

RED LIGHT CAMERA PROGRAMS

Although They Have Contributed to a Reduction in Accidents, Operational Weaknesses Exist at the Local Level

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Audit responses as of July 2003 to September 2003¹

Audit Highlights . . .

Red light cameras have contributed to a reduction of accidents; however, our review of seven local governments found weaknesses in the way they are operating their programs that make them vulnerable to legal challenge. Specifically, we found that the local governments:

- Need to more rigorously supervise vendors to maintain control of their programs.*
- All but one would use photographs as evidence in criminal proceedings even though it would appear to conflict with the law governing the program.*
- Generally follow required time intervals for yellow lights.*

Of the local governments we visited, only San Diego and Oxnard have generated significant revenue from their red light camera programs.

Our review of available data shows that red light accident rates decreased between 3 percent and 21 percent after red light cameras were installed by five of the local governments in our sample.

The Joint Legislative Audit Committee (audit committee) asked us to review the implementation, application, and efficacy of red light camera programs statewide. We found that accidents related to motorists running red lights have generally decreased where local governments have employed cameras. However, the seven local governments we reviewed—Fremont, Oxnard, Los Angeles County (Los Angeles), Long Beach, the city of San Diego (San Diego), the city of Sacramento (Sacramento), and the city and county of San Francisco (San Francisco)—need to make operational improvements to maintain effective control of their programs, comply with state law, and avoid legal challenges.

Finding #1: Local governments have been challenged on their control of red light camera programs.

Several local governments have been taken to court by alleged red light violators who claim that the local governments are not operating their red light camera programs as required under the law. Although the law stipulates that only a government agency, in cooperation with a law enforcement agency, can operate a program, it offers no further explanation or definition of what operate means, leaving the term open to interpretation. Because local governments contract out the bulk of services for these programs, private sector vendors inevitably play an important role. However, if municipalities delegate too much responsibility, they run the risk of their program being perceived as vendor controlled. For example, a court found that San Diego failed to satisfy the plain meaning of the word operate and that it had no

¹ Each of the seven auditee's responses were received on the following dates: Los Angeles, Long Beach, San Diego, and Sacramento, July 2003; San Francisco and Fremont, August 2003; and Oxnard, September 2003.

involvement with or supervision over, the ongoing operation of the program and concluded that San Diego exhibited a lack of oversight. San Francisco is in the early stages of defending itself against a similar lawsuit. However, a court ruled in favor of Beverly Hills, which was also the subject of a lawsuit alleging concerns over program operations like those in San Diego.

We recommended that to ensure local governments maintain control and operate their red light camera programs and avoid legal challenge, the Legislature should consider clarifying the law to define the tasks that a local government must perform to operate a red light camera program and the tasks that can be delegated to a vendor.

Legislative Action: None.

No legislative action found.

Finding #2: Local governments must more rigorously supervise vendors to retain program control.

We found that the local governments we visited do not exercise enough oversight of their vendors to avoid the risk of legal challenge over who operates their red light camera programs. Best practices for oversight consists of several elements to monitor and control vendor activities. Such oversight includes strong provisions in local governments' contracts with vendors to protect the confidentiality of motorists' photographs and personal data, making periodic site visits to inspect the vendor's operations for compliance with the law and contract terms, establishing criteria for screening violations, having controls in place to ensure that the vendor only mails properly authorized and approved citations, making decisions as to how long certain confidential data should be retained, and conducting periodic technical inspections of red light camera intersections. However, at the outset of our review, we found that the seven local governments did not exhibit all of the oversight elements we believe are needed to avoid legal challenge. After our inquiries, Long Beach took steps to amend the contract with its vendor to address two elements of oversight that were absent.

To maintain control over their programs and minimize the risk of legal challenges, we recommended that local governments conduct more rigorous oversight of vendors by employing all of the oversight elements we identified.

Local Government Action: Partial corrective action taken.

The seven local governments for which this finding applied reported the following corrective actions:

➤ **Fremont:** Fremont reports that it now performs weekly spot checks of intersections with red light cameras. Further, Fremont completed a vendor site visit in April 2003, and concluded that the vendor maintains its office facility in an organized manner and is conducting business to the city's satisfaction. During this visit, Fremont concluded that the security over data was appropriate and that the vendor was purging Department of Motor Vehicles' records every 90 days. Fremont did not report action on our finding that its contract lacks a specific provision that makes the misuse of the photographs a breach of the contract.

Long Beach: Long Beach reports amending its vendor contract to specifically state that photographs are confidential and to include a provision on when to destroy confidential documents. Further, Long Beach reports implementing a procedure to reconcile citations it has approved against those that the vendor has mailed.

➤ **Los Angeles:** In August 2002, Los Angeles conducted an oversight visit of the vendor and it plans to perform other visits periodically. From this initial oversight visit, Los Angeles concluded that the internal controls are sufficient to maintain the integrity of the evidence and to ensure that only authorized citations are mailed to offending drivers. However, it will reevaluate the need for additional controls over the citation process when it awards a new vendor contract in December 2003. Los Angeles has developed new business rules that require the vendor to comply with all confidentiality provisions of the California Vehicle Code. The business rules also require that information and pictures for unenforced violations be destroyed immediately. The business rules will take effect when the county awards a new contract for red light camera services in December 2003. Recently, Los Angeles has adopted new maintenance procedures to inspect intersections equipped with red light cameras. The new procedures provide that at least once per quarter, or when signal timing is changed, the county's department of public works, red light camera vendor, and the California Highway Patrol will conduct a joint on-site test and certification to ensure that camera settings and calibration are correct.



Oxnard: Oxnard suspended its program in January 2003 and reports that it changed red light camera vendors, with the new vendor beginning to install cameras in September 2003. Under the new vendor contact, Oxnard reports that the vendor must adhere to the confidentiality provisions in law, with any violation constituting a breach of contract with the city. Although the new contract does not require that data and photographs relating to unenforced citations be destroyed immediately, the contract does require that the vendor adhere to the city's policy for records retention and destruction of confidential information. Oxnard also indicates that during an upcoming visit to the vendor's facility, police officers will review the vendor's procedures for compliance with the contract and the practices outlined in our report. Finally, Oxnard believes that the vendor's system allows for a remote confirmation of the calibration of red light cameras. However, Oxnard indicates that it will conduct periodic inspections of intersections to ensure systems are intact and report any problems to the vendor.



Sacramento: Sacramento reports restarting its program in October 2002 as a joint photo enforcement program with the Sacramento County Sheriff's Department (sheriff's department). In September 2003, the city plans to enter an agreement with the sheriff's department, which will essentially allow the county to operate the red light camera program in the city as a part of a countywide enforcement program. The city believes this agreement will standardize and centralize the program so that only one program, with one standard is in effect. The city will have input into camera locations, but the day-to-day operation, maintenance, inspections, and issuance of citations will become the responsibility of the sheriff's department. The city indicates that sheriff's department staff will perform the citation screening, processing, and mailing functions that the vendor previously performed. The vendor will continue to maintain the cameras, develop the film and convert it to digital images, and archive the film. However, Sacramento indicates that all photographs relating to unenforced citations will be retained for three years because the city attorney believes that such retention is necessary to comply with California Government Code, Section 34090, and a city council resolution. Also, although Sacramento County will operate the city's program, the city of Sacramento indicates that it does not intend to review the need for revising the

contract language to specifically protect the confidentiality of data and photographs obtained from the Department of Motor Vehicles until after the current vendor contract expires.

San Diego: San Diego indicates it has restarted the program using the same vendor and that it has made numerous changes that should significantly improve the city's oversight of the vendor. Specifically, the revised vendor contract adds provisions that specify the confidentiality of program data and increase the penalties for contract violations. In addition, the city has developed detailed business rules to guide the vendor's review process. The city's police department will also inspect the vendor's facility each week. These inspections will be documented and will review security and data handling, along with testing a sample of alleged violations for proper handling by the vendor. The city's police department and traffic engineering office will conduct periodic inspections of red light camera intersections to ensure that the system settings and original construction designs have not been altered or tampered with. Further, the city attorney's office developed issuing guidelines for the alleged violations that it deems are prosecutable and the police department has agreed to follow these guidelines. Although not directly related to vendor oversight, the city is now using dual cameras—one showing the front view and one showing the review view—to better show the vehicle approaching the intersection and continuing through it during the red light phase. Finally, San Diego has changed the payment structure to pay the vendor based on a fixed monthly fee for each intersection equipped with red light cameras.

San Francisco: San Francisco reports taking several actions to address our recommendations. It now conducts all team meetings at the vendor's facility and intends to inspect the vendor's facility to ensure that confidential information is being safeguarded. In addition, San Francisco has commenced inspections of red light camera intersections to ensure that camera settings are appropriate and to determine whether the system is functioning properly. Further, in June 2003, San Francisco indicates the police department reconciled authorized citations with those mailed to ensure that only authorized citations were mailed for the period between October 2002 and May 2003. This reconciliation found no errors or inconsistencies. Finally, it has amended the vendor contract to require the vendor to destroy all data related to unenforced violations.

Finding #3: Most local governments believe photographs can be used for other law enforcement purposes.

According to state law, photographs captured by red light cameras are to be used only for enforcing compliance with traffic signals. However, local governments have differing interpretations of the confidentiality of the photographs taken by red light cameras. Six of the seven local governments in our sample acknowledged that they have used or would use the photographs for purposes other than enforcing red light violations, such as investigating unrelated crimes. According to our legal counsel, a literal reading of the statute prohibits use of the photographs for purposes other than to prosecute motorists for running red lights. However, several jurisdictions believe that other laws, as well as the California Constitution, would permit the use of red light photographs as evidence in criminal proceedings. According to our legal counsel, in view of the conflicting interpretation of the law, the courts will ultimately decide whether local governments are violating the red light camera law when they use photographs in criminal investigations. The California Constitution also provides that with a two-thirds vote of its members, the Legislature can specifically exclude certain evidence from criminal proceedings, and according to our legal counsel, this would likely include photographs related to traffic signal enforcement.

Because a potential conflict exists between the confidentiality provision in the Vehicle Code and the California Constitution regarding the admissibility of evidence, we recommended that the Legislature consider clarifying the Vehicle Code to state whether photographs taken by red light cameras can be used for other law enforcement purposes.

Legislative Action: None.

No legislative action found.

Finding #4: Local governments may not have addressed engineering improvements before installing red light cameras.

Although we found that traffic safety was usually the reason for selecting intersections for red light camera enforcement, we could not always verify that local governments addressed engineering solutions before placing red light cameras at intersections. The Federal Highway Administration recommends that before installing a red light camera system, traffic engineers review the engineering aspects of the potential sites to determine

whether the problem of vehicles running red lights could be mitigated by engineering changes or improvements. San Francisco best demonstrated that it met this best practice, while the other local governments we visited conducted their engineering improvements on a more informal and ongoing basis.

We recommended that before installing red light cameras, local governments should first consider whether engineering measures, such as improving signal light visibility or using warning signs to alert motorists of an upcoming traffic signal, would improve traffic safety and be more effective in addressing red light violations.

Local Government Action: Partial corrective action taken.

The six local governments for which this finding applied reported the following corrective actions:



Fremont: Fremont has not reported the action it plans to take on this recommendation.

Long Beach: Long Beach reports that should it decide to expand the program beyond the three-year pilot, it will perform engineering reviews at each location identified for red light enforcement.



Los Angeles: Los Angeles has not reported the action it plans to take on this recommendation.

Oxnard: Oxnard indicates that its traffic engineer has considered all possible options prior to installing red light cameras, including using an all-red interval to clear intersections, adjusting yellow light time intervals, adding new roadway striping, installing light-emitting diodes in signal lamps, and adjusting the posted speed limits. However, as noted in our audit, we could not determine if Oxnard took these steps before installing red light cameras under its original program.



Sacramento: Sacramento has not reported the action it plans to take on this recommendation.

San Diego: San Diego has developed selection criteria for intersections, and it indicates that a detailed list of engineering solutions will be first considered at intersections selected for enforcement before it restarts the red light camera program. Also, intersections selected for enforcement will have a one second all-red interval to allow vehicles in the intersection time to clear.

Finding #5: Some local governments bypassed state-owned intersections with high accident rates.

Caltrans allows red light cameras at state-owned intersections but requires an encroachment permit for construction. The time it takes to obtain an encroachment permit—which grants the local government access to a state right-of-way for construction—was viewed differently among the local governments we visited. Fremont and Long Beach avoided placing red light cameras at state-owned intersections because they anticipated that the Caltrans permitting process would be too cumbersome and would unnecessarily delay the start of their programs. San Diego stated that Caltrans was unwilling to allow red light cameras on state-owned intersections, but the city could not provide evidence of Caltrans’ refusal. Also, Los Angeles did not consider state-owned intersections for its program. By avoiding state-owned intersections, these local governments failed to place cameras at some of the more dangerous intersections within their jurisdictions.

To focus on traffic safety and to avoid overlooking high-accident locations that are state owned when considering where to place red light cameras, we recommended that local governments diligently pursue the required Caltrans permitting process, even though it may cause some delays to their programs.

Local Government Action: Partial corrective action taken.

The four local governments for which this finding applied reported the following corrective actions:

Fremont: Fremont reports that it will be pursuing the installation of red light cameras at state-owned intersections in the near future and that it has begun discussions with Caltrans regarding these installations.

Long Beach: Long Beach reports that should it decide to expand the program beyond the three-year pilot, it will consider placing red light cameras at state-owned intersections.

Los Angeles: Los Angeles has not reported the action it plans to take on this recommendation.

San Diego: The city indicates that it will place red light cameras at state-owned intersections if those intersections meet the selection criteria, regardless of any potential delays.



Finding #6: Not all local governments require vendors to follow municipal permit and engineering standards when installing red light cameras.

Local standards may include issuing the proper permits to perform the work, reviewing engineering drawings and plans for the suitability of the work proposed, and inspecting the finished work for accuracy and adherence to the plans and local construction requirements. Six of the seven local governments we visited required vendors to follow local permit and engineering standards to ensure proper construction and inspection of red light camera systems. However, San Diego chose not to apply its local permitting and engineering standards to red light camera intersections. Specifically, San Diego did not ensure that plans were prepared by a registered civil or electrical engineer, nor was the construction subject to the city's formal plan check, permitting, and inspection procedures.

We recommended that to ensure that intersections are constructed and cameras are installed as planned, local governments should follow their own permit processes by reviewing the as-built plans and inspecting the intersection after construction.

Local Government Action: Corrective action taken.

The one local government for which this finding applied reported the following corrective action:

San Diego: San Diego indicates that it will follow its own permit process. Specifically, it will require that a registered engineer design and submit plans for each red light camera installation for review and approval. Further, a city inspector will inspect the construction of each site before it is placed in operation, and as-built plans will be prepared to illustrate the actual construction of each site.

Finding #7: Caltrans guidance to local governments related to yellow light time intervals could be more specific.

With few exceptions, the local governments we visited complied with a new law requiring that the minimum yellow light time interval at intersections with red light cameras meet the standards established by Caltrans. The law became effective January 1, 2002, and was prompted by the Legislature's concern that yellow light time intervals at such intersections may be shorter than Caltrans' standards. Caltrans' standards use the

speed of the approaching traffic to determine the appropriate time interval for a yellow light. However, the Caltrans traffic manual does not specify how traffic engineers are to determine the speed of the approaching traffic, which can be done in one of two ways: using the posted speed limit or surveying the traffic speed. Therefore, local governments that do not meet Caltrans' standards using both posted speeds and speed survey results run the risk that their yellow light time intervals may be legally challenged.

To avoid the risk of legal challenges, we recommended that local governments petition Caltrans to clarify its traffic manual to explain when local governments should use either posted speeds or the results from speed surveys to establish yellow light time intervals at intersections equipped with red light cameras.

Local Government Action: Partial corrective action taken.

The seven local governments for which this finding applied reported the following corrective actions:

- ➔ **Fremont:** Fremont has not reported the action it plans to take on this recommendation.
- Long Beach:** Long Beach indicates that it sent a letter to Caltrans that specifically requested clarification on whether the yellow light time intervals at red light camera intersections should be based on engineering surveys. However, the city had not received a response as of July 2003.
- ➔ **Los Angeles:** Los Angeles has not reported the action it plans to take on this recommendation.
- Oxnard:** Oxnard indicates that its yellow light time intervals comply with accepted standards, but does not indicate whether it petitioned Caltrans to clarify the guidance in the Caltrans traffic manual.
- ➔ **Sacramento:** Sacramento has not reported how it will address this recommendation.
- San Diego:** The city indicates that it has increased minimum yellow light time intervals to 3.9 seconds and 3.4 seconds, for a straight through movement and a left turn, respectively. City engineers will also review the approach speeds at red light camera intersections to ensure that the yellow light time intervals meet or exceed Caltrans' standards.

San Francisco: San Francisco reports that it intends to seek confirmation from Caltrans regarding its current practices for yellow light time intervals.

Finding #8: Accounting for program revenues and expenditures is weak.

Although good internal control practices dictate that local governments properly account for the revenues and expenditures of their respective red light camera program, only Fremont did so. Because each local government pays their respective vendor based on the number of red light citations that motorists' pay, it would be prudent for them to properly account for program revenues. Additionally, we found that only Fremont and Long Beach conduct monthly reconciliations of their vendors' invoices with the courts' payment records to ensure that they are paying their vendors the appropriate amount. Also, San Diego, San Francisco, and Oxnard could only provide us with estimates for some of their program costs. Without a more precise method of accounting for program expenditures, these local governments cannot accurately determine the cost-effectiveness of their programs and ensure that local resources are used appropriately.

To allow for better accountability over red light camera programs and to ensure that vendors are paid appropriately, we recommended that local governments improve their methods of tracking revenues and expenditures related to their programs.

Local Government Action: Partial corrective action taken.

The five local governments for which this finding applied reported the following corrective actions:



Los Angeles: Los Angeles has not reported the action it plans to take on this recommendation.

Oxnard: Oxnard indicates that the city's accounting system now allows for the tracking of expenditures related to the red light camera program.

Sacramento: Sacramento indicates that it hopes the partnership with the Sacramento County Sheriff's Department will improve accountability over the program, but it does not indicate specific actions that will occur to implement this recommendation.

San Diego: San Diego's police department and courts have changed their accounting processes to allow for the accurate accounting of red light camera ticket revenues and expenses.

San Francisco: To more accurately calculate expenditures, San Francisco reports that it is looking into setting up an accounting procedure to track police effort on the program.