

# Department of Environmental Services

FY 2021 PROPOSED BUDGET HIGHLIGHTS

**General Fund**

**County Board Work Session**

March 5, 2020



# Department of Environmental Services



## VISION

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



## MISSION

To make Arlington County a vibrant, accessible and sustainable community through strategic transportation, environmental and capital investment projects, while providing excellent customer service, operations and maintenance in a safe and healthy environment for all.



## DEPARTMENT OF ENVIRONMENTAL SERVICES

# HIGHLIGHTS



### STREETS

- 76.5 lane miles paved
- 1,059 lane miles maintained
- 5,637 potholes filled
- 5.9 miles of protected bike lanes
- 11 new traffic signal installs & upgrades



### SOLID WASTE

- 1.5M pounds of glass collected at County drop-off centers
- 50% recycling rate
- 9,162 tons of curbside yard waste
- Yard Waste reduced from 26% to 1.3% of trash cart
- Drop-off food composting program



### ENERGY

- Updated Community Energy Plan, with goal of becoming carbon neutral by 2050
- Solar farm power purchase agreement with Dominion Energy



### FACILITIES

- 2.2M square feet maintained
- 90 County-owned buildings valued at over \$750M



### TRANSIT

- 2.83M annual ridership on Arlington Transit's 16 routes; 78 buses total
- 698 bikes at 92 Capital Bikeshare stations



### WATER

- 525 miles of water pipes; 20 miles replaced/relined
- 470 miles of sanitary sewer pipe; 10 miles relined



### STORMWATER

- 5,500+ views of GIS stormwater story map
- 89 flood proofing site visits to impacted property owners after the July 8 storm



### CONTACT CENTER

- Expanded hours 7am-7pm
- 6,000 questions answered with new Virtual Assistant
- 66,500 annual calls (8% increase).

# Summary of Proposed Budget Changes

	FY 2020 Adopted	FY 2021 Proposed	Change	% Change
<b>Expenses</b>	\$100,909,216	\$110,904,844	<b>+\$9,995,628</b>	<b>+10%</b>
<b>Revenue</b>	\$49,834,789	\$52,039,638	<b>+\$2,204,849</b>	<b>+4%</b>
<b>Staff</b>	397.5 FTEs	408.5 FTEs	<b>+11 FTEs</b>	

- Budget additions support investments in service delivery and infrastructure & resiliency.



# Proposed Budget Additions



## RESILIENCY & INFRASTRUCTURE

### Core Services

- New ART Contract: \$4.4M
- Concrete Maintenance: \$300,000
- Sidewalk Condition Assessment: \$300,000\*
- Facility Preventative Maintenance: \$100,000

### Street Safety

- TE&O Assistant Bureau Chief (reclassified): \$97,725
- Traffic Engineering: \$162,250, 1.0 FTE
- Streetlight Support: \$134,643, 2.0 FTEs\*

### Environmental Investments

- CEP Initiatives & Resiliency: \$150,000\*
- Flood sensors: \$129,000\*
- Electric Vehicles: \$45,801

**Total = \$5.8M**



## SUPPORTING OUR COMMUNITY

### New Community Assets

- Lubber Run (building and garage maintenance, building engineer and vehicle) : \$875,000, 1.0 FTE\*
- Facilities planner/architect: \$81,254, 1.0 FTE

### Other

Permit Arlington Positions (limited term): \$215,974, 3.0 FTEs

**Total = \$1.2M**

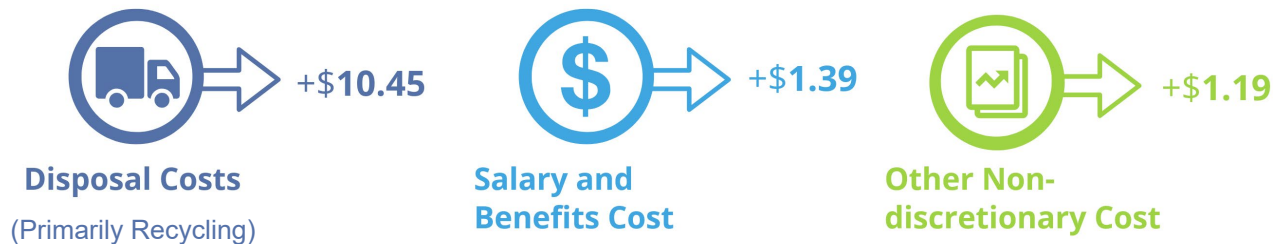
\*includes one-time costs

# Summary of Proposed Fee Changes

	FY 2020 Adopted	FY 2021 Proposed	Budget Impact
<b>Development Services Inflationary 2.5% Fee Increase</b>	All Development Services Fees		+\$81,921
<b>Household Solid Waste Rate Increase</b>	\$306 / household	\$319.03 / household	+\$455,504

# Household Solid Waste Rate Increases

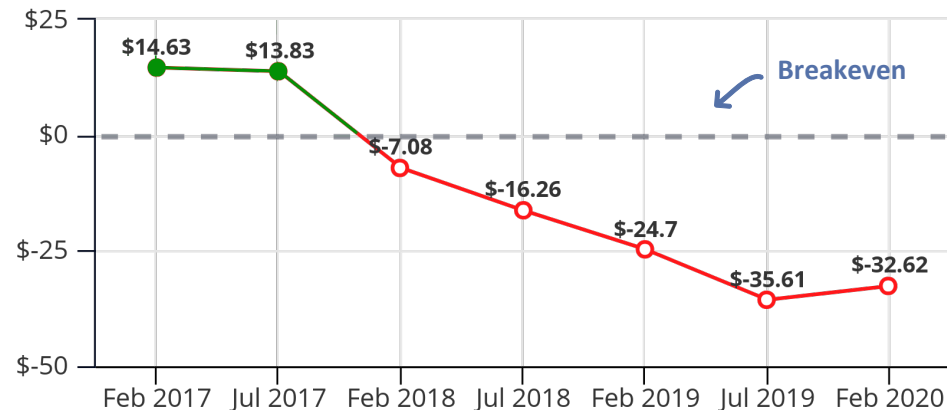
- HSWR proposed to increase by \$13.03 / household
- Proposed rate is \$319.03 per / household primarily driven by the following increases:



## Regional Proposed Rate Comparison FY21

Arlington County	\$319.03
Fairfax County	\$400.00
City of Alexandria	\$460.00

## Recycling Processing Revenue/ (Cost) per Ton

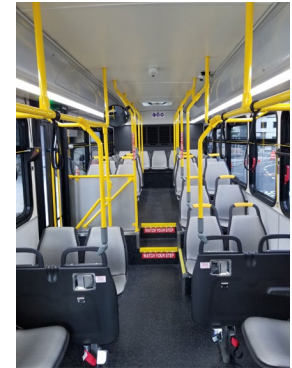


# Resiliency & Infrastructure – Core Services



## New with ART

- **First Transit is fully staffed.** 120 active operators; 5 additional operators to graduate by Feb 28; 32 maintenance technicians and support staff.
- **Ridership is trending up.** ART carried 20% more commuters in January 2020 compared to January 2019.
- **14 new 35-foot buses** were added to replace smaller body-on-chassis vehicles. Overall fleet age is now a relatively young 6 years old.

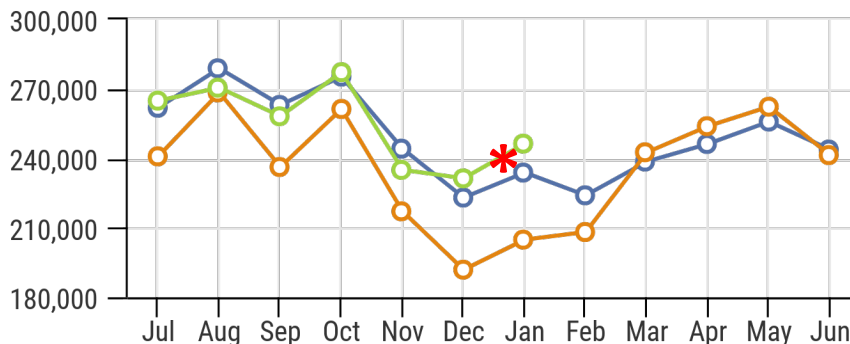


## Ridership

**ART has seen ridership gains in FY 20:**

- FY20 YTD (through January): 1,783,538
- FY19 YTD (through January): 1,615,112
- 10.4 % increase in ridership from FY 19

### Monthly Ridership



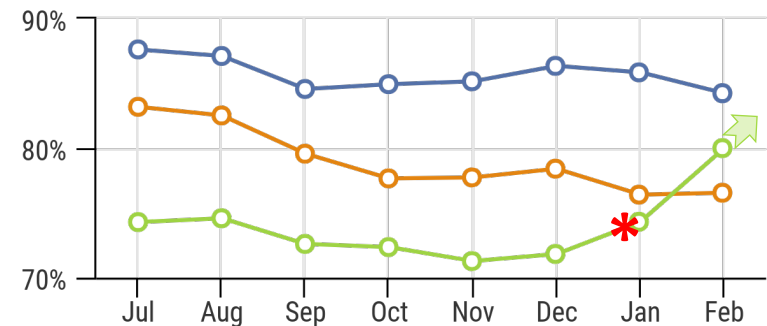
● FY18 ● FY19 ● FY20

\* New Contract

## On-Time Performance

ART on-time performance is starting to rebound after several years of decline. Transit is working closely with new service provider to ensure trend continues. February on-time performance is at 80%.

### Monthly On-Time Performance (OTP)



● FY18 ● FY19 ● FY20

# Realizing Arlington's Commitment to Equity

## Transit Findings

County considers viewpoints and impacts to low-income, limited English proficiency (LEP), minority, and disability communities, in addition to community organizations & businesses to inform all transit related decisions.

### How Do We Know?

- Incorporates public involvement strategies and outreach to affected individuals, including minority, low-income, ADA and LEP populations prior to any program changes
- See map on the next slide

### Who Benefits?

- All transit-dependent and choice riders, residents, small business and corporate employers
- Transit provides economic and health benefits allowing access to employment, medical care and medical facilities



### Who is Burdened?

- Service reductions or fare increases have potential to create burden on low-income, people with disabilities and transit-dependent population

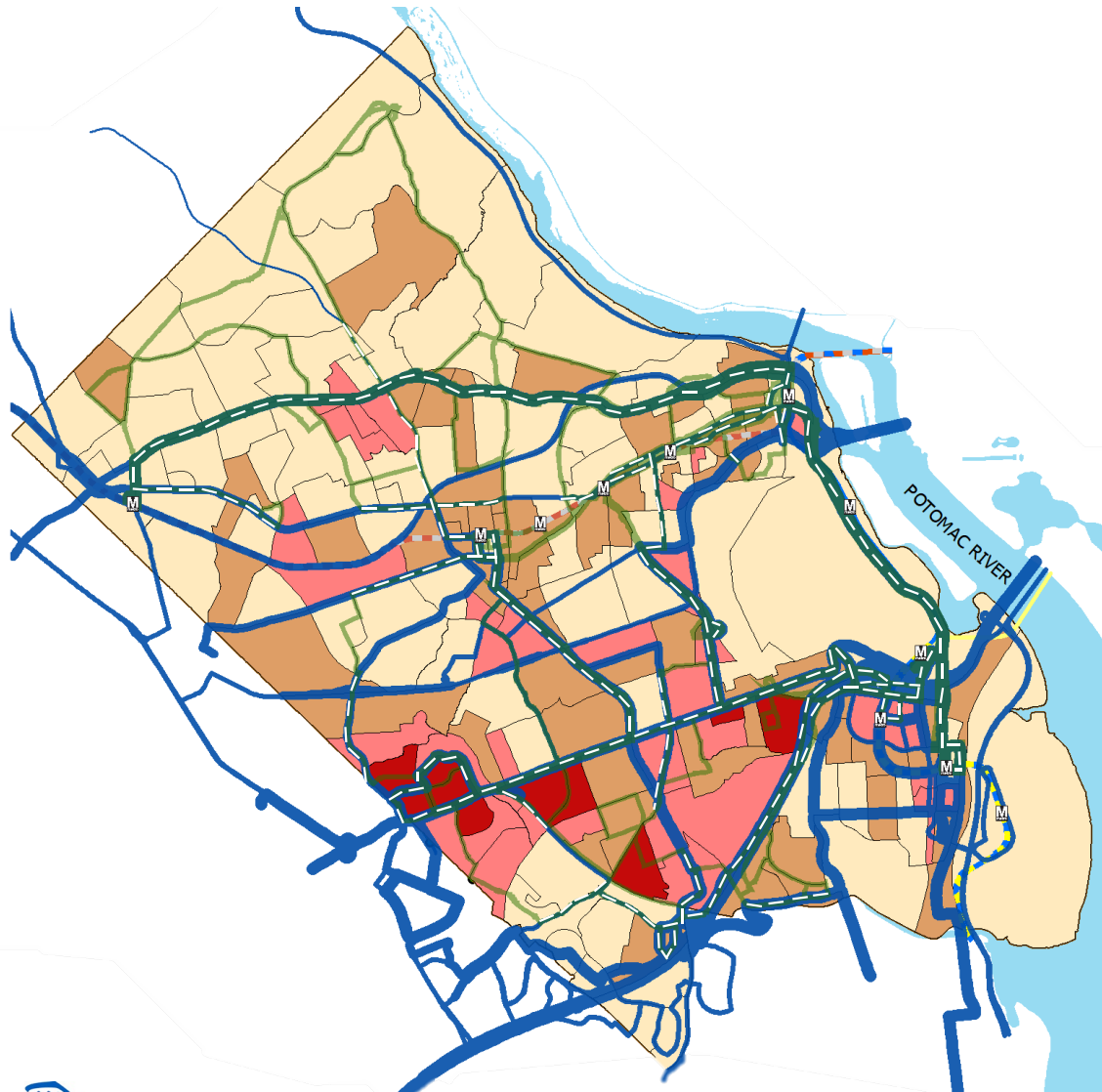


### Who is Missing?

- FTA Title VI Program guidance ensures County provides service that benefits all riders



# Realizing Arlington's Commitment to Equity



## Legend

### ART Bus Frequency

- Under 12 Mins
- 13 - 18 Mins
- 19 - 30 Mins
- Over 31 Mins

### Metrobus Frequency

- Under 12 Mins
- 13 - 18 Mins
- 19 - 30 Mins
- Over 31 Mins

### Percentage Of Minority Population

- 0% - 20%
- 20.1% - 40%
- 40.1% - 60%
- >60.1%

### Metro Stations

- Metro Station

### Other

- Metro and ART route overlap

Department of Environmental Services  
General Fund





# Resiliency & Infrastructure – Core Services

## Sidewalk Condition Assessment & Concrete Maintenance

### Service Impacts

- Over 800 miles of sidewalk, curb and gutter maintained
- Excluding paving program, current repairs are complaint-based
- Current backlog of approx. 130, with 500 – 600 requests annually
- Assessment will be used to develop multi-year maintenance plan to address issues systematically and equitably
- Will identify walkability improvements, ensure ADA compliance and identify trip and fall hazards

### Budget Impact

Change:	\$600k (\$300k ongoing & \$300k onetime)
Revenue:	--
Net Tax	\$600k
Support:	





# Resiliency & Infrastructure – Core Services

## Traffic Engineering to Support C3 (Customer Care & Communications)

### Service Impacts

- C3 is a service for residents to voice traffic / safety concerns & for staff to respond
  - Respond to 600 monthly emails from residents resulting in TE&O taking an action on more than 80 requests and initiating 20 larger scale traffic & safety investigations
- Position is necessary to stabilize response times and address current backlog

### Budget Impact

Change:	\$162k
Revenue:	--
Net Tax	\$162k
Support:	

### Staff Impact

1.0 FTE

## Traffic Engineering & Operations (TE&O) Assistant Bureau Chief

### Service Impacts

- Reclassified a vacant position to support increased workload generated by development and resident requests

### Budget Impact

Change:	\$98k
Revenue:	--
Net Tax	\$98k
Support:	

### Staff Impact

Reclassified existing FTE



# Resiliency & Infrastructure – Core Services

## Streetlight Support

### Service Impacts

- Traffic engineer and streetlight technician to support streetlight program.
- One-time funding for a vehicle
- Will improve streetlight maintenance performance.

### Budget Impact

Change:	\$135k
Revenue:	--
Net Tax Support:	\$135k

### Staff Impact

2.0 FTEs

## Average Streetlight Repair Response Time (Days)

	FY 2017	FY 2018	FY 2019	FY 2020 Estimate	FY 2021 Estimate
Major Repairs	120	45	70	45	30*
Minor Repairs	30	15	14	14	7*

### FY18 Investments

- 474K funding
- 1 Engineer
- 2 Field Technicians

\*Proposed FY21 investment



# Resiliency & Infrastructure – Core Services

## Facility Preventative Maintenance

### Service Impacts

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- Funding will help pay for critical preventative maintenance contracts previously-funded through building engineer vacancies
- Recent pay increases for building engineers due to Trades Compensation Study will enable County to fill positions
- Newly-hired employees will focus on backlog of routine preventative maintenance

### Budget Impact

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<b>Change:</b>	<b>\$100k</b>
<b>Revenue:</b>	--
<b>Net Tax</b>	<b>\$100k</b>
<b>Support:</b>	

### Staff Impact

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# Resiliency & Infrastructure – Environmental Investments

## CEP Initiatives & Resiliency

### Service Impacts

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- Consultant funding for implementation expertise to advance goals of Community Energy Plan adopted by Board. Funding could be used for:
  - Data analytics to create load shape profiles for energy usage
  - Electric vehicle uptake strategy
  - Commercial building benchmarking
  - County-wide feasibility assessment for renewable energy installations
  - Exploring micro-grids to reduce vulnerability and increase resiliency

### Budget Impact

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Change:	\$150k one-time
Revenue:	--
Net Tax Support:	\$150k

### Staff Impact

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# Resiliency & Infrastructure – Environmental Investments

## Electric Vehicles

### Service Impacts

- In process of accelerating replacement of 28 County vehicles with electric Nissan Leafs, includes one for Police and four for Fire.
- Increase to General Fund budget represents additional ongoing maintenance and replacement cost
- Auto fund to absorb increased one-time purchase, approximately \$7k per vehicle, plus charging infrastructure, for estimated cost of \$341k **one-time**.
- Costs could change depending on procurement vehicle used.

### Budget Impact

Change:	\$46k
Revenue:	--
Net Tax Support:	\$46k

### Staff Impact

Our non-public safety sedan electric fleet will increase from 5% to 24%.







# Supporting our Community

## Lubber Run

### Service Impacts

- Addition of facilities maintenance funding (\$605K) for maintenance, custodian services & utilities, a dedicated building engineer (\$100k), garage maintenance service (\$140k) & one-time funding for a vehicle (\$30k)
- Appropriately funding new buildings ensures we continue to maintain a state of good repair.

### Budget Impact

<b>Change:</b>	<b>\$875k</b>
<b>Revenue:</b>	--
<b>Net Tax</b>	<b>\$875k</b>
<b>Support:</b>	

### Staff Impact

1.0 FTE



# Department of Environmental Services

FY 2021 PROPOSED BUDGET HIGHLIGHTS

## Utilities Fund

**County Board Work Session**

March 5, 2020



# Water & Sewer

By the Numbers



**525** miles of  
water pipes  
...  
water main  
breaks in FY19 **181**



**13** sewage & **5** water  
pump stations



**7.8** billion gallons of  
water purchased in  
FY19



**16,000** valves  
...  
inspected in  
FY19 **5,014**



**32** million gallons  
of water storage



**470** miles of sanitary  
sewers



**37,800** accounts  
...  
bills issued  
in FY19 **176,000**



**9.3** billion gallons of  
wastewater  
treated in FY19



# Fund Overview

## Utilities Fund

- Water-Sewer Rate funds **all** operating & capital needs through the Water & Sewer Rate
  - Water purchase & distribution
  - Wastewater collection & treatment
  - Customer service & billing



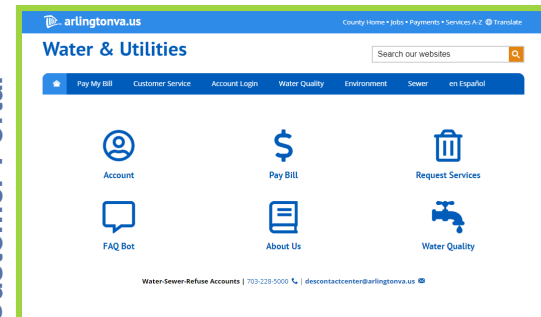


# Fund Overview

## FY 2020 & FY 2021 Key Initiatives

- Utility billing system replacement
  - Billing for 38,000 accounts with 176,000 annual bills
  - “Go live” November 2019
- Customer service enhancements
  - Expanded call taking & hours
- Water & sewer cost of service and rate study
  - Key public engagement initiative
  - Rate structure alternatives
- Water meter replacement planning
  - Pilot next generation of technology
- Solids Master Plan, Phase 1 projects underway

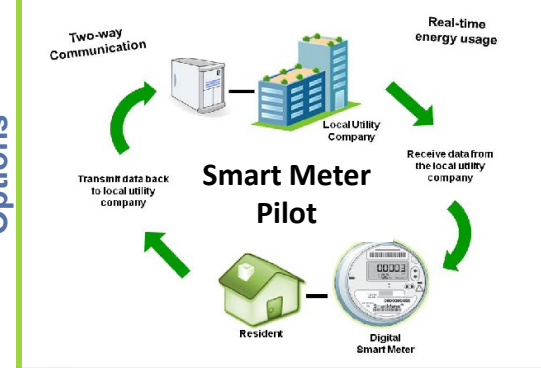
New  
Customer Portal



Rate  
Study Community  
Advisory Group



Metering  
Options



# Summary of Proposed Budget Changes

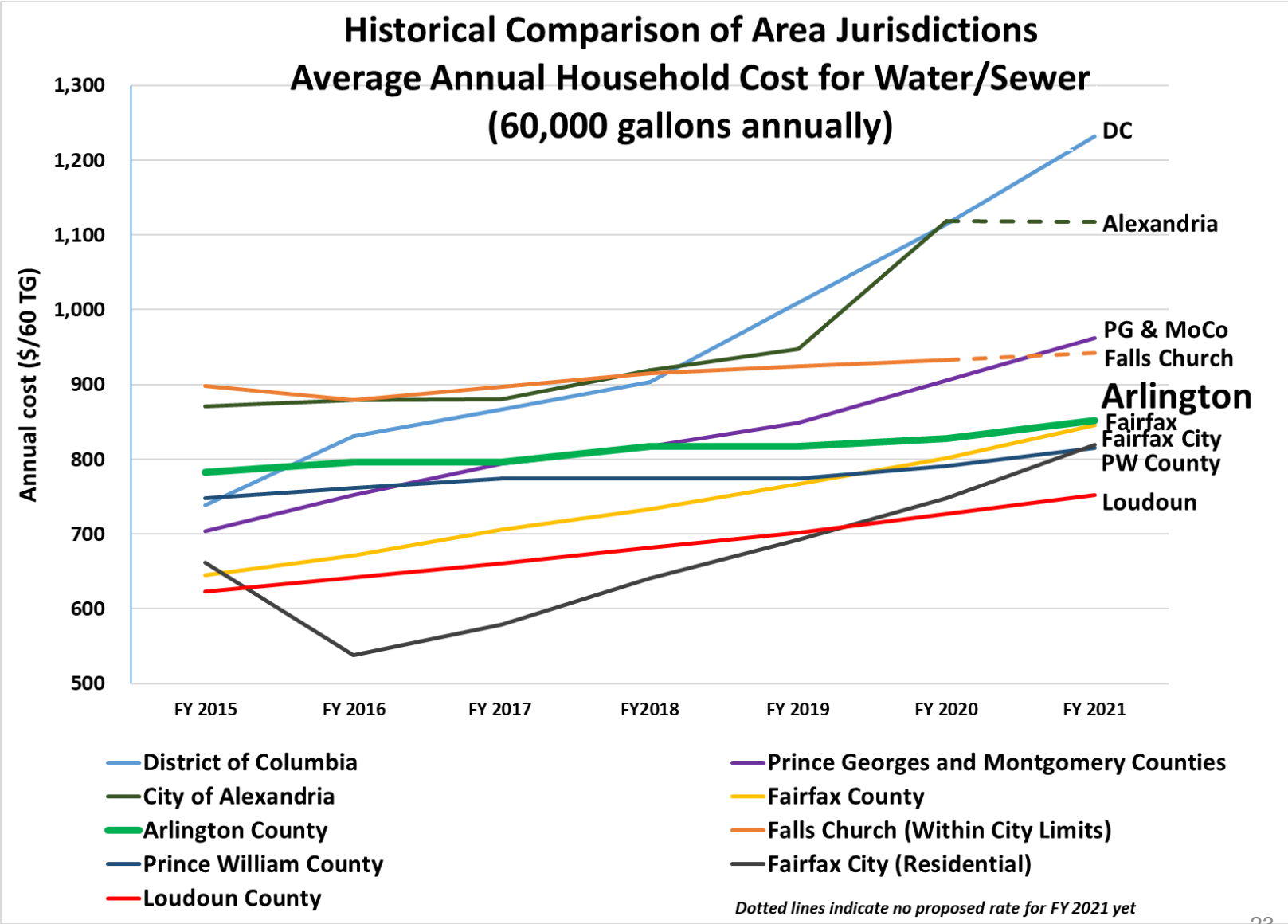
	FY 2020 Adopted	FY 2021 Proposed	Change	% Change
<b>Expenses*</b>	\$103,457,806	\$103,667,295	+\$209,489	<1%
<b>Revenue</b>	\$102,936,845	\$104,667,295	+\$1,209,489	1%
<b>Staff</b>	253.95 FTEs	254.95 FTEs	+1.0 FTE	

## Water-Sewer Rate per Thousand Gallons (TG)

<b>Water Rate (TG)</b>	\$4.70	\$4.91	\$0.21	4.5%
<b>Sewer Rate (TG)</b>	\$9.10	\$9.29	\$0.19	2.1%
<b>Combined Rate (TG)</b>	\$13.80	\$14.20	\$0.40	2.9%



# Regional Water/Sewer Comparison





# Resiliency & Infrastructure - Core Services

## Large Valve Inspection Program

### Service Impacts

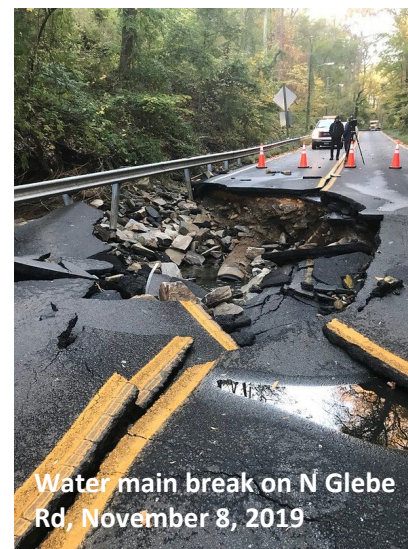
- Inspect, exercise and repair 500 large water valves and air release valves (ARV)
- One-time funding of \$300,000 annually for 2 years: FY2021 and FY2022.
- Rehabilitations funded through CIP

### Budget Impact

Change:	\$300k
Impact on Water-Sewer Rate	\$0.04/ Thousand Gallons

### Staff Impact

N/A Contractual services



## Resiliency & Infrastructure - Core Services

## Training Support

## Service Impacts

- Organize and manage logistics and records associated with WSS training of all 195+ employees.
- Build skills & competencies needed to advance through career ladder
- Funded by Utilities Fund and General Fund (70/30)

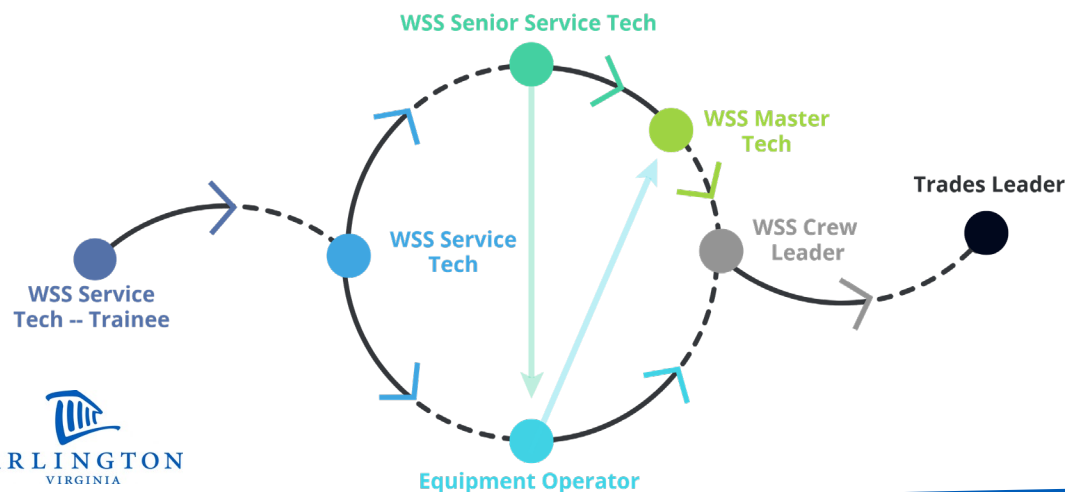
## Budget Impact

<b>Change:</b>	<b>\$68k UF</b>
	<b><u>28k GF</u></b>
	<b>\$96k Total</b>

**Impact on Water-Sewer Rate**      **\$0.01/ Thousand Gallons**

**NTS:** **\$28k**

## WSS Career Path



## Staff Impact

## 1.0 FTE: HR Administrative Specialist

# Department of Environmental Services

FY 2021 PROPOSED BUDGET HIGHLIGHTS

## Stormwater Management Fund

**County Board Work Session**

March 5, 2020





# System Snapshot



**21,000**  
structures



**260 miles**  
of pipes



**32 miles**  
of streams



**43%**  
of County covered  
by impervious  
surfaces



# Chesapeake Bay TMDL

Ramped up pollution reduction requirements over three, five-year MS4 permit cycles.

- **1<sup>st</sup> cycle:** 5% reduction
  - FY 2013 – FY 2018: 1st permit cycle completed
  - Exceeded 5% reduction requirement
- **2<sup>nd</sup> cycle:** additional 35% reduction (40% combined total)
  - FY 2021 – FY 2025: 2nd permit cycle
  - Draft permit just received – under review
  - On track to meet target
- **3<sup>rd</sup> cycle:** additional 60% reduction (100% combined total)
  - FY 2026 – FY 2030: 3rd permit cycle
  - Most challenging

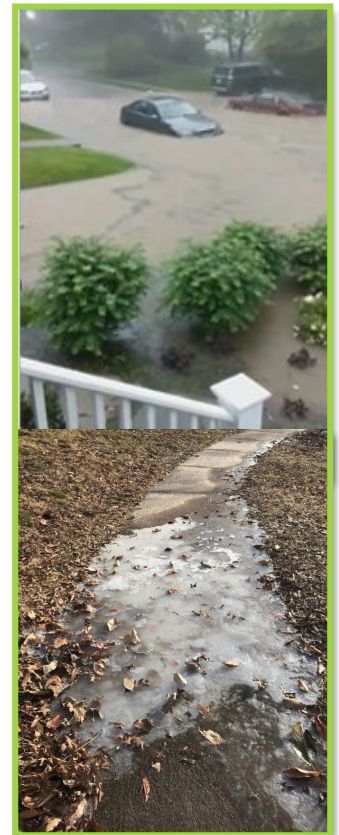




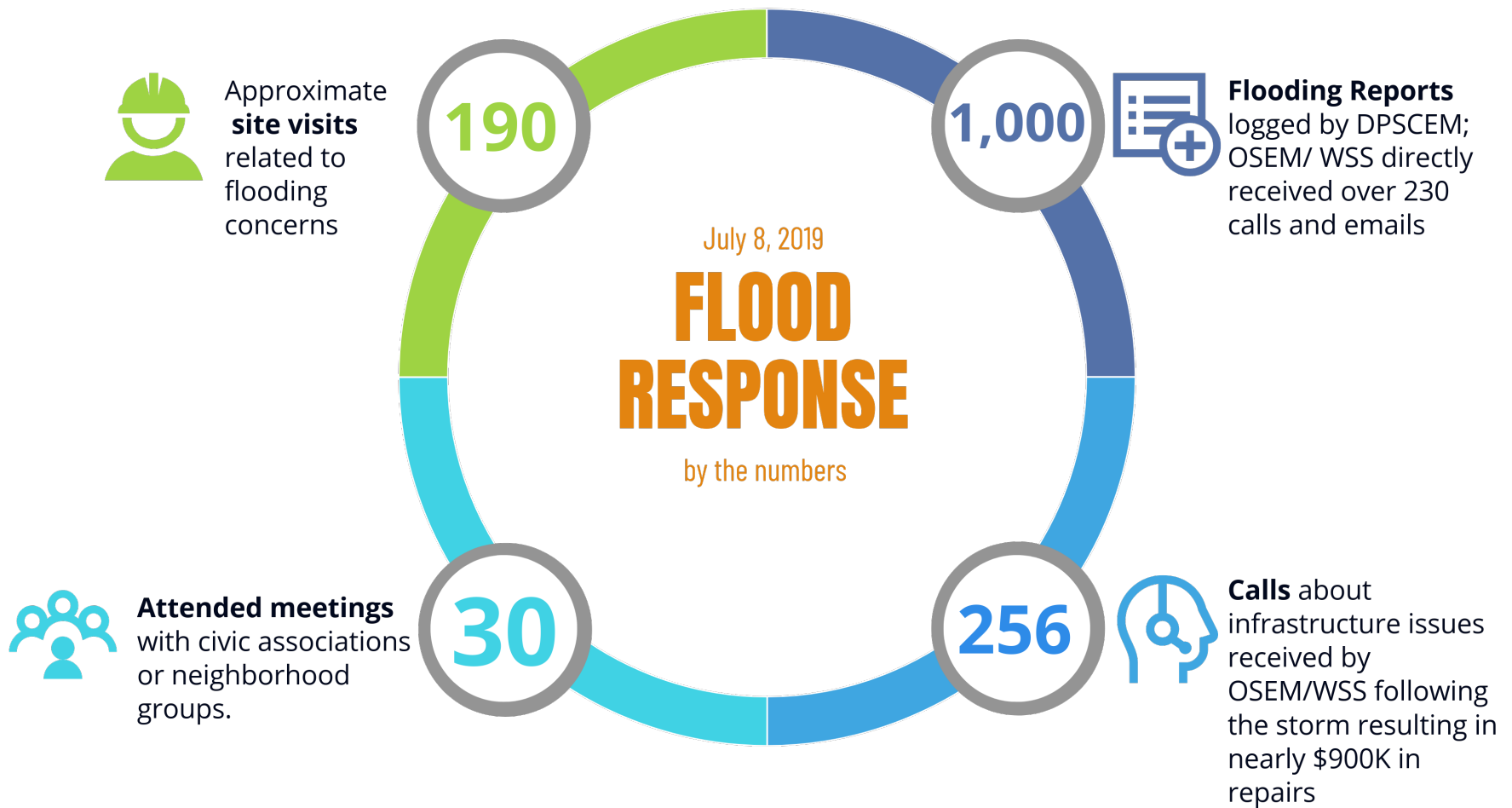


# Key Budget Considerations

- Mitigating flood risks through comprehensive approach
  - Watershed-scale CIP projects
  - Review policies, regulations, & industry best practices
  - Innovation for multi-benefit in our fully developed state
  - Inter-department work group focused on:
    - Emergency response & life safety notifications
    - Development and regulations
    - Strategic improvements & policy changes
    - Communications & engagement
- Recommending bond referenda November 2020
- New MS4 permit (2<sup>nd</sup> permit cycle) & updated Chesapeake Bay clean-up requirements projected to require more effort and expenditure



# Stormwater Response to July 8 Flood





# StormwaterWise Program Review

- Popular, sustainable incentive program for on-site green infrastructure & water quality projects
- Program element of our MS4 permit – changes would require discussion with DEQ
- Annual program budget = \$120,000

## StormwaterWise Landscapes

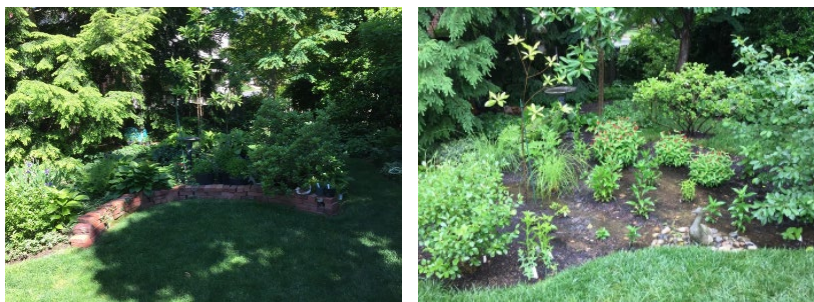
Pervious Pavement



Conservation Landscape



Rain Garden



Pavement Removal





# StormwaterWise Program Review

## Policy Considerations

- 1 What are the measurable improvements to the overall system effectiveness by these investments?
- 2 Is the expenditure of public funds appropriate to benefit property owners given the benefits received to the adjacent property owners and the overall stormwater program?
- 3 Should the increased value to individual properties be recaptured upon sale?
- 4 Should the program be focused only on areas at risk for stormwater related flooding?
- 5 Who benefits, who is burdened, who is missing and how do we know? Should the program be means tested?
- 6 Should the program be expanded to add incentives or modified for water detention options that manage on-site stormwater runoff?
- 7 Should current practices be eliminated, and all funding redirected to water detention on County-owned property?
- 8 What are the impacts of potential program changes on the County's MS4 permit?





# Utility Feasibility Study

## Current Methodology:

- Add-on tax rate: based on property's assessed value

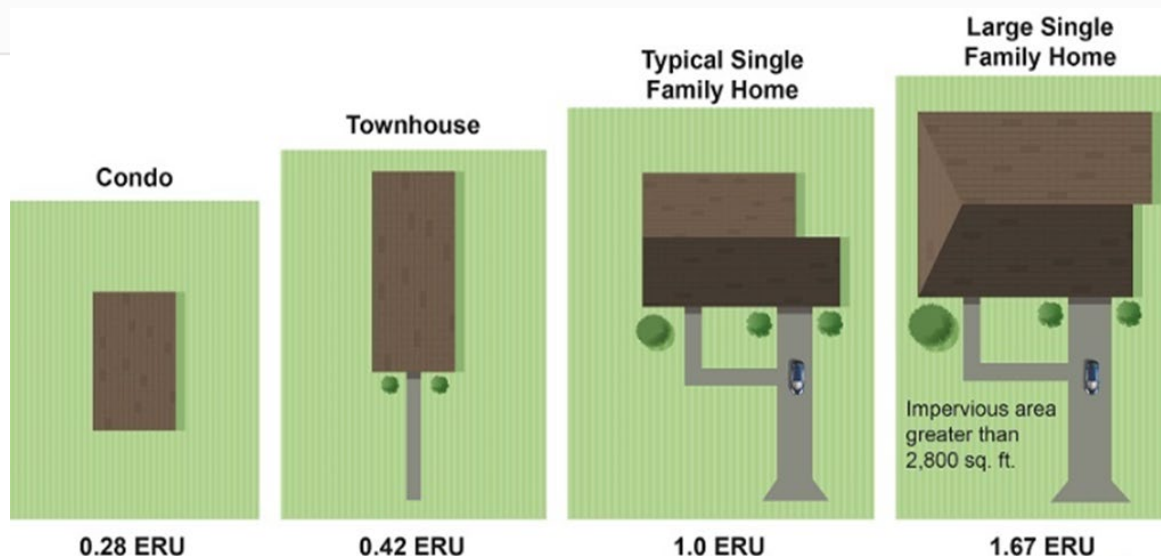
## Utility Fee Structure:

- Rate structure based on impact of runoff from property (i.e. perviousness)
- Typically uses Equivalent Residential Unit (ERU)
- Arlington ERU definition would be defined based on analysis of Arlington properties

## Utility Feasibility Study will provide:

- Technical, fiscal, social, policy, & operational aspects of establishing a Stormwater utility
- Billing units (ERU definition) for Arlington
- Rate structure models
- Matrix of property and customer types with expected financial impact to each
- Billing options
- Administrative costs

Example of City of Alexandria ERU billing unit definitions





# Utility Feasibility Study

## Features:



Equity - Fees are based on actual impact of runoff by property



Properties currently exempt from paying taxes would potentially pay under a utility



Potentially higher administrative costs



Could affect some property owners significantly (single-family, non-profits/churches with large parking lots), dependent on design of utility rate structure



Currently tax payments are deductible, under a utility they would not be

- 19 of 21 Virginia Municipal Stormwater Association Jurisdictions (VAMSA) have created stormwater utilities
- Only Fairfax and Arlington County are districts
- Implementation estimated to take 18 – 24 months
- Alexandria launched their Stormwater Utility in January 2018 – approximately 3 years start to implementation



# Flood Sensors

## Pilot Program

- 2 transportation sensors for motorists in public ROWs
- Education for homeowners on availability of in home sensors

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- **Total General Fund Budget: \$129,000**  
(\$20k ongoing, \$109k one-time)



# Summary of Proposed Budget Changes

	FY 2020 Adopted	FY 2021 Proposed	Change	% Change
<b>Expenses</b>	\$11,211,095	\$12,026,019	+\$814,924	+7.0%
<b>Revenue</b>	\$11,211,095	\$12,026,019	+\$814,924	+7.0%
<b>Staff</b>	44.0 FTEs	47.0 FTEs	3.0 FTEs	

- Operational expense increases for addition of:
  - 2.0 FTEs Stormwater Inspectors
  - 1.0 FTE Senior Program Manager
  - Utility feasibility study
  - Contractual increases
- Revenue increases are due to real estate assessments and projected fee/fine revenues





# Resiliency & Infrastructure - Core Services

## Stormwater Inspectors 2.0 FTEs

### Service Impacts

- Inspect both residential and commercial private sector construction sites that require a Land Disturbance Activity (LDA) permit
- Make progress towards achieving County's mandated MS4 permit inspection obligations for inspecting sites after significant rain events, and in frequency of regular site inspections

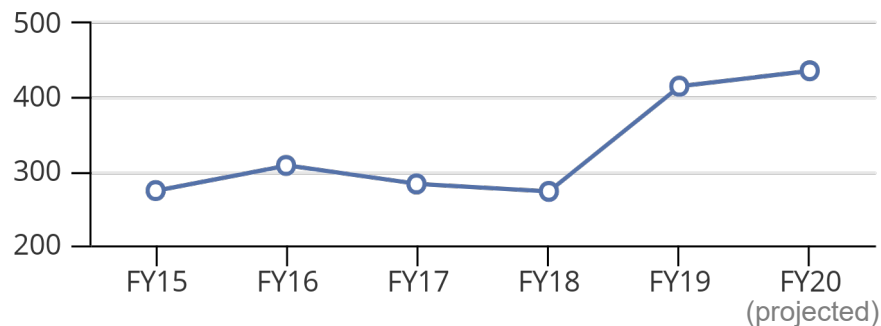
### Budget Impact

Change:	\$308k
Revenue:	\$305k
Net Tax Support:	\$3k

### Staff Impact

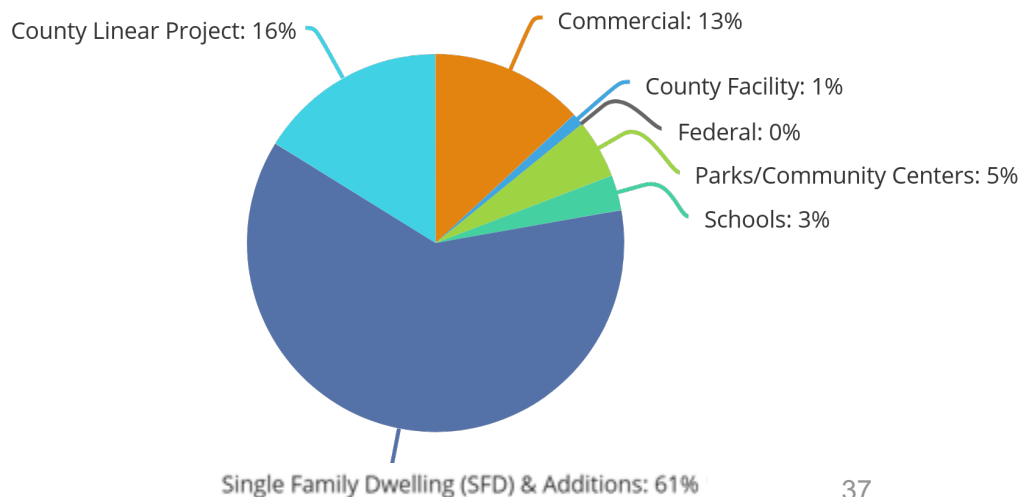
2.0 FTEs

### LDA Permits Issued



○ Permits Issued

### FY19 Permits by Facility Type



# Summary of Proposed Fee Changes

	FY 2020 Adopted	FY 2021 Proposed	Budget Impact
<b>Land Disturbing Activity (LDA): Single Family Additions &lt;2,500 square feet (sf) of Land Disturbance</b>	\$130.00	\$400.00	+\$109,080
<b>LDA: Single Family &gt;2,500 sf of Land Disturbance</b>	\$975.00	\$1,600.00	+\$196,250
<b>Development Services Inflationary 2.5% Fee Increase</b>	All Development Services Fees		+\$27,940



# Resiliency & Infrastructure - Core Services

## Senior Program Manager

### Service Impacts

- Oversee and manage maintenance capital and capacity/infrastructure CIP programs
- Supervise project managers through all phases of project study, development, design and construction of infrastructure and capacity CIP projects
- Support and co-implement County's Stormwater Risk Assessment and Management Program (RAMP)

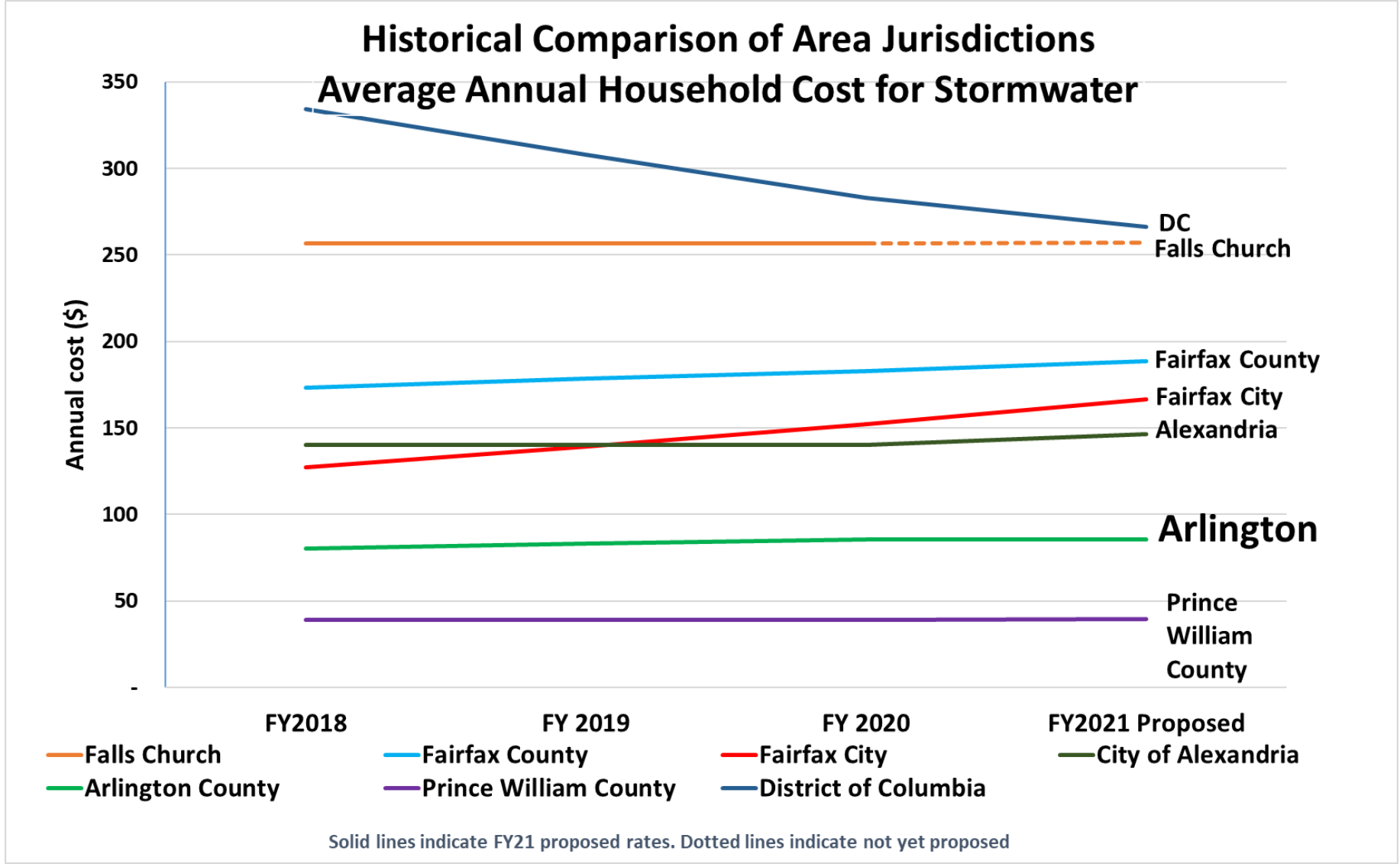
### Budget Impact

Change:	\$209k
Revenue:	--
Net Tax	\$209k
Support:	

### Staff Impact

1.0 FTE

# Regional Stormwater Comparison



# Public Engagement Opportunities

Flood  
Resilient  
Arlington  
Engagement

*Spring 2020*



**March 26 Stormwater  
Open House**  
Opportunity for public to  
review working group  
recommendations &  
provide feedback



**Late March Online  
Engagement**  
Open House materials  
will be available online  
for people to comment &  
provide feedback

Feedback from  
both processes  
will inform CIP

Overall CIP  
Engagement

**CIP Leaders Forum –  
March 19**  
Community leaders &  
advocates representing  
diverse interests on CIP

**CIP Online  
Engagement – Open**  
Feb. to late April

**Proposed CIP  
released in May  
2020**  
June Public Hearing

**CIP adoption in July;**  
followed by ongoing  
implementation

# Department of Environmental Services

FY 2021 PROPOSED BUDGET HIGHLIGHTS

**County Board Work Session**

March 5, 2020

