

# **Motor Fleet Management Uses Best Practices, but Needs Telematics to Strengthen Accountability**

A presentation to the  
Joint Legislative Program Evaluation Oversight Committee  
March 14, 2012

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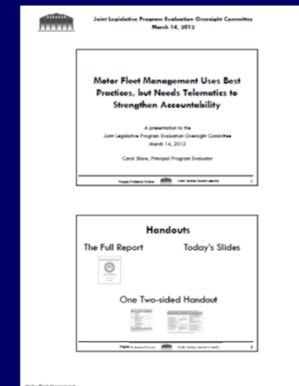


# Handouts

The Full Report



Today's Slides



One Two-sided Handout

Table 2: Motor Fleet Management - A Grade of B for Compliance with Best Fleet Management Best Practices

Category	Item	Compliance	Score
Compliance	1. Motor fleet management policies and procedures are in place and up-to-date.	Yes	4
	2. Motor fleet management policies and procedures are reviewed and updated as needed.	Yes	4
	3. Motor fleet management policies and procedures are communicated to all employees.	Yes	4
	4. Motor fleet management policies and procedures are enforced.	Yes	4
Compliance	5. Motor fleet management policies and procedures are consistent with state and federal regulations.	Yes	4
	6. Motor fleet management policies and procedures are consistent with industry best practices.	Yes	4
	7. Motor fleet management policies and procedures are consistent with the state's goals and objectives.	Yes	4
	8. Motor fleet management policies and procedures are consistent with the state's budget.	Yes	4
Compliance	9. Motor fleet management policies and procedures are consistent with the state's mission and vision.	Yes	4
	10. Motor fleet management policies and procedures are consistent with the state's values.	Yes	4
	11. Motor fleet management policies and procedures are consistent with the state's culture.	Yes	4
	12. Motor fleet management policies and procedures are consistent with the state's identity.	Yes	4
Overall Score			48



# Evaluation Team

Carol Shaw, Project Lead

Lee Creighton, Evaluator

Sean Hamel, Senior Evaluator

Catherine Moga Bryant, Senior Evaluator

Pamela Taylor, Statistician

Larry Yates, Principal Evaluator



# Overview: Our Charge

- NC Session Law 2011-145
  - Focus on all passenger and non-passenger vehicles
  - Follow-up study on state aircraft
- Second of three reports on state-owned motor vehicles
  - Overview of number, use, and costs
  - **Management and oversight of passenger vehicles by the Division of Motor Fleet Management (MFM)**
  - Management and oversight of all other vehicles by state agencies and institutions

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# Overview: Findings

1. Operates in accordance with most best management practices
2. Delegation of fleet management and oversight hampers accountability; technology offers opportunities for improvement
3. Insufficient information to determine the right number of vehicles for government needs



## Overview: Findings

4. Majority of motor pool vehicles are underutilized
5. Curtailing vehicle replacement has led to an older, less reliable, and more costly fleet
6. Revised rate structure for assigned vehicles may encourage vehicle underutilization and limit funding for timely vehicle replacement



# Overview: Recommendations

1. Install telematics services to strengthen accountability
2. Improve management practices that hamper MFM's effectiveness
3. Monitor the new rate structure
4. Modify mileage threshold for passenger vehicles to add other criteria



# Background





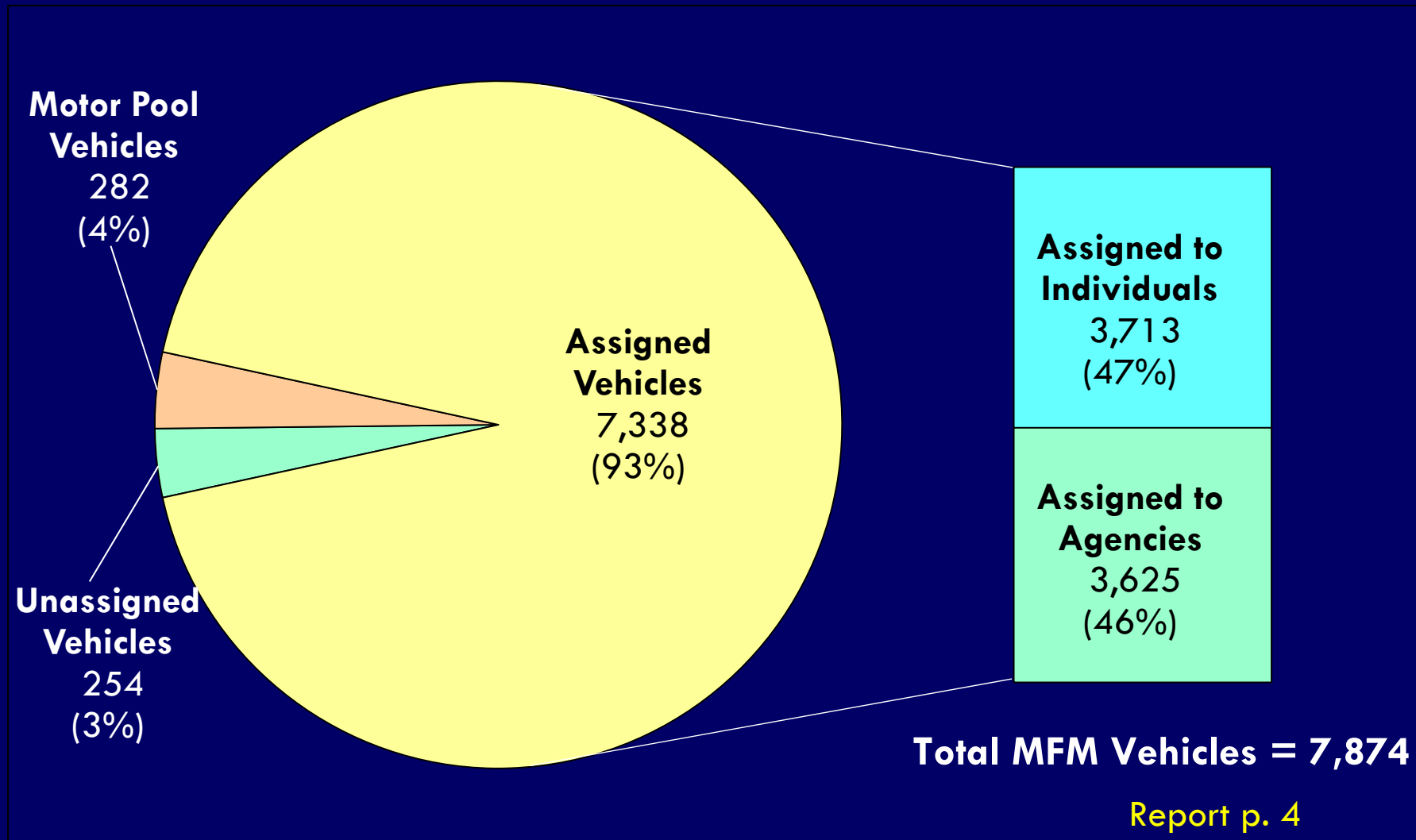
# Division of Motor Fleet Management

- General Assembly directed the Department of Administration to centrally manage state-owned passenger vehicles in 1981
- The Division of Motor Fleet Management (MFM) manages, acquires, maintains, repairs, and stores state-owned passenger vehicles
- Responsible for enforcing state policy on passenger vehicle use and assignment

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# MFM Fleet Information



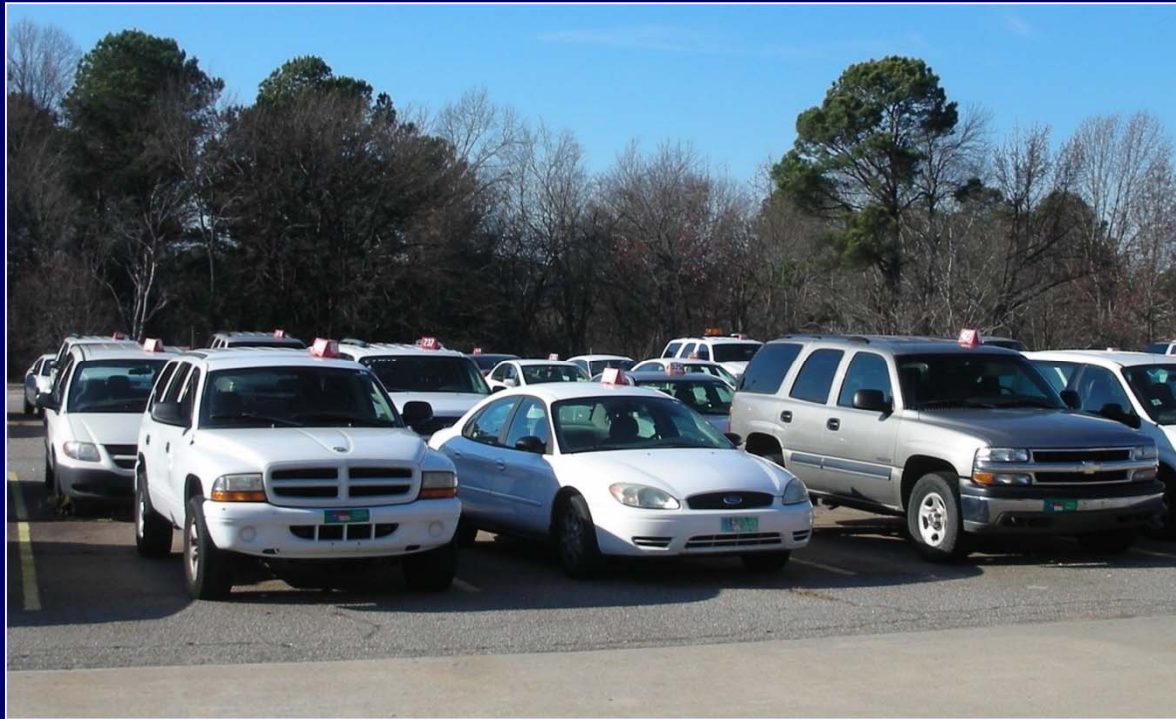
# MFM Internal Service Fund

- Funded through an internal service fund
- Does not receive direct state appropriations
- State agencies pay fees to use vehicles
- Supports the full cost of operating and maintaining the fleet
- Unexpended funds do not revert to the General Fund

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# Findings



## **Finding 1.**

**With the exception of tracking complete vehicle utilization information for assigned vehicles, MFM is operating in accordance with fleet management best practices**

# Fleet Management Best Practices

<b>Best Practice Category</b>	<b>Letter Grade</b>
Written Policies and Procedures	<b>A+</b>
Management of Vehicle Utilization Data	<b>F</b>
Financial Management	<b>A+</b>
Vehicle Replacement and Acquisition	<b>A+</b>

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# Fleet Management Best Practices

- MFM complies with state law and most fleet management best practices
- Needs to track complete vehicle utilization data for all vehicles

## Overall MFM Grade

# B+

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## **Finding 2.**

**MFM's delegation of fleet management and oversight to state agencies hampers its ability to hold state agencies accountable, but advances in technology offer opportunities to improve accountability**



# Delegates Oversight and Management

- Requires state agencies to coordinate vehicle usage, investigate misuse claims, and obtain preventive maintenance
- Ensures agencies respond to misuse allegations, but does not verify that complaints are fully investigated or appropriate action is taken
- Vehicle coordinators have created efficiencies for MFM, but they need more guidance

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# What is Telematics?

- Integrates wireless communications, vehicle monitoring systems, and location devices to monitor vehicle utilization, driving behavior, and vehicle diagnostics
- Offers MFM a technological solution for the information deficiencies identified in this report

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# Benefits of Telematics

Telematics Package	Benefits of Telematics
<p style="text-align: center;"><b>Basic Package</b></p> <ul style="list-style-type: none"> <li>● <b>Complete vehicle visibility</b></li> <li>● <b>Costs \$25 per month per vehicle</b></li> </ul>	<ul style="list-style-type: none"> <li>● Provides complete vehicle utilization information including mileage, frequency of use, and vehicle location</li> <li>● Promotes more efficient vehicle utilization</li> <li>● Eliminates mileage data entry by agencies</li> <li>● Identifies and confirms vehicle misuse related to vehicle location and when a vehicle was driven</li> </ul>
<p style="text-align: center;"><b>Comprehensive Package</b></p> <ul style="list-style-type: none"> <li>● <b>Complete vehicle visibility</b></li> <li>● <b>Safety alerts</b></li> <li>● <b>Remote diagnostic reporting</b></li> <li>● <b>Costs \$40 per month per vehicle</b></li> </ul>	<ul style="list-style-type: none"> <li>● Provides all basic package benefits</li> <li>● Monitors driving behavior</li> <li>● Identifies and confirms misuse complaints related to driving behavior</li> <li>● Provides automatic preventive maintenance reminders</li> <li>● Monitors vehicle operating condition</li> </ul>

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## **Finding 3.**

**MFM does not have sufficient information to determine the right number of passenger vehicles for state government needs**

# MFM Lacks Complete Vehicle Utilization Data

- Vehicle mileage and frequency of use information is needed for complete vehicle utilization data
- MFM collects mileage and frequency of use information for motor pool vehicles, 4% of MFM's fleet
- MFM collects only mileage information for assigned vehicles, 93% of MFM's fleet

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# State Law Sets Mileage Threshold

## N. C. Gen. Stat. § 143-341

- Utilization for assigned vehicles based on mileage threshold of 3,150 miles per quarter which is 12,600 miles annually
- Allows exemptions if vehicle use is related to public safety, exposure to life threatening situations, or a justifiable unique use

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# MFM Cannot Determine the Number of Vehicles Needed

- Based only on mileage information, 42% of assigned vehicles were underutilized
- However, frequency of use information is necessary to complete a full analysis to determine how many passenger vehicles are needed to meet state government needs



## **Finding 4.**

**The majority of MFM's motor pool vehicles are underutilized**



# Motor Pool Vehicles are Underutilized

- Analysis of motor pool utilization found 61% of motor pool vehicles were underutilized
- Examining patterns of daily usage could help MFM determine the appropriate number of motor pool vehicles
- Outsourcing motor pool operations would not reduce costs

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## **Finding 5.**

**MFM's cost recovery system provides funding for appropriate vehicle replacement, but curtailing vehicle replacement has led to an older, less reliable, and more costly fleet**

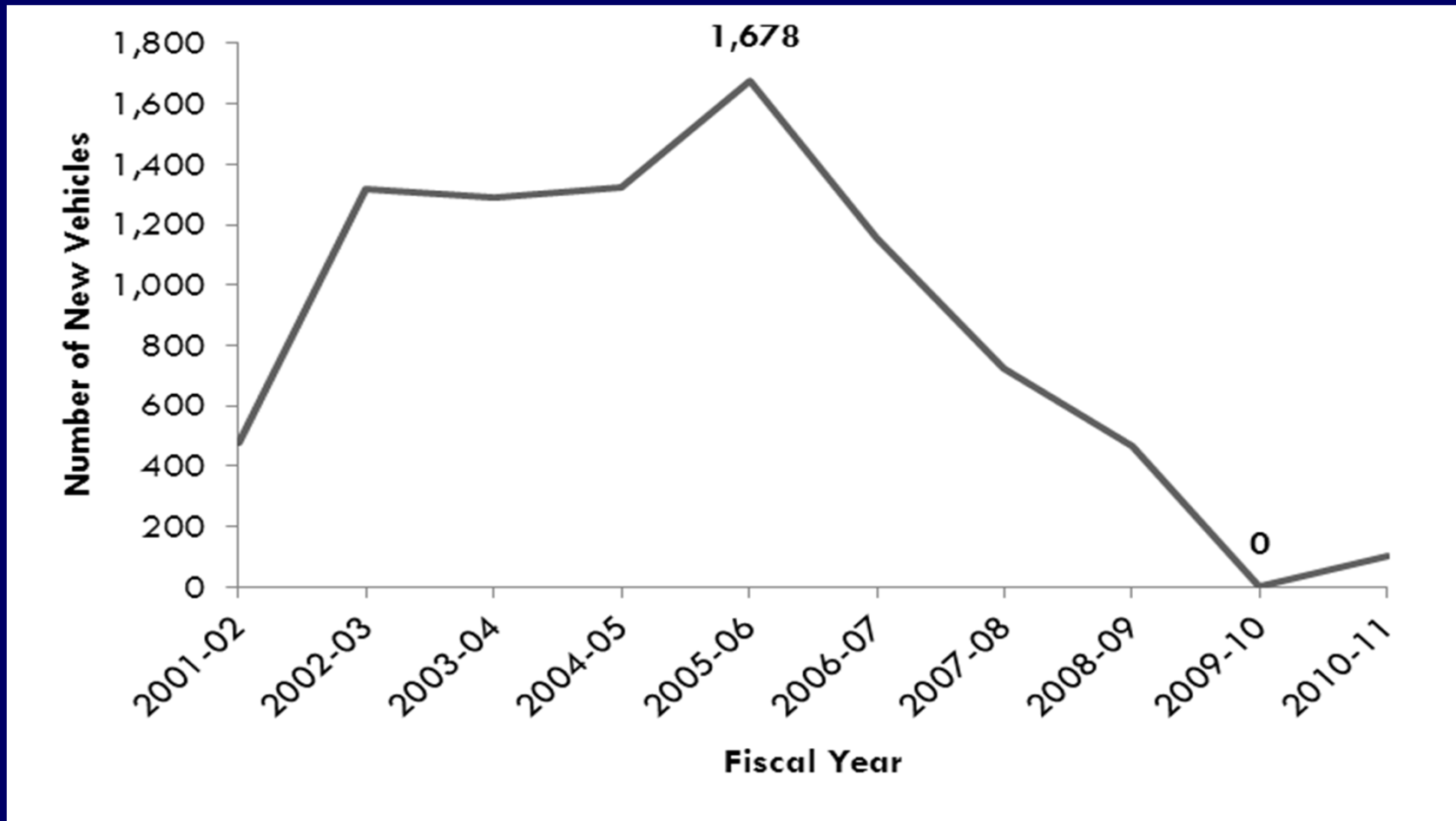
# MFM's Cost Recovery System Supports Vehicle Replacement

- State law authorizes MFM to replace state-owned vehicles as needed according to best practices
- Vehicle replacement costs are included in MFM's cost recovery system
- Fleet size has decreased from over 9,600 vehicles to 7,874 vehicles because MFM has limited vehicle replacement in recent years and continued to dispose of vehicles

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# New Vehicle Purchases Have Declined



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# MFM Does Not Meet Vehicle Replacement Standards

	<b>Replacement Standards</b>	<b>MFM Vehicles</b>
<b>Vehicle Age</b>	5 to 7 years	43% seven years or older (3,259 vehicles)
<b>Vehicle Mileage</b>	Between 75,000 and 100,000 miles	29% over 100,000 miles (2,188 vehicles)

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## **Finding 6.**

**Recent changes to MFM's rate structure for assigned vehicles may encourage vehicle underutilization and limit funding for timely vehicle replacement**

## State Law Directs Rate Structure

- Requires MFM to charge state agencies a proportionate of total fleet operating costs
- Charges are based on mileage, and state law sets the minimum rate for most vehicles at \$0.20 per mile
- Adjusts the mileage rates based on the cost to operate and maintain the fleet

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# Comparison of Rate Structures

	<b>Old Rate Structure</b>	<b>New Rate Structure</b> <small>(Effective 1/1/2012)</small>
<b>Minimum Fee</b>	\$325 per month	\$35 per month
<b>Mileage Fee</b>	Mileage above 1,050 miles	Actual mileage
<b>Rate Per-Mile</b>	\$0.31 per mile	\$0.30 per mile

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# Potential Effects of New Rate Structure

- May encourage inefficient vehicle utilization
- May limit funding availability for timely vehicle replacement
- Temporary solution that needs to be monitored closely by MFM

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# Recommendations



## **Recommendation 1.**

**Direct MFM to phase in implementation of basic telematics services to strengthen accountability for state-owned passenger vehicles**



# Implementation of Telematics

- Install basic telematics services on all new vehicles starting in Fiscal Year 2012–13
- Test comprehensive telematics services to determine whether these services are beneficial and cost-effective
- Report on the status of telematics implementation by September 15, 2013

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## **Recommendation 2.**

**Direct MFM to improve  
management practices**



# Management Improvements

- Modify fleet management information system to collect frequency of use data
- Perform daily demand analysis on motor pool vehicle usage
- Replace aging vehicles
- Enhance training for vehicle coordinators
- Conduct customer satisfaction surveys
- Report on improvements by February 15, 2013

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## **Recommendation 3.**

**Require MFM to monitor the new rate structure and report on its effects on assigned vehicle utilization and replacement**

# Report on New Rate Structure

- Monitor new rate structure through the end of 2012
- Report effects of new rate structure on vehicle utilization and vehicle replacement
- Report by February 15, 2013

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## **Recommendation 4.**

**Modify the statutory mileage threshold for state-owned passenger vehicles by directing the Department of Administration to adopt rules establishing a threshold criterion including mileage, frequency of use, and vehicle purpose**

# Statutory Modifications

- Eliminate mileage threshold and exemption process in N.C. Gen. Stat. § 143-341(8).i.7a
- Direct Department of Administration to adopt rules establishing a passenger vehicle usage threshold criterion that includes
  - Mileage
  - Frequency of use
  - Vehicle purpose

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# Legislative Options

- The committee may endorse any of these recommendations for action
- May instruct staff to draft legislation or take other actions

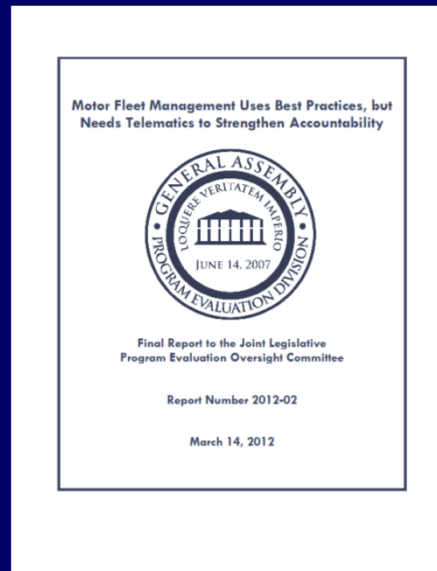


# Summary

- MFM received a “B+” for compliance with most fleet management best practices, but fleet management and accountability need improvement
- Telematics offers a cost-effective solution to strengthen accountability and provide complete vehicle utilization information
- Through technology and management improvements, MFM can better meet state government needs for passenger transportation services



**Report available online at  
[www.ncleg.net/PED/Reports/reports.html](http://www.ncleg.net/PED/Reports/reports.html)**



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