Resource Conservation Plan

• Presented for approval to M-NCPPC Planning Board, the County Executive Committee, and County Council Transportation, Infrastructure, Energy 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, Fiscal Year 2017

<table>
<thead>
<tr>
<th>Department</th>
<th>FY 2017 Budget</th>
<th>FY 2017 Cost</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise</td>
<td>$996,900</td>
<td>$1,027,069</td>
<td>($30,169)</td>
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<tr>
<td>Planning Department</td>
<td>$221,000</td>
<td>$185,056</td>
<td>$35,944</td>
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<tr>
<td>Property Management</td>
<td>$12,000</td>
<td>$16,192</td>
<td>($4,192)</td>
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<tr>
<td>Parks Department</td>
<td>$2,190,345</td>
<td>$1,880,771</td>
<td>$309,574</td>
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<tr>
<td><strong>Total:</strong></td>
<td><strong>$3,420,245</strong></td>
<td><strong>$3,109,088</strong></td>
<td><strong>$311,157</strong></td>
</tr>
</tbody>
</table>

Fiscal Year 2017: July 2016 through June 2017
Accomplishments in 2017

Green Farm Maintenance Facility:
Staff relocated from the Shady Grove Maintenance Facility to the newly opened Green Farm Facility, a LEED® Silver building

Meadowbrook Maintenance Yard:
Replaced Hydronic circulator for the boiler system with a new Grundfos Magna 3 Variable Speed Circulator, reducing energy consumption

Skyview House at Rockwood Manor:
Replaced tank style water heater with new Navien tankless 95% efficient water heater
Accomplishments in 2017 continued

**Brookside Gardens:**
As part of the adjacent greenhouse renovation, installed a 25,000 gallon capacity underground cistern to collect water from the new greenhouse roof for reuse in watering plants grown on site.

**Exterior Lighting:**
6 parking lot locations were upgraded with LED lights
<table>
<thead>
<tr>
<th>Department</th>
<th>FY 2018 Budget</th>
<th>Cost as of Dec. 2017</th>
<th>FY18 Annual Projection</th>
<th>Difference (FY2018 Budget – Projection)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise</td>
<td>$1,050,600</td>
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<tr>
<td>Planning Dept.</td>
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<td>Parks Dept.</td>
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<td>($258,215)</td>
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<td><strong>Total:</strong></td>
<td><strong>$3,424,005</strong></td>
<td><strong>$1,446,304</strong></td>
<td><strong>$3,608,090</strong></td>
<td><strong>($184,085)</strong></td>
</tr>
</tbody>
</table>

*Projection includes $300,000 weather contingency

Fiscal Year 2018: July 2017 through June 2018
Projects Underway, FY18

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.

Agricultural History Farm Park:
Installed window tinting film on south-facing windows in the hall/reception/lobby area to reduce solar heat gain in summer and radiant heat loss in winter
Projects Underway FY18, continued

Stormwater/Greywater Reuse Projects:
As part of the Rock Creek Maintenance Facility construction, a 1,700 gallon stormwater harvesting system was installed to supplement toilet flushing on the site.

Energy (Utility) Audit – Action Item:
Conduct a comprehensive audit of all meters and utilities currently being tracked by EnergyCAP software
Construction of nearly 2.5 megawatts of ground-mounted solar arrays is nearing completion in South Germantown Recreational Park and Rock Creek Regional Park.
Goals for Fiscal Year 2019

Energy Conservation/Efficiency:
Continue making progress on retrofitting exterior lighting to LED technology

Renewable Energy:
Identify and begin implementing smaller-scale solar PV projects

Water Conservation/Efficiency:
Maintain existing and implement appropriate opportunities for gray water and harvested stormwater reuse.

Energy (Utility) Audit – Action Item:
Conduct a comprehensive audit of meters and utilities currently being tracked by EnergyCAP software
The Proposed budget for Fiscal Year 2019 assumes the following:

Department of Parks Headquarters (Parkside) and the Department of Planning (MRO) will remain at their respective current locations in Silver Spring for FY 2019.

<table>
<thead>
<tr>
<th>Department</th>
<th>Proposed FY 2019 Budget</th>
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</thead>
<tbody>
<tr>
<td>Enterprise</td>
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<td><strong>Total:</strong></td>
<td><strong>$3,502,838</strong></td>
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Fiscal Year 2019: July 2018 through June 2019
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
**Program Progress**

- Combined Recycling Rate: 68%
- Mandatory Recycling Rate at 64.2%
- Voluntary Material Recycling and Reuse Rate increased in 2017
- Increase in volume of material sent to 30 yard waste disposal containers
- Additional recycling totes and signage deployed to park locations

![Pie chart showing Recycling and Reuse 33% and Refuse 67%]

*Recycling and Solid Waste Baseline Data, 2003*
2017 Program Progress (Jan 1, 2017-Dec 31, 2017)

- 2017 Combined Recycling Rate: (Mandatory & Voluntary) 68%
  - **Recycling - Mixed Paper/Commingled**: 21.5%
  - **Recycling - Yard Waste & Composting**: 35%
  - Refuse: 35.8%
  - **Recycling - Reuse Scrap Metal**: 1%
  - Reuse Voluntary: 0.28%
  - Construction Debris Voluntary: 10%

**Recycling Mandatory Total 64.2%
Projects Underway in 2018

• The Department of Parks has brought the recycling program in-house and is providing service for pick-up of commingled and mixed paper/cardboard

• New dumpsters with updated signage have been provided and placed at each applicable site

• Interior recycling bins have been co-located with new signage for ease of access and a consistent appearance

• Recycling Captains working with locations with staff to educate them on recycling standards and best practices

• Focus for 2018 will shift to improving recycling opportunities for park patrons out in the parks
Volunteer Stream and Park Cleanups

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.

Volunteers donate more than 88,000 hours of volunteer service annually. Montgomery Parks is very fortunate to have such generous community support!
Sustainability Program Update
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.

• The formation of the Sustainability Coordinating Committee, in 2013, was to develop the first Biennial Sustainability Plan for M-NCPPC.
Program Accomplishments

• Sustainability Plan for FY18-FY19 was submitted, presented to Executive Committee and Full Commission
  • Approved in September 2017

  • Refines and builds upon previous plan

  • Focused on identifying and tracking measurable goals, where available
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
Interagency Coordination: Council Resolution 18-974

County Council Resolution 18-974, Emergency Climate Mobilization

- Declares climate emergency, initiates a global mobilization to restore a safe climate and build a sustainable economy.

- Transform the climate by reducing greenhouse gas emissions by 80% by 2027 and reaching 100% elimination by 2035, and initiate large-scale efforts to remove excess carbon from the atmosphere.
Questions?