M-NCPDC, Montgomery County

FY21 Resource Conservation Plan (RCP)

Resource Conservation Plan

• Presented for approval to M-NCPDC 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.
Sustainability Plan

• Updated for FY20/FY21

• Priority Focus Areas
  • Waste Reduction and Recycling
  • Reduction of Carbon Footprint (Energy, Fleet)
  • Walkable/Bikeable Communities
  • Land Use

• All work discussed in the Resource Conservation Plan and Business Recycling Report contribute to the achievement of sustainability goals outlined in the plan.
<table>
<thead>
<tr>
<th>Department</th>
<th>FY19 Cost</th>
<th>FY19 Budget</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parks Department</td>
<td>$2,275,737</td>
<td>$2,157,115</td>
<td>($118,622)</td>
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<tr>
<td>Planning Department</td>
<td>$193,206</td>
<td>$225,223</td>
<td>$32,017</td>
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<tr>
<td>Enterprise</td>
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<td>$1,082,200</td>
<td>$232,241</td>
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<tr>
<td>Property Management</td>
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<tr>
<td>Bi-County</td>
<td>$73,545</td>
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<td><strong>Total:</strong></td>
<td><strong>$3,415,494</strong></td>
<td><strong>$3,576,506</strong></td>
<td><strong>$161,012</strong></td>
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</tbody>
</table>
Accomplishments at a Glance: FY19

Projects in FY19 were completed across 28 park sites/facilities

- 8 sites received upgrades to LED lighting fixtures
  - Interior and exterior facility lighting incl. parking lot/walkway
  - Athletic Courts and Fields

- 14 sites received energy efficiency upgrades
  - High efficiency HVAC systems replacement
  - Improved insulation
  - Installation of window film
  - Temperature modulation

- 11 sites received plumbing fixture upgrades
  - Installation of frost-free drinking fountains
  - High efficiency hot water heaters
  - Low flow toilets and sinks
Accomplishments at a Glance: FY19

- A 1.8 kW rooftop solar system was installed at Olney Mill Neighborhood Park.

- Electric vehicle charging station installed at Brookside Gardens for public use.
## Utility Budget/Costs (to date): FY20

<table>
<thead>
<tr>
<th>Department</th>
<th>FY20 Budget</th>
<th>Cost as of 12/20/2019</th>
<th>FY20 Annual Projection*</th>
<th>Difference (FY20 Budget – Projection)</th>
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<tbody>
<tr>
<td>PARKS DEPARTMENT</td>
<td>$2,238,733</td>
<td>$677,639**</td>
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<td>PLANNING DEPARTMENT</td>
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<td>ENTERPRISE</td>
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<tr>
<td>PROPERTY MANAGEMENT</td>
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<td>$1,698</td>
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<td>($14,200)</td>
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<td>BI-COUNTY</td>
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<td><strong>$3,478,428</strong></td>
<td><strong>$1,135,871</strong></td>
<td><strong>$3,401,400</strong></td>
<td><strong>$77,028</strong></td>
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</table>

FY20: July 2019 through June 2020

Data obtained from M-NCPPC General Ledger and EnergyCAP

** Adjustments made to account for reimbursement/credits
Project Status to Date: FY20

Projects at 27 sites are completed or currently in process.

• 7 sites received upgrades to LED lighting fixtures
  • Interior and exterior facility lighting incl. parking lot/walkway
  • Athletic Courts

• 10 sites received energy efficiency upgrades
  • High efficiency HVAC systems replacement
  • Improved insulation
  • Temperature modulation
  • Lighting control automation

• 19 sites received plumbing fixture upgrades
  • Installation of rainwater harvesting systems
  • Installation of frost-free drinking fountains
  • High efficiency hot water heaters
  • Low flow toilets and sinks
  • Water conserving technology in field irrigation systems
Project Status to Date: FY20

Black Hill Regional Park Restroom Building
Rooftop solar for power and rainwater harvesting system for toilet flushing

Vehicle and Equipment Charging
M-NCPPC vehicle fleet charging stations and electric mower charging infrastructure
Project Status to Date: FY20

Maydale Nature Classroom
Cabin John Ice Rink

Project Status to Date: FY20
Energy/Utility Audit: Meter Collection

The comprehensive review of utility meters on parkland continues into FY20/FY21.
Goals for FY21

**Energy Conservation/Efficiency:**
- Improve building envelope assessments at start of projects.
- Continue making progress retrofitting interior and exterior lighting to LED technology.
- Continue upgrading to high-efficiency appliances and equipment.

**Renewable Energy:**
- Continue to identify and implement small-scale solar PV projects.

**Water Conservation/Efficiency:**
- Continue upgrading to low-flow technology.
- Implement appropriate opportunities for stormwater and/or graywater harvesting reuse projects.
The Proposed budget for FY21 assumes the following:

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

<table>
<thead>
<tr>
<th>Department</th>
<th>Proposed FY21 Budget</th>
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<tbody>
<tr>
<td>PARKS DEPARTMENT</td>
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<td>PLANNING DEPARTMENT</td>
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<td>PROPERTY MANAGEMENT</td>
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<td>BI-COUNTY</td>
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<td>WHEATON HQ</td>
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FY21: July 2020 through June 2021
Recycling & Solid Waste Management

M-NCPNC 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 to reduce waste and recycle 70% by 2020.

• M-NCPCC disposes of trash and recycling through a mix of self-hauling and use of vendors.
2019 Program Progress

- **Total Waste Diversion Rate: 67%**
- Less recycling of mixed paper/commingled materials, yard trim, concrete and asphalt.
- Increase in scrap metal recycling and diversion of voluntary materials to recycling.
- Decrease in volume of material disposed as refuse (trash).

*Materials considered mandatory for recycling*

### Results 2019

- Refuse (Trash): 33%
- Yard Waste & Composting (Recycle): 31%
- Construction Debris (Voluntary Recycle): 33%
- Scrap Metal (Recycle): 1%
- Reuse/Mixed Materials (Voluntary Recycle): 1%

### 2019 Waste Diversion Rate: 67%

### 2018 Total Waste Diversion: 73%

*Materials for mandatory recycling*
Waste reduction involves being thoughtful about material acquisition and material management but also includes **going the extra mile to divert materials from the trash when it can be recycled.**
Recycling & Solid Waste Management

- Continue exploring/utilizing trash/recycling container sensor technology
  - Improved allocation of resources (e.g. vehicles)
  - Reduced fuel consumption
  - Reduced greenhouse gas emissions
  - Improved customer experience

Software platform allows user to view trends to help anticipate collection needs for a given site.
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.

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!
Questions?