

making process. There are four major activities within ISTEA that provide support to market IVHS and ITMS to decision makers. These include the requirements contained in the Congestion Management System (Section 1034), the Clean Air Act and SIP, Metropolitan Planning and TIP (Section 1024), and Statewide Planning and TIP (Section 1025). The common elements of all these are that congestion must be reduced and/or prevented, and the project must contribute to clean air and air quality improvements.

- The recommended steps for deployment include:
 - Develop an areawide Traffic Management Plan using IVHS or HPR funds.
 - Incorporate these into the Congestion Management Plan through the MPO and state planning process.
 - Obtain endorsement by the MPO as part of the Long Range Plan and SIP.
 - Include the project in the Transportation Improvement Program (TIP).
 - The project is then eligible for NHS, STP, and CMAQ funding.

State Programs

David W. Brewer

California Department of Transportation

Mr. Brewer provided an overview of the funding programs available in California and the approaches that have been used in the state to implement ITMS. Mr. Brewer covered the following major topics in his presentation.

- In 1989, new state legislation altered the approach used in California to fund ITMS and other related projects. This legislation, called the Transportation Program for the 21st Century, anticipated many of the changes made at the federal level in the ISTEA. Three different programming documents were required as the focus of the program. These included the Highway Systems Operations and Protection Plan, the State Highway

Improvement Program, and the Traffic Systems Management (TSM) Program. This last program is the one most relevant to IVHS and ITMS. The TSM program established a 10-year funding target of \$1 billion for traffic management systems, required Caltrans to annually establish a priority listing of projects for funding, and called for the development of congestion management programs in the urbanized counties. The intent of the TSM program was to provide for effective traffic management systems in major urbanized areas of the state.

- Most of the projects funded through the TSM program fall within three categories: traffic operations centers and related surveillance and information systems, freeway ramp metering systems and HOV bypass lanes, and traffic flow improvements on conventional streets and roads. It was determined that eligibility would be limited to retro-fitting existing projects. It was also determined that this program should focus on the high-priority congested corridors. The annual priority listing is developed by Caltrans, based on criteria established by the state Transportation Commission. This list must be presented to the commission by December 1 each year. Funding is then allocated to projects during the year, up to the limit of the dollars available.
- The state expects the ISTEA and related programs to provide significant funding for ITMS and IVHS programs. It is a challenging time for Caltrans, the MPOs, and others to work out ways to coordinate the funding and operation of these programs.
- State legislation that would allow for the implementation of the ISTEA programs in California is still pending. As a result of a conference in February, there is general agreement between the state, MPOs, transit agencies, and local jurisdictions on how the programs should be implemented. Elements of this approach include distributing the formula funds from STP and the air quality and congestion mitigation program to the

MPOs for programming, broadening the definition of TSM to include HOV lanes and traffic control measures, and coordinating the federal and state programs. Further, it is anticipated that the state TSM program will be a major source of local match for the federal program.

- It is also anticipated that, although annual TIPs will still be required, Caltrans will need to make funding commitments several years in advance. Thus, the goal in California is to maximize and leverage all funding sources for the development of ITMS and IVHS.

Local Programs

*Donald W. Dey
City of Menlo Park, California*

Mr. Dey provided a local perspective on the development of ITMS and IVHS and the use of local funding sources. Mr. Dey covered the following major points in his presentation.

- The definition of ITMS needs to be very broad. Many elements of the local transportation system—including transit, police, and emergency services—should to be included. Further, the link to neighboring systems and the regional network is critical. In terms of management, both the human and technical aspects of the system must be coordinated.
- The first step in leveraging local funds is to identify a problem and the project you want to implement to address the issue. Having defined the project, you need to identify appropriate federal or state funding sources and develop the appropriate applications and supporting documentation. It is important to be aggressive in pursuing these programs. Keep in touch with agency representatives and the requirements of the different funding programs. Maintaining flexibility is also important. This will allow you to take advantage of changes and new opportunities at the state and federal levels. Also, be sure

you can show results for your efforts. Federal and state officials are just like local officials in that they want to see results and benefits from their funding. Thus, you must be able to produce and show results.

- Governmental units, especially at the local level, must learn how to package, sell, and market their proposals. Don't get discouraged if a proposal is turned down. Follow up with the funding source and find out what the weaknesses of your proposal were. Use this feedback to improve your next effort.
- One key element to attracting federal funding is that the project must have the potential for technology transfer, or sharing the knowledge in other areas.
- In terms of local projects in California, a number of funding sources may be available. Potential sources include Caltrans, FHWA, regional and local programs, and special programs such as the fuel overcharge fund. Although each of these alone may not be enough for an entire project, when combined, they provide adequate funding for most projects. Thus, it is important to leverage a variety of funds.

Private Sector Participation

*Alan Clelland
JHK & Associates*

Mr. Clelland provided the private sector perspective on the implementation of ITMS and IVHS. He focused on the issues associated with deployment of these systems and the funding implications of design/build contracts. Mr. Clelland covered the following major topics.

- The best leverage for obtaining funding is a successful program. If you look at the funding for the early stages of the IVHS program you will see a correlation between the successful projects and where the early funds are being deployed. Thus, it is important to