




# M-NCPPC

## **Energy Management Recycling & Solid Waste Management Sustainability Plan**

Energy Resource Conservation Plan  
Annual Recycling & Solid Waste Report  
Sustainability Plan





# Energy Management

## **Resource Conservation Plan**

County Council Transportation, Infrastructure, Energy, and  
Environment Committee

# Results Fiscal Year 2016

July 2015 to June 2016

Department	FY 2016 Costs	Budget FY 2016	Difference
ENTERPRISE	\$941,966.49	\$1,162,200	\$220,234
DEPARTMENT OF PLANNING	\$179,329.79	\$224,000	\$44,670
PROPERTY MANAGEMENT	\$8,351.90	\$0	-\$8,352
DEPARTMENT OF PARKS	\$1,938,485.00	\$2,108,345	\$169,860
<b>TOTALS</b>	<b>\$3,068,133.18</b>	<b>\$3,494,545</b>	<b>\$426,412</b>



# Accomplishments in 2016

- ❖ **North Chevy Chase Recreational Center** - Upgraded air conditioning system to high efficiency 18 SEER with 95% efficiency gas furnace
- ❖ **Wheaton Maintenance Yard Offices** – Upgraded air conditioning system to high efficiency 18 SEER with 95% efficiency gas furnace
- ❖ **Clarksburg Neighborhood Park** – Upgraded air conditioning system to a high efficiency 18 SEER system including an air handler with variable speed fan system
- ❖ **Water Heater Replacements** – Installation of energy saver heaters
- ❖ **Exterior Lighting** – Parking Lots Lighting replacement with LED Fixtures at 21 locations

# Tilden Woods Local Park

- Exterior Parking Lot Lighting replacements with LED fixtures



# Cost to Date – Fiscal Year 2017

July 2016 to December 2016

<b>Department</b>	<b>Cost update as of December 31, 2016</b>	<b>Projection</b>	<b><u>Budget FY 2017</u></b>	<b>Difference</b>
<b>ENTERPRISE</b>	\$503,244.59	\$1,080,000.00	\$1,170,600	\$90,600
<b>PLANNING DEPARTMENT</b>	\$86,596.95	\$197,000.00	\$213,480	\$16,480
<b>PROPERTY MANAGEMENT</b>	\$3,104.24	\$6,200.00	\$5,690	-\$510
<b>PARKS DEPARTMENT</b>	\$968,630.89	\$1,990,000.00	\$2,108,345	\$118,345
<b>TOTALS</b>	\$1,561,576.67	\$3,273,200.00	\$3,498,115	\$224,915

# Projects Underway in 2017

- Agricultural History Farm Park – Activity Building – Replaced 32 perimeter through the wall air conditioners with Goodman through the wall heat pumps with a high efficiency SEER rating of 11
- Brookside Gardens Conservatory - Replaced the existing Fulton boilers with four Laars Might Therms boilers creating a load redundancy
- Rockwood Skyview Building – Upgraded the air conditioning system to a high efficiency 18 SEER system with a 95% efficiency gas furnace
- Tilden Woods – Upgraded the toilets to low consumption toilets and installed Bradley AV30 hygienic hands free combination .38 GPM faucet, soap dispenser and hand dryer
- Exterior Parking Lot Lighting Replacements with LED fixtures
  - Capital View Homewood
  - Indian Springs
  - Sligo – Dennis
  - Pilgrim Hill Local Park
  - Valley Mill Special Park
  - Olney Family Neighborhood Park
  - Stoneybrook Local

# Agricultural History Farm Park

- Activity Building - Replaced 32 perimeter through the wall air conditioners with Goodman through the wall heat pumps with high efficiency SEER rating of 11





# Brookside Gardens Conservatory

- Replaced the existing Fulton boilers with four Laars Might Therm boilers, creating load redundancy



# Tilden Woods Local Park

- Installed Bradley AV30 hygienic hands free combination .38GPM faucet, soap dispenser and hand dryer



# Goals for Fiscal Year 2018

- Complete the implementation of solar renewable energy projects by December 31, 2017
- Complete the exterior lighting retrofit program to use LED technology
- Identify Gray Water re-use pilot projects for irrigation
- Institute pilot program to collect rain water to use for irrigation
- Identify & implement small scale solar applications
- Conduct a comprehensive audit of the utility bills being tracked by E-CAP to validate data entered and reported for primary locations

## Selected Solar Photovoltaic System Sites

South Germantown Recreation Park



Rock Creek Regional Park



# Proposed Budget – Fiscal Year 2018

July 2017 – June 2018

DEPARTMENT	Proposed Budget 2018
ENTERPRISE	\$978,750
DEPARTMENT OF PLANNING	\$200,300
PROPERTY MANAGEMENT	\$9,700
DEPARTMENT OF PARKS	\$2,155,400
<b>TOTALS</b>	<b>\$3,344,150</b>

**The Proposed budget for Fiscal Year 2018 assumes the following:**

- ✓ The Department of Planning will remain at the current location in Silver Spring in FY 2018
- ✓ Central Offices for the Department of Parks will remain at the current location at the Parkside Headquarters Building in FY 2018

# Recycling and Solid Waste Management

RECYCLE



## **Annual Recycling & Solid Waste Management Report**

Montgomery County Department of  
Environmental Protection

# Accomplishments in 2016

- ✓ Mandatory Recycling Rate at 55.8% for 2016 - County requirement is 50%
- ✓ Mandatory and Voluntary Recycling Rate is 67% in 2016
- ✓ Voluntary Material Recycling and Reuse Rate decreased in 2016
- ✓ Increase in volume of 30 yard waste disposal
- ✓ Developed Bi-lingual Signage for Exterior Recycling Locations
- ✓ Purchased Dedicated Recycling Pick-up and Disposal Trucks for Pickup of Exterior Recycling in Park Locations

# Cabin John Recreational Park

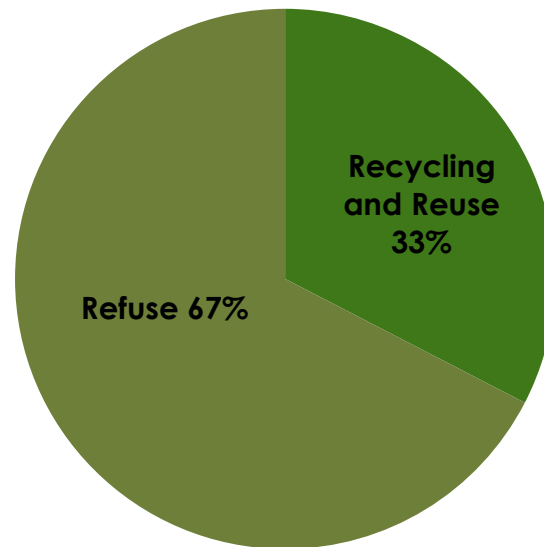
- Installation of pictorial bi-lingual recycling signs
- Pilot Site





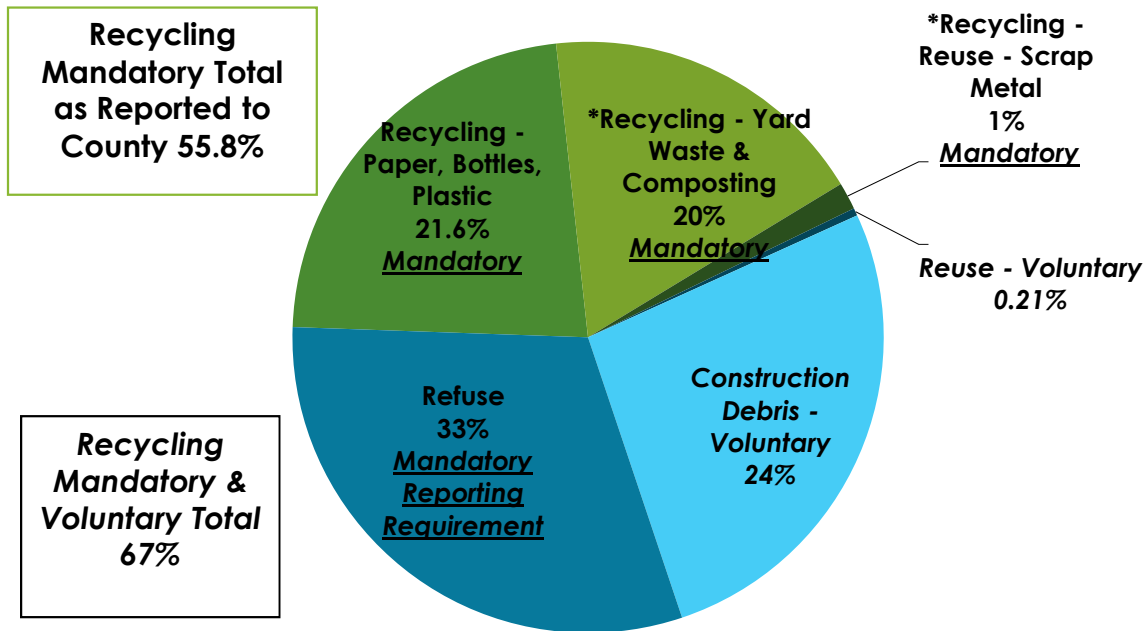
# Starting Point 2002

Prior to Establishment of a Comprehensive Program



# Results 2016

January 1, 2016 to December 31, 2016





# Volunteer Clean Up Days

- ❖ The Volunteer Services Office, seeks to advance the mission of Montgomery Parks by supporting Park staff in their efforts to facilitate volunteer partnerships that enhance the park system
- ❖ Volunteer Services Office serves as the primary hub for managing the large and complex volunteer contingent
- ❖ Volunteer clean-up includes removing items that have washed into the parks from other locations and is not generated by the people enjoying the parks
- ❖ Volunteers have donated more than 88,000 hours of volunteer service annually. Montgomery Parks is very fortunate to have such generous community support!

# Volunteer Clean Up



Stream Clean-up Project

Tires: 114  
Bags of Trash: 2,062  
Bags of Recycling: 651

Pounds Trash: 60,098  
Pounds Recycling: 16,275  
Pounds Tires: 2,508  
Total Pounds: 78,881

Projects: 165  
Number of Volunteers: 3,410  
Hour: 7,437

Data for First Six Months

# Sustainability Plan



Working for an environmentally sustainable future

**The Nature of Our Mission**

# Accomplishments

- Overall program goals have been maintained by the projects and best management practices underway in the Department of Planning and Department of Parks
- Leadership was transitioned to the Sustainability Coordinator appointed in the Fall of 2016
- The program Advisory Committee has provided leadership and guidance to the program committees & workgroups
- Program Committee Workgroups will be working on implementing the plan strategies
- Recycling Captains for locations with staff have been appointed to support new efforts to increase recycling rates
- Pilot projects to enhance recycling, energy management, and water conservation are in the planning process



# Workgroups

- ▶ Employee Education, Training, and Engagement
- ▶ Community and Patrons Education and Engagement
- ▶ Utility/Energy Conservation
- ▶ Fleet Management Conservation
- ▶ Water Conservation and Management
- ▶ Sustainable Acquisition and Use of Agency Supplies
- ▶ Recycling and Solid Waste Management
- ▶ Sustainable Infrastructure and Natural Areas
- ▶ Natural Resources and Habitat Preservation
- ▶ Health and Wellness



# Montgomery County Sustainability Bi Annual Plan

## July 2015 to June 2017

- ▶ The Bi-Annual Sustainability Plan for the Montgomery County Department of Parks and Department of Planning was completed and approved in July 2015.
- ▶ Plan review and update is scheduled every two years.
- ▶ Project and program goals in the Plan are underway based on the efforts of Department-wide workgroup recommendations.
- ▶ Report and Plan update will be submitted to the Commission Executive Committee in June 2017.





# Questions ?

**M-NCPPC**