

GOALS

The transportation system must provide equitable and effective mobility and accessibility. It must be safe and secure, and support the State's economic prosperity. It must co-exist with and enhance our natural and human environments. The following goals, while identified and discussed as separate issues, are interdependent. For example, if the system is not well maintained, the level of mobility and safety will decline.

Each goal supports one or more concepts contained in the vision for California's transportation system and is followed by supporting policies and strategies. The policies are listed under the goal they most closely support, but they may also contribute to another goal. For example, the policy of securing additional and more flexible funding will help preserve the system and improve mobility. Continuing research will improve mobility and accessibility, but will also lead to a safer, more secure transportation system.

Realizing the transportation goals and implementing the supporting policies will take considerable collaboration. In the discussion of each policy below, a list of partners is offered as a starting point and to emphasize the need for partnerships in the implementation of the CTP.

Following each policy are strategies to implement the policy. The strategies are not meant to be exhaustive and will likely be expanded and refined during the CTP's implementation.

Goal 1) Improve Mobility and Accessibility

California's complex network of roadways, seaports, airports, railways, intermodal facilities, and pipelines is vital to our economic prosperity and quality of life. Projections indicate that by the year 2020, California will be home to nearly 44 million residents, with about 34 million registered vehicles. Due to environmental, physical, and fiscal limitations, building new transportation facilities alone cannot provide for the anticipated demand. We must link transportation and land use planning, invest wisely in capacity enhancements, manage the system and demand efficiently, provide viable transportation choices, and increase connectivity among all modes.

Adding capacity or transportation facilities is the supply side of the transportation coin; transportation demand management is the demand side. Transportation demand management (TDM) is a general term for strategies designed to improve transportation system efficiency. There are many different TDM strategies with a variety of impacts. Some improve availability of transportation options, while others provide incentives to choose more efficient travel patterns. Some reduce the need for physical travel through mobility substitutes or more efficient land use. TDM strategies can change travel timing, route, destination, or mode.

Mobility is not mode-specific. We need to select transportation investments that will provide the greatest mobility and efficient use of the entire system. Providing transportation choices will help balance the system and reduce congestion and environmental impacts. Enhancing

and expanding modal choices will also provide options for those who drive and improve access for those who cannot or choose not to drive.

The events of September 11, 2001, highlighted the need to provide transportation choices to ensure the nation's mobility, economic vitality, and security. When the air service was temporarily discontinued in the days following the attacks on New York and Washington D.C., passenger rail service was able to provide for the nation's continued mobility. California's legislature responded to the need for transportation choices by passing Senate Bill 1956 (Costa, Chapter 697, Statutes of 2002) enacting the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century. If approved by California's voters, a bond measure scheduled for the November 2006 ballot would provide nearly \$10 billion to construct a high-speed rail system connecting all of California's major population centers, and funding to improve California's existing passenger rail lines that would connect to the high-speed system.

The 1989 Loma Prieta earthquake in the San Francisco Bay Area provides an example of the need for transportation choices in the event of a natural disaster. When the Bay Bridge connecting the cities of San Francisco and Oakland was closed for a month, passenger ferries were borrowed to augment the existing fleet and provide additional passenger and freight service on the Bay. Ferry service continues to be a growing alternative to congested roadways in the Bay Area (see **Figure 11**).

FIGURE 11

San Francisco Bay Area Proposed Ferry Network



Source: Water Transit Authority, 2002.

Policy: Manage and operate an efficient intermodal transportation system

Partners:

Advanced technology manufacturers	Railroad corporations
Amtrak	Regional Transportation Planning Agencies
California Department of Transportation	Seaport operators
California High-Speed Rail Authority	Transit operators
Communication systems operators	Vehicle manufacturers

People, goods, services, and information must travel by the most efficient means possible to foster economic prosperity. Modes must connect with one another to allow convenient and efficient movement. When asked, the public said they want a transportation system in which they can easily move between modes, jurisdictions, and operators. They want transit fare structures and schedules that are complementary, consistent, convenient, and easily understood.

The transportation system must be managed to ease demand on the system and maximize efficiency. For example, reducing peak period travel, improving the traffic flow and encouraging the use of transit, bicycling, and walking can help reduce demand on the road system. In seaports, greater efficiency can be achieved by extending hours of operation if warehousing, distribution, rail, and trucking firms also extend their hours.

The following strategies are designed to lead to a transportation system that can incorporate changing technology, manage growth, and balance system demand.

Strategies:

- Improve the operating efficiency, system management, and connectivity of the State's transportation system by using advanced transportation applications.
 - Integrate standardized services and technologies statewide so that: transportation services are seamless; consumer devices (such as collision avoidance, navigation and mayday systems) function regardless of location; and market size reaches levels needed for low-cost mass production.
 - Provide State leadership by promoting and negotiating cross-jurisdictional coordination to bring about improved efficiencies and connectivity, including those at ports-of-entry, for the movement of people, goods, services, and information.
 - Embed the necessary hardware for advanced technologies during new road construction or reconstruction.
 - Continue upgrading traffic management centers and traffic management devices, as innovations are proven effective.

- Continue to support and expand freeway service patrols to rapidly respond to incidents and restore traffic flow.
- Maximize transportation investments through a coordinated approach to capacity and operational improvements, such as providing express bus service on High Occupancy Vehicle (HOV) lanes.
 - Coordinate with regional transit providers to maximize the use of HOV lanes and park and ride facilities.
- Enhance connectivity between transportation modes.
 - Integrate and interconnect transit service among transit providers and with other modes; and collaborate with private transportation providers to improve and coordinate service.
 - Deploy cross-jurisdictional advanced transportation systems to improve safety, provide traveler information, and coordinate service schedule and fare purchases.
 - Collaborate with private sector and transportation providers to develop and implement a statewide electronic payment system for such things as transit fares, toll collection, parking fees, and bicycle lockers.
 - Enhance system connectivity and convenience between motorized and non-motorized transportation modes.
 - Include infrastructure to support non-motorized modes during the planning and design phases of project development.
- Support systems for comprehensive multimodal planning and system performance analysis that incorporate all transportation modes.
 - Accelerate deployment of data collection technologies and communications.
 - Improve analytical methods for assessing performance data.
- Enable travelers to better manage their individual trips.
 - Continue development of a statewide traveler information website that effectively integrates local, regional, and interregional public services with private for-profit services.
 - Continue deployment of statewide “511” traveler information telephone service that effectively integrates existing and planned telephone-based systems.

Policy: Increase system capacity

Partners:

Advanced technology manufacturers	Developers
Airport operators	Local and county governments
Amtrak	Railroad corporations
Bicycle advocacy groups	Regional Transportation Planning Agencies
California Department of Transportation	Transit operators
Construction sector	Transit vehicle manufacturers

CITY CARSHARE

City CarShare is a nonprofit organization whose mission is to promote car sharing as a means to reduce automobile dependence and enhance the environment and social equity in urban areas. City CarShare partners with transit services in the San Francisco Bay Area, allowing transit riders to use a car when needed without the fixed costs of owning a car.

California's growing population and economy challenge our mobility now and will continue to do so in the future. It is clear that the State will need to increase transportation system capacity in all modes to help provide for the increased demand resulting from the projected 10 million additional Californians that will be using the system in the next 20 years. Indeed, if transportation providers do not increase system capacity, the economic prosperity, individual opportunity, and quality of life that make California so attractive will be diminished. The question is how to best increase capacity with limited transportation resources, while being mindful of the State's natural and cultural environment.

There are numerous ways to increase transportation capacity or, alternately, reduce demand. Options include developing new and expanding existing facilities, improving operational characteristics and system management practices to help accommodate and balance increasing demand, and instituting demand management measures.

Strategies:

- Expand existing and develop additional roadways.
 - Add lanes and roads where feasible and determined to be the best alternative.
 - Redesign and modernize interchanges to reduce or eliminate bottlenecks or restraints to smooth traffic flow, and to reflect current traffic-flow patterns.
 - Increase the capacity on major arterial streets through improved design, grade-separation, signal timing, and other innovative solutions.
 - Complete the HOV network and supporting facilities.
- Expand and improve transit services.
 - Expand dedicated guideway, bus rapid transit service and facilities, smart shuttles and shared car programs where proven effective.
 - Improve multimodal ground access to airports, including intercity bus service connecting small urban and rural communities to passenger air service.

- Provide State leadership, in cooperation with local, regional and federal agencies and Native American Tribal Governments, to develop an efficient cargo and passenger aviation system and mitigate their impacts.
- Continue incremental improvements to the State’s intercity rail system and passenger rail services, while providing for connectivity to a future high-speed rail network.
- Incorporate safe pedestrian and bicycle facilities in roadway capacity improvement and rehabilitation projects.
- Use technology to make vehicles “smarter.”
 - Allow more vehicles to safely share the road through advanced vehicle control and guidance systems.
 - Improve bus design and fare systems in order to more quickly move people in and out of vehicles for increased efficiency.

Policy: Provide viable transportation choices

Partners:

Amtrak	Developers
California Bicycle Coalition	Pedestrian Safety Task Force
California Department of Health Services	Rails to Trails Conservancy
California Department of Transportation	Regional Transportation Planning Agencies
California High-Speed Rail Authority	Transit operators
California Walks	Urban planners
City and County officials	

Providing viable transportation options is another way to enhance California’s mobility. Communities designed to accommodate safe, convenient transportation alternatives will result in more transportation choices for all segments of our changing society, reduce tailpipe emissions, and mitigate demand on our roadways. Enhancing interregional transportation alternatives that link communities and national and international transportation facilities will increase the economic viability of smaller urban and rural communities, and enhance State and national security by providing viable transportation alternatives.

Additionally, while California leads the nation in the number of licensed drivers, it ranks 45th in the number of licensed drivers per thousand residents.³³ This means California has a considerable number of residents that are dependent on transit or alternative means of transportation other than driving. Providing viable and affordable transportation alternatives will result in greater accessibility to those who cannot or choose not to drive, and a more equitable transportation system.

³³ U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics 2003*.

SACRAMENTO PARATRANSIT

Sacramento Paratransit, in partnership with Sacramento Regional Transit, provides door-to-door service to Sacramento County's frail, elderly, and disabled riders. A two-time winner of the Community Transit Leadership Award, the service uses advanced technology to provide safe, efficient, same-day service for those unable to use the traditional fixed-route transit service.

According to the results of a national random sample telephone survey conducted on behalf of the Surface Transportation Policy Project in October 2002, Americans would like to walk more than they do currently. Respondents cited pedestrian safety and distances to shops, services and schools as the primary reasons why they do not walk. To make walking and biking a more viable transportation choice, these modes must be considered in land use and community planning and design. The issue of walkable and bikable communities will be discussed further under Goal 5: Reflect Community Values.

In response to the Supplemental Report of the 2001 Budget Act, the Department, in collaboration with numerous stakeholders, developed the *California Blueprint for Bicycling and Walking* (Blueprint).³⁴ The Blueprint sets forth the ambitious goals of:

- A 50 percent increase in bicycling and walking trips by 2010;
- A 50 percent decrease in bicycle and pedestrian fatality rates by 2010; and
- Increased funding for bicycle and pedestrian programs.

The Blueprint proposes strategies for improving safety and increasing bicycling and walking mode shares. It offers an action plan designed to achieve the desired goals through engineering, enforcement, education, and encouragement.

Providing transportation alternatives extends to the use of alternative fuel vehicles. Governmental agencies at all levels are currently playing a crucial role in expanding the market share of alternative fuel vehicles by "greening" their fleets. We also need to consider the State's alternative fuel infrastructure needs, customer information for fueling facilities in California and in neighboring states, and marketing the advantages of owning and operating alternative fuel vehicles. This issue will be further explored under Goal 6 - Enhance the Environment.

Strategies:

- Support the California High-Speed Rail Authority's activities in planning for a comprehensive high-speed rail system that is integrated with the existing conventional intercity rail system.
- Provide greater access to information, products and services without the need for physical travel.
 - Increase use of telecommuting, e-commerce, and e-government services.

³⁴ California Department of Transportation, [California Blueprint for Bicycling and Walking](#), May 2002.

- Expand on-call, alternative door-to-door paratransit services, to improve mobility for persons with disabilities and elder Californians.
- Facilitate use of advanced transportation systems to flexible transit service operators, such as vehicle location, dispatch and scheduling software, safety and security systems.
- Establish methods for evaluating levels of service for all modes in support of an integrated, multimodal transportation system.
- Evaluate pilot projects such as City CarShare to determine effectiveness, identify winning attributes, and deploy on a wider basis as appropriate.
 - Share best practices and guidance with other transportation entities.
 - Gain insight and guidance from other entities regarding solutions to common problems.
- Support the goals and further the efforts initiated by the *California Blueprint for Bicycling and Walking*.
 - Integrate bicycling into mainstream transportation models and modeling, including cost benefit analysis of bicycle facilities.
 - Remove barriers to walking and bicycling.
 - Educate California’s youth on the health and air quality benefits of making trips by bicycle or foot.
- Promote use of technology to increase accessibility and reduce need for physical travel.

Policy: Support research to advance safe and environmentally responsible mobility and accessibility

Partners:

Automobile and transit vehicle manufacturers	Private sector manufacturers
California Department of Conservation	Research organizations
California Department of Transportation	Transportation Research Board
California Environmental Protection Agency	U.S. Department of Transportation
California Resources Agency	Universities

California has long been viewed as a leader in research and technological innovation. The State is home to many of the world’s leading universities and university-based transportation centers. University transportation centers provide the creative energy and expertise needed to explore new ideas, materials, and methods for advancing California’s mobility and accessibility.

In the past, the State’s aerospace and defense industry sectors spurred tremendous economic growth. Today, Silicon Valley pushes forward the boundaries of computer research and technology, making California the nexus of the Information Age. Since research and technology drive much

of California's economic growth and resulting transportation demand, it is only fitting that we turn to these industries to improve the efficiency of our transportation system.

Strategies:

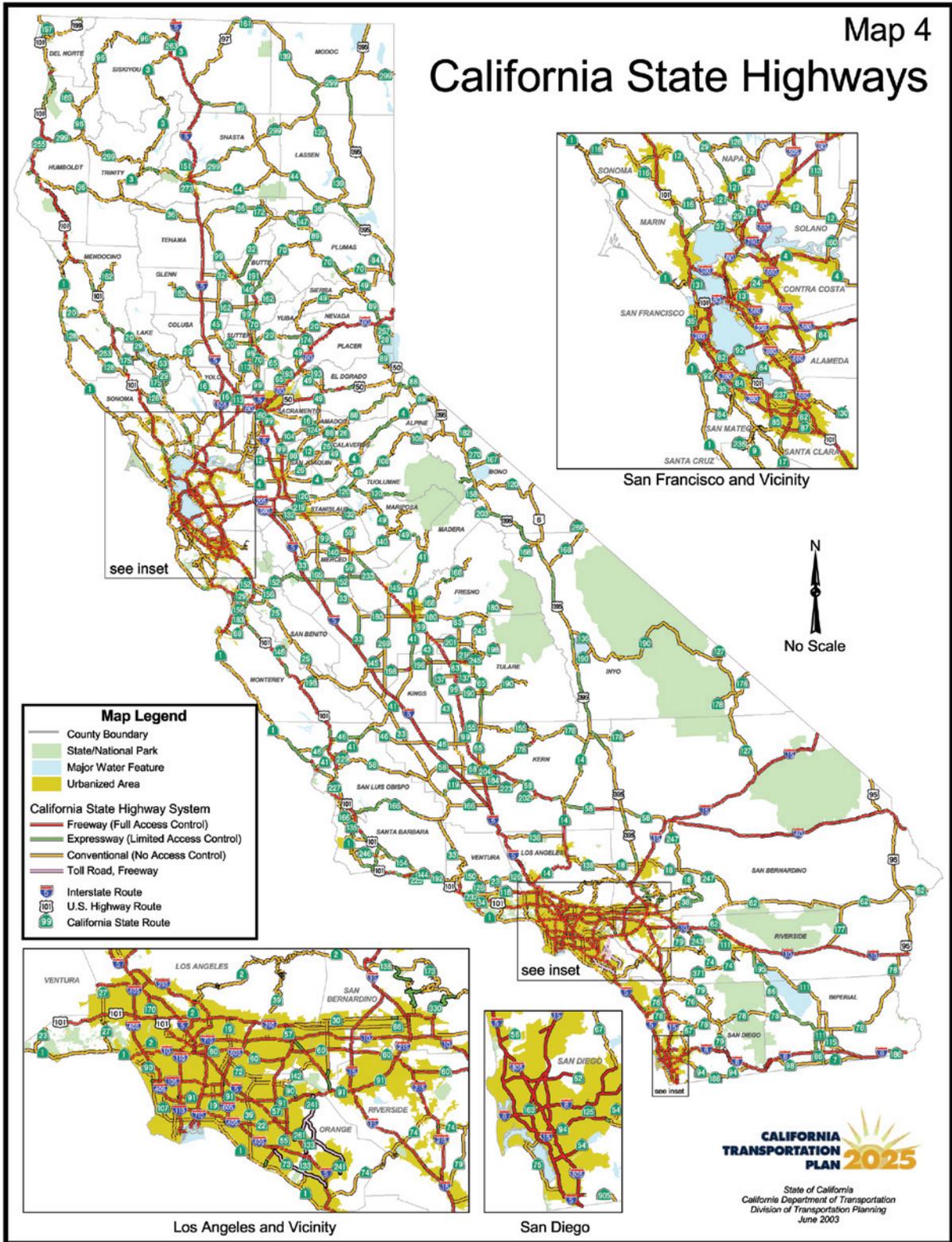
- Test geospatial, digital, and other advanced imaging systems to evaluate environmental and social data related to infrastructure projects and to minimize project costs.
- Develop new materials to extend the life and performance of the transportation system.
- Research methods and technologies to better operate, manage, and maintain the transportation system, and to improve system safety and security.
- Research successful models in other states and countries and determine their value if implemented in California.
- Explore alternatives, opportunities, and challenges for new ideas and solutions.
- Collaborate with federal and State agencies, universities, and other states to explore alternative fuels and fuel infrastructure.
- Expand the existing research and knowledge about older adult traffic safety.
- Pursue research and public education to ensure that drivers are not distracted by and know how to use in-vehicle technologies.
- Continue to enhance the understanding of road ecology, a field of study that seeks to explain the relationship between roads and the natural environment.

Goal 2) Preserve the Transportation System

Maintaining and rehabilitating the State's extensive transportation system will preserve it for future generations. The SHOPP Plan, July 2002, estimates that Californians have invested over \$300 billion in the State highway system alone (**see Map 4**). Preservation and maintenance resources need to be reliable and continuous to ensure the system's viability for future generations, to avoid the higher cost of deferred maintenance, and to realize the useful life of the State's transportation assets. Preserving the system includes maintaining roadways, rail beds, pedestrian walkways, bicycle paths, airports and seaports; transit facilities and vehicles; and control and communication systems.

The cost of maintaining and operating the transportation system will continue to follow the costs associated with labor and material, which are generally rising. As the cost of maintaining the system increases, less funds are available for meeting increased demand.

Map 4 California State Highways



Additionally, the skills needed to maintain and operate a modern transportation system are challenging operators in all modes. Highly trained technicians are needed to maintain alternatively fueled transit vehicles; advanced electronic guidance, monitoring, and communication equipment; and vehicles designed to provide services for persons with disabilities. Advanced skills are also needed to operate and maintain the transportation management centers (TMCs). TMC operators monitor system operations and respond to traffic conditions, using devices that are embedded in or positioned alongside the roadway. As transportation technologies continue to advance, the skills needed and the cost to secure those skills, are likely to increase.

Policy: Preserve and maintain the transportation system

Partners:

Advocacy groups	System users
Airport operators	Transit operators
Local and county public works departments	U.S. Congress
Material providers	U.S. Department of Transportation
Railroad corporations	Universities
Regional Transportation Planning Agencies	Vehicle manufacturers
Seaport operators	

Maintenance protects existing investments, defers expensive reconstruction, facilitates system efficiency, and improves the traveler’s experience. California’s transportation system includes over 170,000 miles of maintained public roads, over 12,000 State-owned bridges and structures, and nearly 100 tunnels and tubes. According to the Bureau of Transportation Statistics, the State also has over 8,000 miles of Class I, regional, local, switching and terminal railroads, and 250 general aviation and 28 commercial airports. Additionally, there are numerous sidewalks, bicycle lanes and paths, signs, lights, and support facilities that require maintenance.

There are over 200 transit operators in California, including urban, commuter, and intercity passenger rail, that need to maintain their transit vehicles, rail, control systems, and support facilities. California’s transit operators have been experiencing increases in operating costs, especially for fuel and insurance (liability, workers’ compensation, health),³⁵ as well as increased system maintenance costs. These costs must be supported by farebox revenues and the limited public funds available for operation and maintenance.

The State highway system was designed and built in the 1950s-1970s. Not only have these facilities gone beyond their design life, they have also been subjected to traffic volumes significantly greater than originally designed for or projected. According to the *2002 Ten-Year SHOPP Plan*, approximately 20 percent of State highway system’s pavement needs rehabilitation or major reconstruction. More than half the bridges are over 30 years old and, while safe, are in need of rehabilitation or replacement. Existing safety roadside rests need rehabilitation and new rest areas are needed. Although substantial work has been accomplished since

³⁵ Legislative Analyst’s Office analysis of 2003-04 California Governor’s Budget.

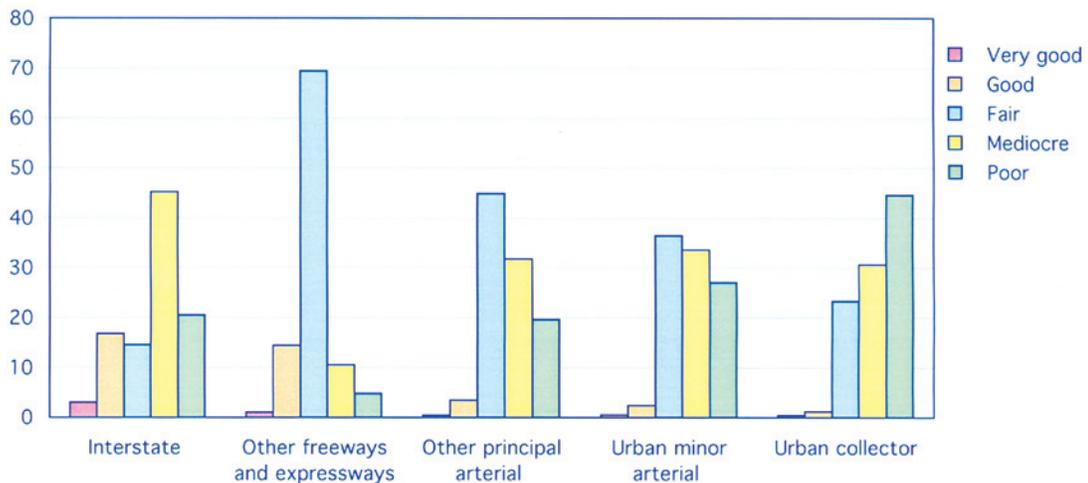
the previous SHOPP Plan, the 2002 version identifies potential needs of over \$22 billion in rehabilitation, reconstruction, stormwater management, and operational improvements.

In addition to implementing projects, the Department performs routine maintenance on the State highway system. This includes daily maintenance of pavement, highway structures, landscape, electrical systems, and safety roadside rests; removal of snow, litter, and graffiti; and clean up and repair of damage caused by storms.

According to the Road Information Program, half of California’s roads are in mediocre or poor condition and require maintenance. However, at the local level, there are insufficient resources to maintain and operate the roadways, bicycle, pedestrian and transit facilities, and general aviation airports. Even with additional resources from Proposition 42, State, regional, and local agencies will be challenged to maintain the aging system. **Figure 12** shows the condition of the State highway system and local streets and roads using data collected by the FHWA.

FIGURE 12

Urban Road Conditions in California: 2000



Source: U.S. Department of Transportation, Federal Highway Administration, Highway Statistics, June 2002.

The private sector, including the traveling public, has a major stake in the maintenance of the transportation system, but also has a major responsibility for maintaining the vehicles using the system. Proper maintenance of privately owned vehicles can reduce incidents and accidents, and help safeguard the environment.

Transportation policy-makers and providers must identify, analyze, and implement additional transportation fees and financing instruments to maintain our transportation infrastructure. The current system must receive priority for funding to preserve the system’s safety and the public’s investment.

Strategies:

- Continue to place a high priority on preserving the transportation system and protecting the public’s multi-billion dollar investment.
- Use technology, innovative techniques, and new materials to enhance the life of the transportation system, provide safer work sites, enhance productivity, and reduce traveler inconvenience.
 - Provide real-time construction and maintenance information, including anticipated delays, to enable travelers to plan their trips and avoid work zones.
 - Support research and development of improved construction and maintenance techniques and materials.
- Increase private sector participation and coordinate transportation maintenance and rehabilitation projects with other transportation agencies, and with public utility projects, to minimize costs and traveler disruption.
- Establish and enforce standards for proper vehicle maintenance to increase safety and reduce emissions.
- Increase the use of diagnostic systems that detect problems and monitor routine maintenance on public transit and privately owned vehicles.
- Support training programs that provide the necessary skill sets to operate and maintain technologically advanced transportation systems.

Goal 3) Support the Economy

California is currently the world’s sixth-largest economy. The State’s economic growth is directly connected to the transportation system’s ability to transport people, goods, services, and information reliably and efficiently into and throughout the State, as well as to other states and countries. If projections prove correct, we can expect that the volume of goods moving by all modes within and through California to at least double by 2020.³⁶ As transport efficiency is improved, transportation and consumer costs are minimized — an important outcome in a competitive environment.

Tourism is California’s fourth-largest “employer” and a major contributor to the gross State product. As the number-one travel destination in the United States, more than \$82 billion was spent on travel within California in 2004. This directly supported jobs for nearly 893,000

³⁶ California Department of Transportation, [Global Gateways Development Program](#), January 2002.

Californians, and generated \$5 billion in direct State and local tax revenue.³⁷ Easing the tourist’s ability to move throughout the State by providing transportation options will help maintain California status as a national and international destination.

Transportation in California remains vulnerable to oil supply disruptions and price increases that can play havoc with consumer pocketbooks and the State’s economy. Energy supply and demand projections indicate that the State’s vulnerability will escalate over the next 20 years. In the near term, the growing demand for transportation energy will result in price spikes and long-term supply considerations increasing business and production costs, and the cost of transportation to system users and providers. To the degree Californians can reduce fossil fuel consumption and achieve a greater transportation modal mix, the greater the State’s economic stability and prosperity. However, since approximately half of the State’s transportation revenues are derived from excise tax on transportation fuels, an alternative, stable source of funds will need to be identified.

Policy: Enhance goods movement mobility, reliability, and system efficiency

Partners:

Airport operators	Parcel delivery services
Business and manufacturers	Railroad corporations
California Department of Transportation	Regional Transportation Planning Agencies
California Trucking Association	Seaport operators
Intermodal Association of North America	Shippers/receivers
Labor unions	Shortline railroads

California’s ability to succeed economically rests on its ability to move goods reliably and efficiently, with minimal delay. However, the growth in congestion and increased freight movement demands on the transportation system have reduced mobility and system reliability, and have increased transportation costs and environmental impacts. If California is to remain a national economic leader and major gateway to international trade, significant improvements must be made to the transportation system. Highway and rail systems that carry significant freight volumes must be enhanced. Intermodal connectors to major freight terminals (including rail freight intermodal yards and seaports) and access routes must be maintained and improved.

Additionally, options to address the community impacts of freight movement, such as changes in hours of delivery, railroad/roadway grade separations, and more available remote truck parking facilities must be developed. Environmental impacts from emissions and noise must be avoided or mitigated. Significant leadership and collaboration among the public and private sectors will be essential to develop economically sensible and environmentally sensitive improvements.

³⁷ California Travel and Tourism Commission, “California Fast Facts 2005,” August 2005.

Strategies:

- Give goods movement needs and impacts full consideration in the development of a multimodal transportation system, in partnership with other governmental entities, community organizations, shippers and carriers, and other interested parties.
- Establish a statewide coalition to promote the full consideration of goods movement projects in federal, State, and regional transportation planning and programming.
- Focus statewide system investments on corridors and gateways that handle the highest volumes of freight traffic and/or have the most significant transportation problems.
- Promote flexibility to fund solutions to transportation problems that have significant public benefits, regardless of facility type, mode or ownership.
- Provide State leadership by promoting and negotiating cross-jurisdictional coordination to bring about improved efficiencies and connectivity, including at ports-of-entry for the movement of people, goods, services, and information.
- Research, develop, demonstrate, and deploy cost-effective technologies and operational strategies to expedite goods movement, improve safety, and reduce congestion.
- Gather, develop, and refine data, tools, and techniques needed for assessing goods movement, system performance, and for evaluating project alternatives.
- Ensure that environmental, community, and land use impacts of goods movement activities are identified early in the planning and project development process and resources are included to help mitigate these impacts.

Policy: Provide additional and more flexible transportation financing

Partners:

Airport operators	Seaport operators
California Department of Transportation	Toll authorities
California Legislature	Transit operators
Insurance companies	Transportation system users
Local government	U.S. Department of Interior
Railroad corporations	U.S. Department of Transportation
Regional Transportation Planning Agencies	

The State's economic prosperity and quality of life depends on an efficient transportation system. However, funding shortfalls for transportation challenge the ability of transportation providers, operators, and planners to provide for the State's current and projected mobility and accessibility needs. The shortfalls affect capital projects as well as operations and maintenance of all system elements.

Optional local sales tax represents the single largest source of transportation funding. Currently, 5 transit districts have permanent local sales tax, and 17 counties have temporary local sales tax to fund highway improvements, local streets and roads, and transit improvements. A California Supreme Court decision in 1995 determined that such taxes require approval by two-thirds of the local voters, making the continuance of existing optional local sales tax or initiating new measures more difficult. In the November 2002 election, five counties had sales tax measures on the ballot. All of the counties received more than 50 percent of the votes in favor of the tax. However, only Riverside County was able to muster the 67 percent required for passage. As the existing temporary tax measures sunset, fewer funds will be available for transportation improvements, maintenance, and operation.

Good management practices and stable and flexible revenue streams are needed to meet the challenges facing the State's transportation system and future demand. In the future, strategically applied user fees may be an important element of urban freeway demand management. However, the benefits, consequences, and equity issues associated with a user-based fee structure, and the most effective method of implementing such a system in California must be fully understood.

AB 1012/STATUTES OF 1999

The primary intent of AB 1012 is to use State and federal funds more efficiently. Before AB 1012, local agencies were only obligating 87% of their federal funds. Since passage of AB 1012, they have obligated approximately 130% of applicable federal funds.

AB 1012 also facilitates project development by adding a steady flow of projects in addition to those traditionally programmed in the State Transportation Improvement Program (STIP). The 2000 STIP included 37 projects and the 2002 STIP includes 48 projects advanced due to AB 1012 provisions.

“The California HOT lane projects have shown the power of variable pricing to manage traffic flow under peak-demand conditions. The lanes have also demonstrated that a significant portion of the public is willing to pay for faster rush-hour trips when it is important to them and that the lanes can provide substantial revenue for transportation agencies.”

Robert Poole
Director of Transportation,
Reason Foundation

Strategies:

- Study the reliability and viability of future transportation financing streams considering various potential scenarios.
 - Evaluate past transportation financing initiatives.
 - Learn from other states' and countries' efforts to move toward a user-based fee structure.
 - Evaluate the impact on transportation revenues of shifting to alternative fuels.
- Develop statewide framework for developing long-range financing forecasts required for the regional transportation plans.

- Increase private sector investment in transportation.
 - Implement a process to monitor and incorporate private sector mobility services and investments within transportation planning and programming.
 - Facilitate making private instruments, such as the Location Efficient Mortgage Program, more widely available.
 - Seek opportunities with State funds to leverage and complement other public and private investments in goods movement facilities to the maximum extent possible.
- Support the following Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users reauthorization strategies:
 - Ensure that California receives an increased share of highway funding based on its contributions to the Highway Trust Fund and preeminent role in the national economy.
 - Increase funding levels by raising annual obligation limits and spending down the unobligated balances in the Highway Trust Fund.
 - Remove barriers to funding projects and programs that improve efficient operation of the existing transportation system.
 - Advocate for stable and adequate operating and capital funding for Amtrak.
 - Promote a stronger commitment of resources to public/private partnerships.
 - Advocate for flexibility to use federal funds to address highway safety and congestion problems caused by goods movement-related congestion.
 - Provide for increased program capacity to support the safe and efficient movement of goods in corridors that are crucial to national economic security and vitality, and provide for the mitigation of their congestion and environmental effects.
 - Support California’s Native American Tribal Governments in their effort to obtain an equitable return from Native American transportation programs.
 - Work to incorporate climate change and energy efficiency measures in the criteria for federal transportation funding.
- Increase flexibility in jet fuel tax, airport, and passenger facility charge revenues for use on projects, such as cargo and ground access and security needs.

Goal 4) Enhance Public Safety and Security

Providing for the health, safety, and security of its residents is a primary concern of governments at all levels. Ensuring traveler safety must be addressed by all modes of transportation. Prevention strategies, including the integration of new technologies in the design of system

infrastructure, should be incorporated into the planning process and coordinated at the State, regional, and local level to meet the needs of the traveling public.

A safe transportation system helps to ensure optimum movement of people and goods to their destination, on time and injury-free. Time, and therefore money, is lost when the system is disrupted due to congestion-inducing incidents, such as train derailments or vehicle collisions. Beyond the economic impacts, accidents on our highways, airways, and waterways can have long-lasting toxic effects on water, plants, and wildlife.

The perception of safety can have a profound impact on the transportation users sense of security and behavior. The public's response to perceived vulnerability and its economic consequences were demonstrated in the aftermath of the September 11, 2001, terrorist attacks. The security of California's borders, gateways, and transportation system must be improved to ensure traveler safety, cargo security, and the State's economic prosperity.

Policy: Improve system and user safety

Partners:

American Association of Retired Persons	California Highway Patrol
Automobile Club of Southern California	California State Independent Living Council
Bicycle and pedestrian advocacy groups	California Transit Association
California Alliance for Advanced Transportation Systems	California Walks
California Association for Coordinated Transportation	Congress of California Seniors
California Bicycle Coalition	Educational institutions
California Coalition for the Blind	National Highway Traffic Safety Administration
California Commission on Aging	Office of Traffic Safety
California Department of Health and Human Services	Railroad corporations
California Department of Motor Vehicles	Rural Advanced Technologies and Transportation Systems
California Department of Transportation	

Improving system safety is a primary concern of all transportation providers and users. Enhancing transportation safety includes improving driver behavior through education and enforcement, and improving vehicle and facility safety through design and operational improvements.

Strategies:

- Increase education and outreach programs that address safe transportation behavior, including drivers training, awareness of pedestrian and bicyclists, safe biking practices, and truck driver training.
 - Continue to work with Office of Traffic Safety to promote safety through education and outreach.

- Continue to promote Operation Lifesaver, a rail safety program to encourage safe behavior both vehicle and pedestrian at railroad grade crossings.
- Continue to improve at-grade railroad crossing safety devices, or close unprotected crossings, as appropriate.
- Include safe pedestrian and bicycle facilities in the design of new or upgraded roadways.
- Reduce the response time to motor vehicle, bicycle, and pedestrian incidents, and the rate of fatalities, injuries, and property damage on the transportation system.
- Continue to deploy and promote the use of advanced systems that enhance transportation safety.
 - Deploy infrastructure-based detection and warning safety systems, as appropriate, such as fog, dust, ice, and curve speed-warning systems.
 - Provide incentives to vehicle manufacturers to deploy vehicle-based safety systems, for instance, mayday, vision enhancement, and collision avoidance systems.
 - Expand the use of in-vehicle and passenger-facility transit safety systems, such as surveillance and monitoring devices, and vehicle location and distress notification systems.
- Increase patrols to enforce speed restrictions, minimize aggressive driver behavior and driving under the influence of alcohol or other drugs, and provide greater security at airports, transit facilities, and on public transit vehicles.
- Improve transportation system safety for older Californians.
 - Promote mature driver education programs specifically matched to participant’s functional needs.
 - Institutionalize effective and equitable driver assessment and licensing practices within the California Department of Motor Vehicles, such as the 3-Tier Assessment System currently being evaluated.
 - Facilitate risk identification and reduction practices.
 - Establish roadway infrastructure and land use practices that promote safety.
 - Promote safer motor vehicle design, including using crash test “dummies” designed to more closely simulate the reactions and physical limitations of older drivers and equipping vehicles with crash avoidance systems, night vision windshields, and easily read displays.

Policy: Provide for system security

Partners:

Advanced technology industries	Foreign governments
California Alliance for Advanced Transportation Systems	Local law enforcement
California Department of Transportation	Port operators
California Highway Patrol	Railroad corporations
California Trucking Association	Shipping firms
Federal Aviation Administration	Transit operators
Federal Highway Administration	Transportation Security Administration
Federal Transit Administration	University research centers

System security has become a growing concern in recent years. In November 2001, the Aviation and Transportation Security Act established a new Transportation Security Administration (TSA) within the U.S. Department of Transportation. In January 2003, TSA and U.S. Customs (Customs) were absorbed into the Directorate of Border and Transportation Security, within the new Department of Homeland Security. TSA has responsibility for security of all airports, and Customs is responsible for monitoring goods entering the country.

Customs facilities are forcing changes in the documentation process and methodology by which goods are cleared for entry into California and the United States. The ports and the freight transportation community must work closely with Customs to ensure that this process does not hamper the efficient movement of goods.

TSA and Customs focus primarily on airports and border entry points. However, the security of transit systems is also of utmost importance. In December 2001, the Federal Transit Administration (FTA) deployed expert security assessment teams to the nation's 32 largest transit agencies. The teams assessed the transit systems risk, emergency response plans, and coordination with fire, police, and other emergency response agencies. The assessments have helped to develop best practices and are assisting in development of security programs. FTA Technical Assistance Teams are providing transit agencies hands-on assistance in improving their system security and developing training and testing programs.

Strategies:

- Work closely with federal agencies, including TSA, Customs, and the Coast Guard to ensure the security of California's borders, seaports, and airports, while minimizing the impedance of people and goods, and balancing personal privacy and security needs.
- Work with State and federal agencies to ensure that emergency response services are rapidly deployed in the event of an emergency.

- Develop a transportation system security plan, including risk assessment, monitoring methods, pre- and post-incident preparedness, response and recovery, crisis management and evacuation plans, and viable transportation alternatives.
 - Coordinate with FTA Technical Assistance Teams.
 - Analyze best practices identified by FTA and those of countries that have experienced and responded to security threats.
 - Evaluate design of transportation facilities for security risks.
 - Develop security guidelines for all modes and facilities, including goods movement facilities.
 - Coordinate with emergency response agencies, such as law enforcement, medical services, and media.
 - Train personnel in emergency procedures and develop testing programs.
 - Continue to invest in advanced technologies, such as explosive, biohazard, and chemical trace detection, surveillance, and cargo tracking systems to help increase transportation system security.

Goal 5) Reflect Community Values

Our growing population and travel demands will place pressure on our land, natural resources, quality of life, schools, infrastructure, and transportation options. While this growth will have statewide impacts, transportation planning and solutions to address growth must be sensitive to their local context. We must find solutions that balance and integrate community, aesthetic, and environmental values with transportation safety and performance.

California communities contain diverse populations with differing transportation needs and travel patterns. Meeting the basic transportation needs of all the State's communities, in geographically dissimilar regions of the State, is critical to maintaining a desirable quality of life. Community, cultural, and historic values must be considered when assessing the transportation impacts to social and environmental resources — including housing, neighborhoods, historic and agricultural lands, downtown districts, and natural habitats. While natural, cultural, and biological resources are essential for the environmental and economic health of the State, communities must contain a balance of viable transportation, housing, and business resources to support and facilitate economic opportunities.

Policy: Expand opportunities for early and ongoing collaboration in transportation planning and decision-making

Partners:

California Department of Transportation	Media
Community based organizations	Professional facilitators and “visioners”
Community leaders	Regional Transportation Planning Agencies
Local communities	Transportation system users

During the CTP public participation workshops held throughout the State, participants were asked to prioritize strategies for addressing our future transportation needs. Public involvement, information sharing, and interagency coordination were among the top strategies identified at every location. Although California’s transportation providers have expended considerable resources to reach out to communities, workshop participants said they wanted more information on why and how decisions are made, the benefits and costs of transportation strategies, and the anticipated environmental and community impacts. They also wanted opportunities to participate in identifying problems and exploring solutions, and to be part of the decision-making process.

Strategies:

- Develop and implement ongoing public information and involvement programs, including research regarding the public’s expectations and preferences.
- Consult and coordinate with local, regional, and Native American Tribal Governments during development of their general plans and other long-term planning efforts.
- Involve businesses, communities, community-based organizations, and institutions early in the transportation planning and decision-making process.
 - Develop a collaborative approach to resolve transportation issues and to develop performance criteria and indicators.
 - Develop, implement, and advertise web-based and other easily accessed public participation systems, consisting of informational and educational materials, online surveys and focus groups, and online voting, to enhance decision-making.
 - Design and implement public participation strategies to include those traditionally underrepresented in the public planning and decision-making process.
 - Develop techniques to effectively convey information to the public, such as interactive visual simulations and Geographic Information Systems that spatially illustrate projects and affected land.

- Assess and provide the full benefits and costs (direct, indirect, societal, environmental, governmental, and personal) of transportation by mode.
 - Evaluate and provide cumulative environmental costs, including mitigation costs, such as habitat conservation programs, and land use impacts on a programmatic basis.
 - Analyze and provide life cycle, social, health, and environmental costs for reasonable alternatives, including modal alternatives.

Policy: Manage Growth

Partners:

Business sector	Lending institutions
California Department of Housing	Local communities
California Department of Transportation	Office of Traffic Safety
California Health and Human Services Agency	Regional Transportation Planning Agencies
Councils of Government	Transit providers
Developers	

During the public participation program, concerns were commonly expressed throughout the State regarding land use practices, the lack of comprehensive, integrated transportation/land use planning, resource consumption, and an overall general concern for the current and future quality of life in California. The Public Policy Institute of California’s (PPIC) “Special Survey on Land Use” conducted in November 2001 and 2002 supported the comments expressed during the CTP public outreach. The survey indicated that Californians are very concerned about growth and land use and the resulting traffic congestion.

“It is remarkable that residents are so content with their quality of life, at the same time as they perceive looming regional problems. This disconnect creates a challenging policy environment for State and local leaders.”

Mark Baldassare
PIC Statewide Survey Director

Perhaps due to the well-publicized results of Census 2000, Californians are aware of the projected population growth and the challenges that growth will bring. They are concerned about how we will meet the projected transportation demand, as well as other infrastructure and social needs, while protecting our environment, health, and quality of life. However, as the results of the 2002 PPIC survey indicate, Californians are generally satisfied with their home, neighborhood, and commute.³⁸

Growth will happen. How we plan, prepare, and manage growth will determine if it adds to California’s vitality and economy, or takes away from our quality of life. Housing plays a critical role in the way communities grow. Decisions about housing (for example, what types and where to locate it), coupled with compatible land use decisions, must be connected to transportation improvements to ensure sustainable communities and a more economically competitive California.

³⁸ Public Policy Institute of California, “Special Survey on Land Use,” November 2002, www.ppic.org.

AB 857 (Wiggins, Chapter 1016, Statutes of 2002) clarifies planning priorities for inclusion in the State Environmental Goals and Policy Report. The priorities identified in AB 857 are intended to promote equity, strengthen the economy, protect the environment, and promote public health and safety throughout the State, including rural, suburban, and urban communities. The priorities are:

NEW TOOL FOR INFILL HOUSING

The California Infill Parcel Locator (www.infill.org) is a web-based statewide parcel inventory that allows users to identify, screen, and further research potential infill development sites. This interactive website can be accessed by the general public and will help to identify opportunities to rebuild the physical, economic, and social fabric in older communities. This tool could potentially lead to the development of 1 to 1.5 million units of infill housing units in urban areas.

- Promote infill development;
- Protect environmental and agricultural resources; and
- Encourage efficient development patterns.

The following strategies are recommended to minimize land and resource consumption, to reduce urban sprawl and vehicle miles traveled, and to minimize the need for increased system capacity and the cost to maintain it. These strategies are consistent with the planning priorities and intent of AB 857. Minimizing urban sprawl will also benefit public health, reduce encroachment in sensitive wildlife habitat and wetlands, reduce pavement stormwater runoff, reduce tailpipe emissions, and preserve open space and agricultural lands.

Strategies:

- Provide incentives to promote sustainable land use decisions that integrate land use, housing, and transportation through General Plans, regional transportation plans, and interregional cooperation.
 - Increase densities and designs strategically to facilitate effective transit service, including encouraging transit-oriented development within major transit corridors and providing the ability to conveniently walk to destinations.
 - Promote street and urban design to encourage walking and bicycling to destinations.
 - Provide information, technical assistance, and best practices on transit-oriented development.
 - Facilitate the sale of State-owned “excess” or underutilized land near major transit stations for transit-oriented development.

SAN FRANCISCO BAY AREA'S TRANSPORTATION FOR LIVABLE COMMUNITIES

The Metropolitan Transportation Commission's 2001 Regional Transportation Plan designates \$27 million annually to its portfolio of smart growth grant programs known as Transportation for Livable Communities (TLC). The Housing Incentive Program (a component of TLC) rewards cities for fostering compact housing with easy access to public transit lines. Projects with higher densities receive larger grants and affordable units earn a bonus.

- Encourage localities to foster “smart growth” development in areas where transportation infrastructure can readily support it.
- Encourage efficient land use through clean up and re-use of contaminated lands (brownfields).
- Encourage lending institutions to offer Location Efficient Mortgages Program to promote housing near transit.
- Promote the revision of zoning ordinances to provide for mixed-use development.
- Incorporate community values and support context sensitive solutions for all transportation facilities and infrastructure.
- Investigate reforms to the local fiscal/land use relationship to provide incentives for communities to make better long-term land use decisions.
 - Strengthen the link between land use and transportation planning.
 - Explore innovative options, such as exchanging State-share property tax for local-share sales tax.
- Provide incentives for collaborative, integrated regional and sub-regional planning initiatives linked to sustainable development criteria and State General Plan guidelines.
 - Encourage revenue and facility sharing, promote collaborative approaches to assessing housing and employment needs, and reduce fiscal competition between cities and counties.
- Ensure compatibility between airports and surrounding land use.
 - Promote awareness and adherence to the Department’s *California Airport Land Use Compatibility Handbook*.

Goal 6) Enhance the Environment

In 2002, the California Environmental Protection Agency and the California Resources Agency published the Environmental Protection Indicators for California (EPIC). Environmental indicators provide objective, scientifically based tools for tracking changes in the environment. They also improve our understanding of the environment and how human activities can influence it. The EPIC project generated an initial set of 90 indicators grouped in the following categories:

Air quality	Transboundary issues
Ecosystem health	Waste management
Human health	Water quality
Pesticides	

Transportation can be linked directly or indirectly to approximately half of the 90 indicators.

Direct transportation-environmental linkages include:

- Air quality degradation due to tail pipe emissions;
- Poorer water quality resulting from leaking underground fuel tanks and stormwater runoff of paved surfaces;
- Waste management issues resulting from over 31 million used tires being discarded each year;
- Global climate change caused by greenhouse gases produced from fossil fuel use;
- Human health issues resulting from air quality degradation, and traffic related injuries and fatalities; and
- Ecosystem impacts due to loss or fragmentation of habitat and from animal injuries and fatalities.

Indirect linkages include:

- Pesticide and hazardous material spills resulting from roadway incidents or freight train derailment; and
- The provision of access to undeveloped land and farmland.

A comprehensive approach is needed when evaluating environmental impacts. For example, the use of hybrid vehicles can improve air quality and reduce fuel consumption, but people may drive more, increasing congestion and placing additional pressure on land and water use, among other adverse effects.

Because both mobility and biodiversity are State priorities, Californians in the public and private sector must take steps to protect the State’s precious and finite resources when planning and implementing transportation projects. As the State looks to our future transportation needs, the cumulative impacts of past transportation-related activities must also be considered.

MARE ISLAND ACCORD

In July 2000, the U.S. Environmental Protection Agency, the Federal Highway Administration, and the California Department of Transportation signed a cooperative partnership agreement, known as the Mare Island Accord. The Accord contains several provisions to improve communication, and to address environmental issues early in transportation planning. The purpose is to improve project delivery times and address environmental issues early in the planning process.

Policy: Conserve natural resources

Partners:

California Coastal Commission	Environmental advocacy groups
California Department of Transportation	Land developers
California Energy Commission	Local governments
California Environmental Protection Agency	Regional Transportation Planning Agencies
California Health and Human Services Agency	Transportation system users
California Resources Agency	U.S. Environmental Protection Agency

RECYCLING TIRES

The Department's San Bernardino Office and the California Integrated Waste Management Board initiated an Interagency Agreement to use 700 metric tons of tire shreds (about 77,000 waste tires) during May 2003. The tire shreds will be used as fill material behind a retaining wall on Route 91 in Riverside.

Our growing population and travel demands will continue to place pressure on our land, water, wildlife, and wildlife habitat. A new field of study, road ecology, seeks to explain the relationship between roads and the natural environment. Roads directly affect wildlife habitat, ecosystems, and water quality through land consumption, roadkill, habitat fragmentation, and replacement of natural cover with impervious surfaces and invasive species. Addressing environmental and habitat conservation issues in the earliest planning stages will help reduce time and cost of transportation projects, while protecting natural environments.

Strategies:

- Develop or amend transportation planning tools to include land use impacts, demand management, efficient use of energy, and modal alternative analysis.
- Promote partnerships to address conservation and environmental issues early in the project planning phase.
- Continue to avoid and minimize impacts to the greatest extent possible.
- Continue building conservation banking partnerships to protect ecosystems and preserve large contiguous and viable tracts of habitat to offset adverse impacts, and determine the most valuable land for banking.
 - Preserve wildlife corridors and implement other strategies to reduce the conflict between development and the natural environment.
 - Promote a greater understanding of the relationship between the natural environment and transportation.
 - Develop better tools to model cumulative impacts to the environment and wildlife.

- Minimize impermeable surfaces and install facilities to capture stormwater runoff.
- Recycle and provide incentives to promote the use of recycled materials.

Policy: Commit to a clean and energy efficient system

Partners:

- California Energy Commission
- California Environmental Protection Agency
- California Legislature
- California Resources Agency
- Petroleum refineries
- Regional air quality boards
- Transportation system users
- U.S. Congress
- U.S. Department of Transportation
- U.S. Environmental Protection Agency
- Vehicle manufacturers

**SAN JOAQUIN MULTI-SPECIES
HABITAT CONSERVATION AND
OPEN SPACE PLAN**

This innovative plan required consensus among federal, State, and local agencies, and business, development, agriculture, and environmental interests. The Plan protects 97 endangered and threatened species and open space in San Joaquin County. The Plan provides biological analysis, species identification, and a mitigation plan, thus facilitating the permitting process.

California’s transportation and energy futures are linked. Transportation energy fuels the transportation system in that it generates most of the revenues needed for transportation improvements, enhancements, and maintenance. But transportation energy is also a major source of environmental and health problems, and is the cause of considerable national and economic security concerns.

In 2002, California drivers used an estimated 17.6 billion gallons of motor vehicle fuel, with an estimated cost of over \$29 billion, and traveled 318 billion miles. If current growth trends continue, gasoline use and related carbon dioxide (CO²) emissions in the State will increase approximately 32 percent over the next 20 years. Efforts to maintain a clean and efficient transportation system will have significant environmental, economic, and strategic security benefits.

Transportation-related emissions from fuel consumption and vehicle use are California’s largest source of air pollution. Emissions of greenhouse gases in the transportation sector continue to increase, negating emission reductions in other sectors, such as improved energy efficiency in California’s buildings.

Transportation and air quality planning must be fully integrated, including an understanding of the interrelationship between congestion, travel growth, and transportation-related emissions. The nexus of transportation and air quality planning is transportation conformity.

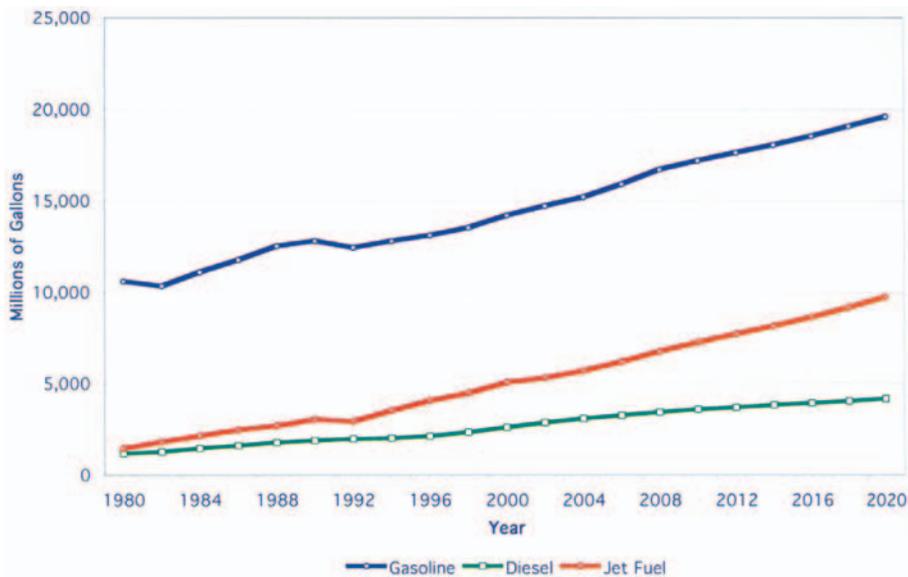
REDUCING MOTOR VEHICLE GREENHOUSE GAS EMISSIONS

The California Air Resources Board (CARB) adopted regulations early in 2005 to achieve the maximum feasible and cost-effective reduction of greenhouse gas emissions from passenger vehicles and light-duty trucks. CARB conducted public workshops, including workshops in communities with significant exposure to air contaminants and communities with minority or low-income populations. The new standards are expected to result in significant reductions (an estimated 18-24 percent) in greenhouse gases without imposing additional fees or taxes on motor vehicles, fuels, or vehicle miles traveled; banning the sale of any vehicle category; requiring reductions in vehicle weight; setting new speed limits; or limiting vehicle miles traveled.

Air quality conformity is a requirement of the Clean Air Act, which states that transportation plans, programs, and projects must “conform” to a state’s plan to attain the air quality standards. A demonstration of conformity is required to receive federal funds and approvals. If the demonstration cannot be made, only certain projects may proceed until it can be.

Currently, many air basins in California do not meet national air quality standards. The expected increase in on-road gasoline and diesel vehicle travel will make attainment even more difficult (see **Figure 13**). Cleaner vehicles and a more energy efficient infrastructure should be pursued over the next few decades as part of California’s strategy to meet the growing transportation demands in the most optimal way possible.

FIGURE 13
Gasoline, Diesel, and Jet Fuel Demand (1980-2020)



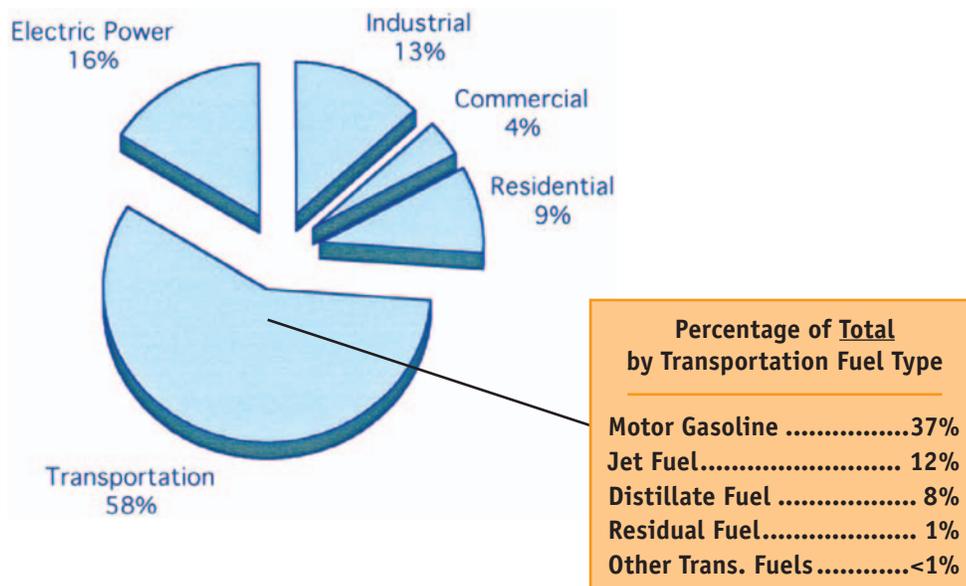
Source: California Energy Commission.

Transportation is the largest source of CO² from the combustion of fossil fuels, accounting for almost 60 percent of such emissions in California (see **Figure 14**). CO² is a greenhouse gas (GHG) that traps heat in the atmosphere and is a significant contributor to global climate change. Some climatic changes in California have been recorded that suggest important risks lie ahead for the State’s agriculture, energy, and transportation sectors.

Around the world, many governments are working to reduce GHG emissions through policies, mitigation actions, and market mechanisms. As a result of AB 1493 (Chapter 200, Statutes of 2002), California is leading the effort to reduce GHG emissions in the transportation sector by developing limits for such emissions from model year 2009 and later motor vehicles. However, as transportation providers strive to maximize mobility and accessibility while simultaneously minimizing air pollution, a comprehensive strategy is needed to ensure a cleaner and more energy efficient transportation system in California’s future.

FIGURE 14

Carbon Dioxide Emissions from Fossil Fuel Combustion by Sector (1999)



Source: California Energy Commission.

Strategies:

- Expand market share of cleaner vehicles and supporting fuel infrastructure.
 - Expand use of clean fuel transit vehicles.
 - Encourage public entities to continue investing in alternative fuel vehicles to increase market share and encourage increased production.

SACRAMENTO EMERGENCY CLEAN AIR AND TRANSPORTATION

SECAT was launched in November 2000 to reduce emissions from heavy-duty diesel vehicles by three tons per day by 2005. The program makes \$70 million available for truck operator-owners in the Sacramento area to replace existing engines with new low-emission diesel engines, buy newer low-emission vehicles, or use cleaner fuels.

- Enhance education, planning tools, and performance standards on energy efficiency, air quality, and climate implications of transportation decision-making.
 - Analyze the cost-effectiveness of transportation options that improve energy efficiency and reduce emissions of GHGs and criteria air pollutants.
 - Develop tools that improve data collection, analysis, and modeling capabilities for State and local development planning and projects.
- Solicit institutional support for clean and energy efficient transportation.
 - Seek legislative, regulatory, and policy support to advance clean and efficient transportation, including low-emission vehicles and the necessary fueling infrastructure.
- Establish stable and secure funding sources with innovative and effective financing mechanisms for transportation energy programs.
- Reduce the costs of product development, testing, and market introduction of advanced transportation and communication technologies.
- Mainstream energy efficiency and conservation measures into State, regional, and local transportation planning, programming and project development.
- Implement measures to lower emissions of GHGs and air pollutants in transportation options.
 - Provide incentives for mass transit use, transportation demand and supply management, and “smart growth” land use policies.
 - Encourage local governments to incorporate considerations of transportation air emissions and energy efficiency into general plans.
 - Fund programs to support the purchase and use of low-emission vehicles, including the “greening” of State and local government fleets.
 - Reduce emissions from the transport of freight and reduce costs through implementation of efficiency measures.
 - Change some of the fixed costs that travelers face to variable costs, as a means of encouraging decisions that result in cleaner and more energy efficient transportation. For example, base auto insurance and vehicle license fees on miles driven rather than a flat annual rate.
 - Participate in the Western Governors’ Global Warming Initiative to reduce GHGs through strategies that foster economic development.

- Continue collaborating with the California Energy Commission, California Air Resources Board, and State and Consumer Services Agency to research and develop strategies to reduce demand for petroleum fuels and emissions of GHGs, and to increase transportation energy efficiency.
 - Research and develop clean transportation alternative fuels and initiate a plan for deploying appropriate alternative fuel infrastructure.
 - Collaborate on a marketing program to provide information on transportation energy efficiency and alternative fuel vehicles, including the location of fueling facilities.