



MONTGOMERY COUNTY DEPARTMENT OF PARKS
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MCPB Date: 11/12/2009
Agenda Item #13

MEMORANDUM

DATE: November 6, 2009
TO: Montgomery County Park Commission
VIA: Mary R. Bradford, Director of Parks 
FROM: Gene Giddens, Acting Deputy Director of Parks 
SUBJECT: Department of Parks Vehicle Fleet Report

Staff Recommendation

Seek Park Commission's approval to transmit the Vehicle Fleet Report (attached) to the Planning Housing and Economic Development Committee (PHED).

Background

During the FY10 Budget discussions, the PHED recommended that M-NCPPC prepare a report on the Commission's fleet of vehicles. The PHED Committee has not considered fleet management issues for the Commission, and has asked for a report on this issue to be prepared by Department of Parks' staff in time for the Planning Board's consideration as part of its review of the FY11 budget.

M-NCPPC, Montgomery County Department of Parks Vehicle Fleet Report

PHED COMMITTEE RECOMMENDATION

During the FY10 Budget discussions, the Planning Housing and Economic Development Committee (PHED) recommended that M-NCPPC prepare a report on the Commission's fleet of vehicles. The PHED Committee has not considered fleet management issues for the Commission, and has asked for a report on this issue to be prepared by Department of Parks' staff in time for the Planning Board's consideration as part of its review of the FY11 budget.

The Commission has close to 600 vehicles, most of which are used by Department of Parks employees. Issues addressed in this report include the number of vehicles, cycle for replacement of vehicles, types of vehicles being purchased, life cycle costs, maintenance frequency, vehicle sharing programs (such as Zip cars), and policies regarding twenty-four hour vehicle assignments.

The information collected was compared to County Government (Department of General Services (DGS) and Washington Suburban Sanitary Commission (WSSC)) data/policies to determine whether the existing standards and policies are appropriate. Information was also gathered from Radford University, Virginia, Palm Beach County, Florida, and CQI Associates – Energy and Management Consultants.

OVERVIEW

Vehicle assets represent a major investment on the part of the Commission and require substantial annual funding for purchase, maintenance, and repair. To realize the full economic benefit of these assets and associated costs, vehicles should accrue mileage at a rate that justifies utilization. As the cost of supporting a fleet is directly related to the number of vehicles in the fleet, changes in size, type, and usage directly affects the maintenance, fuel consumption and repair costs.

In addition, fleet size and accidents have a direct cost impact on the Commission's self-insurance program. Fleet management continues to focus on utilization of existing assets, appropriate distribution based on work program, and the need to justify additional vehicles to the fleet.

NUMBER OF VEHICLES/EQUIPMENT FOR M-NCPPC MONTGOMERY COUNTY

On Road Vehicles

Class 1 - Passenger Cars, Light Trucks, SUV's and Motorcycles	265
Pass. Cars	35
Lt. Trucks and SUV's	72
Motorcycles	16
Hybrid Cars	13
Hybrid SUV's	15
Police Cars (patrol and spares)	114
Class 2,3,4 - Medium Trucks	239
Class 2	161
Class 3	35
Class 4	43
Class 5,6,7,8 - Heavy Trucks	65
Class 5	6
Class 6	11
Class 7	25
Class 8	23
Total on road vehicles	569

Equipment

Construction equipment (graders, rollers, etc.)	31
Tractors	73
Trailers	192
Grounds Maint. Equip. (lawnmowers, aerators, etc.)	294
Equipment Attachments (generators, seeders, sprayers, etc.)	173
Small engine equipment (chain saws, weed-eaters, leaf blowers, etc.)	1463
Plows and Salt Spreaders	64
Boats	9
ATV's	31
Total Equipment	2330

LIFE CYCLE REPLACEMENT

M-NCPPC considers vehicles to have reached the end of their life-cycle based on ten years or 100,000 miles. Other agency fleet operations use a similar method for calculating a vehicles life-cycle but also include a depreciation factor to maximize a vehicles trade in value. Actual life cycle may vary depending on type of vehicle usage, condition, or work program need. All vehicles are evaluated on a point system that is based on usage, mileage and overall maintenance repairs. The point system ranges from 1 to 15, with 15 being the highest factor for vehicle replacement.

Actual replacement age and mileage (193 vehicles disposed of since January 1, 2008)
Average age - 135 months or 11 years, 3 months; Average Disposal Mileage – 97,091

LIFE CYCLE COSTS AND MAINTENANCE FREQUENCY

Vehicle maintenance frequency varies by class of vehicle. As a general rule, regular maintenance for all vehicles is performed every 6 months or 5,000 miles, whichever occurs first. Some of the heavier trucks and police vehicles used in harsh conditions are scheduled at 3,000 miles intervals. For comparison, Ford Motor Company recommends 6 months or 5,000 miles servicing and GM recommends 6 months or 6,000 miles and both manufacturers recommend more frequent servicing in harsh conditions.

The life cycle cost of a vehicle varies based on the type of vehicle and what the vehicle is used for. The Department of Parks fleet management software system, "Faster," calculates the maintenance cost for a vehicle based on actual repair data entered and equates the cost into a "cost per mile". The cost per mile data is used to determine the average yearly cost for a vehicle and the life cycle cost.

Known data for Life Cycle Cost Calculation: Maintenance cost per mile for each vehicle type; Average miles driven per year (7,000 miles); Average number of months in the life cycle of a vehicle (135 months)

Average Yearly and Life Cycle Maintenance Costs -- By vehicle type

Vehicle Type	Cost Per Mile	Yearly Cost	Life Cycle Cost
Sedan	.17	\$1,190.00	\$13,386.60
Light Truck/SUV	.17	\$1,190.00	\$13,386.60
Medium Truck	.33	\$2,310.00	\$25,987.50
Heavy Truck	.58	\$4,060.00	\$45,674.55

Average Yearly and Life Cycle Maintenance Costs -- By vehicle class

Vehicle Class	Cost Per Mile	Yearly Cost	Life Cycle Cost
Class 1	.17	\$1,190.00	\$13,386.60
Class 2	.21	\$1,470.00	\$16,537.50
Class 3	.36	\$2,520.00	\$28,350.00
Class 4	.41	\$2,870.00	\$32,287.49
Class 5	.38	\$2,660.00	\$29,924.99
Class 6	.41	\$2,870.00	\$32,287.49
Class 7	.81	\$5,670.00	\$63,787.50
Class 8	.71	\$4,970.00	\$55,687.50

VEHICLE PURCHASE OVERVIEW

Funding for the majority of vehicles purchased are from the Commission's Internal Service Fund, which is reviewed and prioritized annually. On some occasions, vehicles are purchased from a division's capital outlay funds, but only with the approval of both the Fleet Manager and the Department Director or appropriate Deputy Director.

Vehicles are purchased based on best-in-class fuel economy standards when fueled by gasoline or bio diesel. The Department of Parks continues to order as many diesel vehicles as feasible to utilize bio-diesel fuel. The Department of Parks fueling sites pump approximately 98,000 gallons of diesel fuel per year of which 90% is bio-diesel. Where applicable and economically feasible, hybrid vehicles are purchased for administrative and park use. Hybrid vehicles are replacing older vehicles that have reached the end of their lifespan.

Vehicles purchased last 2 Years

39	Gas Powered Vehicles
11	Hybrid Vehicles
43	Diesel Powered Vehicles
93	Total Vehicles Ordered

VEHICLE SHARING PROGRAM

The Commission does not have a vehicle sharing program associated with a specific vendor, although the Commission's Central Administrative Services is experimenting with a Zip Car program. Pool vehicles are available throughout the park system for staff business use and employees are encouraged to carpool to meetings whenever feasible.

In addition, the Department of Parks has a vanpool program that transports employees from designated pickup/drop-off points to their workplace every business day. Currently there are 5 vans transporting 65 employees primarily from the Frederick County area. Employees are charged via payroll deduction and funds are placed in an established special revenue account. This program supports green energy by taking 65 vehicles off of heavily traveled roads each morning and evening.

TWENTY-FOUR HOUR VEHICLE ASSIGNMENTS

Twenty-four hour vehicle are assigned in accordance with the Commission Merit System Rules and Regulations, Commission Practice 6-10 entitled "Policies and Procedures Governing Commission Passenger Vehicles" and the Fraternal Order of Police Contract.

LOW UTILIZATION AND ROTATION

The Department of Parks will commence assessing vehicle utilization using annual mileage as a primary benchmark. Vehicles that accrue less than 3,500 miles annually will be considered to be low utilization vehicles. In comparison, DGS uses 4,000 miles as their guideline to determine low utilization and CQI Associates uses 3,000 miles as their benchmark. Low utilization vehicles may be retained by a division if their continued use can be justified. Vehicles that cannot be justified will be rotated to a new assignment or eliminated from the fleet.

Rotation of vehicles between work assignments will help to ensure that mileage is commensurate with age. Vehicles that accrue very low or very high mileage will be exchanged in order to balance mileage with age. The Fleet Manager will recommend vehicles for consideration. Vehicle exchanges will be within a division wherever possible. If assets are not available within a division, vehicles will be exchanged between divisions.

FUELING SYSTEM OVERVIEW AND FUTURE

The Department of Parks has eleven refueling sites located throughout the park system. These sites pump unleaded, bio-diesel and diesel fuel. Last year, the fleet used 300,000 gallons of unleaded gas, 80,000 gallons of bio-diesel and 19,000 of diesel fuel. The Commission has increased the percentage of bio-diesel pumped from last year's 76% to 89% this year. The Department's goal is to be 100% bio-diesel by the end of FY10.

All fueling stations are in the process of being upgraded to digital Gasboy fuel dispensers and a Fuelmaster computer system for security, inventory control and reporting capability. Many of the current dispensers are 1970's vintage and replacement parts are no longer available.

BEST PRACTICES TO IMPROVE VEHICLE EFFICIENCY AND REDUCE EMISSIONS

- Provide appropriate maintenance and maintain proper tire pressure
- Continue to replace the oldest and highest usage vehicles
- Size the vehicles to meet the users job requirements and not user preferences to improve overall fleet performance
- Replace vehicles with a combination of best gas, hybrid, and diesel vehicles to provide the best overall results
- Downsize vehicles to improve efficiency and emissions

- Sedan vehicles will be used rather than trucks or SUVs unless the vehicle will be used for heavy duty work and cargo applications
- SUV hybrid vehicles are preferred over the purchase of gasoline fueled only models
- Diesel trucks larger than ¾ tons will be purchased for heavy duty work and cargo applications and fueled with bio-diesel
- Vehicles will be purchased based on the best in class fuel economy standards when fueled by gasoline or bio-diesel
- The primary fossil fuels will be gasoline with a 10% ethanol blend and B5 bio-diesel
- Introduce strategies to reduce diesel trucks idle time such as automatic shut down procedures, auxiliary power units and driver incentives.

Summary

The Department of Parks has worked to become a leader in the use of bio-diesel fuel. Over the past two years, the Department has gone from 25% bio-diesel consumption to 89% and by the end of FY10 the goal is to be 100% bio-diesel. The Department's hybrid fleet has increased from 3% of the administrative fleet three years ago to 31% at present. Staff is also working to "right-size" the fleet to fit the requirements of the Department's work program complement.

The Department purchases best-in-class gas and diesel powered vehicles whenever possible that optimize fuel mileage and safety. A new Fuelmaster fueling system is being installed in each maintenance yard that will help to better track fuel consumption and produce data to help reduce the Department's carbon footprint.

The goal is to provide safe reliable transportation for Department of Parks' employees that best suits their work assignments and to provide the highest level of service to the citizens of Montgomery County in the most economical fashion.