

Fairfax County, Virginia



LINES OF BUSINESS *January 2016*

STORMWATER SERVICES

County Lines of Business (LOBs)
Presentation to the Board of Supervisors



www.fairfaxcounty.gov/budget/2016-lines-of-business.htm



OUTLINE OF TODAY'S PRESENTATION

1. Department Overview
2. High level view of our Lines of Business (LOBS)
3. How our LOBs relate to the County Vision Elements
4. Metrics
5. Trends and Challenges
6. Looking Forward
7. Discussion

Note: See www.fairfaxcounty.gov/budget/2016-lines-of-business.htm to access all LOBs documents and presentations.



DEPARTMENT OVERVIEW

- Department of Public Works and Environmental Services –
- Stormwater Service District Fund – Non-General Fund
- Stormwater Planning –
 - Monitoring,
 - Municipal Separate Storm Sewer System Permit (MS4),
 - Flood Plains,
 - Project Design,
 - Planning
- Urban Forestry –
 - Urban Forest Management
 - Forest Pest Management, LOB 292
 - Hazardous Trees,
 - Development Review
- Maintenance and Stormwater Management –
 - Operation and Maintenance of
 - STW Management Facilities,
 - STW Conveyance System,
 - Transportation Infrastructure;
 - Emergency response such as snow; and
 - Response to “Directives” from Code Enforcement.



LOBS SUMMARY TABLE

LOB #	LOB Title	FY 2016 Adopted	
		Disbursements	Positions
364	Stormwater Regulatory Program	\$6,000,000	0
365	Northern Virginia Soil and Water Conservation District Contributory Program	485,064	0
366	Occoquan Monitoring Contributory Program	115,611	0
367	Stormwater Allocations to Towns	371,247	0
368	Stream and Water Quality Improvement Projects	15,239,937	0
369	Emergency and Flood Response Projects	1,000,000	0
370	Dam Safety and Facility Rehabilitation Projects	6,500,000	0
371	Conveyance System Rehabilitation Projects	6,000,000	0
372	Flood Prevention-Huntington Area Bond Projects	0	0
373	Operating Support Program - Capital Improvement Program	7,525,464	64
374	Operating Support Program - Regulatory / Monitoring Program	4,115,488	35
375	Operating Support Program - Operations Response Program	9,147,189	82
376	Emergency Response / Snow Removal	1,300,000	0
377	Street Name Signs	240,000	0
378	Trails and Walkways Maintenance	360,000	0
379	Park and Ride Maintenance	1,031,894	0
380	Directives	100,000	0
381	Roads and Service Drives Maintenance	0	0
382	Bus Shelters Maintenance	18,992	0
383	Commercial Revitalization Districts	0	0
Total		\$59,550,886	181



DEPARTMENT RESOURCES

Category	FY 2014 Actual	FY 2015 Actual	FY 2016 Adopted
FUNDING			
<u>Expenditures:</u>			
Compensation	\$11,402,210	\$11,803,427	\$12,873,231
Benefits	4,871,278	4,981,288	5,966,227
Operating Expenses	6,179,978	5,511,118	5,603,411
Work Performed for Others	(2,468,764)	(2,279,012)	(2,486,972)
Capital Equipment	135,526	275,147	758,130
Capital Projects	32,601,462	31,616,252	35,711,859
Total Expenditures	\$52,721,690	\$51,908,220	\$58,425,886
General Fund Expenditures	\$4,091,347	\$2,998,842	\$3,050,886
<u>Transfers Out:</u>			
Transfer Out to General Fund	\$1,000,000	\$1,000,000	\$1,125,000
Total Transfers Out	\$1,000,000	\$1,000,000	\$1,125,000
<u>Revenues:</u>			
Stormwater Services Revenue	\$42,391,546	\$53,534,680	\$56,500,000
Total Revenue	\$42,391,546	\$53,534,680	\$56,500,000
General Fund Revenue	\$0	\$0	\$0
POSITIONS			
Authorized Positions/Full-Time Equivalents (FTEs)			
<u>Positions:</u>			
Regular	174 / 174	180 / 180	181 / 181
Total Positions	174 / 174	180 / 180	181 / 181



LOBS AT A GLANCE

#361 Stormwater Regulatory Program	#362 Northern Virginia Soil and Water Conservation District Contributory Program	#363 Occoquan Monitoring Contributory Program	#364 Stormwater Allocations to Towns
#365 Stream and Water Quality Improvement Projects	#366 Emergency and Flood Response Projects	#367 Dam Safety and Facility Rehabilitation Projects	#368 Conveyance System Rehabilitation Projects
#369 Flood Prevention- Huntington Area Bond Projects	#370 Operating Support Program - Capital Improvement Program	#371 Operating Support Program - Regulatory / Monitoring Program	#372 Operating Support Program - Operations Response Program
#373 Emergency Response / Snow Removal	#374 Street Name Signs	#375 Trails and Walkways Maintenance	#376 Park and Ride Maintenance
#377 Directives	#378 Roads and Service Drives Maintenance	#379 Bus Shelters Maintenance	#380 Commercial Revitalization Districts



LINES OF BUSINESS SUMMARY

Chesapeake Bay TMDL (Total Maximum Daily Load)

- Phosphorus,
- Nitrogen
- Sediment

MS4 Permit (Municipal Separate Storm Sewer System)

- Inspection,
- Maintenance,
- Retrofit,
- Training
- Administration

Local TMDLs

- Planning
- Retrofitting,
- Plan Implementation

Infrastructure

- Inspection & Reinvestment

Dam Safety





LOB 361 - STORMWATER REGULATORY PROGRAM

FY16=\$6.0M

FULLY FUNDED = \$7.0M

MS4 Permit

- Mapping
- Facility Inspections
- Industrial and High Risk Program
- Data Collection and Reporting
- Monitoring
- Outreach
- TMDL Action Plans

Dams - State Regulations

- Annual inspections of state-regulated dams- 19 DPWES
- Emergency Action Plans Required (19)
 - Updated annually
 - Annual EAP drills or exercises
 - A new EAP for each dam prepared every six years
 - Required flood monitoring for each dam

FEMA Flood Insurance Program

- Community Rating System
- Mapping
- Outreach
- Audits
- Up-Dates



Crestleigh Way Outfall





LOB 365 - STREAM AND WATER QUALITY IMPROVEMENTS

FY16= \$15.2M FULLY FUNDED= \$36.5M

Stream Restorations

- Physical Improvement
- Improved Habitat
- Meet Bay and Sediment TMDLs

Ponds Retrofits

- Water Quality Improvement
- Protect Streams
- Meet Regulatory Requirements

LID Techniques

- Reduce Runoff
- Improve water Quality
- Meet Regulatory Requirements

Estimate - \$36.5M

- Watershed Plans
- Bay TMDL



Dead Run Dranesville





LOB 366 - EMERGENCY AND FLOOD RESPONSE PROJECTS FY16= \$1.0M FULLY FUNDED = \$1.0M

Mitigate Structure Flooding where County
Determined Liable

Repeat Flooding due to Undersized Conveyance
System



Brookview Drive - Lee



LOB 367 - DAM SAFETY AND FACILITY REHABILITATION FY16=6.5M FULLY FUNDED = \$16.6M

Stormwater Management Facilities

- 1,857 County Maintained – Current Value \$500M
- 4,100 Privately Maintained

PL-566 Dams

- Spillway Upgrades - Completed
- Dredging
 - Barton Complete
 - Huntsman complete
 - Woodglen Complete
 - Royal ready to Bid

Estimate

- \$500M/30yr life = \$16.6M/yr.



Royal Lake Dredging



LOB – 368 CONVEYANCE SYSTEM REHABILITATION

FY16=\$6.0M FULLY FUNDED = \$10.0M

Conveyance System

- 1,400 miles pipe and paved channel
- 60,000 structures
- >\$1B value

Estimating Assumptions

- 100 year life
- 1% reinvested annually
- \$10M/yr.



Queenston St. Springfield, Accotink Creek





LOBS - 362, 363, 364, 370, 371, 372, STORMWATER

Stormwater Contributories:

- Northern Virginia Soil and Water District = \$485,064
- Occoquan Laboratory = \$115,611
- FY16 Towns = \$371,247

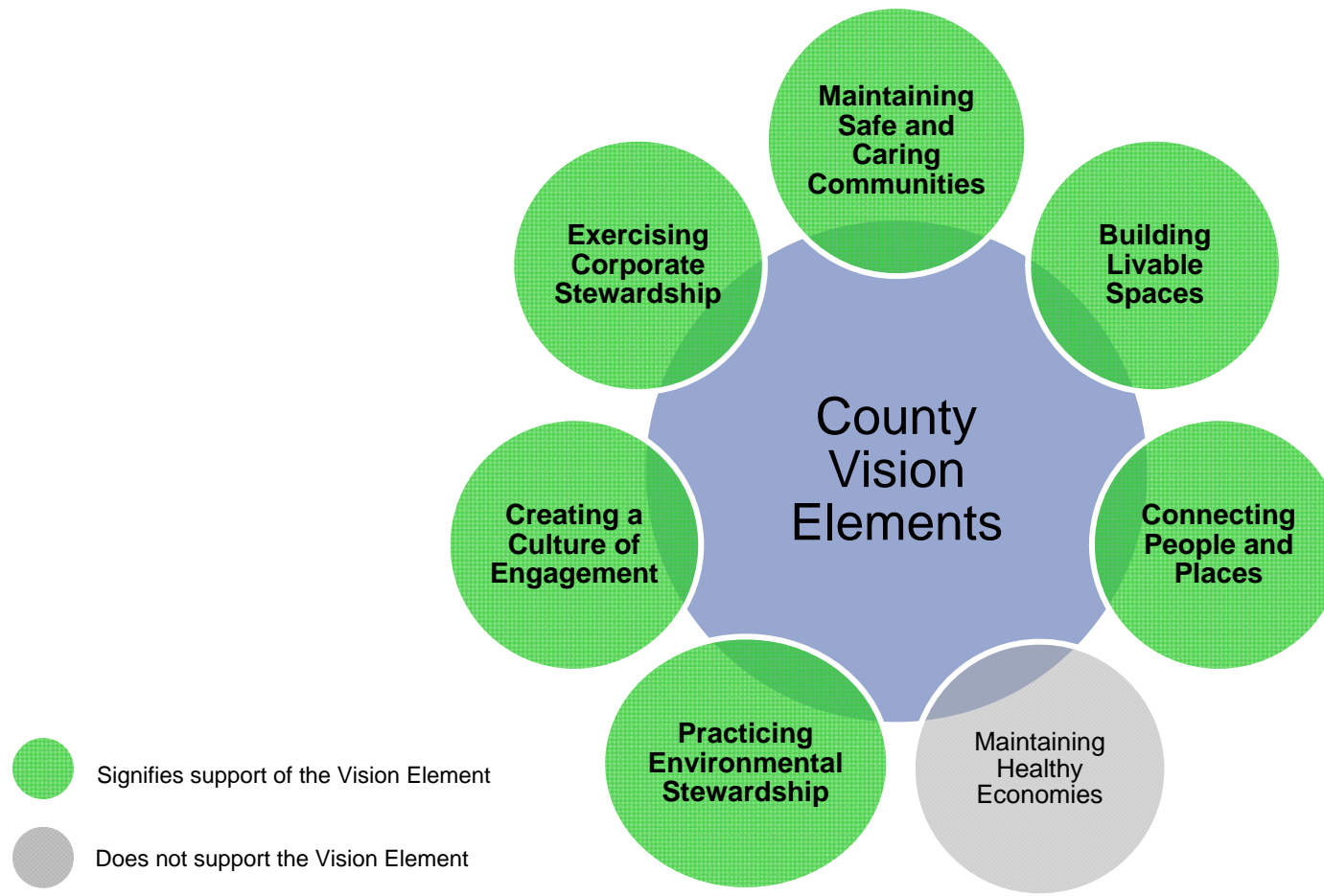
Operations: FY16=\$20.7M FY21= \$28M

- Includes Staff, Vehicles, Materials
 - Stormwater Reimbursed for non Stormwater activities- Snow, Trails, Etc.
- Funds Routine Facility and Conveyance System Maintenance
 - Litter Collection/Grass Cutting/Pipe Cleaning/ Catch Basin Cleaning/Small Repairs
 - Stormwater Emergency Responses/Trouble Call Investigations
- Funds Administration, IT, and other Support Functions



COUNTY VISION ELEMENTS

- The purpose of the LOBs process and the validation process performed by staff and management is to array the relevance of all LOBs according to the County's Vision Elements. This agency's LOBs support:





METRICS

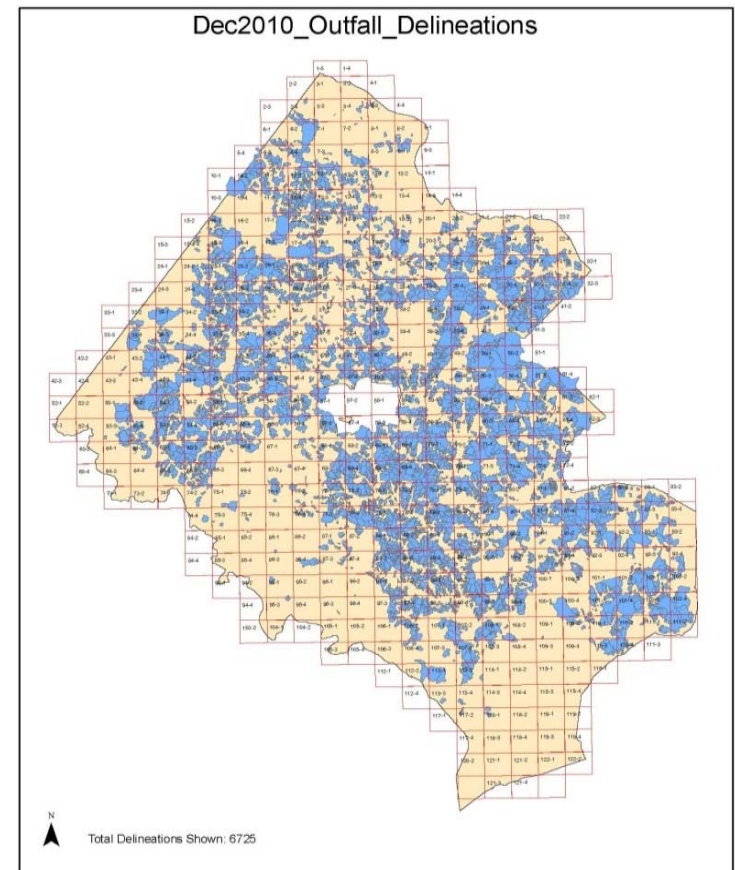
LOB 365 & LOB 367 CHESAPEAKE BAY TMDL

MS4 Permit Holders Must Achieve Reductions:

- 5% in First 5 Years
 - Regulated Area = \$6.6M/yr.
- 35% in Second 5 Years
 - Regulated Area = \$46M/yr.
- 60% in Third 5 Years
 - Regulated Area = \$79M/yr.

15 yr. Estimated Construction cost

- Regulated Area.
 - Total Cost \$660M
 - Annual average \$44M/yr.
- Total County Stormwater.
 - Total \$1,500M
 - Annual average \$100M/yr



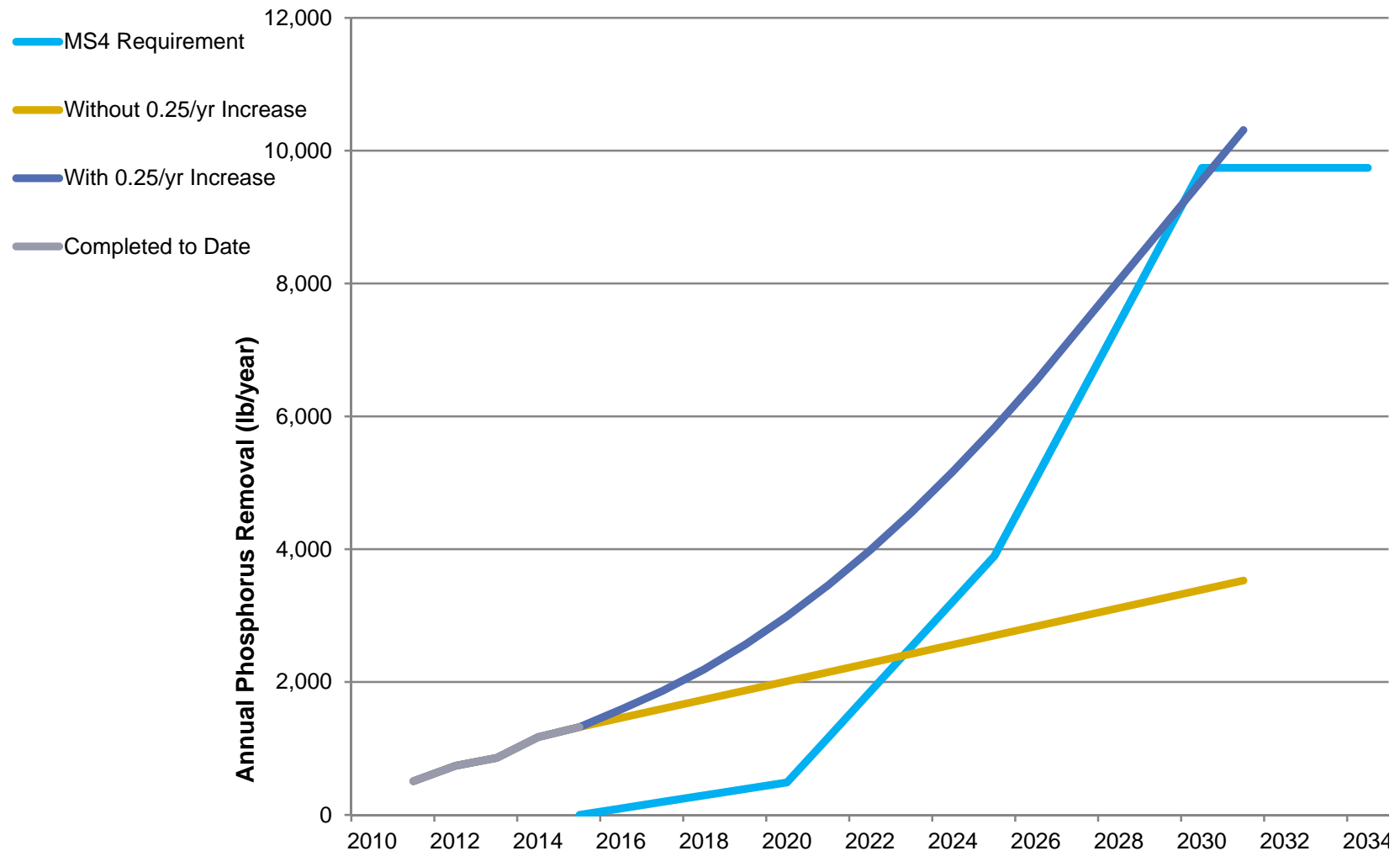


5 Year Stormwater Program

Project Title/ Tax Rate	Adopted FY 2015	Adopted FY2016	FY 17	FY 18	FY 19	FY 20	FY 2021	Full Program
	0.0225	0.0250	0.0275	0.0300	0.0325	0.0350	0.0375	.04-.05
STORMWATER MANAGEMENT								
Stormwater Regulatory Program /	5,500	6,000	6,500	6,500	7,000	7,000	7,000	7,000
Emergency and Flood Response Projects /	900	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Dam Safety and Facility Rehabilitation /	4,500	6,500	7,000	7,500	8,000	8,500	9,000	16,600
Conveyance System Rehabilitation /	5,000	6,000	6,500	7,000	7,500	8,000	8,500	10,000
Stream and Water Quality Improvements /	13,093	15,240	19,000	22,000	24,500	27,500	30,500	36,500
Stormwater Contributories /	597	601	650	1,000	1,000	1,000	1,000	1,000
Contribution to towns		371	410	450	490	530	570	700
Operations	19,233	20788	20,090	22,350	23,960	25,900	27180	29,352
Total	49,185	56,500	62,150	67,800	73,450	79,430	84,750	102,125

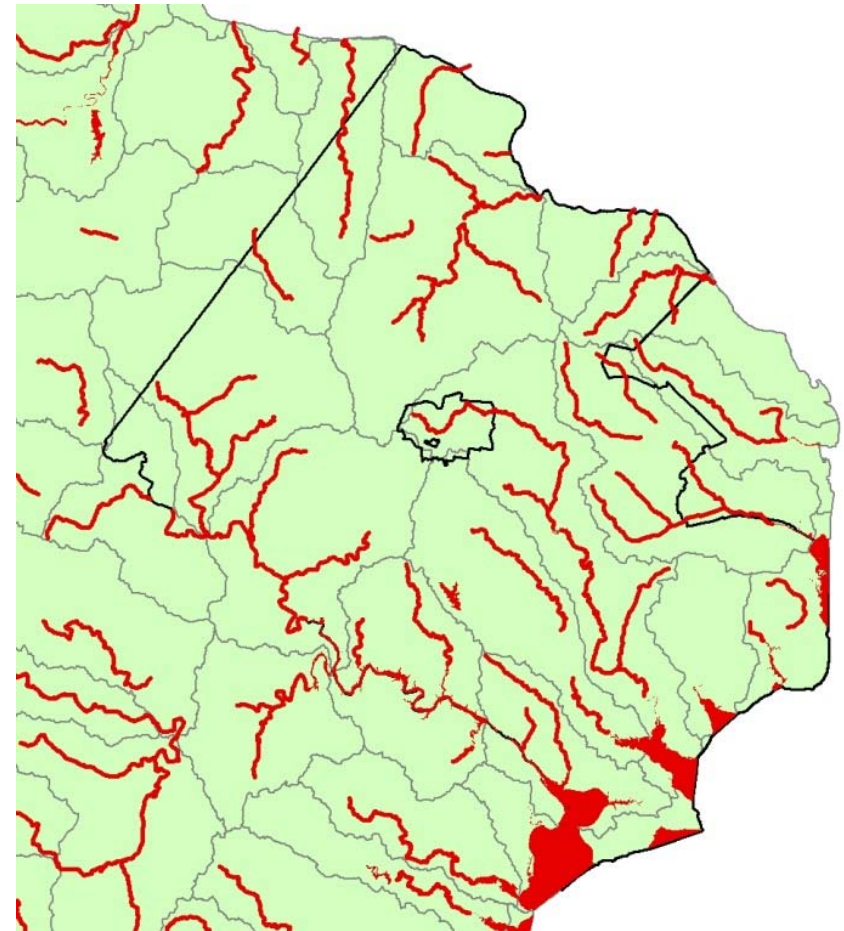


METRICS – MEETING THE BAY TMDL



STORMWATER TRENDS & CHALLENGES

- Bay TMDL –Nutrients and Sediment – 2017 Update?
- Local TMDLs – Currently 84 impairments
 - Stream erosion – Flow and energy
 - Lack of benthic population
 - Bacteria
- Competing Priorities
- Strong partnerships
 - Schools
 - In the Classroom
 - Facilities
 - Parks
 - Streams
 - Turf Fields
 - CAP Facilities
- Community Understanding
 - Growing Project Support
 - Changing Habits



Impaired Stream Segments



LOOKING FORWARD

- MS4 Implementation
- Rapidly Evolving Industry
- Bay Model Update
- Five Year CIP is a Strength
 - Program Includes Reinvestment
- Strong partnerships
 - Schools
 - In the Classroom
 - Facilities
 - Parks
 - Streams
 - Turf Fields
 - CAP Facilities
- Stormwater Utility is an Opportunity





DISCUSSION



Before and After Tysons Stream Restoration

