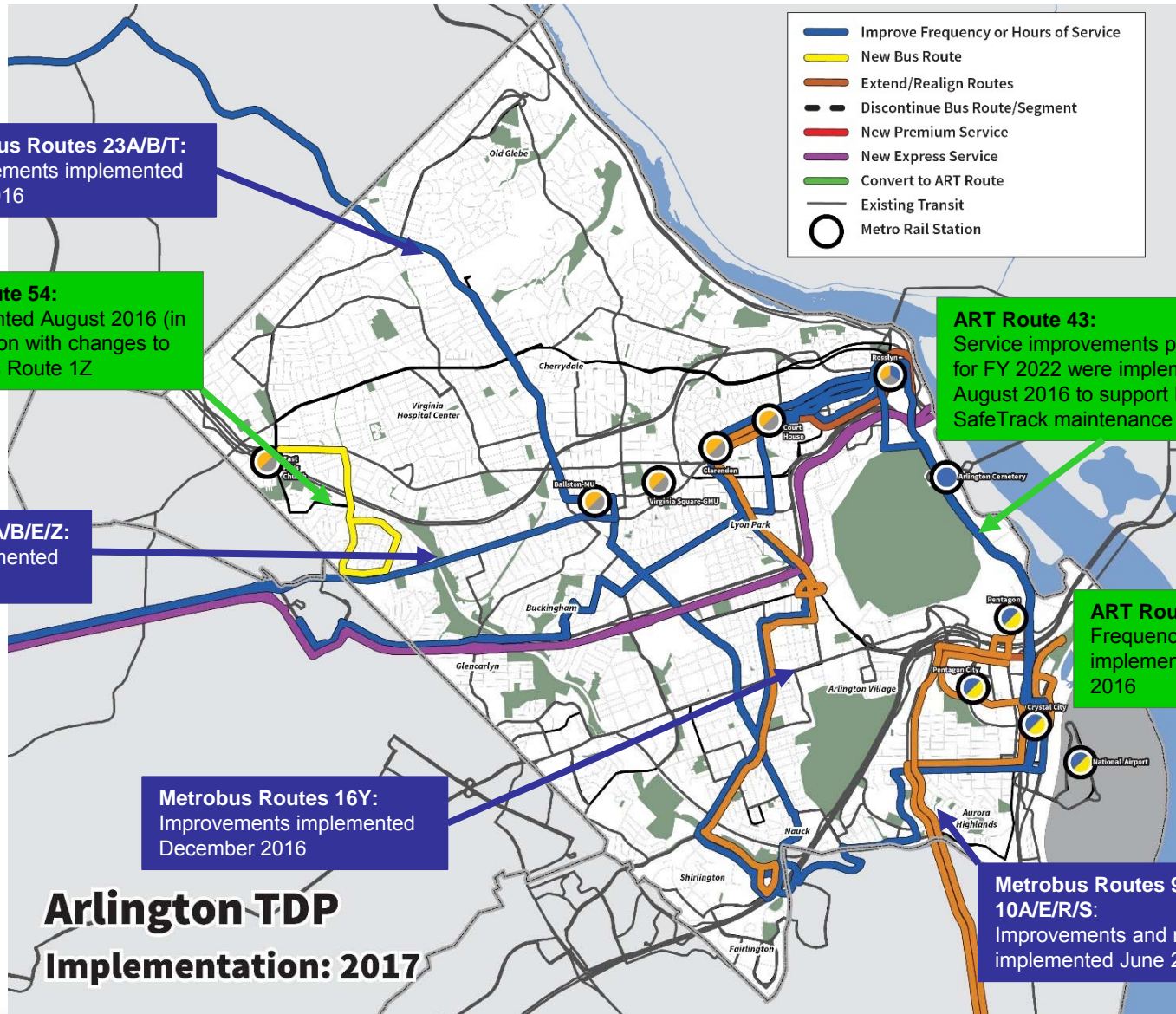
Ballston Public Parking Garage Funds

- Levels 1-7
 - Proposed budget totals \$8.8 M
 - A 16% decrease from FY 2017 due to the elimination of a one-time contribution as part of the Ballston Quarter partnership
 - Revenue decreases 9% due to less hourly parking revenue during mall redevelopment
 - Debt service increases to retire revenue bonds
- Level 8
 - Proposed budget totals \$1.1M
 - A \$1.0M increase for upcoming capital improvements funded by a transfer from the Construction Reserve
 - Revenue decreases 6% due to renovation of the mall

TDP Update

- Moving forward with implementation of County Board-adopted FY17-26 TDP
- Most of FY17 recommended service changes have been implemented
- Service improvements to ART43, ART 92 & Metro 16Y have moved up in implementation schedule -- reflected in FY18 base budget
- Service improvements to ART 55 & Metro 2A will be implemented this summer using I-66 NVTC funding
- Staff currently finalizing an ART bus procurement for 13 buses to provide fleet capacity to meet TDP recommendations for FY18-19
- Restructuring of regional bus service to implement the Premium Transit Network delayed to FY19 due to WMATA's focus on Safetrack & core operations

TDP Update FY2017



Arlington TDP
Implementation: 2017

TDP Update FY2018

