

Streetlight Management Plan Advisory Panel Meeting

January 4, 2017

- Introduction
- Advisory Panel Role
- Streetlight Management Plan and the Development Process
- Arlington's LED Streetlight Program
- Panel Feedback and Q&A
- Next Steps



- **Advisory Panel Role**
 - Represent guiding principles
 - Add perspective for each principle
- **Areas for Panel Input**
 - Review and discuss staff findings
 - Review and discuss staff recommendations
 - Field Demonstration



- The SMP is a long-term guide for the County to:
 - Define lighting standards
 - Develop maintenance plan
 - Enhance appearance / streetscape
 - Research new technologies

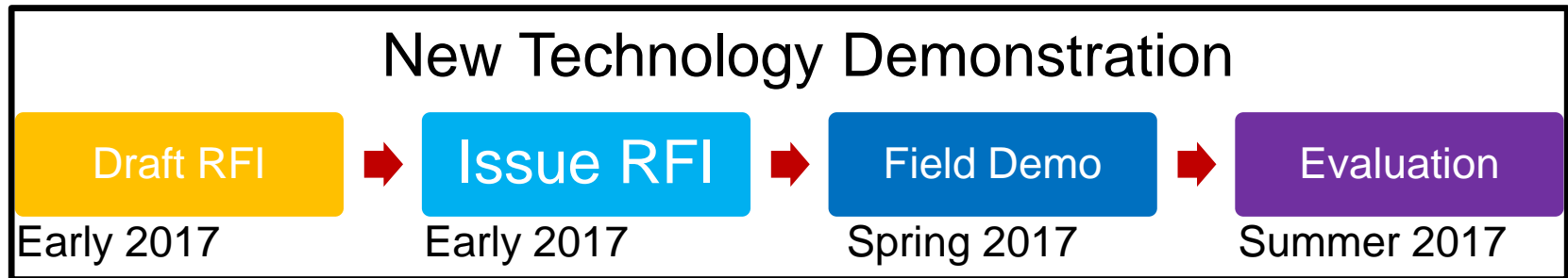


- The SMP is a long-term guide for the County to:
 - Define lighting standards
 - Define corridors/districts
 - Develop maintenance plan
 - Define service expectations
 - Maintenance priorities
 - Enhance appearance / streetscape
 - Field demo
 - Research new technologies
 - Information sharing



SMP Development Process

Milestone	Dates
First Stakeholders Advisory Committee Meeting	January 4, 2017
Preparation of GIS maps showing lighting levels for key corridors	Winter 2017
Shortlisting of new technology	Winter through Spring, 2017
Testing new technology	Summer 2017
Executive summary with data support to CMO	Late Summer 2017



- **Enhancing public safety and improving accessibility is Arlington County's No. 1 priority.**
 - Implementing innovative streetlight technology with maintainable infrastructure to promote a safe and sustainable community.
 - Focusing on providing safety and accessibility within the streets network by balancing the priorities and needs of all users.
 - Constantly evaluate and improve our streetlight technology to reduce environmental impact and ensure that it meets national guidelines and industry standards.



- **Past: Limited financial resources**

- Unable to respond to major repairs
- High volume of complaints
- Pull funds from other programs

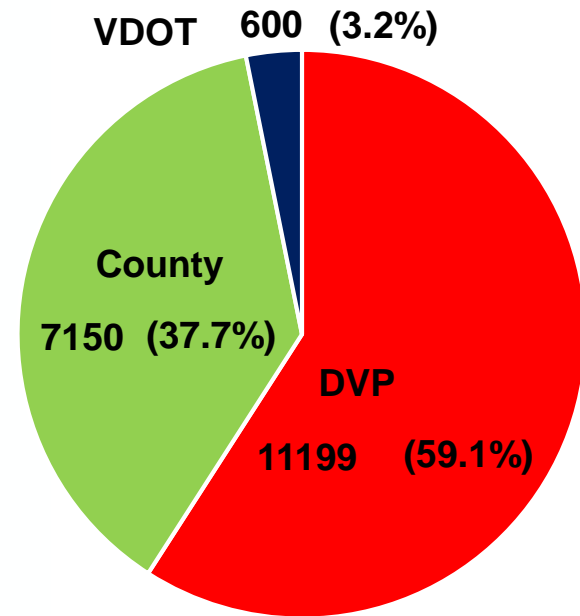
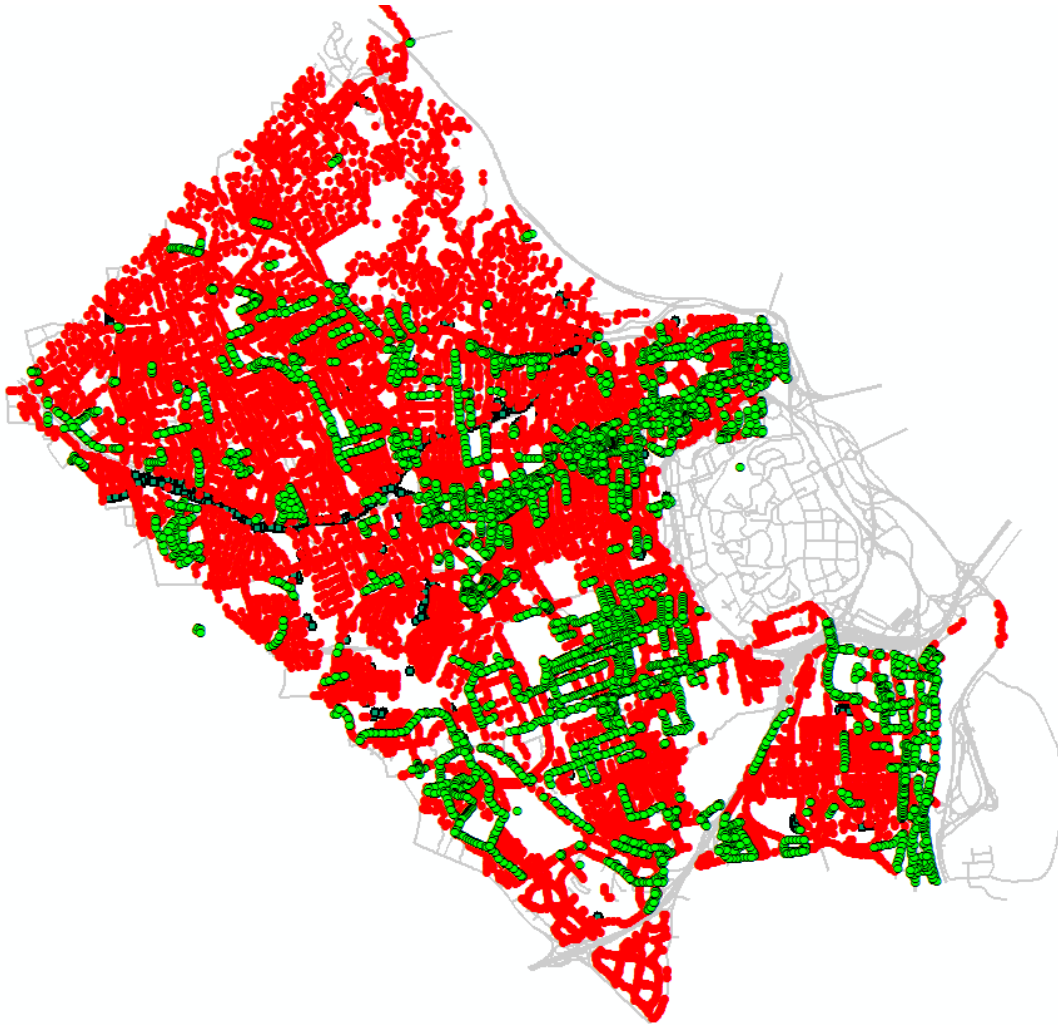
- **Present: Staffing**

- No dedicated field technicians
- Shared with signal program
- One engineer
- One construction manager
- Contractor services available



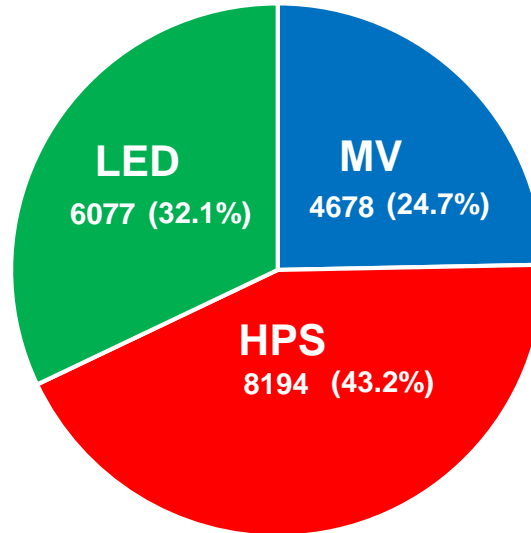
Streetlight Ownership: Mixed

Total streetlights ~ 19,000



Streetlight Lighting Technology: Mixed

**Technology Mix
(with DVP/County/VDOT)**

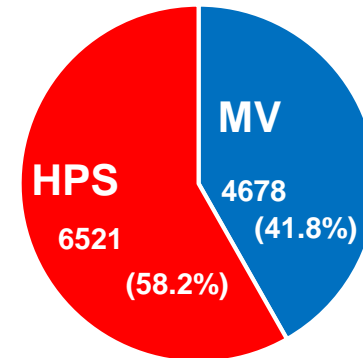


MV - Mercury vapor (1960s)

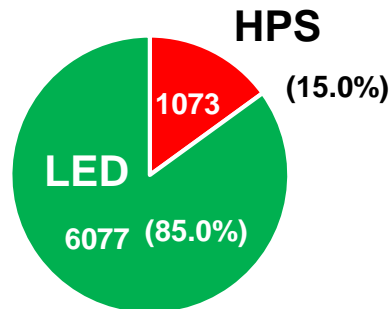
HPS - High-pressure sodium vapor (1970s)

LED - Light emitting diode (Mid- 2000s)

DVP Only

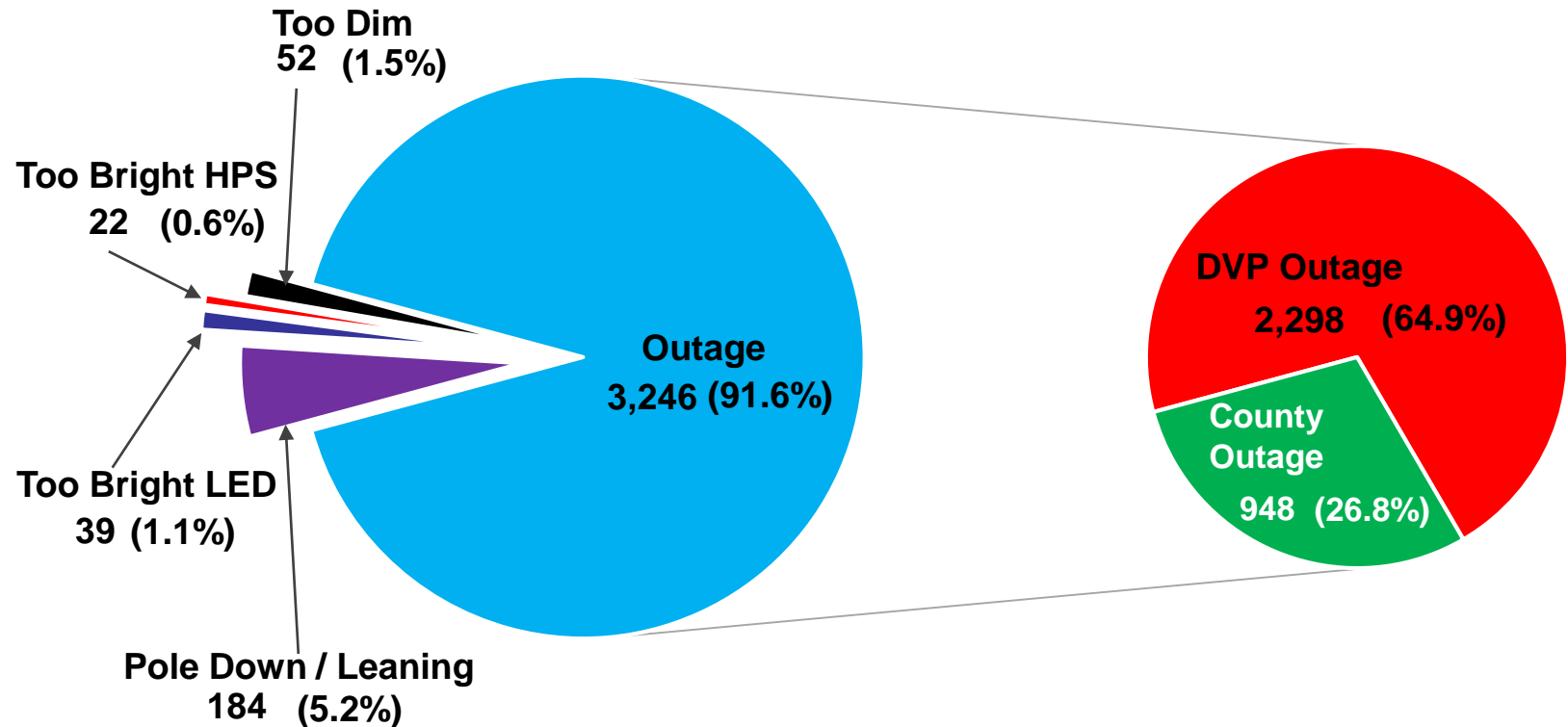


County Only



Breakdown of Complaints

Data: 3 years (2013 – 2016)



Main Takeaway: Almost 97% of the complaints are related to outage or pole issues

1. Define the vision

- Guiding principles
- Balancing competing priorities
- Benefits of smart streetlight systems
- Leaders in technology

2. Fix it first: keep the lights on

- Past challenges, present success

3. Understand and manage assets

- Streetlight ownership
- Strengths and weaknesses
- Needs assessment

4. Achieve the vision

- Develop implementation plan
- Prioritize needs
- Quantify funding needs



What is the Vision?

Implement lasting and innovative streetlight technology with maintainable infrastructure in Arlington to promote a safe and sustainable community.



Guiding Principles

Safe

- Enhance public safety
- Improve accessibility

Sustainable

- Reduce energy consumption and carbon footprint
- Minimize uplift

Compatible

- Improve community environment via streetscape

Smart

- Improve technology to meet County goals

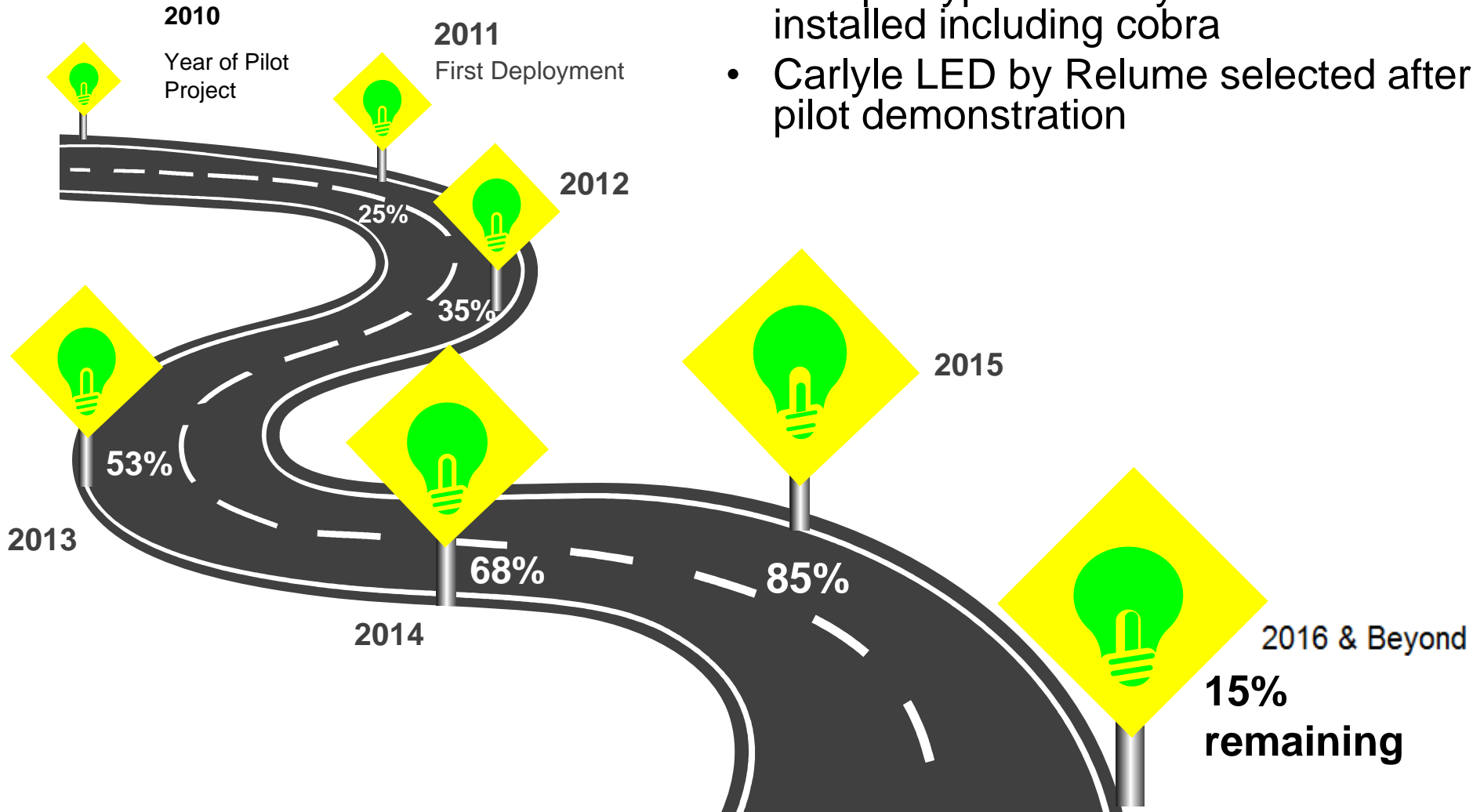
Maintainable

- Reduce maintenance needs and improve reliability
- Limit inventory space needs

Cost Effective

- Minimize operating and lifecycle costs

Smart Streetlight System: A Timeline



- Multiple types and style of LEDs installed including cobra
- Carlyle LED by Relume selected after pilot demonstration

SMART STREETLIGHT SYSTEMS

BENEFITS

SMART

Convert conventional street lighting system to intelligent energy efficient LED lighting system

SUSTAINABLE

Remote wireless control capability allow dimming of LED streetlights late at night - saving energy (up to 80%)

COST EFFECTIVE

Pay back of investment in less than 6 years

MAINTAINABLE

Life of light is 17+ years (compared to HPS 3 year life)





100%





50%





25%



- DVP
- Independent streetlight projects in Residential areas



- Other data/info sources
- **Q&A**

Next Steps

Meeting	Date	Homework
Kick Off	January 4, 2017	
Technology Scan: Review & Discussion	Schedule Tonight	- Kimley-Horn Report - Other Data Sources
Field Meeting in Spring <ul style="list-style-type: none"> • Pentagon City • G. Mason/ Henderson • Lee Hwy/Col Pike/ Old Dom. 	TBD	
Draft Recommendations	TBD	

- The SMP is a long-term guide for the County to:
 - Define lighting standards
 - Define corridors/districts
 - Develop maintenance plan
 - Define service expectations
 - Maintenance priorities
 - Enhance appearance / streetscape
 - Field demo
 - Research new technologies
 - Information sharing

