

# California Department of Transportation

## Although Encouraging Contractors to Use Recycled Materials in Its Highway Projects, Caltrans Collects Scant Data on Its Recycling and Solid Waste Diversion Efforts

REPORT NUMBER 2005-135, JULY 2006

*California Department of Transportation's response as of June 2007*

The Joint Legislative Audit Committee (audit committee) asked the Bureau of State Audits (bureau) to evaluate the California Department of Transportation's (Caltrans) compliance with the California Public Resources Code, Section 42701, which requires it to write contracts so construction contractors can use recycled materials, unless its director determines that using such materials is not cost-effective. The audit committee also asked us to assess the process Caltrans uses to determine the cost-effectiveness of using recycled materials. Further, we were asked to identify any impediments to Caltrans' use of recycled aggregate material. In addition, the audit committee asked the bureau to determine the extent to which Caltrans communicates the State's recycling requirements to its contractors and encourages them to use recycled materials in its construction projects. Lastly, the audit committee asked us to determine whether Caltrans maintains data on how much recycled aggregate base material its contractors use. If Caltrans does not track this information, the committee asked the bureau to identify, to the extent feasible and using available data, the amount of recycled material used by a sample of Caltrans' geographically diverse road construction and repair projects, both small and large, over the last five years.

### **Finding #1: Neither Caltrans nor the Public Resources Code requires contractors to report how much recycled aggregate they use in highway construction projects.**

Although it encourages contractors to use recycled aggregate in its construction projects, Caltrans does not track how much recycled material contractors actually use for highway construction. Caltrans gives contractors the option to use up to 100 percent recycled aggregate and does not generally perceive any impediments to using such material as long as it meets Caltrans' established standards. However, contractors do not report data on how much recycled aggregate they actually use in highway projects, because statutes do not require and Caltrans does not ask contractors to submit such information. As a result, Caltrans lacks complete data on how much recycled aggregate contractors use. Nevertheless, to comply with statutes requiring it to limit the solid waste disposed of in landfills, Caltrans does collect some data on the amount of highway construction waste, primarily asphalt and concrete, its contractors recycle.

### **Audit Highlights . . .**

*Our review of the California Department of Transportation's (Caltrans) use of recycled aggregate in its highway construction projects found that:*

- » *Although Caltrans does not generally see any impediments to using recycled aggregate in its construction projects and allows its contractors to use up to 100 percent recycled materials, it allows contractors to decide when and to what extent recycled aggregate is more cost-effective than virgin aggregate.*
- » *With no statutory requirement to report how much recycled aggregate is used, Caltrans does not collect this data and thus does not know how much recycled materials its contractors use in highway construction projects.*
- » *To demonstrate compliance with 1999 legislation, Caltrans captures and reports some data on how much waste construction material its contractors generate for highway construction projects and divert away from landfills.*
- » *Caltrans did not report the solid waste generated on all its construction projects and often could not support the data it did report.*

**Finding #2: Caltrans cannot demonstrate that it is meeting the State's goals for diverting solid waste.**

Caltrans cannot be sure that it is meeting state goals for diverting solid waste from landfills because the data it collects and reports to the California Integrated Waste Management Board (board) are incomplete and unsupported. Our review of Caltrans' annual reports on its efforts to divert construction waste materials found that between January 2002 and December 2004 the reports accounted for only a few of the several hundred projects that were active during those years. Although based on more projects than in prior years, Caltrans' 2005 reports to the board contained data for only 14 percent of the projects that should have been included in those reports. Also, the annual reports' project data—collected from the Solid Waste Disposal and Recycling Reports (diversion forms)—are not reliable. In particular, 24 of the 28 diversion forms that were available to us, out of our sample of 30 contracts, contained obvious errors or were not signed by resident engineers. Taking into account these omissions and errors, it is unclear whether Caltrans is meeting state goals for diverting at least 50 percent of its solid waste from landfills.

To ensure that its annual waste management reports to the board are complete and supported, we recommended that Caltrans ensure that its contractors for all projects annually submit diversion forms to the projects' resident engineers in a timely fashion and that its resident engineers submit a copy of all reviewed diversion forms to the appropriate recycling coordinator in a timely fashion. In addition, we recommended that Caltrans ensure that its resident engineers consistently review and sign all diversion forms and consistently follow up with contractors to resolve any discrepancies in material type or volume.

***Caltrans' Action: Corrective action taken.***

Through issuance of a construction policy bulletin, revisions to its construction manual, and development of a new recycling form, Caltrans has finalized guidance procedures for its district recycling coordinators to improve data collection and submission and to clarify reporting requirements. In addition, Caltrans has developed a training module for resident engineers on the updated procedures, which it plans to include in the resident engineers' winter 2007 training. Lastly, Caltrans noted that it will perform an evaluation in January 2008 to determine if its changes have improved the quantity and quality of its data collection and reporting.