

**Department of Legislative Services**  
Maryland General Assembly  
2013 Session

**FISCAL AND POLICY NOTE**

House Bill 421 (Delegate Cardin, *et al.*)  
Environmental Matters

---

**Vehicle Laws - Speed Monitoring and Work Zone Speed Control Systems**

---

This bill establishes a mandatory \$1,000 civil penalty for the person responsible for maintaining a speed monitoring or work zone speed control system that erroneously issued a citation; the penalty must be deposited in the Transportation Trust Fund (TTF). The definition of a “recorded image” is altered to require the inclusion of sufficient information to allow for the calculation of the speed of the motor vehicle based on the two currently required time-stamped images. The bill also alters the prohibition applicable to local speed monitoring systems on the payment to a contractor of a fee contingent on the number of citations issued or paid to include contractors that administer or process citations. Additionally, the bill requires the issuance of warnings for the first 30 days after the placement of each speed monitoring system. Finally, the bill authorizes an organization that represents the interests of motorists in Maryland to bring an action to enforce the provisions of the speed monitoring and work zone speed control system laws.

---

**Fiscal Summary**

**State Effect:** TTF expenditures increase significantly in FY 2014 for the State Highway Administration (SHA) to procure new work zone speed monitoring system technology that is able to produce recorded images that comply with the bill. District Court caseloads increase due to the expanded standing authorized by the bill and to the extent the additional information provided on citations results in additional trials; general fund expenditures increase to the extent the increase in caseloads cannot be handled with existing resources. TTF and special fund revenues may decrease significantly in FY 2014 to the extent that the operation of work zone speed control systems is interrupted during the transition to new technology; general fund expenditures may be needed to replace foregone revenues for the Department of State Police (DSP). The decrease in TTF revenues is partially offset by the additional civil penalties imposed under the bill and directed to TTF beginning in FY 2014.

**Local Effect:** Local government expenditures may increase significantly for any jurisdiction that is required to procure different technology, pay civil fines established by the bill, renegotiate contracts with vendors for the administration or processing of civil citations, and/or hire additional law enforcement personnel. Revenues may decrease significantly to the extent that the operation of speed monitoring systems is interrupted during the transition to systems and processes that comply with the bill and due to the additional periods during which only warnings may be issued. **This bill imposes a mandate on a unit of local government.**

**Small Business Effect:** Minimal.

---

## Analysis

**Current Law:** A recorded image is defined as an image recorded by a speed monitoring or work zone speed control system on a photograph, microphotograph, electronic image, videotape, or any other medium that shows the rear of a motor vehicle, at least two time-stamped images of the motor vehicle that include the same stationary object near the motor vehicle, and, on at least one image or portion of tape, a clear and legible identification of the entire registration plate number of the motor vehicle.

For the first 30 days after *the first* speed monitoring system is *placed* in a local jurisdiction, only warnings may be issued by any speed monitoring system.

A speed monitoring system operator may be a representative of a local law enforcement agency (or if the local government does not have a police force, then another designated unit) or a contractor. A work zone speed control system operator is a police officer, representative of a State or local police department, or SHA contractor who has been trained and certified to operate a work zone speed control system.

A contractor that *provides, deploys, or operates* a work zone speed control system, or a contractor that *operates* a local speed monitoring system, may not be paid a fee that is contingent on the number of citations issued or paid.

A person who receives a citation from a speed monitoring or work zone speed control system may pay the civil penalty or elect to stand trial in the District Court for the alleged violation. The laws governing speed monitoring and work zone speed control systems do not authorize other individuals or entities to sue to enforce these laws. Generally, a party to a civil action must be authorized to participate in the action, either by statute or by having legal “standing” to sue. Standing means that a party has a sufficient stake in a controversy to be able to obtain judicial resolution of that controversy.

## **Background:**

### *Speed Monitoring Systems*

Chapter 15 of 2006 (HB 443 of 2005) authorized the first use of speed monitoring systems in the State, but it only applied to highways in school zones and residential districts in Montgomery County. Chapter 500 of 2009 (SB 277) expanded statewide the authorization for the use of speed monitoring systems in school zones. Chapter 474 of 2010 (HB 1477) authorized the use of speed monitoring systems in Prince George's County on a highway located within the grounds of an institution of higher education or on nearby highways under certain circumstances.

Unless the driver of a motor vehicle received a citation from a police officer at the time of the violation, the owner or driver of the vehicle is subject to a civil penalty if the vehicle is recorded speeding at least 12 miles per hour above the posted speed limit by a speed monitoring system in violation of specified speed restrictions in the Maryland Vehicle Law. The maximum fine for a citation issued by a speed monitoring system operator is \$40. However, a local law enforcement or other designated agency operating the speed monitoring system may mail a warning notice instead of a citation.

Before activating an unmanned stationary speed monitoring system, a local jurisdiction must:

- publish notice of the location on its website and in a newspaper of general circulation in the jurisdiction;
- ensure that each school zone sign indicates that speed monitoring systems are in use in school zones; and
- for a speed monitoring system near an institution of higher education, ensure that all speed limit signs approaching and within the segment of highway on which the speed monitoring system is located include signs that indicate that a speed monitoring system is in use and that are in accordance with the manual and specifications for a uniform system of traffic control devices adopted by SHA.

A speed monitoring system may be placed in a school zone for operation between 6:00 a.m. and 8:00 p.m., Monday through Friday. Before a speed monitoring system may be used in a local jurisdiction, its use must be authorized by the governing body by ordinance or resolution adopted after reasonable notice and a public hearing.

As shown in **Exhibit 1**, a number of counties and municipal corporations currently implement speed monitoring systems. The Department of Legislative Services advises that, as to municipal corporations, the exhibit only reflects municipal corporations that have reported revenues to the Comptroller in fiscal 2012 and, therefore, may not include

all municipal corporations that *currently implement* speed monitoring systems. Further, additional jurisdictions may be *considering* the use of speed monitoring systems at this time.

From the fines generated by a speed monitoring system, the relevant jurisdiction may recover the costs of implementing the systems and may spend any remaining balance solely for public safety purposes, including for pedestrian safety programs. However, if the balance of revenues after cost recovery for any fiscal year is greater than 10% of the jurisdiction's total revenues, the excess must be remitted to the Comptroller. According to data from the Comptroller, about \$2.2 million was remitted in fiscal 2011 from five municipal corporations, but no money was remitted in fiscal 2012. In addition, 17 municipal corporations and Baltimore City generated speed monitoring system fine revenues of about \$36.3 million, of which about \$21.7 million was retained by local jurisdictions for public safety programs after recovery of the costs of implementing the systems.

---

**Exhibit 1**  
**Local Speed Monitoring System Enforcement**

<u>County</u>	<u>Municipal Corporation</u>
Baltimore	Bowie
Charles	Brentwood
Howard	Chesapeake Beach
Montgomery	Chevy Chase Village
Prince George's	College Park
Wicomico	Denton
Baltimore City	Forest Heights
	Fruitland
	Hagerstown
	Laurel
	New Carrollton
	Princess Anne
	Riverdale Park
	Rockville
	Salisbury
	Seat Pleasant
	Takoma Park

Source: Comptroller's Office; Department of Legislative Services

---

## *Work Zone Speed Control Systems*

Chapter 500 of 2009 also authorized State and local law enforcement agencies or their contractors to issue citations or warnings for speeding at least 12 miles per hour above the posted speed limit in highway work zones that are set up on expressways or controlled access highways where the speed limit is 45 miles per hour or greater.

A “work zone” is a segment of a highway identified as a temporary traffic control zone by a traffic control device in conformance with State specifications and where highway construction, repair, maintenance, utility work, or related activities are being performed, regardless of whether workers are present. A work zone speed control system may only be used while being operated by a work zone speed control system operator. The maximum fine for a ticket issued by a work zone speed control system operator is \$40. A conspicuous road sign warning of the use of speed monitoring systems must be placed at a reasonable distance from the work zone.

The Maryland Department of Transportation advises that work zones are inherently dangerous due to obstacles such as concrete barriers, narrowed lanes, and cones, all of which increase the risk of traffic accidents from speeding motorists. In these work zone accidents, about 85% of injuries are to the motorists, and about 15% of those injured are transportation workers according to the Federal Highway Administration. According to the National Work Zone Safety Information Clearinghouse, there were 576 fatalities in highway work zones nationwide in 2010, including 6 in Maryland.

Through fiscal 2012, slightly more than 1 million citations had been generated by work zone speed control systems, according to data from SHA. In fiscal 2012, the State’s Automated Speed Enforcement Program generated just under \$15 million in revenues, down from about \$18.4 million in fiscal 2011.

## *Recent Media Scrutiny*

A number of bills related to automated enforcement have been introduced in the 2013 legislative session, in part due to recent media scrutiny of speed cameras statewide. The additional scrutiny has centered around two common criticisms of speed cameras: (1) that technical issues and insufficient review of recorded images result in erroneously generated citations; and (2) that the contracts with vendors are structured in such a manner as to establish an incentive to generate more citations and revenues, thereby casting doubt on the integrity of speed cameras as a safety measure.

## *Automated Speed Enforcement Efficacy*

Although a statewide review of speed monitoring programs has not been conducted, a combination of national and international studies and local program evaluations provide some insight into the level of effectiveness of such programs. According to the Insurance Institute for Highway Safety, several studies have documented reductions in crashes in the vicinities of speed cameras, including crashes that result in an injury or fatality. The most recent of these studies was a meta-analysis by the Cochrane Collaboration in 2010, which reviewed 28 individual studies and found reductions of between 8% and 49% for crashes, between 8% and 50% for crashes resulting in injury, and between 11% and 44% for crashes involving fatalities and serious injuries.

Locally, Prince George's County has evaluated its first year of speed monitoring system implementation and found that compliance with speed limits increased, on average, from about 20% of vehicles in certain locations before speed cameras were installed to about 67% after installation. This was based on an assessment of only seven locations, however. In Montgomery County, a 2009 review of its Safe Speed Program revealed that, on average, the number of citations generated by a speed camera decreased 78% between the first and twelfth months of the system's usage and that the average speed of passing vehicles declined by 6%. Finally, an SHA review of its work zone speed monitoring systems revealed that work zone crashes decreased by 11.8% between 2009 and 2011; crashes involving an injury dropped by 16.8%; and the number of annual fatalities fell from nine to three.

**State Fiscal Effect:** SHA advises that its current LIDAR-based work zone speed monitoring system technology likely does not comply with the bill's requirement to include sufficient information to allow for the calculation of the speed of a motor vehicle based on the two currently required time-stamped images. The current work zone speed monitoring system citations provide two time-stamped images, but the time stamp does not contain fractions of a second. Further, Montgomery County, which uses similar technology, indicates that, because the technology takes many more measurements than older speed monitoring technology to derive the average speed of a vehicle over a longer distance, the two time-stamped images may not represent the same speed shown in the citation. Therefore, TTF expenditures increase significantly in fiscal 2014 for SHA to procure new work zone speed monitoring system technology that is able to produce recorded images that comply with the bill.

Caseloads increase in the District Court due to the bill's expansion of legal standing in speed monitoring and work zone speed control system cases. The bill authorizes an organization that represents the interests of motorists in Maryland to bring an action to enforce the provisions of the work zone speed control system and speed monitoring system laws. It is unclear whether courts may interpret this provision broadly and, thus,

how many such organizations that represent “the interests of motorists” will be able to sue or intervene to challenge or assist in the prosecution of an alleged violator issued a speed monitoring or work zone speed control system citation. However, to the extent that the number of additional cases or the duration or complexity of cases increases significantly, general fund expenditures may increase for the District Court to hire additional personnel.

TTF and special fund revenues may decrease significantly in fiscal 2014 to the extent that the operation of work zone speed control systems is interrupted during the transition to new technology. Work zone speed control systems generated average monthly net revenues of about \$667,000 in fiscal 2012 for DSP, after cost recovery revenues collected by SHA. Thus, general fund expenditures may be needed to replace foregone special funds for DSP during the transition.

TTF revenues may increase significantly beginning in fiscal 2014 due to the collection of \$1,000 mandatory civil penalties established by the bill to be paid by the person responsible for maintaining a speed monitoring or work zone speed control system that erroneously issued a citation. A reliable estimate of the increase in penalties cannot be made due to significant uncertainty regarding the current number of erroneously issued citations, any future changes in the number of such citations, and regarding the effect of the bill’s expansion of legal standing. Baltimore City advises that 1,807 speed monitoring system citations were successfully contested in fiscal 2012, while Baltimore County advises that only a few citations were successfully contested in fiscal 2012, and the prevalence of speed monitoring system citations being successfully contested in other jurisdictions is not known. Additionally, Baltimore City is in the process of procuring new speed monitoring systems, which may produce fewer citations that are successfully contested in District Court.

Any increase in TTF revenues from the collection of \$1,000 civil penalties under the bill may also result in an increase in SHA costs to the extent that the vendor seeks to pass on the additional costs to SHA. However, SHA anticipates that the vendor bears the burden of any additional penalties.

**Local Fiscal Effect:** Expenditures increase for any jurisdiction that is required to procure different technology to comply with the bill’s requirement to include sufficient information to allow for the calculation of the speed of a motor vehicle based on the two currently required time-stamped images. For example, Montgomery County advises that it uses two different speed monitoring system technologies. The county’s radar-based technology is likely in compliance with the bill’s requirements, but the LIDAR-based technology, as noted above, is likely not compliant. Therefore, expenditures may increase significantly to procure different technology and for additional contract costs. Baltimore County advises that the term “sufficient information” is subject

to interpretation, and the county is unsure what the impact of this term might be on its local speed monitoring program.

Local personnel expenditures or contract costs may increase significantly for any jurisdiction that is required to alter its contract with a vendor due to the bill's modified restrictions on the terms of payment with contractors. For example, Montgomery County advises that its contract contains a provision which states that, in the event that legislation prohibits the manner in which the vendor is currently paid, the vendor instead is to receive a payment in the amount of \$150,000 per month for its services in processing citations. According to Montgomery County, a \$150,000 per month fee is the equivalent of more than 50% of the county's speed monitoring revenues; its current contract is structured so that the vendor is paid about 41% of program revenues.

Baltimore County advises that, based on previous experience, contract costs likely increase significantly if it is necessary to alter its contract to a specified monthly fee. Its previous contract established a monthly fee of \$11,995 per system, which amounted to about 82% of program revenues. The new contract pays a fee of \$18.95 for each citation paid, or about 47% of revenues. Therefore, if Baltimore County were to negotiate a new contract with a monthly fee similar in amount to its previous fee, costs could increase significantly. However, it is unclear whether a future contract negotiated by a jurisdiction that is required to change its contract as a result of the bill may result in a more favorable rate than previous contracts.

Local expenditures may increase further – and significantly – due to the \$1,000 mandatory civil penalties established by the bill to be paid by the person responsible for maintaining a speed monitoring or work zone speed control system that erroneously issued a citation. As noted above, a reliable estimate of the increase in penalties cannot be made due to significant uncertainty regarding the current and future number of erroneously issued citations and any effect from expanding legal standing under the bill.

Finally, local revenues decrease on an annual basis as a result of the bill's requirement to issue only warnings for the first 30 days that a work zone speed control system is operated. As noted above, the number of citations issued by a system tends to decrease significantly the longer the system remains in operation in the same location.

---

### **Additional Information**

**Prior Introductions:** None.

**Cross File:** None.



**Information Source(s):** Baltimore, Harford, Howard, Montgomery, and Wicomico counties; Baltimore City; Judiciary (Administrative Office of the Courts); Maryland Department of Transportation; Comptroller's Office; National Work Zone Safety Information Clearinghouse; Federal Highway Administration; Insurance Institute for Highway Safety; Cochrane Collaboration; Department of Legislative Services

**Fiscal Note History:** First Reader - March 1, 2013  
ncs/ljm

---

Analysis by: Evan M. Isaacson

Direct Inquiries to:  
(410) 946-5510  
(301) 970-5510