Sustainability Plan

FY20 - FY21

Montgomery County Department of Parks
Montgomery County Planning Department
Acknowledgements

The success of the Maryland-National Capital Park and Planning Commission’s (M-NCPPC) sustainability efforts begin with engaged staff who are dedicated to reducing the impact of operations and strive to preserve and improve our environment for future generations.

This document was created collaboratively by staff in the M-NCPPC Montgomery County Department of Parks and Planning Department. For more information about sustainability-related initiatives or to access a digital copy of this Sustainability Plan please visit:

**M-NCPPC Montgomery County Department of Parks:**
http://www.montgomeryparks.org/sustainability

**M-NCPPC Montgomery County Planning Department:**
http://montgomeryplanning.org/planning/environment/sustainability-initiatives/
Letter from the Directors

It is our collective pleasure to present the Maryland-National Capital Park and Planning Commission’s (M-NCPPC) updated Sustainability Plan for Montgomery County for FY20 and FY21. This plan builds upon the progress and successes of the previous plans and provides focus for the next two years of sustainable action to be taken by our organization.

M-NCPPC’s history of commitment to sustainability and protection of our environment has endured now for more than nine decades. As an agency with the mission to acquire, develop, and maintain a regional park system, as well as provide land use planning for the physical development of county land, M-NCPPC’s work has a significant impact and reach into the health of our environment, but also to that of our citizenry and visitors to Montgomery County.

With the passing of Council Resolution 18-974 (Emergency Climate Mobilization), the County has taken a leadership role in establishing ambitious, albeit important, goals on greenhouse gas emission reductions. These accelerated goals seek an 80% reduction by 2027 and total elimination of greenhouse gas emissions by 2035. M-NCPPC, included in this resolution, intends to continue working closely with the County and Montgomery County Public Schools to work collaboratively with all agencies, organizations, and stakeholders to push toward achievement of these goals.

M-NCPPC is committed to acting responsibly and collaboratively to find solutions to our greatest environmental challenges. The challenges posed by global climate change will have great impact on communities, infrastructure, habitats, and resources. When we work together to live sustainably, we improve equity and quality of life, protect the environment and our future.

Sincerely,

Gwen Wright
Director
Montgomery County Planning Department

Michael F. Riley
Director
Montgomery County Department of Parks
Executive Summary

Sustainability is based on the principle that in order to continue having access to clean air, clean water, materials, and other natural resources needed for our survival, we must act deliberately to protect and reduce any unnecessary waste of those resources. As an organization, M-NCPPC provides services, amenities, and opportunities for its citizens as well as visitors to the area. How these services, amenities, and opportunities are provided, from initial design through long-term maintenance, plays a significant role in whether our organization is supporting regional sustainability.

In 1976, M-NCPPC established a Sustainability Standards Practice (known then as the Commission Resource Conservation Program). The Commission’s strategy in the Practice is to provide a policy communication that focused on conservation of energy sources including electricity, natural gas, and fuel. A revision of this Practice, (M-NCPPC Practice No. 6-40, M-NCPPC Sustainability Standards) became effective on November 19, 2012, empowered with updated concepts of sustainability (Appendix A).

Today, the Commission focus is on elements that foster a sustainability-culture within the organization, and together with corresponding County and State mandates, stewardship of the environmental benefits of sustainable practices that preserve natural and economic resources, reduce waste, consumption, and the carbon footprint.

The FY20-FY21 update of the M-NCPPC Montgomery County Departments recognizes and grows the following initiatives and programs for the benefit of our organization, employees, and community.

In December 2017, the Montgomery County Council adopted Resolution 18-974, Emergency Climate Mobilization. The resolution accelerates the County’s greenhouse gas (GHG) reduction goals, calling on the County Executive, M-NCPPC, and Montgomery County Public Schools (MCPS) to reduce GHG emissions 80% by 2027 and 100% by 2035.

Since passage of this resolution, a multi-agency team was created to begin identifying strategies that have already been implemented in support of GHG reductions as well as new opportunities to further, and more aggressively advance toward the GHG reduction goals identified in the Resolution. Additionally, the team has engaged with climate-advocates across the county and intend on engaging additional stakeholders through this process. M-NCPPC in Montgomery County is committed to working collaboratively with local agencies, organizations, stakeholders and the community toward achievement of a de-carbonized future.

Additionally, the M-NCPPC Montgomery County Departments will move in 2020 to their new LEED Platinum Wheaton headquarters. Montgomery Planning’s update to the County’s General Plan, to be completed in 2021, includes a focus on environmental resilience as one of three core priorities for the next 30 years of the county. While this Sustainability Plan highlights a wide number of recommendations and initiatives for FY20 and FY21, the next two years of work will show a more targeted climate-minded approach to the M-NCPPC sustainability program with 5 priority areas of focus.
Waste Reduction & Recycling

As China has stopped accepting recyclable material from the United States and other nations, the recycling industry has found itself at a crossroads and is working through the challenges of identifying markets for large volumes of recyclable products. The Montgomery County Division of Solid Waste Services (MCDSWS) has maintained a dual-stream recycling program for decades. This process has allowed the County to reduce contamination and maintain high standards for recyclables sold on the market to become processed into new products. M-NCPPC in Montgomery County has maintained the dual-stream program within the agency and as a strategy to improve recycling quality, in late 2018, began self-hauling and exclusively using the Montgomery County Transfer Station for disposal of mixed paper and commingled materials. Additionally, the agency has taken steps to reduce waste and recycle as much as feasible. This includes scrap metal, yard trim/debris, construction debris, concrete and asphalt, computers and electronic equipment, batteries, and more. In 2018, M-NCPPC in Montgomery County surpassed the MCDSWS goal of reducing waste and recycling 70% of the waste stream by 2020.

More than ever, wastes generated by the agency are a focus and we continue to seek alternative products, or methods to complete tasks in a manner that reduces waste. Strategies to reduce waste continue through document management, paper reduction strategies through enhanced technology, and improved software and Cloud storage. Sustainable acquisition of materials and supplies across all work programs will be a focus in the next two fiscal years, as well as a commitment to researching and implementing new strategies to reduce waste and recycle more agency-wide.

Energy

In FY18, M-NCPPC in Montgomery County powered up two large solar fields located in Rock Creek Regional Park and South Germantown Recreational Park. The energy generated by these two sites is used to power nearly 40 M-NCPPC facilities in Montgomery County. This accounts for approximately 20% of the electricity demand at M-NCPPC in Montgomery County. Over the next two years, M-NCPPC will apply an intensified lens on energy consumption, focusing on reduction of energy demand through conservation and efficiency projects. This includes but is not limited to, implementation of best practices for energy conservation, installation of energy-efficient appliances and HVAC systems, and upgraded controls and technology for exterior and interior lighting.

Additionally, increased use of renewable energy resources, particularly solar, will be a primary focus for implementation during the next two fiscal years.
Fleet & Equipment Management

Transportation and equipment are significant sources of greenhouse gas emissions. With such a large park system that is spread across the entire county, M-NCPPC in Montgomery County maintains over six hundred vehicles in its fleet. These vehicles range from small sedans that transport staff to various park sites or meetings to larger trucks that are utilized for a variety of construction, maintenance, or operational needs within the park system.

Over the next two years, a more targeted and comprehensive approach to management of the vehicle fleet will include fleet rightsizing, operational improvements, increased use of alternative fuels and increased use of available technology. Additionally, a review of equipment used to build and maintain parks and associated amenities will be reviewed for efficiencies. Included in this will be pilots for increased use of electric and battery-operated equipment which will help reduce greenhouse gas emissions and noise pollution.

Walkable and Bikeable Communities

Transportation Demand Management (TMD) is a key factor in Montgomery County Planning Department development oversight and land use initiatives. TMD efforts help people use in-place and developing infrastructure for transit, bikeable streets and walkable activity centers, and support non-single occupant vehicle (SOV) trips and commutes. A focus on these alternatives to driving can promote and encourage their use as a natural and a balanced approach for a sustainable TMD system.

Over the next two years, the M-NCPPC Montgomery County headquarters move to Wheaton will focus on initiatives in support of viable non-SOV commute alternatives using transit, ridesharing, walking, biking, and telework. Greater access to low-stress and safe bicycling is possible through implementation of the Montgomery County Planning Department’s Bicycle Master Plan. Guidance from Montgomery County Commuter Services and the Metropolitan Washington Council of Governments (MWCOG) commuter programs will enhance programs and provide access to and support of many viable and regional transportation options.

Land Use

The foundation of land use planning for Montgomery County is the General Plan. This vision has guided all plans and policies for more than five decades. The next two years will bring forward a new General Plan for Montgomery County. The General Plan update, Thrive Montgomery 2050, will include three core themes: economic health; community equity; and environmental resilience. By focusing on environmental resilience as part of the General Plan, we want to preserve our natural and built resources and use the best strategies to fight climate change and mitigate the impact of development on the land. Through Thrive Montgomery 2050, work on the plan update will identify
and examine the changes occurring, consider what is wanted and needed for tomorrow, and develop a shared vision that allows us to keep what we love about Montgomery County while taking the actions needed to thrive over the next 30+ years.

The result of Thrive Montgomery 2050 will be a living and breathing plan that guides decision making and helps secure resources to ensure Montgomery County is a place where everyone can be successful, have opportunities, and enjoy a high quality of life. The plan will encourage great urban design, efficient transportation, and support of sustainable communities. Montgomery Planning staff will imprint the goals of the General Plan in the review process for development applications to further support sustainable quality of design and assess what density and scale of development must be maintained for sustainable land use protections, including forest conservation, protection of sensitive environmental features or restoration requirements.
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Sustainability Plan Structure

The Sustainability Plan is comprehensive and includes goals and recommendations across ten work areas or elements. These elements include:

- 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

All strategies outlined in the M-NCPPC Sustainability Standards, Practice 6-40 are, at a minimum, reflected in this Sustainability Plan. Where goals and strategies listed in the plan reference specific elements of the practice, the individual section/subsections where the goal or strategy can be found in the practice is denoted in the plan. These references are made in sections, ‘Recommended Focus Areas FY20 – FY21’ or ‘Supporting Policies, Programs or Initiatives,’ for each plan element.

The goals and recommendations outlined in this plan are organized by individual plan element as described above and contain information along a consistent structure for each element. The various sections of each plan element are described below.

Objective:

A description of the overall intent of the specific plan element. Where available, this objective coincides with the description established in the M-NCPPC Sustainability Standards, Practice 6-40.

Recommended Focus Areas FY20 – FY21:

Identifies goals, new initiatives, or programs that should be implemented within the defined time period to further the sustainability program across both Departments and assist in meeting the standards set forth in the M-NCPPC Sustainability Standards, Practice 6-40.

Supporting Programs, Policies, or Initiatives:

Examples of existing programs, policies, or initiatives already taking place within the Montgomery County Department of Parks and/or the Planning Department in support of the plan element and associated objectives or goals.

Indicators:

Metrics or other indicators of progress used to assess achievement of sustainability goals and objectives outlined in the M-NCPPC Sustainability Standards, Practice 6-40.
Sustainability Plan
Employee Education, Training, & Engagement

Objective: To ensure that agency staff are provided with the necessary training and education to support sustainability initiatives and environmental awareness as well as ensure expectations for performance related to sustainability goals are understood across both Departments. M-NCPPC Sustainability Standards, Practice 6-40 highlights the goals of the element.

Recommended Focus Areas FY20 – FY21

1. Identify training priorities and opportunities related to sustainability within various work programs across both Departments.
   a. Develop and implement multimodal opportunities (e.g. workshops, presentations, written materials, etc.) for staff to gain greater environmental awareness and understanding of sustainability initiatives and expectations within the agency. (VI.A)
   b. Identify a strategy for notifying employees of external training opportunities for staff seeking sustainability credentials appropriate to specific work programs or job functions. (VI.B)
2. Implement employee challenges to engage staff in learning about sustainable practices (e.g. energy or waste reduction challenges). (VI.A)
3. Expand efforts to provide hands-on training opportunities to help staff fine-tune techniques and equipment selection to minimize pesticide application and to save time (examples include propane flame weeding, use of backpack sprayers, use of hand-held tools for weed removal). (VI.A)
4. Develop and provide targeted training for custodial staff regarding waste management and recycling priorities within both Departments. (VI.A)
5. In conjunction with supervisory-level staff, coordinate with Human Resources to develop sustainability goals, standards, and strategies for inclusion in staff performance evaluations. (VI.C)
6. Identify and strive to meet criteria to achieve sustainability-related credentials for the agency.

Supporting Programs, Policies, or Initiatives

- The Department of Parks coordinates an annual In-Service Training (IST) each winter for staff. The educational program occurs on Wednesdays through the winter and features a variety of topics, including sustainability and environmental awareness programming. (VI.A)
- Annual training on stormwater management and pollution prevention is provided to all staff at each maintenance facility. This training is a requirement of the Department of Parks National Pollutant Discharge Detection and Elimination System (NPDES) permit administered by the Maryland Department of the Environment. (VI.A)
- The agency maintains an Administrative Practice, Tuition Assistance Program (2-31), which makes funding available to Commission staff seeking support toward educational expenses for career development. (VI.B)
• The Department of Parks and the Maryland Department of Agriculture coordinate to offer nutrient management training and certification opportunities for Park staff. (VI.B)

• The Parks Department offers training and on-going support on how to use the Enterprise Asset Management (EAM) system to properly track the use of pesticides and alternative pest management strategies.

• M-NCPPC in Montgomery County continues to work in partnership with the Montgomery County Division of Solid Waste SORRT program and the County’s Business Recycling Oversight Committee. Recycling training programs focus on Recycling 70% by 2020 and behavior to educate, guide, and provide resources to reduce, reuse, and recycle. Beginning in FY20, the Planning Department recycling mission is to facilitate and assist staff for relocation to the Wheaton headquarters of M-NCPPC.

• “Recycling 101” is a training staple each spring; Recycling 201 is a refresher with a tour of the County’s recycling center in Derwood. “Platinum Recycling” is in development and modules will begin in June 2019 through 2021. Platinum Recycling is a focus on all aspects of waste generation and opportunities for reduce-recycle-reuse to reach Zero waste at work.

• The Department of Parks hired a Sustainability Coordinator in the fall of 2016 to focus on implementation of the Sustainability Plan, to communicate and engage staff across the agency about sustainability goals and initiatives, and to coordinate a Sustainability Team (Committee).

Indicators

Indicators of progress for this plan element include the following:

✓ Number and type of education, training, and engagement opportunities made available to staff about sustainability-related topics (by fiscal year). Information should be collected on the:
  - topic (brief description),
  - date of event or distribution,
  - format (e.g. presentation, written material, workshop),
  - time spent in training,
  - target audience, and
  - number of staff participants.
Community/Patrons Education & Engagement

**Objective:** Foster sustainability efforts through agency-wide promotion and education of environmental awareness and conservation to the community and park patrons.

The Community and Patrons Education and Engagement element is not directly addressed in the M-NCPPC Sustainability Standards, Practice 6-40 and there are no existing policies, procedures, or implementation plans that address Community and Patrons Education and Engagement. There are however many existing programs and platforms throughout both the Parks and the Planning Departments that engage and educate the community and park patrons on the topics of environmental awareness and conservation.

**Recommended Focus Areas FY20 – FY21**

1. Develop and implement a comprehensive communication plan to engage with the public on issues of sustainability and strategies to inform the public about sustainability initiatives within both Departments. The communication plan may include website development, social media, and/or special events. This communication plan may be incorporated within the Nature Interpretation Plan that is currently in development.

2. Collaborate with other local agencies, organizations, and volunteer groups on events or educational opportunities to promote environmental awareness and encourage healthy lifestyles.

3. Include sustainability-related information in customer packets (e.g. regarding recycling etc.) for facility rentals by the public.

4. Develop ‘EcoEvent’ standards for events held by the public, private groups, and Commission employees at Brookside Gardens to encourage thoughtful planning and implementation of events that promotes environmental awareness and reduces environmental impact.

**Supporting Programs, Policies, or Initiatives**

- The Department of Parks operates four nature-based educational centers (Black Hill Visitors Center, Brookside Nature Center, Locust Grove Nature Center, and Meadowside Nature Center). Each of these facilities provides quality hands-on educational opportunities for the public of all ages to connect visitors with the natural and cultural resources found in Montgomery County, Maryland.

- The Department of Parks coordinates and hosts an annual Nature Matters Lecture Series, focused on conservation, nature, and environmental topics.

- The Department of Parks has coordinated an annual Green Matters Symposium since 2004, which is a public event that concentrates on the intersection of horticulture and environmental issues. The Department has also coordinated a Trees Matter Symposium, annually since 2011, which is a public event focused on the health and welfare of trees in our increasingly developed landscapes.
• Both Departments continue to assist in the coordination/planning of and participate in annual multi-agency public events targeting environmental awareness such as the Montgomery County GreenFest and the H2O Summit.

• The public are encouraged to participate in volunteer activities and events that provide engagement with environmental issues and nature. The Weed Warrior program educates volunteers on the identification and management of non-native invasive plants. Volunteers may also help protect local waterways through participation in stream and park cleanup events. The Pope Farm Nursery supports volunteer opportunities in its native plant program. Volunteers interested in trail inspection, maintenance, and construction are also encouraged to assist with the natural surface trail program which ultimately helps connect park visitors with nature.

• Increasing the urban tree canopy: Montgomery Planning’s Shades of Green program provides free trees and planting of the trees. Using Geographic Information Systems (GIS) data, 11 urban areas have been identified as canopy-deficient. Support is growing from property owners and the business community; Planning staff perform on-site visits to ensure selection of an appropriate site location(s) that will support tree viability.

• Increasing the residential neighborhood tree canopy: Through the Montgomery County Forest Conservation Fund, Montgomery Planning manages the Leaves for Neighborhoods program. The program encourages residential property owners to plant trees to increase the tree canopy county-wide. Residents can receive a $40 coupon and an additional $25 coupon from the Marylanders Plant Trees to assist with the purchase cost and installation of shade trees on their private residential property. Minimum eligible tree cost is $75 for Leaves for Neighborhoods and $50 for the Marylanders Plant Trees program. In FY18, 525 coupons were processed with 525 trees added to the residential tree canopy.

• The Department of Parks offers a community gardens program with annual participation of more than 600 gardeners. Gardeners may rent a plot in one of the community gardens across Montgomery County at a low annual cost. In addition to providing space for the growing of fresh food and flowers, the program strives to make positive environmental, economic, and aesthetic improvements to communities and neighborhoods.

• The Department of Parks has implemented Davey Resource Group’s TreeKeeper8 for M-NCPCC parkland in Montgomery County where individual trees are surveyed, mapped, and data are input into the online application. Useful information about the ecological/community benefits of individual trees including gallons of stormwater filtered, pounds of carbon dioxide and air pollutants removed, as well as energy conserved, are calculated using formulas developed by the U.S. Forest Service. Guests who visit Montgomery Parks TreeKeeper8 map can learn about different tree species, and ecological/community benefits of individual trees.

• The Department of Parks has collaborated with the University of Maryland’s (UMD) Partnership for Action Learning in Sustainability (PALS), a program administered by the National Center for Smart Growth. This program offers opportunity to pair university faculty, graduate and undergraduate students with local governments to work on sustainability-
focused projects with the goal of developing cost-effective and innovative solutions to real world problems.

**Indicators**

Indicators of progress for this plan element include the following:

- ✓ Number and type of education, training, and engagement opportunities made available to the public about sustainability-related topics (by fiscal year). Information should be collected on the:
  - topic (brief description) and format (e.g. presentation, written material, workshop),
  - date of event or distribution,
  - target audience, and number of staff participants.

- ✓ Number of participants engaged in various volunteer opportunities related to environmental issues and nature.

- ✓ Documentation of the number of Montgomery County residents who participate in the Shades of Green program and the number of trees planted in each targeted urban area.

- ✓ Number of participating urban businesses and trees planted in target urban areas in the Shades of Green program.

- ✓ The number of trees purchased for planting and the number of Montgomery County residents participating in the Leaves for Neighborhoods program.
Utility & Energy Conservation

Objective: Conserve natural and fiscal resources by eliminating waste, improving energy efficiency, reducing energy consumption, and increasing the use of renewable energy resources. Whenever feasible, new appliances and building materials should meet Energy Star or equivalent ratings for high efficiency and energy conservation. This should be in addition to considering other environmental attributes such as recyclability and applicable Federal/State safety and building code requirements.

Utility/energy conservation strategies outlined in this section include:

- Utility Measurement and Monitoring (I.A)
- Conservation of Electricity and Natural Gas (I.B)
- Utilization of Technological Improvements & Renewable Energy Resources

Recommended Focus Areas FY20 – FY21

1. Prepare a greenhouse gas emission inventory for operations within both Departments. (I.A.1, I.A.2)
2. Sustainability Coordinator to run utility usage reports from the EnergyCap database 2-4 times per year. Information will be reviewed and used to develop/enhance utility management standards for facilities. These data will also be offered to facility managers and Department Directors to increase awareness of utility usage and facilitate discussion/action related to utility saving practices. (I.A.1, I.A.2)
3. Survey building envelope conditions and develop schedules for upgrades.
4. In addition to established internal maintenance programs, Departments should continue pursuing grants for energy efficiency studies, upgrades, and retrofits for planned and existing facilities. (I.B.1)
5. Work toward meeting Leadership in Energy and Environmental Design (LEED) (silver or equivalent standard) to guide operations and maintenance at all facilities. (I.B.2)
6. Complete the retrofit of parking lot lighting to light-emitting diode (LED) technology. (I.B.4)
7. Identify opportunities for installation of renewable energy systems at existing park facilities (including but not limited to wind, solar, geothermal, etc.) (I.B.6)

Supporting Programs, Policies, or Initiatives

- Lease agreements for facilities leased by M-NCPPC typically include provisions for M-NCPPC to monitor and cover the costs of all utilities associated with facility operation. (I.A.3)
- All new M-NCPPC buildings/facilities included in the capital budget (as well as major renovations) equal or greater than 5,000 square feet must adhere to the International Green Construction Code (IGCC) standards. Additionally, M-NCPPC buildings/facilities fitting these criteria are constructed to at least LEED Silver or equivalent standard. (I.B.2)
- Where practical, indoor and outdoor lighting fixtures are fitted with programmable or occupancy/motion sensors. (I.B.3)
• Where practical, light-emitting diodes (LEDs), daylight fixtures, or other efficient low-energy lighting solutions are used in place of incandescent, halogen, or fluorescent lights. (I.B.4)
• Continue supporting the 2020 green power goal outlined in the M-NCPPC Sustainability Standards, Practice 6-40, whereby 40% of the electricity consumed by the agency is produced or supported through renewable sources. Since FY16, M-NCPPC in Montgomery County sourced 100% of its electricity through renewable energy sources via purchase of Renewable Energy Certificates. This practice is expected to continue into FY20 and FY21 in accordance with County Council Bill 9-14 which requires 100% of the County’s electric usage to be supplied by renewable energy resources by fiscal year 2016. (I.B.5)
• Where practical, renewable sources (e.g. solar, wind, geothermal etc.) of energy are considered for new and replacement systems. (I.B.6)
• High efficiency heating, ventilation, and air conditioning (HVAC) systems that meet EnergyStar or equivalent standards are installed in all new and retrofit construction projects. Additionally, exposed piping and ventilation ducts are insulated to LEED Silver or equivalent standards. Facility thermostats are replaced with programmable, and oftentimes Wi-Fi-enabled, units. LEED Silver or equivalent standard insulation material is installed at new facilities and major renovations. (I.D.1, I.D.2, I.D.3, I.D.4)

Indicators

Indicators of progress for this plan element include the following:

✓ Annual electricity and natural gas usage across both Departments (per fiscal year).
✓ Completion of a greenhouse gas inventory for the Department of Parks and Planning Department in Montgomery County.
✓ Percent of electricity produced or supported through renewable sources.
✓ Number of facilities outfitted with high-efficiency lighting (interior and/or exterior), and/or number of facilities outfitted with programmable occupancy/motion sensors for lighting. A database should be developed to track these improvements.
✓ Number of locations utilizing renewable energy resources (e.g. solar, wind, geothermal, etc.). A database should be developed to track these improvements.
✓ Number of locations utilizing high-efficiency heating, ventilation and air conditioning (HVAC), meeting EnergyStar or equivalent standards. A database should be developed to track these improvements.
✓ Number of facilities outfitted with programmable thermostats for heating/air conditioning. A database should be developed to track these improvements.
Water Conservation & Management

Objective: Conserve natural and fiscal resources by eliminating waste, improving efficiency, reducing water consumption, and seeking out opportunities to collect, store, and use non-potable sources of water including grey water and stormwater runoff for targeted applications.

Recommended Focus Areas FY20 – FY21

1. Investigate, and where feasible, install infrastructure for use of rainwater or greywater at M-NCPPC facilities, including water amenities and landscape watering. (I.C.3)
2. Advance use of water conservation technology (e.g. soil moisture sensors, field zoning) to reduce water consumption on irrigated ballfields. Research opportunities for use of harvested rainwater for irrigation and landscape watering. (I.C.3)
3. Sustainability Coordinator to run water usage reports from the EnergyCap database 2-4 times per year. Information will be reviewed and used to identify and address abnormalities due to leaks or other inefficiencies, and to develop/enhance water utility management standards for facilities. These data will also be offered to facility managers and Department Directors to increase awareness of water utility usage and facilitate discussion/action related to water consumption reduction. (I.C.4)
4. Evaluate planting sites to increase use of trees, shrubs, and herbaceous plants best suited for long-term survival under the existing growing conditions at each site. (I.C.5)
5. Select improved turfgrass types (e.g. tall fescue, bluegrass, bermudagrass), and reduce the square footage where possible (while maintaining pervious area), to minimize mowing and irrigation frequency. (I.C.6)

Supporting Programs, Policies, or Initiatives

• Low-flow or water-saving plumbing fixtures are installed in all new building/facility construction, and during significant retrofit of existing facilities. This includes automatic faucets, low-flow toilets etc. (I.C.1, I.C.2)
• Two 800 gallon capacity cisterns were installed at the Green Farm Maintenance Facility in FY19. The rainwater collected in these cisterns is used on a variety of park projects. (I.C.3)
• Two rain barrels (55-60 gallon capacity each) have been installed at Black Hill Visitor Center to collect and store rainwater from a shed roof. Collected water is used at a nearby garden on the site. (I.C.3)
• In early 2017, Brookside Gardens installed a 25,000 gallon capacity underground cistern to collect rainwater from the greenhouse roof. The water, following filtration and mixing with WSSC water, will be used to irrigate the plants grown in the greenhouse – reducing demand on potable water resources. (I.C.3)
• The Rock Creek Maintenance Facility is being constructed to include a 1,700 gallon cistern that will collect rooftop rain runoff, and after filtration, be utilized on-site for toilet flushing. (I.C.3)
• Since 2012, Pope Farm nursery has maintained a native perennial plant program supported by staff and volunteer assistance. The native perennials are utilized at Brookside Gardens, in
vegetated stormwater management facilities (Environmental Site Design), volunteer planting events following Weed Warrior volunteer non-native invasive plant removals, meadow habitat restoration, nature center gardens, native plant sales, and special projects. (I.C.5)

- Pope Farm Nursery has been using a drip irrigation system for watering plants since 2011 as a strategy to improve efficiency, reduce water consumption, and promote plant health. In 2016 the drip irrigation system was used to efficiently water nearly 5,000 trees and more than 600 shrubs. These plants are used in reforestations and other planting and landscaping projects across parkland.

- Where applicable, continue converting ballfields to more drought-tolerant grass species like bermudagrass. Bermudagrass is a full-sun, warm season grass that is able to tolerate periods of drought, and is excellent in high-traffic situations like sports-play. Continue to evaluate grass species installed in various applications to balance maintenance requirements, water consumption, and durability.

**Indicators**

Indicators of progress for this plan element include the following:

✓ Annual volume of water used across both Departments (per fiscal year).
✓ Number of sites utilizing rainwater or greywater at M-NCPPC facilities. A database should be developed to track these improvements.
✓ Number of native trees, shrubs, and herbaceous plants utilized in park projects, and landscaping.
✓ Characterization and quantification (where available) of the impact of advanced and new technology and strategies for better targeting water applications through irrigation (e.g. dead-zone irrigation, use of soil moisture sensors etc.).
Fleet Management

Objective: Conserve natural and fiscal resources by eliminating waste, improving efficiency, reducing energy consumption, and increasing the use of renewable energy resources. Review vehicle efficiency standards, operating procedures, and best management practices. Evaluate greenhouse gas emission standards and compliance with Federal/State/Local guidelines. Fleet management strategies outlined in this section include:

- Utility Measurement and Monitoring
- Conservation of Fuel
- Management of Vehicle and Maintenance Equipment
- Utilization of Technology Improvements
- Utilization of Alternative Energy Resources
- Use of Alternative Commuting Resources

Recommended Focus Areas FY20 – FY21

1. Develop strategies for encouraging employees utilizing the M-NCPPC fleet vehicles to carpool to job sites. (I.E.1)
2. In coordination with the Fleet Manager, conduct functional assessments for vehicle selection/purchasing based on work program requirements, accounting for fuel/energy efficiency, safety, and effective operation. Continuously review vehicle assignments to ensure the most efficient use of the agency’s fleet. (I.E.2, I.E.3)
3. Expand use of B5 bio-diesel to include the use of B20 bio-diesel when practical during warmer months.
4. At a minimum, maintain the current hybrid/electric fleet inventory (8% of total vehicle fleet in 2016). Work to expand the percentage of hybrid, electric, and/or alternatively fueled vehicles in the fleet.
5. Develop an anti-idling administrative practice for the vehicle and equipment fleet. Develop an educational campaign for staff about the importance of reducing greenhouse gas emissions and protecting air quality through elimination of idling. Begin investigating the use of anti-idling technology for fleet vehicles.
6. Enhance support of multi-modal commuting through expanded ride-share efforts, use of opportunities like Capital BikeShare, and regional rail and bus across both Departments. Develop training programs and seek subsidy support for reduction in single-occupancy vehicle travel. (I.E.5.a)
7. Investigate and implement opportunities for encouraging carpooling by M-NCPPC employees, allocating reserved spaces for carpoolers. (I.E.5.b)
8. As practical, expand use of meeting and conferencing technology used by staff (e.g. phone and video conferencing technology) to reduce vehicle use and travel time. (I.E.5.d)
9. Begin investigating the potential for inclusion of compressed natural gas (CNG) vehicles to the fleet. This may require coordination with Montgomery County Government for the use of County CNG fueling stations.
Supporting Programs, Policies, or Initiatives

- To maintain highest operating efficiency, vehicles receive regular maintenance that is consistent with manufacturers specifications. (I.E.4)
- The agency operates a van-pool for staff that is utilized by 40-45 staff traveling between 50-90 miles per day, round trip. Work will be done to explore opportunities for expansion of additional vanpools across the Department (I.E.5.a)
- The agency maintains an Administrative Procedure for Alternative Commuting Resources (03-02) for commuting staff to utilize, free of charge, during qualifying emergency situations. (I.E.5.a)
- The agency maintains Administrative Procedure for Telework Agreements (03-01) and Compressed Work Schedules (95-02) for staff to utilize that reduces impacts from transportation and costs/needs associated with workspace operations. These Administrative Procedures may require review and/or revision within the next few years. (I.E.5.c)
- The agency maintains efforts for recycling batteries, waste oil, tires, antifreeze, scrap metal, and contaminated fuel.

Indicators

Indicators of progress for this plan element include the following:

- Number of gallons of gasoline and biodiesel fuel utilized per fiscal year.
- Percent of total fleet inventory that is hybrid/electric or alternatively fueled.
- Number of staff utilizing vanpool and carpool opportunities for commuting to work.
  Information should be collected on the:
  - mileage of each vanpool or carpool per day,
  - average number of staff utilizing vanpool or carpool resources,
  - number of miles traveled by regular users of vanpool or carpool from their home to work.
- Number of staff utilizing telework and compressed work schedule.
- Number of staff participating in and using multi-modal transportation other than single-occupancy vehicles for commuting to and from work.
Sustainable Acquisition & Use of Agency Supplies

**Objective:** Develop procurement specifications that encourage the use of goods and services which support the agency’s commitment to sustainability in areas including, but not limited to, resource conservation, protection of the environment, and workplace health and safety. Agency supply strategies outlined in this section include:

- Office Supplies and Furniture
- Printing and Copying
- Procurement

**Recommended Focus Areas FY20 – FY21**

1. Continue to offer opportunities via periodic email notifications for reuse of durable equipment, including furniture to staff for reuse and/or repurposing by other M-NCPPC facilities. (II.A.2)
2. Provide guidance to staff on the proper disposal or external surplus/recycling of M-NCPPC property when reuse or repurposing is no longer feasible within the organization. (II.A.3)
3. Establish standards for environmentally preferable cleaning products and supplies that are effective, enhance worker safety and health, and meet or exceed Federal/State safety requirements. (II.A.4)
4. Expand on printing and copying reduction measures and encourage strategies for going paperless. Work closely with Information Technology (IT) to ensure print functions on individual computers default to double-sided and leader sheets are disabled. (II.B.1, II.B.2, II.B.5)
5. Continue promoting the use of digital applications such as ePlans, web-based meeting and conference technology, and digital database systems to support projects and initiatives across the agency. (II.B)
6. Establish a sustainably-sourced/sustainable office products inventory/stock room in the warehouse at the Green Farm Maintenance Facility.

**Supporting Programs, Policies, or Initiatives**

- Existing office supplies are stored in central areas and include both new items as well as returned inventory for re-use. (II.A.1)
- Unless a specific job or machine requires otherwise, all printers make use of 100% post-consumer recycled paper preferably with chlorine-free processing. Purchased printer paper is also limited to those that are Forest Stewardship Council (FSC) Certified. (II.B.3, II.B.4)
- Montgomery Planning continues management of common-use office supplies via the Central Supply Room. The availability of additional sustainable office supplies is growing, and reassessment of products continues so that products are based on standards for environmentally preferable products. Standards include reusable products, recycled content, recyclability, and, when practical, geographic sourcing of products. To purchase products for
Division or Department event use, these procurements use the same sustainable/green criteria. (II.C.1)

- Where possible, purchases are combined to reduce deliveries, cost and energy. (II.C.2)
- IT infrastructure (both software and hardware) across both Departments continues to advance toward increased efficiency and provides increased opportunity for paperless options for reviewing and storing information. Increased utilization of programs like Microsoft Teams has allowed for more remote meeting, digital document sharing and storage, and efficient communication. (II.C.3)

**Indicators**

Indicators of progress for this plan element include the following:

- ✓ Number of laptops utilized by staff versus desktop computers.
- ✓ Number and type of education, training, and engagement opportunities made available to staff about paper reduction strategies (per fiscal year).
- ✓ Number of periodic email notifications for reuse of durable equipment, excess office supplies, and furniture available for reuse and/or repurposing at other M-NCPPC facilities (per fiscal year).
- ✓ Percent of sustainable/green-content preferred office supplies and print production paper purchased.
- ✓ Contracts for facility cleaning must include certified eco-friendly cleaners and cleaning practices for staff care of varied facility surfaces in buildings.
Recycling & Solid Waste Management

Objective: Implement projects and programs to reduce solid waste, reuse, and recycle materials used by M-NCPPC employees and patrons, and strive to meet or exceed the regulatory mandates established by government regulations. Recycling and disposal of materials shall comply with relevant Federal/State safety regulations.

Recommended Focus Areas FY20 – FY21

1. Continue the centralized recycling pilot program at staffed facilities as an effort to increase recycling rates. (III.A)
2. Continue work toward the Montgomery County recycling goal of 70% by 2020 for mandatory recycling products (mixed paper, commingled materials, yard trim, scrap metal, and holiday trees). (III.A)
3. Seek out recycling opportunities for other products used widely across the organization and establish guidance for the recycling of those materials. (III.B)
4. Seek out improved opportunities and resources to enhance operation of the Green Waste Recycling Program, including improvements to recording, tracking, and monitoring of recycling for yard trim, brush, and other vegetation used to produce compost, mulch, wood chips, and topsoil. This program, operated by the Department of Parks, provides material to support numerous operational needs, and contributes to mandatory recycling requirements established by Montgomery County Government. (III.C)
5. With the recent purchase of a portable sawmill by the Parks Department, wood waste from felled trees on parkland can be milled into usable lumber. This is an additional strategy for reuse of these materials beyond composting alone. Establish a procedure for quantifying the amount of milled lumber and tracking the end-use products constructed. (III.C)
6. Continue participating as a stakeholder in support of the Montgomery County Department of Environmental Protection’s (DEP) effort to implement the Strategic Plan to Advance Composting, Compost Use and Food Waste Division under Montgomery County Bill 28-16. (III.C)
7. Continue to develop and support the Recycling Captain program at all staffed facilities. (III.D)
   a. Establish a unified approach for disposing of various materials/products (e.g. disposed tires on parkland) and provide this information to Recycling Captains as a resource to assist staff when making decisions about waste disposal.
8. Develop educational tools and events for staff as well as the community to encourage and demonstrate best practices related to recycling, reuse, and reduction of waste. (III.D)
9. Make improvements for the internal (staff-level) reporting of recycling data which is compiled twice annually and reported to the Montgomery County Division of Solid Waste Services.

Supporting Programs, Policies, or Initiatives

- The agency adheres to Montgomery County law which mandates recycling of mixed paper, commingled materials, yard trim, scrap metal, and holiday trees. (III.A)
• Recycling Captains at each staffed facility work to ensure recycling at their site is conveniently located for users, provides consistent messaging with informational stickers on bins and posters, and that recycling and trash bins are co-located as much as practical to provide users ample opportunity to make correct choices in waste disposal. (III.A)

• The agency participates in voluntary recycling and reuse programs for materials including but not limited to vehicle fluids and oil, batteries, asphalt, tires, furniture, computers and other electronics, tires, furniture, and construction debris etc. (III.B)

**Indicators**

Indicators of progress for this plan element include the following:

- ✓ Tonnage of solid waste material (trash), mandatory recyclable material (mixed paper, commingled materials, scrap metal, yard trim (compost)), and voluntary recyclable materials generated by both Departments (separated by material type).
- ✓ Percentage of mandatory materials recycled versus solid waste material disposed as trash.
- ✓ Exact tonnage (quantity) of raw materials brought to the Pope Farm for recycling into compost, mulch, wood chips, and topsoil and exact tonnage (quantity) of finished product utilized in Park projects. Assess value of finished products in dollars.
- ✓ Improvement in production times from raw material to finished products (e.g. compost optimum cycle is 8 months and wood chips are 6 months, however due to lack of equipment and staff, realized processing cycles are currently 18 months and 12 months, respectively).
- ✓ Amount of lumber milled with the portable sawmill, and characterization of the end-use products constructed.
- ✓ Number of staff participating in the Recycling Captain program.
Sustainable Infrastructure & Natural Areas

Objective: The M-NCPPC will utilize National and State standards for green practices in the design of facilities and in the management of natural resources. Sustainable infrastructure and natural areas strategies outlined in this section include:

- Sustainable Building
- Sustainable Site Work
- Community Planning and Development

Recommended Focus Areas FY20 – FY21

1. Develop policy to, where appropriate, incorporate Leadership in Energy and Environmental Design (LEED) or equivalent standards in construction and renovation for small building projects. (IV.A.3)
2. Where appropriate, continue incorporating sustainability goals, practices, and products (using LEED and The Sustainable SITES Initiative or equivalent standards as guidance) into capital improvement plans, new facility plans and ongoing design projects, standard park construction specifications and details, and in park design guidelines. (IV.B.1, IV.B.2, IV.B.3)
3. Identify candidate projects for SITES certification. (IV.B.1)
4. Establish guidance for the planting and maintenance of trees, shrubs, and herbaceous plants best suited for long-term survival under the existing growing conditions at each individual site around agency-owned buildings. (IV.B.2)
5. Continue coordination with the University of Maryland in implementing sustainable turfgrass practices on ballfields to address field compaction issues, reduce stormwater runoff and erosion potential, and support responsible nutrient application. Where applicable, move toward a “spoon-feeding” technique for nutrient application on ballfields to allow for more precision in applications. (IV.B.4)
6. Evaluate LEED (or equivalent standard) and Sustainable SITES pilot projects to document lessons learned, ideas, and recommendations for future projects.
7. Enhance incorporation of pre-design assessments in standard scopes of work that explore opportunities for sustainable elements, and project checklists for project and construction managers.
8. Compile reference lists of product vendors, and guidance for sustainably sourced or produced materials for commonly used site construction materials, site furnishings, product manufacturers, and plant nurseries. This reference list may include materials/products that are locally available, made from recycled/reclaimed materials, etc.

Supporting Programs, Policies, or Initiatives

- Montgomery County Executive Regulation 21-15, adopting the 2012 International Green Construction Code (IGCC), sets baseline energy efficiency and resource conservation requirements for commercial construction in the County. All new construction or major renovation of M-NCPPC buildings equal to or greater than 5,000 square feet are required to
adhere to IGCC standards. In addition, M-NCPPC buildings fitting these criteria are constructed to at least LEED Silver or equivalent standard. The Rock Creek Maintenance Facility is being constructed to achieve LEED Gold, the Green Farm Maintenance Facility (a Montgomery County building) is constructed to achieve LEED Silver. Wheaton Headquarters, currently under construction, is being designed to achieve LEED Platinum. (IV.A.1, IV.A.2)

- The future Maydale Nature Center will be a small-scale net-zero facility and will utilize rainwater harvesting through cistern storage and will include solar panels and other sustainable building/design elements. This site will serve as an important space for the public to learn about and engage with sustainable building design. (IV.A.2)

- Whenever feasible and appropriate, capital improvement plans include implementation of at least LEED Silver eligibility or equivalent standards or incorporate sustainable elements as appropriate to the specific site and project. (IV.A.3)

- When planning new office sites, consideration is given to locations that offer access to public transportation resources such as Metro rail, trains, buses, and carpools. (IV.A.4)

- Both Department’s adhere to Maryland Department of the Environment requirements for use of best practices and environmental site design (ESD) to avoid, trap, and control erosion or surface runoff of detergents, fertilizers, pesticides, and soil into storm drains and surface waters. (IV.B.4)

- Where possible, new development is planned and located according to Smart Growth principles and in conjunction with Maryland Sustainability Initiatives. (IV.D.1)

- Community Planning and Development is supported through Master Plans and projects undertaken by Montgomery Planning. Smart Growth development and initiative opportunities grow from studies that examine bikeways, roadways, traffic generation, and regional transit resources. This knowledge is available to better assess and approve development projects that meet sustainable planning initiatives. To further meet the needs of current and future residents in our communities, supportive research is conducted on retail, housing, and co-location of recreation, community centers and other public facilities to encourage development that will sustain and promote Smart Growth principles. (IV.D.2, IV.D.3)

**Indicators**

Indicators of progress for this plan element include the following:

- Number of facilities or locations that have achieved at least LEED Silver (or equivalent standard) or Sustainable SITES designation.
- Characterization of the types of sustainable elements incorporated into small facilities or locations not seeking LEED or Sustainable SITES designation (per fiscal year).
Natural Resources & Habitat Preservation

**Objective:** The M-NCPPC will utilize National and State standards for green practices in the management of natural resources. Natural areas will be managed to maintain healthy ecosystems and maximize biodiversity with a focus on:

- Natural Resources Management
- NPDES Permit Requirements, Stormwater Management
- Forest and Tree Canopy Conservation and Preservation
- Environmentally Sensitive and Unique Habitats

**Recommended Focus Areas FY20 – FY21**

1. Natural Resource Management Plans will be completed for Bennett Creek Conservation Park and Rachel Carson Conservation Park. (IV.C.1)
2. Improve data extraction for creating reports on pesticide use and alternative pest management strategies in the Enterprise Asset Management (EAM) system. (IV.C.4)
3. The Department of Parks will begin implementation of a newly issued Municipal Separate Storm Sewer System (MS4) Phase II National Pollutant Discharge Elimination System (NPDES) permit. (IV.C.5)
4. Both Departments will continue to utilize and expand the use of GIS-based technology, including mobile GIS applications to allow for the collection, maintenance, and assessment of data collected in support of natural resources stewardship.
   a. Montgomery Parks has completed the initial inventory of all the individual landscape trees in developed parks. We are beginning the analysis of the data to determine management changes to improve species and age diversity, determine the success of specific planted species in our parks, and evaluate invasive pest threats within the management regions of Montgomery County.
5. Assess parkland areas as they relate to priority areas for tree canopy enhancement countywide. Prioritize tree planting, as appropriate, in priority areas with a focus on promoting, tree health, and species diversity. Restore a diverse tree canopy to areas of Montgomery County that have low canopy coverage or highest potential for coverage, providing equitable distribution of urban forestry benefits to all residents.
6. Work program development and pilot to prune trees in parks beyond the standard two-year maintenance period as an effort to improve tree health, structural integrity, and promote individual tree sustainability within the landscape, with the intention of reducing the work program for mature tree maintenance as a long-term goal. This program has been implemented over the past year where all trees identified for pruning in the Green Farm Management Area were completed. Pruning work will continue to be scheduled and completed by Management Area. Currently work is taking place in the Cabin John Management Area.
Supporting Programs, Policies, or Initiatives

- A Natural Resources Management Plan was finalized in 2013 for all parkland acquired for the purpose of conservation. The plan provides management guidance for staff related to environmentally sensitive and unique habitats on parkland including Best Natural Areas and Biodiversity Areas. (IV.C.1)
- The Department of Parks manages a non-native invasive plant program which inventories, assesses, and controls non-native invasive plants across parkland. This work includes management of the Weed Warrior Volunteer program which educates and engages the public on non-native invasive plant identification and management through coordinated events county-wide. (IV.C.2)
- The Department of Parks manages a nuisance wildlife program (e.g. White-tailed deer, Canada geese, etc.). (IV.C.3)
- As an effort to protect the environment and ensure safety of employees and park patrons, the Commission acts responsibly in the handling, storage, and application of pesticides and fertilizers. The agency adheres to all Federal, State and County regulations governing pesticide and fertilizer storage, use, and disposal. Beginning July 2016, Montgomery Parks prohibited pesticide use on playgrounds, children’s facilities, and designated pesticide-free parks. An integrated pest management decision-making process is utilized in other park areas to determine if pest suppression is needed, what method or combination of methods is needed, when control should be implemented, and where control should be targeted. Latest information about Montgomery Parks Pesticide Reduction and Integrated Pest Management Program can be found online at: https://www.montgomeryparks.org/about/parks/pesticides/ (IV.C.4)
- Under Federal and State stormwater regulations, the Department of Parks is required to adhere to two National Pollutant Discharge Elimination System (NPDES) permits that are administered by the Maryland Department of the Environment. A general permit for stormwater discharges associated with Industrial Activities (No. 12-SW) is issued for each of the 12 maintenance yards in the system. Stormwater discharges from all other areas with the park system are covered by a general permit for State and Federal Small Municipal Storm Sewer Systems (MS4). (IV.C.5)
- Continue managing fee-in-lieu, mitigation, and other development-related afforestation and reforestation planting projects on parkland to enhance the natural tree canopy, promote species diversity, and manage non-native invasive plants.
- The Parks Department is conducting tests of liquid vs. granular fertilizer applications in an effort to identify efficiencies in frequency of application, effect on mowing, staff time, and fuel use.
Indicators

Indicators of progress for this plan element include the following:

✓ Completion of Natural Resources Management Plans for Bennett Creek Conservation Park and Rachel Carson Conservation Park.
✓ Frequency and types of management strategies employed and acreage of non-native invasive plant treatment area in designated Best Natural Areas, Biodiversity Areas, or other parkland areas.
✓ Characterization of nuisance wildlife management programs (e.g. number of deer harvested, Canada geese management, etc.).
✓ Tracking of fertilizer and pesticide applications in EAM.
✓ Number of stormwater management facilities maintained by M-NCPCC and acreage of treated impervious surfaces (with stormwater management) on M-NCPCC parkland in Montgomery County.
✓ Number of developed M-NCPCC parks that have been inventoried to characterize trees and related information using the mobile GIS tree inventory application.
✓ Number of trees planted annually into parks from the Pope Farm Nursery ranging from 1” to 8” diameter.
✓ Percentage or number of trees from the Pope Farm Nursery planted in areas of low canopy or highest potential canopy coverage areas based on A Report of Montgomery County’s Existing and Possible Tree Canopy, March 2011.
✓ Number of young trees pruned to establish good structure and health for long-term sustainability in the landscape. Optimal number of trees pruned per year will be established once a cycle is complete, number will reflect every tree pruned on an established cycle with the development of an optimum cycle for sustainable canopy in the parks.
✓ Percentage of parks where young tree pruning was completed to meet optimum cycle.
Health & Wellness

Objective: Promote safety, health, and wellness through our workplace, programs, and services.

Recommended Focus Areas FY20 – FY21

1. Make connections between environmental health and human health in training offerings, educational materials, and program offerings related to sustainability. (V.A)
2. The Montgomery County ParkRx Program has a memorandum of understanding (MOU) with ParkRxAmerica to advance the mutual goals of the Parties in documenting the health and wellness benefits of visiting parks and natural areas. Together the Parties seek to collect and maintain information that is consistent, accurate, and reliable for the park sites under the jurisdiction of the agency and to connect collected information with healthcare providers for the purpose of prescribing visits to park sites. (V.A)
3. Monitor the implementation of Resolution 17-02, “Adoption of Healthy Vending Machine Policy” and assist the Healthy Vending Committee comply with the healthy vending standards in our Departments. (V.A)
4. Reboot of the Montgomery Departments Safety Committee to advance mandatory safety and equipment use training through development of a Safety Video Library accessible through SharePoint and viewable on demand or scheduled event training. (V.B)

Supporting Programs, Policies, or Initiatives

- An annual Fitness Week is coordinated annually that provides a designated number of Administrative Leave hours for staff to participate in scheduled events across the parks to encourage health, fitness, and wellness of employees. (V.A)
- Both Departments participate in Age-Friendly Montgomery, a county-wide, multi-departmental initiative that works collaboratively to develop practices that enhance the life of county citizens ages 55 and older. (V.A)
- Both Departments are involved in Healthy Montgomery, the community health improvement process for the County. This effort brings together County government agencies, elected officials, the four County hospital systems, minority health initiatives/program, advocacy groups, academic institutions, community-based service providers, the health insurance community, and other stakeholders to identify challenges and work toward achieving optimal health and well-being for all residents. (V.A)
  a. The Department of Parks and the Planning Department participate in Healthy Montgomery’s ‘Health in All Policies’, a county-wide, multi-departmental initiative that is working to make health a part of every department’s mission and culture. (V.A)
- The Montgomery County Park Rx Program is recognized in the Forest Glen Montgomery Hills Sector Plan and lists the parks within the sector plan boundary that have been prescribed to patients by medical providers. (V.A)
- Mental Health Awareness Month is observed each May, and during that time, a series of educational sessions and support programs are provided for staff on topics ranging from depression, grief and loss, and stress, among other mental health topics. (V.B)
• All employees are required to participate in a Defensive Driving course prior to operating Commission vehicles. (V.B)
• Park Police in Montgomery County offer free self-defense training for all interested employees. (V.B)
• The agency coordinates an annual event for staff known as ‘Pause for Safety’, a 3-week seminar of mandatory safety training classes on a variety of topics related to diverse work program functions within the Department of Parks Facilities Management Division. (V.B)
• Health and safety incident claims data are reviewed annually, quarterly, and monthly to assess risk, identify trends, and to analyze frequency and severity of accidents, injuries and/or property damage. These data are used to help target future training and inspection activities. The Safety Office performs accident investigations, complaint investigations, routine and/or targeted inspections, and safety training for staff. (V.C)
• Workplace hazards are mitigated through timely identification, investigation and remedial action. A Hazardous Materials Response Team (related to building materials) has been established in the Department of Parks Facilities Management Division to respond to and address potential workplace hazards. Extensive material testing is conducted at facilities to identify hazards prior to large-scale renovation or construction projects, and associated abatement is completed as appropriate. (V.C)

Indicators

Indicators of progress for this plan element include the following:

✓ Number and type of opportunities or events made available to staff to promote health, safety, and wellness (by fiscal year). Information should be collected on the:
  o topic (brief description),
  o date of event or distribution,
  o format (e.g. presentation, written material, workshop, event),
  o target audience, and
  o number of staff participants
  o measurable outcomes of participation (if available).
✓ Evaluate the fiscal year data to update and adapt goals and standards to maintain Healthy Vending Machine products.
AUTHORITY
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

RESCISSION
The Practice, as amended on November 19, 2012, updates and replaces all other internal sustainability procedures.

PURPOSE AND BACKGROUND
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 November 19, 2012 to update and replace initial measures through a broader understanding of sustainability standards, which benefit the environment, our workplace, and the communities we serve.

The Practice, as originally approved, has been revised as follows:
• May 1, 1979 and January 9, 1980: Incorporated updated responsibilities due to agency restructuring.
• November 19, 2012: Policy amended to:
  o Reflect more modern concepts in the area of sustainability, including:
    ▪ Green building management strategies which meet nationally accepted sustainability certifications for energy conservation and use of renewable resources;
    ▪ Procurement of goods and services aimed at high efficiency products and other sustainable practices;
    ▪ Implementation of green development strategies in community planning, landscape design and other site planning;
    ▪ Elements aimed to foster ongoing awareness among our employees and patrons on sustainability objectives and programs; and
    ▪ Updated County and State sustainability mandates.

REFERENCES Federal/State/Local Standards:
• Maryland Stormwater Management Act of 2007 and accompanying Environmental Site Design Standards
• Maryland Code, State Finance and Procurement, § 5-312, High Performance Building Act
- Prince George’s County Executive Order 22-2007, Goes Green Program
- Prince George’s County Energy Policy
- Montgomery County Bill 32-07, Environmental Sustainability Climate Protection Plan
- Montgomery County Resolution 16-757, County Energy Policy (with reference to Interagency Committee on Energy and Utilities Management)
- Leadership in Energy and Environmental Design Certification Standards as issued by the United States Green Building Council
- Standards and Guidelines for Sustainable Sites (United States Sustainable Sites Initiative)
- Maryland Sustainable Communities Act of 2010

**M-NCPPC Policies:**
- Administrative Practice 4-10, Purchasing Policy
- Administrative Practice 2-18, Work-Life Program and related Administrative Procedures including:
  - 95-02, Compressed Scheduling
  - 95-04, Telework
  - 03-02, Alternative Commuting Resources

**APPLICATION**
This Practice applies agency-wide.

**DEFINITIONS**

**Chlorine-free Processing:** Paper is whitened without the use of chlorine in the process (PCF), eliminating production of chlorinated toxic chemicals and dioxins in processing wastes.

**Energy Star:** The Department of Energy rating for appliances and building products that minimize the use of energy.

**Environmental Site Design (ESD):** Using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources.

**Forest Stewardship Council (FSC) Certification:** A third-party guarantee that wood products, including paper, are harvested from a certified sustainably managed forest.

**Green Practice:** The wise use of resources, conservation, and innovative environment-friendly designs that create or enhance sustainability.

**Greenhouse Gas (GHG):** A gas that increases the atmospheric reflection of infrared heat emissions from Earth’s surface, measured in carbon dioxide equivalent.
Leadership in Energy and Environmental Design (LEED): A building certification system designed by the U.S. Green Building Council (USGBC) that promotes design and construction strategies aimed at improving environment and resource stewardship. The tiered standards, which use Certified, Silver, Gold, and Platinum, vary by project type and are made available at USGBC.org.

Net Metering: Net metering is a policy that allows a solar-system owner to receive credit on his/her electricity bill for surplus solar electricity sent back to the utility.

Post-Consumer Recycled Content: Contains material that was consumed in a final product and then recycled.

Renewable Energy Certificate: Also known as “Green Tags” and “Green Certificates” is a tradable, non-tangible energy commodity that represents proof that one megawatt-hour of electricity was generated from an eligible renewable energy resource. Renewable Energy Certificates provide organizations a convenient way to purchase renewable energy, offset carbon emissions, and encourage clean energy development.

Smart Growth: Urban planning that supports efficient and sustainable land development and utilizes redevelopment that optimizes prior infrastructure investments. Smart growth incorporates strategies such as mixed-use urban centers that support and enhance public transit; promote walking and bicycling, provide for a range of housing and retail options, and consume less land that can be preserved for open spaces and natural systems.

Sustainable Sites Initiative (SITES): A rating system, similar to LEED developed by the American Society of Landscape Architects, that establishes voluntary national guidelines and performance benchmarks for sustainable land design, construction and maintenance practices.

Sustainability: Creates and maintains the conditions under which humans and nature can exist in productive harmony, and preserves resources so that they are not depleted or permanently damaged.

POLICY

The M-NCPPC is committed to stewardship of the environment, our community, and the workplace through the implementation of sustainable practices that preserve natural and economic resources, reduce waste and consumption, reduce the carbon footprint, promote green practices in our facilities and programs, and support the wellness of our employees and community.

Sustainability efforts shall increase the value or longevity of services while reducing reliance on resources and the negative effect on health or the environment.
The goal of this agency is to lead and implement meaningful sustainability initiatives. The sustainability goals outlined in this Practice are to be carried out as an agency, wherever feasible, and implemented within each department. The feasibility analysis of initiatives should consider the following:

- The prudent use of public dollars;
- The availability of green materials/services;
- The ability to maintain or improve existing service levels and safety; and
- The ability to safeguard the integrity of facilities/structures, including concerns for historic preservation.

These goals are intended to serve as benchmarks that may be further enhanced on a departmental, programmatic, or facility basis. It is recognized that certifications/standards identified in this Practice may evolve over time. The agency shall be guided by the certification/standard requirements that are in place at the time an initiative is being designed.

To implement this policy, each Department shall generate a Sustainability Plan that explains how goals identified in this Practice are being implemented for its respective facilities, operations or services. These Plans shall be presented to the Executive Committee by September 2013 and updated at least every two years.

The agency’s sustainability efforts under this Practice also will be supported through a Sustainability Committee comprised of representatives from each department. The Committee shall: ensure coordinated efforts for agency-wide initiatives wherever practical; share ideas and expertise for the implementation on sustainability goals on a departmental level; prepare a Sustainability Report to the Commission that describes initiatives implemented throughout the agency, and recommend new or revised goals to ensure that the M-NCPPC stays at the forefront of sustainability practices.

Specific requirements for development of Sustainability Plans and reporting results to the Executive Committee and Commission are outlined in the Section titled Responsibilities. The following goals and objectives are designed to guide implementation of this Sustainability policy.

I. **Utility/Energy Conservation:** Conserve natural and fiscal resources by eliminating waste, improving efficiency, reducing the consumption of energy, and increasing the use of renewable sources of energy. Whenever feasible, new appliances and building materials shall meet Energy Star or equivalent rating for high efficiency and energy conservation. This should be in addition to also considering other environmental attributes such as recyclability and applicable federal/state safety and building code requirements.

   A. **Utility Measurement and Monitoring**
      1. Department sustainability coordinators shall collect utility use
information to develop/enhance utility management standards and track the cost of each facility’s utility consumption over time.

2. Utility consumption trends shall be made available to facility managers and Department Directors to evaluate and refine utility and cost saving practices.

3. Managers who operate buildings or spaces leased by the M-NCPPC should work with the facility owners to include utility metering or reporting for the leased space(s).

B. Conservation of Electricity and Natural Gas

1. In addition to established internal maintenance programs, departments should pursue grants for energy efficiency studies, upgrades, and retrofits for planned and existing facilities.

2. All M-NCPPC facility managers should seek to meet Leadership in Energy and Environmental Design (LEED) Volume Program for Operations and Maintenance, or LEED for Existing Buildings: Operations and Maintenance criteria, for at least a Silver or equivalent rating standards for operations and maintenance. These standards are issued by the U.S. Green Building Council which can be accessed through its website (www.usgbc.org).

3. Where practical, indoor and outdoor lighting fixtures shall be programmable or linked to occupancy or motion sensor(s).

4. Light emitting diodes (LEDs), daylight fixtures, or other efficient low-energy lighting solutions should be used in place of incandescent, halogen, or fluorescent lights, where practical.

5. By 2020, the agency through coordination with the Department of Finance, will strive to meet a target whereby 40% of its electricity is produced or supported through renewable energy sources. These sources may include, but are not limited to, the purchase of Renewable Energy Certificates, onsite generation of energy from renewable sources (such as wind, solar, geothermal, water, etc.), and/or the acquisition of renewable energy from utility companies. This target may be adjusted by the Executive Committee with input from the Secretary-Treasurer based on fluctuating costs and availability of renewable energy sources.

6. Renewable sources (such as solar, wind and geothermal) should be considered for new and replacement systems where life cycle cost savings are justified in addition to aggregate net metering or
power purchase agreements, among other financing or contract mechanisms, to further reduce the Commission’s carbon footprint with its energy use, save costs, and further promote clean power alternatives wherever practicable.

C. Conservation of Water
   1. Install and properly maintain automatic faucets, where practical.
   2. Whenever feasible, utilize low flow toilets and other innovations to reduce water demands.
   3. Investigate and where feasible, install an efficient infrastructure for use of rainwater or grey water at M-NCPPC facilities, including water amenities and landscape watering.
   4. Upon learning of any abnormal water usage pattern, facility managers shall investigate, locate, and immediately repair any leaks and inefficiencies.
   5. Strive to plant native trees and shrubs in landscaping.
   6. Strive to reduce lawn areas to minimize the need for irrigation and plant areas with appropriate drought tolerant native species.

D. Management of Heating, Ventilation, and Air Conditioning (HVAC) Systems
   Whenever feasible:
   1. Insulate exposed piping and ventilation ducts in accordance with at least LEED Silver or equivalent standard.
   2. Integrate installation of high efficiency HVAC equipment in new construction or in replacement plans for existing equipment, such as Energy Star or equivalent.
   3. Use programmable thermostats to minimize HVAC use when buildings are not in use.
   4. In the planning of new buildings or major renovations to existing buildings, review insulation specifications to meet LEED Silver or equivalent standards.

E. Fleet Management and Use of Alternative Commuting Resources
   1. Employees utilizing M-NCPPC vehicles are encouraged to carpool with other employees to conserve fuel, minimize operating costs, and reduce environmental impacts related to pollution and congestion.
   2. Fleet managers shall assist Departments in assessing the functional use/need of vehicles based on assigned work program needs, and recommend vehicle purchases to most effectively meet these needs to include factors such as fuel/energy efficiency, safety, and effective operation. All new vehicle purchases shall consider the most energy efficient options
suitable to meet the indicated use for the vehicle.

3. Vehicle assignments shall ensure the most efficient use of the agency’s fleet.

4. To maintain highest operating efficiency, fleet managers should ensure that all vehicles receive periodic maintenance consistent with manufacturer specifications.

5. Reduce impact of employee travel to and from M-NCPPC facilities by implementing the following strategies:
   a) Implement feasible options and/or incentives to encourage staff’s use of public transportation, regional commuting resources (e.g., ride share and car pools), and internal programs such as departmental pool vehicles and vanpools.
   b) Establish and encourage carpooling by M-NCPPC employees, allocating reserved spaces for carpoolers.
   c) Encourage the use of alternate work arrangements such as Telework and Compressed Workweeks to reduce, among other things, environmental impact and costs/needs associated with workspace operations.
   d) Capitalize on meeting and conferencing technology by using more phone and video conference calls (including webinars for training), even locally, to cut back on use of vehicles and travel times.

II. Sustainable Acquisition and Use of Agency Supplies: Develop procurement specifications that encourage the use of goods and services which support the agency’s commitment to sustainability in areas including, but not limited to, resources conservation, protection of the environment, and workplace health and safety.

A. Office Supplies and Furniture
   1. Actively reuse office supplies whenever possible, maintaining a returned inventory of supplies for reuse.
   2. Durable office equipment, including furniture, should be considered for reuse or repurpose by other M-NCPPC facilities/operations before it is recycled/surplus/ed or disposed.
   3. All disposal or external surplus/recycling of M-NCPPC property shall be coordinated with the Department of Finance, Purchasing Office, to ensure adherence to legal dispossession of assets, with a preference placed on repurposing outside M-NCPPC for the benefit of the community.
   4. Where feasible, identify and use environmentally friendly cleaning supplies/other products and services that are effective, enhance worker safety and health, and meet or exceed federal/state safety requirements.
B. **Printing and Copying**
   1. Utilize two-sided printing whenever one-sided printing is not necessary.
   2. Limit use of color copying/printing to reduce costs and resources.
   3. Unless specific job demands or technical specifications of a printer require otherwise, purchase and use 100% post-consumer recycled paper, preferably with chlorine-free processing.
   4. Purchase of papers containing less than 100% post-consumer content should be limited to those that are Forest Stewardship Council (FSC) Certified.
   5. Incorporate other practical measures to reduce print material such as e-signatures, document imaging, and other paperless means of doing business.

C. **Procurement**
   1. Procurement policies shall incorporate sustainable purchasing guidelines to secure economies of scale and promote sustainable product and service offerings by vendors. (See, for example, the Environmental Protection Agency’s list of greener products that promote resource conservation, efficiency, safer alternatives, and, recycled content and recyclability, among other factors, in addition to other, similar sources. See also Section I.B., Conservation of Electricity and Natural Gas.)
   2. Purchases should be combined whenever reasonable to reduce deliveries to minimum essential requirements, to save costs and energy where possible.
   3. In cooperation with the Chief Information Officer, departments should create and sustain an efficient information technology (IT) infrastructure that supports operational needs while increasing paperless options for reviewing and storing information, and using environmentally preferable and energy efficient equipment including computers, printers, copiers, document imaging systems, servers, etc.)

III. **Recycling and Solid Waste Management:** Implement projects and programs to recycle, reuse, and reduce solid wastes used by M-NCPCC employees and patrons to meet or exceed the regulatory mandates established by government regulations. Recycling and disposal of materials shall comply with relevant federal/State safety regulations.

A. Implement recycling and reuse programs to achieve an overall rate of 90% of recyclable materials mandated by state or local law (including
mixed paper, commingled materials, yard trim materials, Christmas trees, and scrap metal).

B. Implement recycling and reuse programs to include other material to include but not be limited to oils, batteries, asphalt, tires, furniture, computers, electronics, construction debris, etc.

C. Implement programs to recycle and reuse plant, tree, and related vegetation materials to include composting within the natural resources of the agency.

D. Develop community-based information programs to encourage, demonstrate, and educate patrons on best practices to recycle, reuse, and reduce solid waste at M-NCPPC facilities/programs.

IV. Sustainable Infrastructure and Natural Areas: The M-NCPPC will utilize the national and State standards for green practices in the design of facilities and in the management of natural resources. Natural areas will be managed to maintain healthy ecosystems and maximize biodiversity.

A. Sustainable Building - Whenever feasible:
   1. All new construction of M-NCPPC buildings shall be at least Leadership in Energy and Environmental Design (LEED) Silver eligible or equivalent standard.
   2. Major renovation of M-NCPPC buildings shall meet at least LEED Silver eligibility or equivalent standard.
   3. Capital improvement plans shall include implementation of LEED or equivalent standards in construction and renovation.
   4. When planning new office sites, consideration should be given to locations that offer access to public transportation resources such as metro rail, trains, buses, and carpools.

B. Sustainable Site Work - Where appropriate:
   1. Capital improvement plans shall include implementation of the Sustainable Sites Initiative (SITES) or equivalent standards (such as LEED) in construction and renovation.
   2. Plant native trees and shrubs around agency-owned buildings to provide wind and summer sun shelter.
   3. Utilize appropriate site layout, landscaping, and material choice to reduce heat island effect and summer cooling costs.
   4. Use best practices including, but not limited to, current environmental site design standards to avoid, trap, and control erosion or surface runoff of detergents, fertilizers, pesticides,
and soil into storm drains and surface waters.

C. **Natural Resources Management:**
   1. Develop and implement a Natural Resources Management Plan for all parklands acquired for conservation purposes by 2012. This Plan provides general guidance to park management staff for the management of natural areas in parks.
   2. Maintain, and expand as appropriate, the existing program for the inventory, assessment, and control of non-native and invasive (NNI) plants.
   3. Maintain, and expand as appropriate, the existing program for the control of nuisance wildlife (e.g. White-tailed deer, Canada geese, etc.)
   4. Utilize integrated pest management practices, where effective.
   5. Maintain, and expand, as required by State regulations, the storm sewer system, and the monitoring of water bodies and restoration of watersheds within the park system.

D. **Community Planning and Development:**
   Where possible and practical, Community Planning and Development shall:
   1. Plan and locate new development according to Smart Growth principles and in conjunction with Maryland Sustainability initiatives.
   2. Locate recreation facilities to afford access via public transit and trails networks.
   3. Co-locate community recreation centers and major recreation facilities with other public facilities.

V. **Health & and Wellness:** Promote safety, health, and wellness through our workplace, programs, and services.
   A. Support healthy communities by integrating sustainability concepts and green practices with relevant program offerings, to further enhance patron and employee well-being.
   B. Raise awareness of workplace health, safety, and wellness issues through comprehensive training and education programs targeting illness and injury prevention.
   C. Mitigate workplace hazards through timely identification, investigation, and remedial action. Whenever reasonable, complete collaborative reviews of accidents and design new programs to encourage greater understanding of risks and actions to implementation.

VI. **Employee Education & Training on Sustainability Goals**
   A. Sustainability efforts will be fostered through agency-wide
promotion and education of environmental awareness and conservation.

B. Employees should be encouraged to seek sustainability credentials appropriate to their work program.

C. Supervisors are responsible for reviewing work program requirements as they pertain to implementation of sustainability efforts. Applicable sustainability goals are to be incorporated into employee performance expectations.

**RESPONSIBILITIES**

The following responsibilities are assigned for the overall administration of the agency’s sustainability policy. Responsibilities may be delegated as appropriate.

**Department Directors shall:**

- Ensure compliance with this policy.
- Develop a departmental bi-annual Sustainability Plan that shall be presented to the Executive Committee by September 2013 to outline initiatives for the upcoming two-year period. The Sustainability Plan shall be reviewed and presented every two years.
- Following the first year of implementation of the Plan, Department Directors shall report of the status of achieving sustainability goals and objectives outlined in this Practice and in the departmental Sustainability Plan.
- Designate one or more employees to act as the departmental Sustainability Coordinator(s) and serve as the representative(s) to the agency-wide Sustainability Committee.

**Departmental Sustainability Coordinators shall:**

- Serve as the departmental liaison to the Sustainability Committee and as the point of contact and clearinghouse for all sustainability-related issues for the M-NCPPC.
- Assist the Department Director in preparing the departmental Sustainability Plan that meets, at a minimum, the sustainability goals and objectives set forth in this Practice.
- Communicate goals outlined in the departmental Sustainability Plan to all operations/facilities and provide support for implementation of the Plan.
- Collect data and perform analyses to monitor and assess ongoing progress on meeting standards and complying with guidelines.

**Sustainability Committee shall:**

- Share ideas for implementation of sustainability goals throughout the agency and on a departmental level.
- Promote sustainability awareness within M-NCPPC and the region.
- Recommend to Department Directors, and develop/implement approved
communication tools to educate the workforce and the community on sustainability goals, initiatives, and progress.

- Recommend to Department Directors, new or amended initiatives to comply with the goals outlined in this Practice.
- Prepare a Sustainability Report to the Commission that describes the initiatives that have been implemented throughout the agency.
- Strengthen information exchange with intergovernmental relationships in the area of sustainability (e.g., Council of Governments, County/State agencies, local municipalities) and, where relevant, explore opportunities to promote cooperative partnerships and complementary cost-savings with potential implementation of various measures with or across organizational boundaries.