California DOT ("Caltrans")
2007 Bottleneck Reduction Process

Caltrans is a decentralized organization, with each District assuming a significant role in the local programming of projects. There is not a formal "bottleneck" planning process, rather bottleneck issues are addressed at the District level as part of the regional planning process. Much of Caltrans' operational planning is guided by the Transportation Management System Master Plan, which sets forth the types of strategies that should be pursued in improving congestion. Bottleneck planning is also guided by local Corridor System Management Plans (CSMPs), which are being developed for some of California's most congested transportation corridors. System monitoring and evaluation is seen as the foundation for the entire process, because not only can it identify congestion problems, it can also be used to evaluate and prioritize competing investments.

Major and minor bottleneck locations are identified through the formalized process for developing a CSMP. Bottlenecks are identified using the following tools and methods:

- State Highway Congestion Monitoring Program (HICOMP), which is an annual compilation of congestion data for urban freeway segments in California with a history of recurrent congestion.

- Performance Monitoring System (PeMS), which is a freeway performance measurement system that uses real time and historical traffic data from Caltrans detectors to calculate link-based performance measures, trip travel time estimates, and shortest route determination. Applications include freeway operational analysis, bottleneck identification, determining Level of Service, assessment of incident impacts, and evaluation of advanced control strategies.

- TOPL tool (Tools for Operational Planning), which is a macroscopic traffic analysis tool that works directly with PeMS data to provide a quick and accurate assessment of the effectiveness of various operational strategies.

- Archived ITS detector data (where available)

- Aerial photographs

- Direct observation

Caltrans does not have a direct funding category for bottlenecks, although bottleneck projects are routinely programmed through the CSMP process.

To read the full report (11 pages long) that describes how Caltrans incorporates bottleneck mitigation into its planning processes please contact neil.spiller@dot.gov