

**MARYLAND-NATIONAL CAPITAL PARK & PLANNING  
COMMISSION**

**M-NCPPC Fuel Usage  
Draft Report Number: CW-010-2018  
May 31, 2018**

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**M-NCPPC Fuel Usage Audit**  
**CW-010-2018**  
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**I. EXECUTIVE SUMMARY**

**A. Overall Perspective**

The Maryland-National Capital Park and Planning Commission (M-NCPPC or Commission) operates 19 fueling stations for use by M-NCPPC employees driving Commission vehicles. These stations are also used for fueling M-NCPPC equipment such as tractors, riding mowers, push mowers, edgers, blowers and any other gasoline or diesel-powered pieces of equipment.

In calendar year 2017 the Commission spent approximately \$2m for fueling vehicles and related equipment:

<b>County</b>	<b>Number of Fueled Vehicles<sup>1</sup></b>	<b>Vehicle Fuel Costs</b>	<b>Fuel Costs per vehicle</b>	<b>Small Equipment Fuel Costs<sup>2</sup></b>	<b>Total Fuel Cost</b>
PGC	1,214	\$1,149,043	\$946	\$ 47,399	\$1,196,442
MC	903	\$ 771,189	\$854	\$ 58,046	\$ 829,235
<b>Total</b>	<b>2,117</b>	<b>\$1,920,232</b>		<b>\$105,445</b>	<b>\$2,025,677</b>

<b>County</b>	<b>Park Acreage</b>	<b>Total Fuel Costs per Park Acreage</b>
PGC	28,000	\$42.73
MC	36,895	\$22.48

<sup>1</sup> Fueled vehicles included all vehicles (includes Park Police), and equipment that is driven (e.g. backhoes, tractors, etc.). Fuel costs include gas and diesel.

<sup>2</sup> PGC -7% of gas costs (excludes diesel); MC – 7% of total fuel costs

**M-NCPPC Prince George’s County (PGC)**

For purposes of this audit, PGC includes Central Administrative Services, Prince George’s County Department of Parks and Recreation and Prince George’s County Planning Department as vehicles and fueled equipment within each of these units come under the auspices of Prince George’s County Department of Parks and Recreation’s Maintenance and Development Division, Fleet Management Section.

The following table shows the 9 M-NCPPC fueling stations within PGC:

Bock Road	7401 Bock Rd.	Fort Washington
Cosca	11000 Thrift Rd.	Clinton
Enterprise	2910 Enterprise Rd.	Mitchellville
Fairland	14110 Gunpowder Rd.	Laurel
Henson Creek	7200 Sunnyside Lane	Oxen Hill
Paint Branch	4690 University Blvd.	College Park
Patuxent River Park	1600 Croom Airport Rd.	Upper Marlboro
Randall Farm	4200 Ritchie Marlboro Rd.	Upper Marlboro
Watkins	301 Watkins Park Dr.	Upper Marlboro

Glenridge maintenance yard recently closed (which contained a fueling station) in Hyattsville, Maryland due to construction of the purple metro line. Because of this, M-NCPPC has arranged access to an additional 20 fueling sites owned by Quarles Fleet Fueling for M-NCPPC employees located in the vicinity to use.

PGC has installed the Fuel Master AIM-2 Module System on vehicles purchased since 2010. This system provides a complete passive fueling system utilizing radio frequency identification (RFID). To obtain fuel in one of these vehicles, employees must place the fuel nozzle into the vehicle and swipe their employee identification badge (ID). The AIM-2 Module System automatically records the identification of the vehicle, vehicle odometer reading, amount of fuel pumped and identification of employee. The information is sent to the fuel master data base and is then imported by M-NCPPC into the Faster System (system used by the Commission to track motor operated vehicles and equipment).

The Fuel Master AIM-2 Module System provides complete control and comprehensive security over fuel dispensers. The system’s RFID only allows fuel to be pumped into a specific vehicle and does not allow more fuel to be pumped than is required because it automatically tracks the odometer within the vehicle’s electronic system. This system provides the highest level of internal controls over Commission fuel usage.

PGC vehicles purchased prior to 2010 are fueled by the Fuel Master System however, they are not equipped with the Fuel Master AIM-2 Module System which provides the RFID capability. Therefore, to obtain fuel, employees must swipe their ID badge, insert a key into the fueling station and manually input the vehicle's odometer reading. The information is recorded in Fuel Master and then imported by M-NCPPC into the Faster System.

M-NCPPC vehicles that use Quarles fueling stations require employees to input their personal identification number (PIN) and insert a special fuel card into the fueling station. This information identifies the individual pumping the gas, the vehicle and the amount of gas pumped. This information is then sent to Fuel Master and then imported by M-NCPPC into the Faster System.

All Park Police vehicles are equipped with the Fuel Master AIM-2 Module System. Those stationed in the Northern Area Operations Area are also permitted to use the Quarles fueling stations.

In addition, the Fuel Master AIM-2 Module System is also installed on large riding lawn mowers and tractors which have hour meters. Small mowers do not have this installed and are fueled from fuel cans by employees.

Users of the Fuel Master AIM-2 Module System can purchase key attachments for each fuel can that would track the amount of fuel dispensed into each can. Per discussions with Prince George's County Maintenance Development Chief, the cost of implementing this control outweighs the total cost (\$47,399) spent on small mowers and hand-held equipment.

**M-NCPPC Montgomery County (MC)**

For purposes of this audit, MC includes Montgomery County Department of Parks and Montgomery County Planning Department as M-NCPPC vehicles and fueled equipment within each of these units come under the auspices of Montgomery County Department of Parks, Facilities Management Division, Fleet Management Section.

The following table shows the 10 M-NCPPC fueling stations within MC:

Little Bennett	23701 Frederick Rd.	Clarksburg
Black Hill	20930 Lake Ridge Dr.	Boyds
South Germantown	14501 Schaeffer Rd.	Germantown
Rock Creek	6340 Needwood Rd.	Derwood
Green Farm	8301 Turkey Thicket Dr.	Gaithersburg
Olney Manor	16601 Georgia Ave.	Olney
Cabin John	7700 Tuckerman Lane	Rockville
Martin Luther King, Jr.	1120 Jackson Rd.	White Oak
Meadowbrook	8000 Meadowbrook Lane	Chevy Chase
Wheaton	12012 Kemp Mill Rd.	Wheaton

All MC vehicles are fueled by the Fuel Master System however they are not equipped with the Fuel Master AIM-2 Module System which provides the RFID capability. To pump fuel, employees must swipe their ID badge, input the odometer reading and input the vehicle ID number. Fuel pump keys are not used. The information from Fuel Master is then imported by M-NCPPC into the Faster System.

The facility (including the fueling station) at Green Farm is owned by Montgomery County Government. M-NCPPC employees at this site, are provided keys for the fuel pumps by Montgomery County Government. To pump fuel, employees insert the key into the fuel station and input the vehicle number and odometer reading. Employees using the Green Farm fueling station do not swipe their ID badges as Montgomery County owned pumps do not recognize Commission ID badges, therefore identification of the employee pumping gas is not recorded. This system provides the least level of internal control over Commission fuel usage.

Park Police can use all fueling stations except Green Farm.

Riding lawn mowers with hour gauges are fueled from pumps installed with the Fuel Master System. Small mowers are fueled with gas cans by employees.

Users of the Fuel Master AIM-2 Module System can purchase key attachments for each fuel can that would track the amount of fuel dispensed into each can. Per discussions with Montgomery County Facility Management Chief, the cost of implementing this control outweighs to total cost (\$58,046) spent on small mowers and hand-held equipment.

## **B. Audit Objective, Scope, and Methodology**

The objective of the audit was to review internal controls for safeguarding Commission fuel, and to ensure current practices comply with Commission Policies and Procedures.

The scope of our audit included, but was not limited to, the following audit procedures:

- Interviewed managers and employees at Commission fueling stations;
- Reviewed pertinent Commission policies, procedures, notices and manuals;
- Reviewed relevant source documents including reports of mileage for Commission vehicles;
- Reviewed analysis of fuel usage conducted by maintenance facilities when vehicles are in the shop for maintenance and odometers are available for verification;
- Evaluated internal processes and procedures at sites where fueling stations are located; and
- Conducted physical observations of certain fueling station sites.

This audit was conducted in accordance with *Generally Accepted Government Auditing Standards*. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The audit covered the period from January 1, 2017 through May 10, 2018.

**C. Major Audit Concerns**

The results of our evaluation and testing procedures did not indicate any major audit concerns.

#### D. Overall Conclusions

The results of our evaluation and testing procedures indicate no major weaknesses in the design or operation of internal controls for Commission wide fuel usage. On an overall basis, we consider the controls to be satisfactory.

We believe all weaknesses identified and communicated are correctable and that management's responses to the recommendations satisfactorily address the concerns. It is the responsibility of management to weigh possible additional cost of implementing our recommendations in terms of benefits to be derived and the relative risks involved.

We wish to express our appreciation to the Prince George's County Department of Parks and Recreation and the Montgomery County Department of Parks, management and staff for the cooperation and courtesies extended during our review.



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May 31, 2018

#### Conclusion Definitions

<b>Satisfactory</b>	No major weaknesses were identified in the design or operation of internal control procedures.
<b>Deficiency</b>	A deficiency in the design or operation of an internal control procedure(s) that could adversely affect an operating unit's ability to safeguard assets, comply with laws and regulations, and ensure transactions are properly executed and recorded on a timely basis.
<b>Significant Deficiency</b>	A deficiency in the design or operation of an internal control procedure(s) which adversely affects an operating unit's ability to safeguard assets, comply with laws and regulations, and ensure transactions are properly executed and reported. This deficiency is less severe than a material weakness, yet important enough to merit attention by management.
<b>Material Weakness</b>	A deficiency in the design or operation of an internal control procedure(s) which may result in a material misstatement of the Commission's financial statements or material impact to the Commission.

## II. DETAILED COMMENTARY AND RECOMMENDATIONS

### Prince George's County (PGC)

No Audit Findings

### Montgomery County (MC)

#### 1. Upgrade to the AIM-2 Module System

**Issue:** MC is not utilizing the AIM-2 Module System for fueling its vehicles. The Fuel Master AIM-2 Module System provides complete control and comprehensive security over fuel dispensers. The system's RFID only allows fuel to be pumped into a specific vehicle and does not allow more fuel to be pumped than is required as it automatically tracks the odometer within the vehicle's electronic system. This system provides the highest level of internal control over Commission fuel usage. Facilities Management Division estimates the upgrade to the AIM-2 Module System for all MC vehicles and applicable pieces of equipment to be approximately \$692,000.

Currently, MC relies on a supervisor at the Facilities Management Office to manually review Faster information to identify anomalies in fuel pumped, however vehicle odometer readings cannot be verified until vehicles are brought in for maintenance.

Note: Vehicles fueled at the Green Farm fueling site, do not have the capability to import any Fuel Master Data Base information into the Commission's Faster System for review. Commission employees are in the process of holding discussions with Montgomery County Government which owns the facility and fuel stations to determine how to obtain that information.

**Criteria/Risk:** The AIM-2 Module System provides the most control over fuel usage. System features reduce opportunities for fraud, waste, and abuse.

**Recommendation:** Given the inherent risk of fuel theft, coupled with \$829,235 for fuel expenditures in calendar year 2017, the OIG recommends upgrading the current Fuel Master System with the AIM-2 Module System Equipment for fueled vehicles.

The OIG understands that MC management concurs with the recommendation, however, they have not been able to secure adequate funding to upgrade the Fuel Master system.

**Issue Risk:** Low

**Management Response:** Management agrees that under ideal financial circumstances the AIM-2 Module System would be the premiere system to eliminate risk of fuel theft, the cost of this system is prohibitive.

Currently staff reviews fuel distribution data for abnormal use patterns. Any anomalies are investigated, video footage is reviewed, and corrective action is taken when required. All fuel distribution sites have video monitoring. The department will investigate the feasibility of adding AIM-2 Module system to all vehicle purchases moving forward and beginning in FY19, contingent on available funding and system compatibility.