

# M-NCPPC

## FY20 Resource Conservation Plan

## Annual Recycling Report (SORRT)

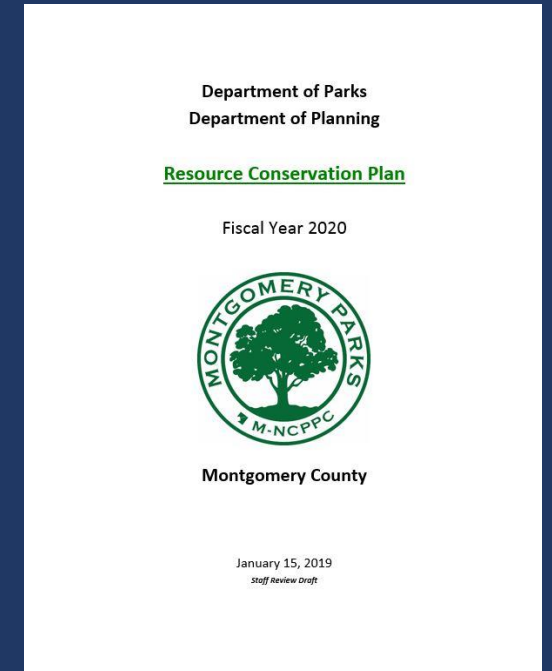
## Sustainability Program Briefing

Prepared By:



# Resource Conservation Plan

- Presented for approval to M-NCPPC Planning Board, the County Executive Committee, and County Council Transportation and Environment Committee
- Summarizes the programs and projects implemented to improve operations and maintenance practices to efficiently use electricity, natural gas, propane, and water to fulfill the mission of the Commission.



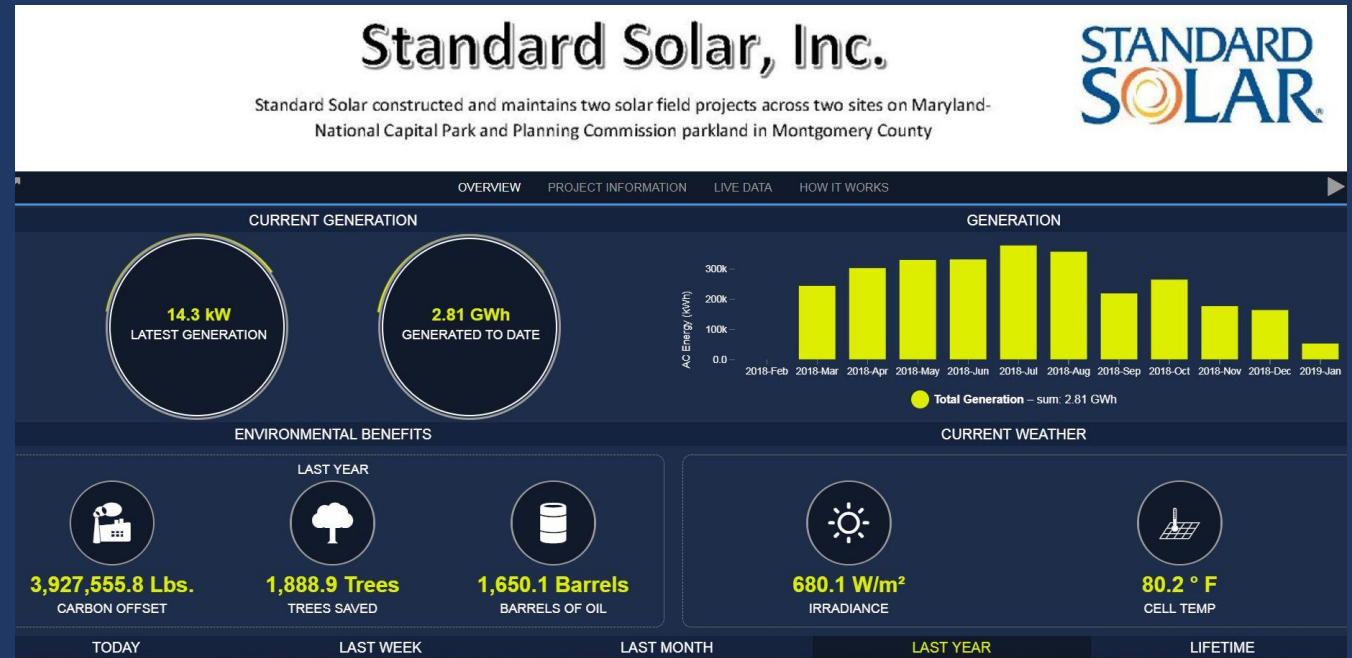
# Utility Budget/Costs: Results, FY18

	FY18 Cost	FY18 Budget	Difference
<b>Parks Department</b>	\$1,989,338	\$2,161,105	\$171,767
<b>Planning Department</b>	\$184,368	\$200,300	\$15,932
<b>Enterprise</b>	\$948,832	\$1,050,600	\$101,768
<b>Property Management</b>	\$29,957	\$12,000	(\$17,957)
<b>Bi-County</b>	\$71,996	\$99,968	\$27,972
<b>Total:</b>	<b>\$3,224,491</b>	<b>\$3,523,973</b>	<b>\$299,482</b>

FY18: July 2017 through June 2018

# Accomplishments in 2018: **Solar Fields POWER UP!**

## Solar Photovoltaic Systems – Construction and Turn On Completed



Activation of nearly 2.5 megawatts of ground-mounted solar arrays has been completed in South Germantown Recreational Park and Rock Creek Regional Park.



# Accomplishments in 2018: **Smaller-Scale Solar PV**



The Parks Department began investing in self-installation and maintenance of small-scale rooftop solar projects on parkland.

# Accomplishments in 2018

## Maughlin House:

- Replacement of the heating system with a new Navien Combi Boiler. This system heats via two hydro air coils and acts as a tankless water heater for domestic hot water.



## Woodlawn Helicopter Hanger:

- Replaced the existing HVAC system with two new high efficiency heat pumps; one 5 ton and one 3 ton capacity units both rated at 18 SEER.





# Accomplishments in 2018, cont'd

## Rock Creek Maintenance Facility:

- As part of the Maintenance Facility renovation, contractors installed a 1,700 gallon rainwater harvesting system to collect the roof water to be used for flushing toilets.

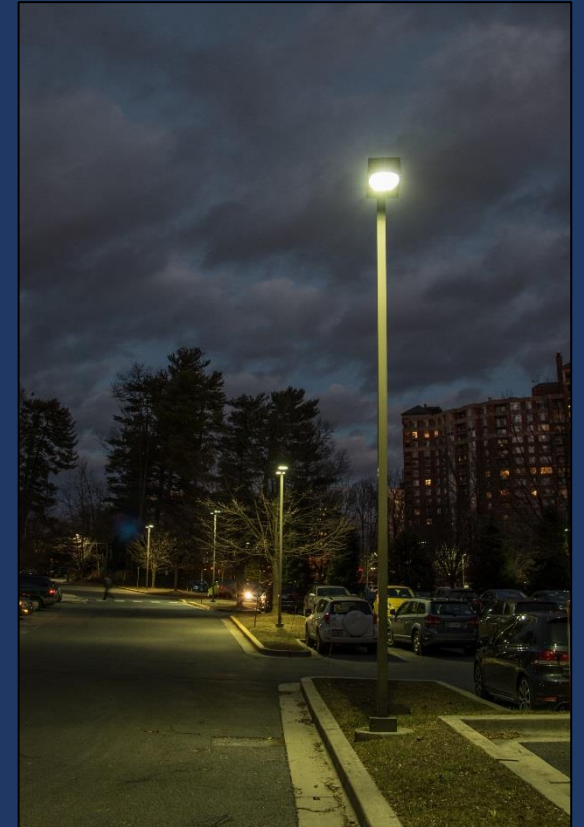


## Green Farm Maintenance Facility:

- Installed two 800 gallon cisterns to collect and store rooftop runoff to be used in a variety of park applications that require water.

## Exterior Lighting:

- 9 parking lot locations were upgraded with LED lights



# Utility Budget/Costs (to date): FY19

	FY19 Budget	Cost as of 1/8/2019	FY19 Annual Projection*	Difference (FY19 Budget – Projection)
<b>PARKS DEPARTMENT</b>	\$2,157,115	\$1,243,389	\$2,455,611	(\$298,496)
<b>PLANNING DEPARTMENT</b>	\$225,223	\$89,097	\$196,123	\$29,100
<b>ENTERPRISE</b>	\$1,082,200	\$425,903	\$936,548	\$145,652
<b>PROPERTY MANAGEMENT</b>	\$12,000	\$2,943	\$12,885	(\$885)
<b>BI-COUNTY</b>	\$99,968	\$35,266	\$80,096	\$19,872
<b>TOTAL:</b>	<b>\$3,576,506</b>	<b>\$1,796,598</b>	<b>\$3,681,263</b>	<b>(\$104,757)</b>

\*Projection includes \$300,000 weather contingency

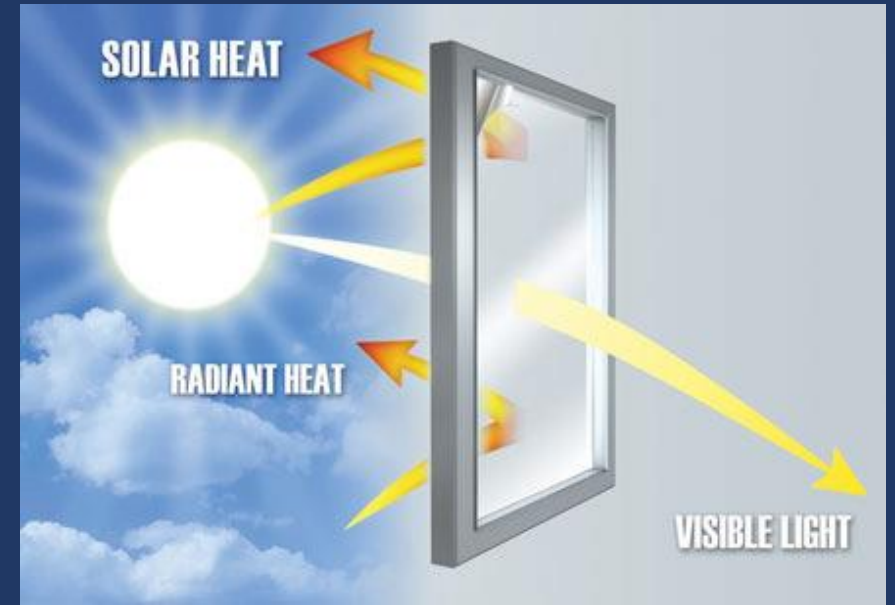
FY19: July 2018 through June 2019



# Projects Underway, FY19

## Brookside Visitors Center Atrium:

- Installing N-1050 solar control window tinting film on atrium upper window line to reduce solar heat gain in summer and radiant heat loss in winter.



## Black Hill Visitor Center:

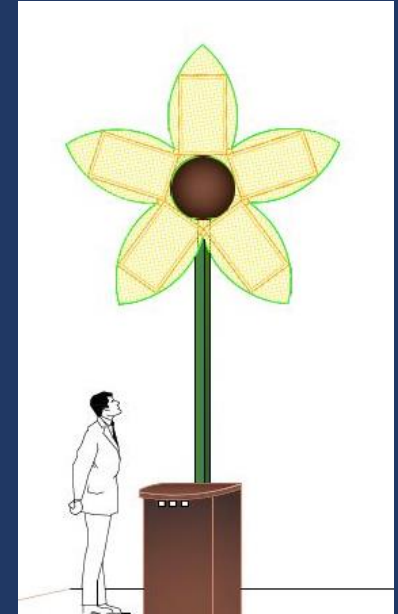
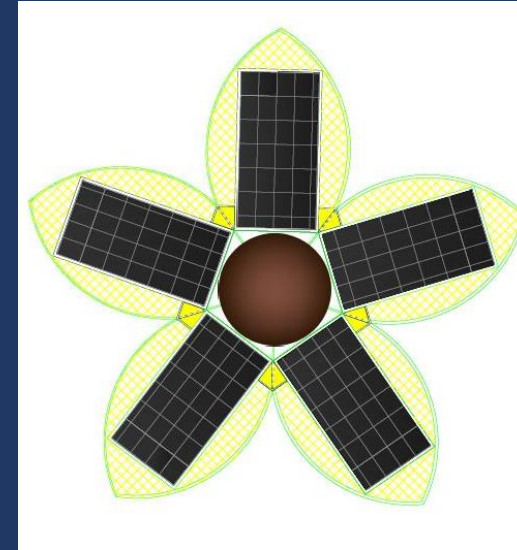
- Utilizing remote temperature monitoring abilities to determine if window treatment usage could control energy consumption vs. the installation of window tinting film.



# Projects Underway, FY19 cont'd

## Small Scale Solar Initiatives:

- In-house custom design and fabrication of Solar Tree Kiosk, currently under construction. Provides charging station capabilities, ADA access, offsets electric consumption.



## Energy (Utility) Audit:

- Conducting a comprehensive audit of all meters and utilities currently being tracked by EnergyCAP software.



# Goals for Fiscal Year 2020

## Energy Conservation/Efficiency:

- Continue making progress retrofitting exterior lighting to LED technology.



## Renewable Energy:

- Continue to identify and implement smaller-scale solar PV projects.



## Water Conservation/Efficiency:

- Implement appropriate opportunities for stormwater and/or graywater harvesting reuse projects.



## Energy (Utility) Audit – Action Item:

- Continue a comprehensive audit of meters and utilities currently being tracked by EnergyCAP software.



# Proposed Utility Budget, FY20

	Proposed FY20 Budget
<b>PARKS DEPARTMENT</b>	\$2,240,733
<b>PLANNING DEPARTMENT</b>	\$211,590
<b>ENTERPRISE</b>	\$922,000
<b>PROPERTY MANAGEMENT</b>	\$14,500
<b>BI-COUNTY</b>	\$91,605
<b>TOTAL:</b>	<b>\$3,480,428</b>

**The Proposed budget for FY20  
assumes the following:**

Department of Parks Headquarters  
(Parkside) and the Department of  
Planning (MRO) will move to the new  
Wheaton Headquarters Building

Note: The estimated utility budget has  
been prorated for both departments but  
is not included in the budget at this time

FY20: July 2019 through June 2020



# Recycling & Solid Waste Management

M-NCPPC Annual Recycling & Solid  
Waste Management Report to  
Montgomery County Division of Solid  
Waste Services



# Recycling & Solid Waste Management: Background

- Beginning in March 1993 Montgomery County established ER 109-92AM making business recycling mandatory
- In February 2005, ER 109-92AM added additional materials to be recycled, clarified roles and responsibilities of the businesses and added collector / hauler requirements
- Montgomery County established goal is to reduce waste and recycle 70% by 2020



# Recycling & Solid Waste Management

## Program Basics

- Interior recycling bins are strategically set up to be consistent and convenient, with clear messaging
- Over 500 staff have been trained on recycling and solid waste practices at M-NCPPC
- Improved signage in development for out in parks

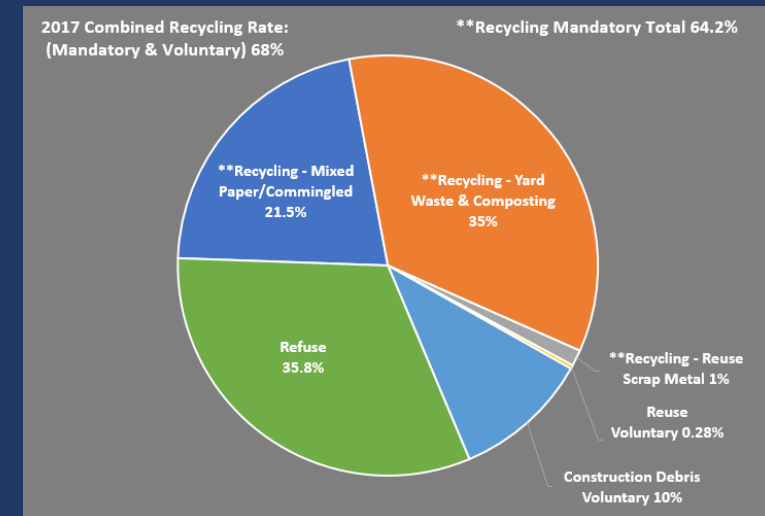
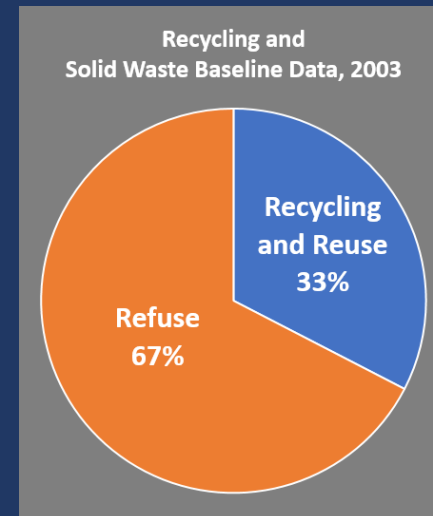
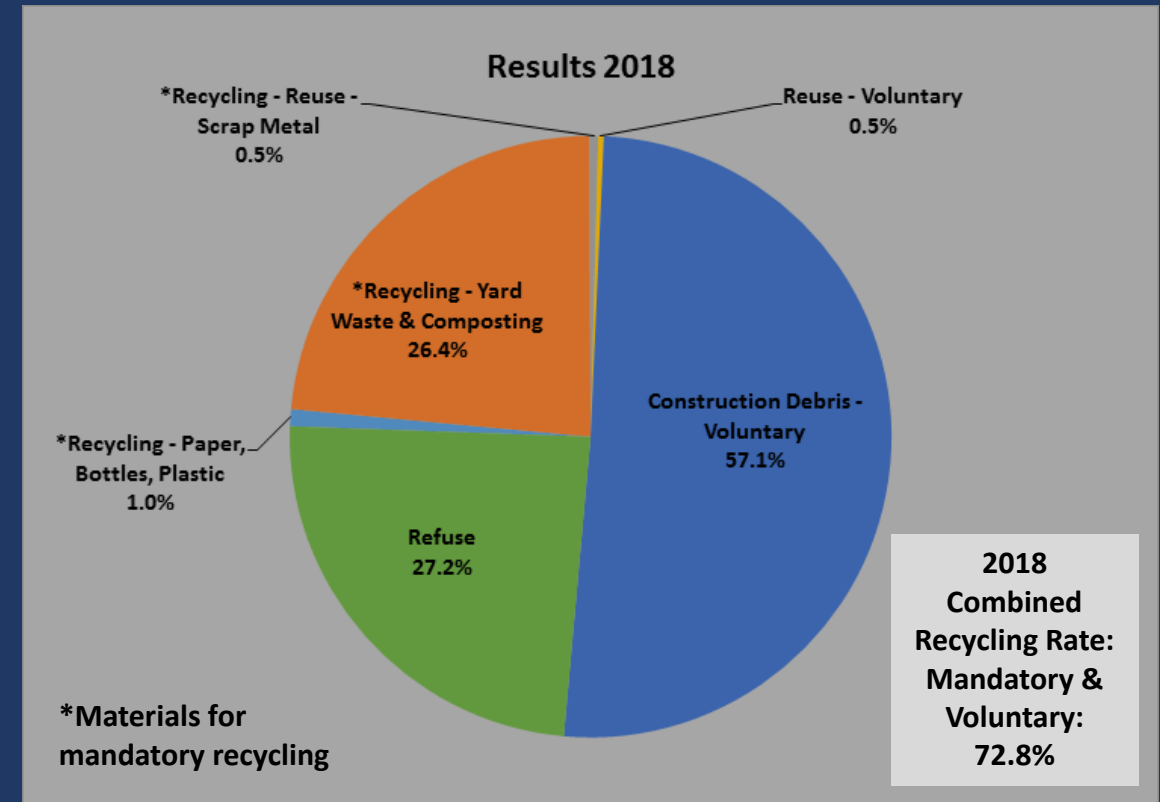
## Operational Changes

- The recycling program for mixed-paper/cardboard and commingled bottles/cans was brought in-house by the Parks Department in late 2017.
  - Exclusively using the Montgomery County Transfer Station with first full year of data in 2018
  - Recycling tonnage is now ACTUAL rather than ESTIMATED



# 2018 Program Progress

- **Combined Recycling Rate: 72.8%**
- **Mandatory Recycling Rate at 50.7%**
- Decrease in volume of material sent to 30 yard waste disposal containers
- Additional recycling totes and signage deployed to park locations

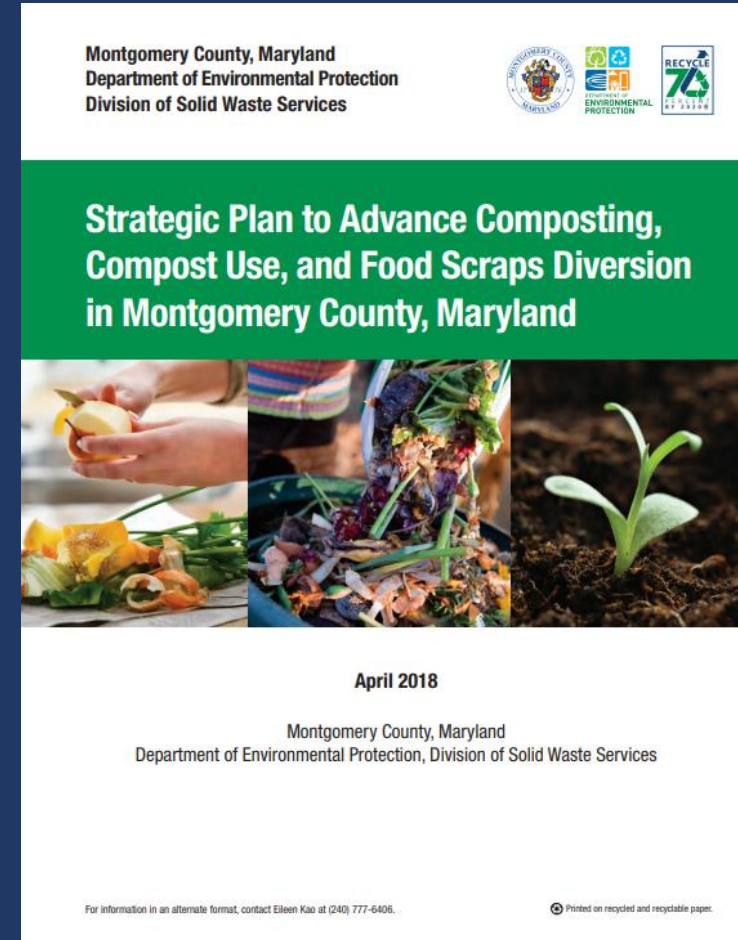




# New in 2018



Partnership with Maryland Department of Agriculture and Montgomery County DEP for recycling of pesticide and fertilizer containers



M-NCPPC staff were heavily involved in the multi-stakeholder work groups led by Montgomery County DEP in development of a Strategic Plan to Advance Composting, Compost Use, and Food Scrap Diversion county-wide

# Volunteer Stream and Park Cleanups

## 2018 AT A GLANCE

Tires: 234

Bags of Trash: 3,330

Bags of Recycling: 1,530

Pounds Trash: 101,434

Pounds Recycling: 9,100

Pounds Tires: 5,148

Total Pounds: 144,832

Projects: 251

# of Volunteers: 6,103

Hours: 14,102

*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*

*In recent years volunteers have donated more than 88,000 hours of volunteer service annually. Montgomery Parks is very fortunate to have such generous community support!*







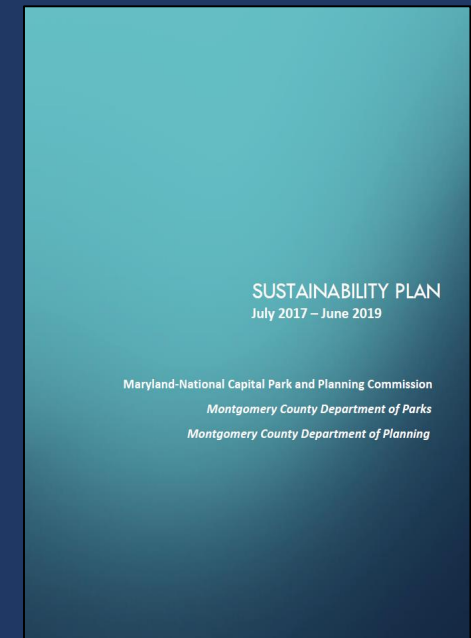
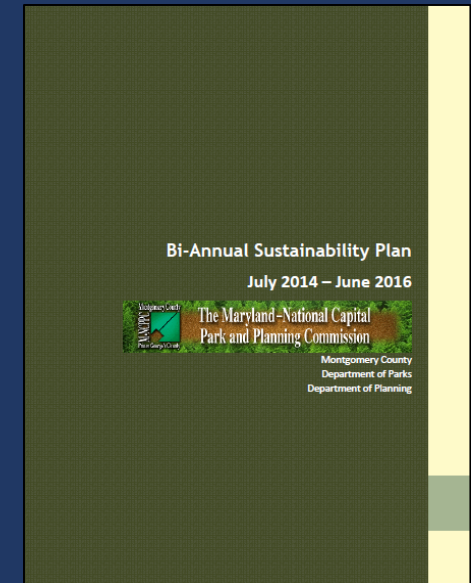
# Sustainability Program Briefing



# Sustainability Program: Background

- In 1976 M-NCPPC created a Sustainability Practice that was used to communicate policy regarding conservation of energy resources
- In November 2012 M-NCPPC revised the Practice 6-40 to reflect more current concepts regarding sustainability
- Sustainability Plans on 2 year cycles (per fiscal year). Updated Sustainability Plan underway for FY20-FY21

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION	
	<b>PRACTICE</b>
Approved by The Commission	No. 6-40
	Initially issued: 11/1/76
	Last amended: 11/19/2012
	Last reviewed: 11/19/2012
<b>M-NCPPC Sustainability Standards</b>	
<b>AUTHORITY</b>	This Administrative Practice was initially approved by the Executive Committee at its meeting on October 4, 1976, and last amended by the Commission on November 19, 2012.  Patricia Barney, Executive Director
<b>RESCISSION</b>	The Practice, as amended on November 19, 2012, updates and replaces all other internal sustainability procedures.
<b>PURPOSE AND BACKGROUND</b>	<p>This Practice (originally titled Commission Resource Conservation Program) was initially established to communicate agency-wide policy on the conservation of utilities sources, such as electricity, natural gas, fuel oil, and motor fuel. The Practice was revised on <u>November 19, 2012</u> to update and replace initial measures through a broader understanding of sustainability standards, which benefit the environment, our workplace, and the communities we serve.</p> <p>The Practice, as originally approved, has been revised as follows:</p> <ul style="list-style-type: none"><li>• May 1, 1979 and January 9, 1980: Incorporated updated responsibilities due to agency restructuring.</li><li>• November 19, 2012: Policy amended to:<ul style="list-style-type: none"><li>◦ Reflect more modern concepts in the area of sustainability, including:<ul style="list-style-type: none"><li>• Green building management strategies which meet nationally accepted sustainability certifications for energy conservation and use of renewable resources;</li><li>• Procurement of goods and services aimed at high efficiency products and other sustainable practices;</li><li>• Implementation of green development strategies in community planning, landscape design and other site planning;</li><li>• Elements aimed to foster ongoing awareness among our employees and patrons on sustainability objectives and programs; and</li><li>• Updated County and State sustainability mandates.</li></ul></li></ul></li></ul>
<b>REFERENCES</b>	<u>Federal/State/Local Standards:</u> <ul style="list-style-type: none"><li>• Maryland Stormwater Management Act of 2007 and accompanying Environmental Site Design Standards</li><li>• Maryland Code, State Finance and Procurement, § 5-312, High Performance Building Act</li></ul>





# Sustainability Plan Elements

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

SUSTAINABILITY PLAN  
July 2017 – June 2019

Maryland-National Capital Park and Planning Commission  
*Montgomery County Department of Parks*  
*Montgomery County Department of Planning*

# Questions?

Data Prepared By:

