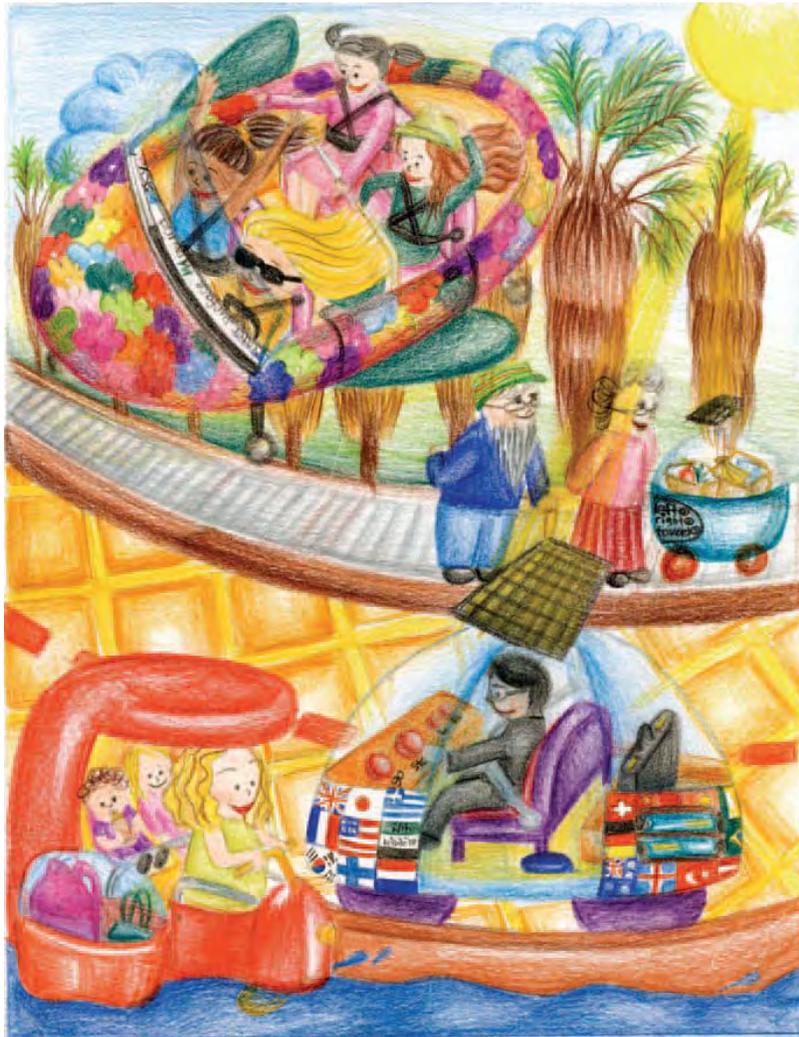


CALIFORNIA TRANSPORTATION PLAN 2030

Addendum to the California Transportation Plan 2025
for SAFETEA-LU Compliance



October 2007

CALIFORNIA TRANSPORTATION PLAN **2030**

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TABLE OF CONTENTS

Executive Summary	1
Introduction	3
Linking Transportation Planning with Resource/Environmental Planning.....	3
Consultation and Comparison.....	20
Consideration of Environmental and Natural Resource Issues—Mitigation and Consultation	26
Delegated NEPA Responsibilities	33
Expanded Stakeholder Engagement	34
Consistency with State and Local Planned Growth and Economic Development Patterns....	36
Security and Emergency Management as Stand-Alone Planning Factors	38
Safety as a Stand-Alone Planning Factor	42
Include Operations and Management Strategies.....	46
Include Pedestrian Walkways and Bicycle Facilities.....	48
Consultation with Non-Metropolitan Local Officials and Tribal Governments	49
Other SAFETEA-LU Opportunities	50
Appendices	
I. Population Map.....	A-1
II. Statewide and Regional Maps of Transportation and Resources Agencies	A-3
III. Sample Maps for Consultation and Comparison	A-7
IV. Collaborative Planning Concept	A-15
V. Resources for Transportation Planning and Environmental Planning Data	A-17

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The California Department of Transportation (Department) is updating the *California Transportation Plan (CTP) 2025* adopted in June 2006. This updated CTP 2030 Addendum (Addendum) addresses the new requirements for statewide planning established by the Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU).

This legislation authorizes and funds federal transit and highway programs through Fiscal Year 2009. Signed into law (Public Law 109-59) on August 10, 2005, SAFETEA-LU provides \$23.4 billion in federal funds to California. Much of SAFETEA-LU echoes the previous two federal transportation program authorizations, the recent Transportation Equity Act for the 21st Century (TEA-21) passed in 1998, and the earlier Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). However, there are some significant changes that impact the current CTP.

While SAFETEA-LU maintains the overall structure of TEA-21, it departs from previous authorizations in a number of ways. The Department held an initial “Consultation Meeting” in January 2007 with stakeholders to discuss changes to the CTP directed by SAFETEA-LU. Those changes that affect State planning and policy issues are summarized here and described in more detail in the following discussions. Together with a description of California’s compliance with each mandate, they informed the development of this Addendum.

The goal of this CTP 2030 (Addendum) is to enhance and preserve the State’s valuable natural resources, while avoiding costly project overruns and delays in planning and developing transportation infrastructure. SAFETEA-LU provides a “historic opportunity” for the State to achieve that goal. Over the past few years there has been a compelling nationwide call for public agencies to become better stewards of the environment. SAFETEA-LU has now ratified this call by directing states to consult and compare transportation related plans, maps, and data with federal, State, tribal, and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation.

The State of California has been a national leader in documenting environmental impacts caused by transportation projects and taking actions appropriate to its stewardship role. SAFETEA-LU now provides an opportunity for California to redouble its efforts to become a “real steward” of the environment. It directs those in the transportation sector to address issues collaboratively with partners in the resources arena and to partner on solutions that respond to public expectations.

The real challenge ahead at both the State and the regional planning level is consultation and comparison of plans, maps, and data with natural resources and environmental agencies, and the resulting mitigation and consultation that may be required. The key will be determining how to mainstream the consideration of environmental issues during the early planning process in order to adequately address consultation, comparison, and mitigation requirements.

The other challenge is linking transportation planning with project level requirements under National Environmental Protection Act (NEPA) in order to promote early consultation and comparison of existing plans, maps, and data across agencies. Once again, the key for making this linkage will be determining how to mainstream the consideration of environmental issues early in the planning process.

Therefore this Addendum is directed at engaging transportation stakeholders in an open dialogue with resource agencies to identify the “first steps” in the expansion of consultation and comparison efforts and in a discussion of potential environmental mitigation measures. Future plan updates will build upon this Addendum’s foundation. The more detailed “follow-on” policies and strategies for these consultation, comparison, and mitigation efforts will then be addressed in the next full update of the California Transportation Plan to be initiated in 2008, and in subsequent updates.

The focus of the remaining sections of this Addendum is to address provisions of SAFETEA-LU that extend or broaden already existing State policies and strategies articulated in the CTP 2025. These provisions include: delegating NEPA responsibilities for California; expanding stakeholder engagement with an emphasis on visualization techniques; providing access to the statewide plan and update process on the Internet; promoting the consistency of transportation plans and transportation improvements with State and local planned growth and economic development patterns; adding security and safety as new stand-alone planning factors; including operations and management strategies to ensure the preservation and most efficient use of the existing transportation system; and reaffirming consultation with non-metropolitan local officials and federally recognized Native American Tribal Governments (Tribal Governments) in the development of the long-range statewide transportation plan and State Transportation Improvement Program (STIP).

INTRODUCTION

The *California Transportation Plan 2030* focuses on plans, policies, and processes that address the provisions of SAFETEA-LU while ensuring compliance with this statute. The sections below extend or broaden already existing State policies and strategies articulated in the CTP 2025, and provide a “roadmap” for the next full update of the CTP to 2035.

The Department is committed to having the best available planning information to improve decision making. Since federal regulations require a planning horizon of 20 or more years, this Addendum takes into consideration various updated projections and extends the CTP’s planning horizon from 2025 to 2030. A map with updated population projections to 2030 is available for review in Appendix I. The projections estimate that California’s population will increase to 49 million by 2030. New data will be addressed in future updates.

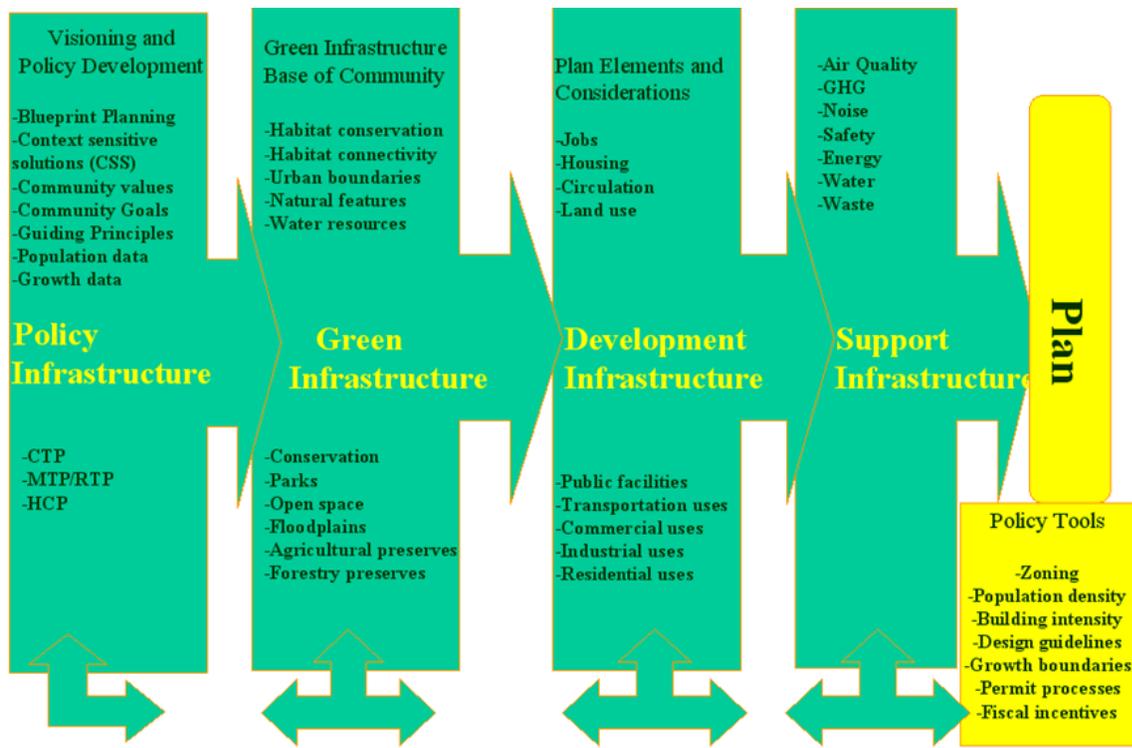
LINKING TRANSPORTATION PLANNING WITH RESOURCE/ENVIRONMENTAL PLANNING INTRODUCTION

The Final Rule for Statewide and Metropolitan Planning under SAFETEA-LU includes an appendix that addresses the need to link transportation planning with NEPA project development processes. This linkage could be extended to include resource and environmental planning. Linking these planning efforts would ensure that transportation planning and resources agencies consult and compare natural resources and environmental information (plans, maps, and data), as directed by SAFETEA-LU. The desired outcome would be transportation plans and, ultimately, projects that use natural resources information to enhance and preserve the environment.

At the State level, a framework for considering environmental issues in the early planning process was adopted by the California Tri-Agency Partnership Subcommittee on Collaborative Planning. Under this “Green Infrastructure” model (see **Figure 1**), the process of planning for infrastructure begins long before a project is proposed. Rather than beginning with a development proposal and then

determining the impacts and the necessary support infrastructure, the process begins with the development of a “policy infrastructure,” followed by the consideration of the “green infrastructure.” Building upon that solid foundation, the “development infrastructure,” which includes transportation projects, and the necessary “support infrastructure” are considered. The premise of this approach is that consideration of critical environmental issues prior to development proposals will result in infrastructure that supports our policy and environmental objectives.

FIGURE 1
 “Green Infrastructure” Model



Source: Tri-Agency Partnership Subcommittee on Collaborative Planning.

At the national level, the Federal Highway Administration’s (FHWA) Planning and Environment Linkages effort, known as Eco-logical, represents an approach to transportation decision making that considers environmental, community, and economic goals early in the planning stage and carries them through project development, design, and construction. Early consideration of these factors by Metropolitan Planning Organizations (MPOs), Councils of Government (COGs), Regional Transportation Planning Agencies (RTPAs), cities, and counties can lead to an improved and seamless decision-making process that minimizes duplication of effort. Early consideration at the planning stage is crucial, because the flexibility to make significant changes decreases once projects are programmed for funding.

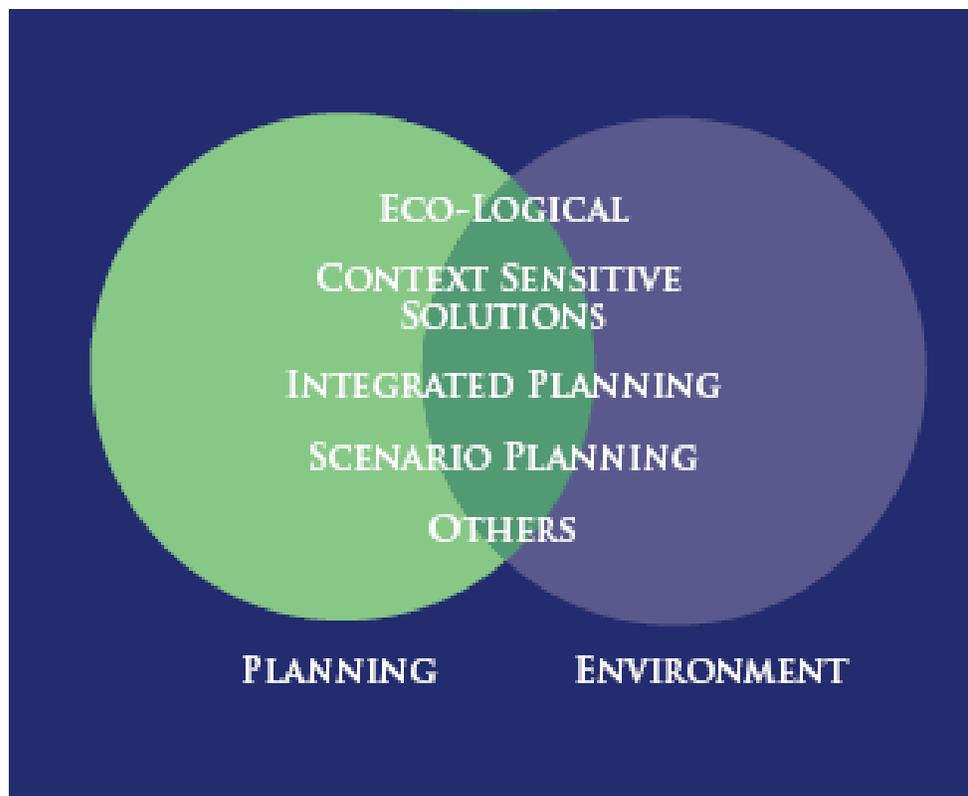
Early consideration also promotes environmental protection and encourages stewardship while reducing delays in project implementation. A graphic that visually illustrates this concept appears below (see **Figure 2**).

BRIDGING DISCIPLINES INTO A MORE SEAMLESS PROCESS

Bridging transportation planning, environmental planning, and resources staff disciplines into a more seamless multi-agency process requires the following support: 1) the successful implementation of context sensitive solutions; 2) the development of data that is easily accessed and shared by planning and natural resource staff; 3) the benchmarking of integrated, multi-agency projects that successfully implement data-sharing processes; and 4) robust integrated planning and scenario planning programs and tools. Some examples of current federal and State programs that support and advance this "framework" are identified below.

FIGURE 2

Planning and Environment Linkages



Source: FHWA Brochure: *Planning and Environment Linkages*
<http://www.environment.fhwa.dot.gov/ecological/ecological.pdf>.

Eco-Logical Embodying the intent and principles of NEPA and Executive Order 13352 on Facilitation of Cooperative Conservation, “*Eco-Logical: An Ecosystem Approach to Developing Infrastructure Projects*” offers a framework for achieving greater cooperative interagency conservation. Eco-Logical provides a non-prescriptive approach that enables federal, State, tribal, and local partners involved in infrastructure planning, design, review, and construction to work together to make infrastructure more sensitive to wildlife and their ecosystems. It recognizes open public and stakeholder involvement as the cornerstone for cooperative conservation.

Context Sensitive Solutions Context sensitive solutions (CSS) is a process that actively engages stakeholders in transportation decision making in order to balance community values with transportation needs. A successful CSS implementation process can drive proactive, collaborative, and intelligent behaviors among vested stakeholders that can result in repeated innovations. These innovations are further fueled by the synergy and efficiency of focused direction and sustainable decisions, as well as the increased ownership of the process by engaged stakeholders.

A robust process that embraces the CSS principles and benefits identified below (see **Figure 3**) will lead to a successful inter-disciplinary and multi-disciplinary approach that supports linking transportation and environmental planning. Adherence to these principles creates leadership that significantly influences stakeholders by building credibility and trust, while empowering those in the transportation arena to be more productive partners and intelligent risk takers. Many of these principles are also key to mainstreaming the consideration of environmental issues during early planning and addressing the Department’s environmental stewardship responsibilities.

Context sensitive solutions are achieved through a collaborative, interdisciplinary approach engaging all stakeholders. Context sensitive solutions use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance and performance goals. This approach, adopted in Department policy, ensures that local needs are in balance with broader, multimodal transportation system needs.

FIGURE 3

CSS Principles and Benefits

CSS Principles	CSS Benefits
<ul style="list-style-type: none">• Use interdisciplinary teams• Involve all stakeholders• Seek broad-based public involvement• Use full range of communication methods• Achieve consensus on purpose and need• Know difference between standards and guidelines• Use full range of design choices• Consider all alternatives and modes• Maintain environmental harmony• Consider community and social issues• Provide aesthetic treatments and enhancements• Provide a safe facility for users and community• Track and meet all commitments• Create lasting value for the community• Use all resources effectively (within time and budget)	<ul style="list-style-type: none">• Expedite acceptance by stakeholders• Decrease cost and time for project delivery• Decrease construction cost and time• Add value• Increase opportunities for partnering, shared funding and joint use/development.• Facilitate sustainable decision and investments• Increase stakeholder satisfaction, ownership and trust• Increase mobility for all users• Improve safety• Ease maintenance and operations• Protect wildlife, habitat, and natural resources• Provide less impact on open space and farmland

Source: Deputy Director for Planning and Modal Programs 2006/07 Contract for Performance and Innovation (adapted).

DEVELOPING, ACCESSING, AND SHARING DATA

There is a demand for more comprehensive, timely, and accurate natural resources and conservation data upon which to base decisions. During outreach for this Addendum, the public highly rated the need for improved natural resources data on a regional scale to address cumulative impacts of transportation projects. The success of SAFETEA-LU requirements to consult and compare plans, maps, and data is dependent upon access to complete, high quality data. Such data must be developed to ensure informed decisions, which will in turn protect and conserve California's natural resources.

In addition, natural resources and conservation data developed with State standards would reduce development costs and build regional assessments across jurisdictions that conserve the State's natural resources. Continued funding for consistent data across local jurisdictions would provide the springboard for improved data overall and create a centralized delivery mechanism.

Great Places Program The Great Places Program (GPP) is a collaborative effort designed to improve the protection and conservation of natural resources in California. Jointly directed by the Resources Agency, California Business, Transportation and Housing Agency, California Environmental Protection Agency, and Governor's Office of Planning and Research, the GPP seeks to enhance the effectiveness and efficiency of land use and transportation decision making. The program facilitates the development of accurate, comprehensive natural resources and conservation data; has developed Geographic Information System (GIS) analytical tools for use by local and regional decision makers; and promotes access to State natural resources and conservation data by the public as well as local, regional, and State decision makers.

State, regional, and local agencies have difficulty obtaining current, high-resolution State and local-level natural resources and planning data in order to make informed land use, program, and project decisions. While the Resources Agency's California Environmental Resources Evaluation System (CERES) program has developed the Land Use Planning Information Network (LUPIN) web portal (<http://ceres.ca.gov/planning/>) for General Plans and General Plan amendments, local governments often lack the resources and incentive to maintain content on this site. Also, habitat information, parcel information, and California Environmental Quality Act (CEQA) data are not available in one central location, nor are they integrated and digitized for easy use. Because data are not usually developed with consistent standards (classification categories and collection methods) across programs or jurisdictions, it takes significant time and resources to collect and digitize various data sets into a common spatial format.

Decision makers at all levels will benefit from early access to the best available, integrated natural resources and planning spatial data. Access to this data will make it significantly easier to:

- Reduce costs of project development and implementation.
- Develop consensus on planning projects and policies.
- Facilitate comprehensive and early program evaluation.
- Conserve and protect environmental resources.

A centralized online data access system would allow planners to find, access, and use more natural resources and conservation information when developing regional transportation plans, General Plans, and General Plan updates or amendments. If infrastructure and land use planning agencies at all levels of government used this

easy access system and had access to more comprehensive natural resources and conservation data, they could significantly reduce the time and costs of complying with State and federal environmental laws and regulations.

California Environmental Resources Evaluation System Tremendous volumes of data and information about California's natural environment are generated daily by both public and private sector organizations. Cataloging and making these materials "discoverable" is the primary goal of the CERES program at <http://www.ceres.ca.gov/>. CERES accomplishes this via the standards based California Environmental Information Catalog (CEIC--pronounced "seek") at <http://gis.ca.gov/catalog/>. The California GIS Council has endorsed CEIC as California's primary National Spatial Data Infrastructure node. CERES has also developed and operates Internet portals around a number of environmental themes like watersheds (see <http://cwp.resources.ca.gov/>) and land use planning (see <http://ceres.ca.gov/planning/>) to provide "one-stop-shops" for environmental data and information within these domains. Finally, CERES, in partnership with NASA and the CalSpace program at UC Davis, has developed and operates the California Spatial Information Library (CaSIL), a unique, no-cost, web-accessible collection of spatial data for California.



CEIC

The California Environmental Information Catalog

National Spatial Data Infrastructure (NSDI) standards. The catalog embodies a thesaurus or controlled vocabulary that greatly enhances data and document cataloging and retrieval.

Web Accessible Data and Technical Document Catalog

CERES can adapt the technology tools used for the CEIC to serve organizational needs and to organize and make discoverable a full range of technical documentation including GIS or spatial data (see <http://gis.ca.gov/catalog/> for example). CEIC is fully compliant with the federal



CaSIL

The California Spatial Information Library

Web Accessible Library of Spatial Data

CERES can provide hosting of a collection of organizational GIS or spatial data holdings (see <http://gis.ca.gov/> for an example). Library holdings are fully cataloged, viewable as web accessible maps and can be made discoverable through the CEIC referenced above.

California Department of Fish and Game Biogeographic Data Branch The Biogeographic Data Branch (Branch) is charged with acquiring, managing, and sharing biological-geographic data. The Branch is the State's clearinghouse for biological data and maintains the portal to California biological databases that can be accessed at the following California Department of Fish and Game (DFG) web site: <http://www.dfg.ca.gov/bdb/>. The four Branch programs listed below are of specific interest to transportation planning:

California Natural Diversity Database The California Natural Diversity Database (CNDDDB) is a program that inventories the status and locations of rare plants and animals in California. The CNDDDB is of interest to transportation planning because it provides capabilities to:

- Collect, research, and map all documented information for location and condition of rare and endangered species with detailed, descriptive information about the habitats, threats, and sources of information for each mapped location.
- Develop and maintain, in coordination with a number of cooperating groups, lists of rare plants and animals and maintain status ranks for rare species.
- Provide over 700 active subscribers and users with access to CNDDDB data products.
- Provide expertise to DFG staff and partner organizations on the biology and ecology of rare *taxa* (categories in the biological classification system for all living organisms to help organize information about the natural world) and on the proper use of the CNDDDB.

Vireo bellii pusillus		least Bell's vireo		Element Code: ABP BW01114	
Status		HDBB Element Ranks		Other Lists	
Federal:	Endangered	Global:	G5T2	CDFG Status:	
State:	Endangered	State:	S2		
Habitat Associations					
General:	(NESTING) SUMMER RESIDENT OF SOUTHERN CALIF IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.				
Micro:	NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.				
Occurrence No.	89	Map Index:	03282	EO Index:	13753
Occ Rank:	Excellent			Element:	1999-XX-XX
Origin:	Natural/Native occurrence			Site:	1999-XX-XX
Presence:	Presumed Extant				
Trend:	Stable				
Main Source:	GRIFFITH, J. 1990 (OBS)			Record Last Updated:	2004-07-23
Quad Summary:	LAS PULGAS CANYON (3311734/051C)				
County Summary:	SAN DIEGO				
Lat/Long:	33.31782° / -117.43880°		Township:	10S	
UTM:	Zone-11 N3686607 E459156		Range:	05W	
Mapping Precision:	SPECIFIC		Section:	07	Qtr: XX
Symbol Type:	POLYGON		Meridian:	S	
Area:	1,101.0 ac		Elevation:	120 ft	
Location:	LAS FLORES CREEK (LAS PULGAS CYN), FROM JUST NORTH OF BASILONE ROAD EXTENDING SW TO JUST WEST OF I-5, CAMP PENDLETON MCB				
Location Detail:	1981-82: 0.4 MI S OF BASILONE ROAD. 1988-90: 1 MI S OF BASILONE ROAD AND 0.4 - 0.7 MI N TO NE OF STUART MESA RD. 1995 & 1999: PAIRS OBSERVED THROUGHOUT SITE.				
Ecological:	RIPARIAN HABITAT; DOMINANTS: SALIX SP., BACCHARIS GLUTINOSA, ALNUS RHOMBIFOLIA, PLATANUS RACEMOSA, SAMBUCUS MEXICANA				
Threat:	MARINE CORPS ACTIVITY; TANK ROADS BISECT CREEK; SHEEP GRAZING				
General:	1 MALE OBSERVED IN 1981; 2 MALES OBS IN 1982; 1 TERRITORIAL MALE OBS IN 1983, 1988, AND 1989; 2 PAIRS IN 1988; 3 PAIRS IN 1989; 8 PAIRS DETECTED IN 1990. 111 PAIRS OBS SOMETIME BETWEEN 1 APR&31 JUL 1995. 102 PAIRS DETECTED IN 1999.				
Owner/Manager:	DOD-CAMP PENDLETON MCB				
Sources					
FWS85U02	U.S. FISH & WILDLIFE SERVICE. TABLES FOR LEAST BELL'S VIREO DATA UP TO 1984. 1985-XX-XX.				
GR189F03	GRIFFITH WILDLIFE BIOLOGY. FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS. 1989-08-31.				
GR190F02	GRIFFITH, J. FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS. 1990-07-31.				
GR190R01	GRIFFITH, J.T., AND J.C. REPORT ON LEAST BELL'S VIREO ON MARINE CORP BASE CAMP PENDLETON, 1989.				

Sample CNDDDB report showing amount of information available for each of 54,000 observation records in California.

Vegetation Classification and Mapping Program The Vegetation Classification and Mapping Program (VegCAMP) facilitates and oversees efforts to develop accurate and scientifically defensible maps and classifications of vegetation and habitat throughout the State. VegCAMP is of interest to transportation and environmental planning because it provides capabilities to:

- Maintain and continue development on data driven vegetation classification and mapping techniques based on the National Vegetation Classification System and the Manual of California Vegetation.
- Produce fine-scale, attribute-rich vegetation digital map products on the DFG's highest priority landscapes as funding becomes available. The ultimate goal is to produce large-scale mapping for the entire State of California.

- Consult on and provide training to external partners wishing to use the VegCAMP methodology and standards.
- Participate in the interagency State Vegetation Memorandum of Understanding group to promote data development and classification standards for California.

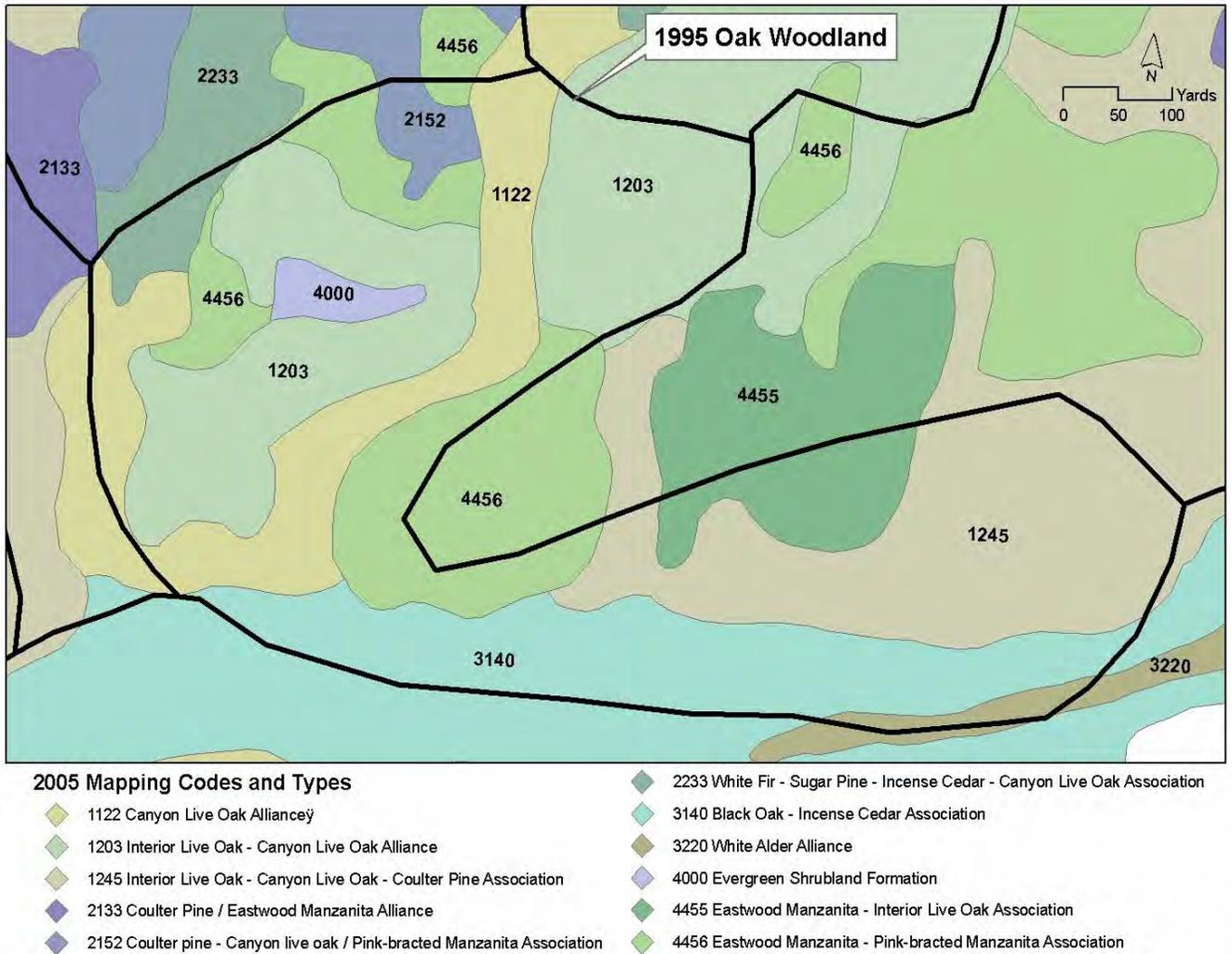
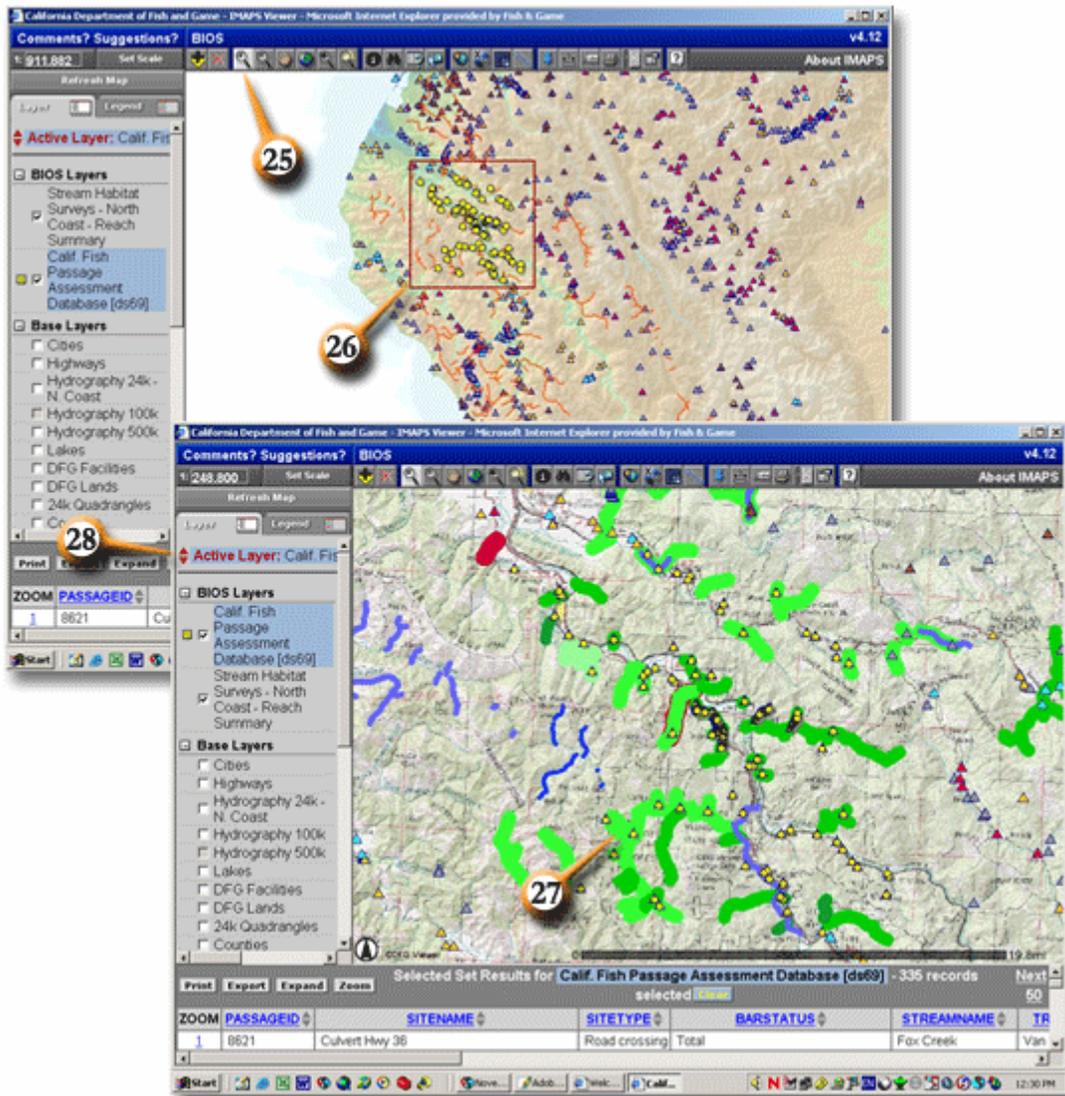


Image comparing traditional coarse mapping (shown with black line) compared with fine-scale mapping with detailed classification shown as color polygons.

Biogeographic Information and Observation System Biological information is found on the Biogeographic Information and Observation System (BIOS). BIOS is of interest to transportation and environmental planning because it provides:

- A keystone of data management strategy for managing biogeographic information that exists in DFG and other organizations, and cataloging, storing, and facilitating the sharing of that information.

- A system populated with data from DFG and by collaborative arrangements with external organizations.
- A data catalog that currently contains over 200 different spatial databases of information, including observations of rare, common, or invasive species, vegetation maps, and critical habitats.



Images from BIOS tutorial on analyzing fish passage data online.

California Wildlife Habitat Relationships System The California Wildlife Habitat Relationships (CWHHR) System is a state-of-the-art information system on California's wildlife, and is of interest to transportation planning because it provides:

- An information system that contains life history, management, and habitat relationships information on 675 species of amphibians, reptiles, birds, and mammals known to occur in the State.
- A system that includes larger-scale (GIS compatible format) species range maps of all CWHR species and development of range maps for bird and mammal species of special concern subspecies, and numerous aquatic species.

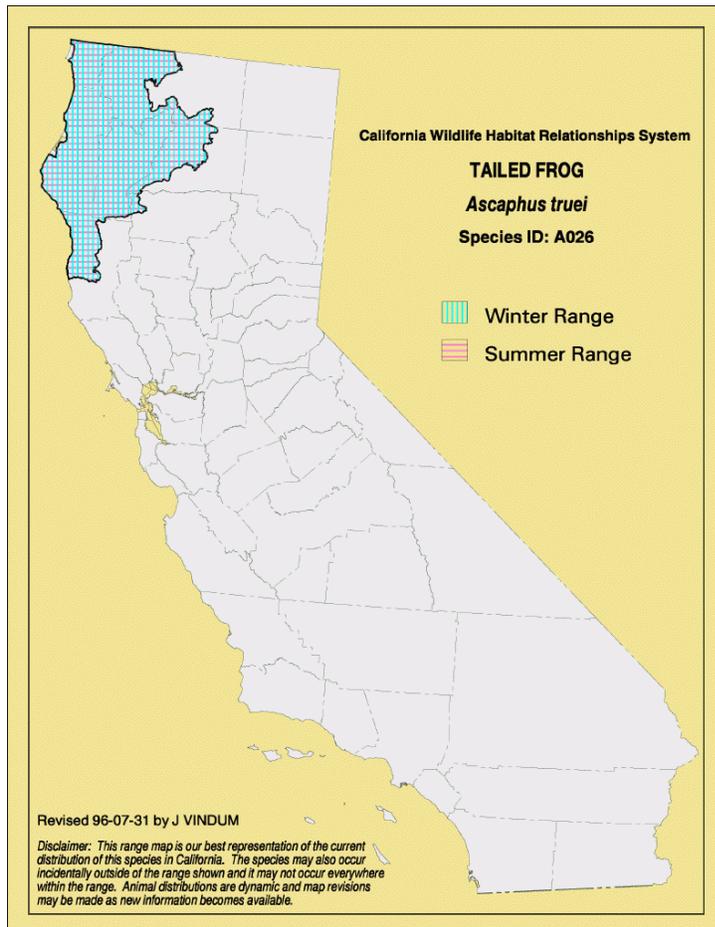


Image of sample CWHR range map.

SCENARIO PLANNING AND INTEGRATED PLANNING

Scenario Planning Tools and Models Scenario planning tools provide visual and quantitative feedback using “sketch planning” software to illustrate the potential effects of various “what if” land use and transportation strategies and scenarios to staff, the public, stakeholders, and decision makers. The Planning for Community Energy, Economic and Environmental Sustainability (PLACE³S) scenario planning model used during Sacramento Area Council of Governments’ (SACOG) Blueprint Planning effort (see California Regional Blueprint Planning Program below) is a notable example. PLACE³S estimates how different growth scenarios affect quality-of-life issues such as traffic congestion, air pollution, housing affordability, recreational opportunities, open space, and more. INDEX is yet another GIS-based program that uses the “4Ds” methodology, which includes density, diversity, design, and destinations. PLACE³S and INDEX are two similar tools that local and regional agencies are effectively using for public meetings and scenario planning.

In California, two of the larger MPOs (SACOG and the San Diego Association of Governments) are currently implementing regional applications of an integrated planning model--the Production Exchange Consumption Allocation System (PECAS) model (see discussion on integrated models below).

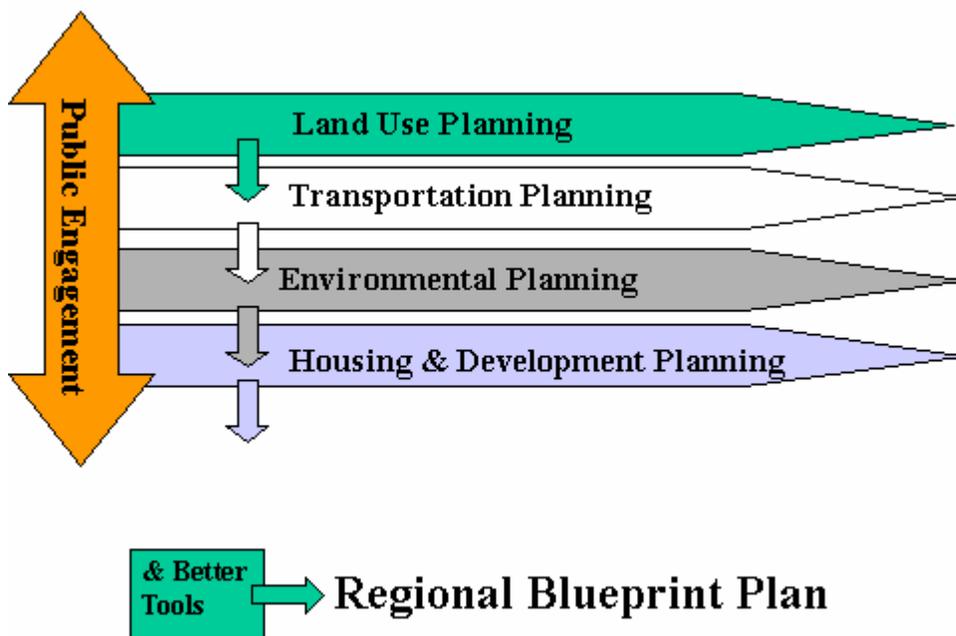
The eight county COGs participating in the San Joaquin Valley Blueprint Project have adopted “UPLAN” as their common urban modeling platform. These COGs have worked with the UC Davis Information Center for the Environment (ICE) to train staff in all jurisdictions and to identify and assemble data representing environmental constraints. This process resulted in the creation of a common future “base case” scenario. These agencies will continue to work together with the public to develop alternative scenarios based on the modeling tool and Great Places Program data. The Sierra foothill and mountain region consisting of Alpine, Amador, and Calaveras Counties have also banded together to use UPLAN and Great Places Program data for a joint planning process.

California Regional Blueprint Planning Program The California Regional Blueprint Planning Program is a State initiative to promote the linking of transportation, land use, housing, environment, economic development, and equity issues when developing transportation plans and projects. Since the program began, the State has distributed ten million dollars in funding to California MPOs and the COGs to conduct comprehensive scenario planning. This has helped regional leaders, local governments, and stakeholders find consensus on a preferred growth scenario or “Blueprint” for a 20-year planning horizon, while at the same time providing a regional framework for collaboration. Federal and State agencies provide funding and guidance, localities make land use decisions, and communities supply public input on needs and desires. Regions are well positioned in this framework since they already have a regional planning process, corridor and landscape vantage points, and a process for convening stakeholders.

Regional Blueprint Planning typically consists of scenario planning; extensive public involvement, including those who are traditionally underserved; the innovative use of visioning tools; the incorporation of environmental and socio-economic data as part of the visioning process; and performance measures. Through Regional Blueprint Planning, regional transportation plans can be coordinated with other planning efforts, such as habitat conservation plans, integrated regional water management plans, housing plans, and local general plans. The integration and coordination of these plans is intended to result in planning processes that are parallel and consistent (see Figure 4).

FIGURE 4

California's Regional Blueprint Planning Process: Comprehensive, Collaborative, and Integrated



Source: California's Regional Blueprint Planning Program.

The encouragement and funding of the California Regional Blueprint Planning grant program also demonstrates the State's strong commitment to improve Californians' quality of life. This planning program will help regions address future housing and mobility challenges, including congestion and air quality driven by population growth, changing demographics, the economy, and environmental quality.

The California Regional Blueprint Planning Program should result in regional plans for more efficient land use patterns and transportation systems that: support improved mobility and reduced dependency on single-occupant vehicle trips;

accommodate an adequate supply of housing for all incomes; reduce impacts on valuable habitat, productive farmland, and air quality; increase resource use efficiency; promote a prosperous economy; and result in safe and vibrant neighborhoods. Transportation projects arising from such planning clearly have a head start in meeting the requirements of SAFETEA-LU.

The Department and the Governor's Office of Planning and Research sponsored Blueprint Learning Network (BLN) workshops in 2006 and 2007 to work with MPOs and COGs in order to further advance their Regional Blueprint Planning efforts. The BLN workshops provided: a common framework for planning, analysis, and forecasting of land use, transportation, housing, and environmental factors; an opportunity for the State and regions to accomplish the regional blueprint plans; and an opportunity for the regions to learn together as they undertake their planning processes.

Merced Partnership for Integrated Planning The Merced Partnership for Integrated Planning (PIP) program was developed as a pilot for improved coordination to streamline the planning and the project delivery processes, avoid environmental impacts, foster collaboration among planning, transportation, and environmental agencies, and engage the public at the beginning of long-term transportation planning. Membership on the PIP included FHWA, the US Environmental Protection Agency (US EPA), and the Department, who committed resources to support concerted, cooperative, effective, and collaborative work among the three agencies.

The PIP included the development of GIS tools for modeling growth and environmental impacts in order to produce maps and tables resulting from policy choices at public meetings. The PIP engaged all regionally relevant planning, natural resources, and regulatory agencies in data sharing exercises to integrate data important to each agency into the scenario testing and planning process. Most importantly, the Merced County Association of Governments (MCAG), the coordinating partner in the PIP, led an extensive outreach program to engage the community.

Resources agencies were asked what environmental factors should discourage or constrain growth, and all agencies were asked to provide all available and relevant data. This shared information resulted in an Environmentally Sensitive Areas map and a Prime Agricultural Lands map, which were evaluated at a workshop attended by representatives of resources agencies, elected officials, and city and county planners. Contributors included over 20 federal, State, and non-governmental organizations.

A goal of the PIP was to find a method for responsibly arriving at a consensus plan with less conflict, particularly in the environmental review phase. Historically, transportation plan approval has met with considerable public and agency opposition. In contrast, MCAG approved its Regional Transportation Plan and received no opposition during the CEQA Environmental Impact Report public

comment period. Results of the PIP model appear in **Figure 5**. This demonstration program helped to define the importance of scenario planning to California’s future integration of transportation and environmental planning.

FIGURE 5

Results of the Merced PIP

- 800 percent increase in public participation in the transportation planning process
- 89 percent of participants said they enjoyed the PIP project
- 89.1 percent of participants said they learned more about transportation issues
- 30 percent increase in awareness of the RTP among all county residents
- New issues brought to the surface from county groups who had not previously participated in the process
- Better relationships were built at both the county and city level among civic organizations, agencies, and residents
- RTP was approved by the MCAG Governing Board and received no opposition during public comment periods
- Development of an Environmentally Sensitive Areas map based on shared information from a variety of Resources Agency databases
- Development of a Prime Agricultural Lands map based on input and information from a variety of agricultural interests

Source: Partnership for Integrated Planning Report.

Collaborative Planning Future California Transportation Plan updates will build upon interagency collaborative planning efforts, such as the Tri-Agency Partnership. One of the foundational documents for the Tri-Agency Partnership, included in the Appendix to this CTP update, illustrates the integration of parallel planning processes at the State, regional, and local levels with the engagement of all stakeholders in sharing data and incorporating environmental considerations in all plans. The next full update of the CTP will address policies and strategies that continue to support these collaborative planning concepts.

Integrated Land Use/Economic/Transportation Models Local, regional, and State agencies make decisions on a daily basis regarding infrastructure improvements, land use developments, and economic, social, and environmental programs, policies, and projects. However, in many cases the complex costs, benefits, and “trade-offs” among various choices are unclear to decision makers due to a lack of data and analyses capabilities. Thus, the potential benefits and impacts of proposed projects and programs on human and natural populations and environments are unknown. Currently, existing “stand-alone” models and databases used to analyze plans, programs, and projects are “siloes” and, typically, not linked to one another. This prevents region-wide analyses on issues such as habitat corridors and air quality.

Recently, some regional and statewide-level modeling processes have significantly improved. One of the major successes is the State of Oregon’s development and application of the PECAS integrated planning model. The PECAS model shows great promise in effectively linking economic, land use, and transportation data and tools.

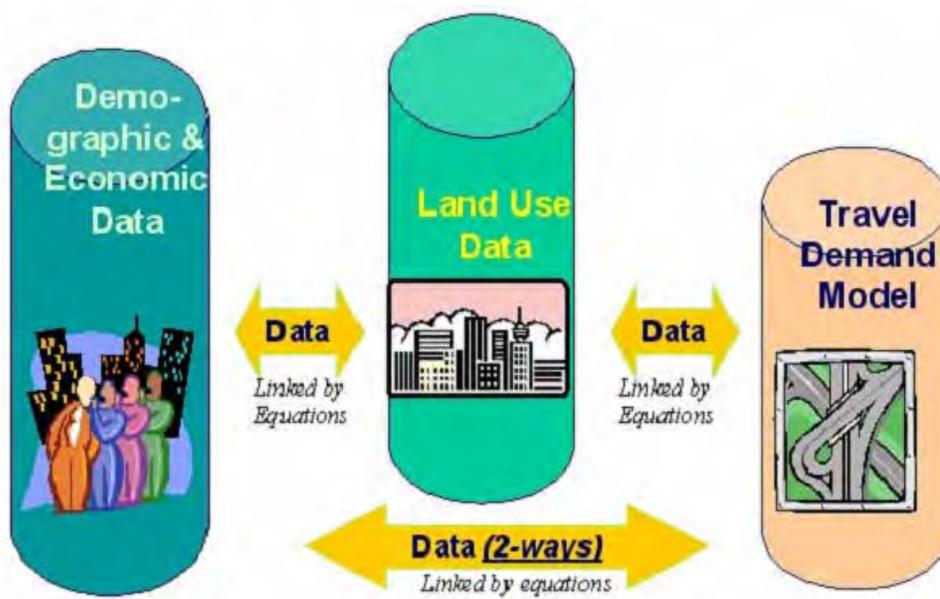
Using this model, Oregon reassessed a proposed set of major transportation projects and saved \$6.5 billion when it was determined that the projects would not achieve the State’s objectives.

During 2005, UC Davis ICE conducted a year-long study for the Department of integrated land use, economic, and transportation models, including the model that Oregon developed. This study explored and evaluated several integrated models, assessed whether such models could improve our ability to evaluate transportation, economic, and land use strategies, and summarized how such models might be useful to California’s regions and the State in better understanding these relationships.

Integrated models have been used in other countries for a number of years. The UC Davis study found that newly emerging integrated models (**illustrated Figure 6**) are able to effectively link economic, land use, and transportation data and tools, so that the interactive effects among these complex systems can be more accurately understood. By providing expanded and more reliable feedback about the expected results of a wide variety of decisions, integrated models can help public agencies meet multiple objectives simultaneously. Such models can also save substantial amounts of money by improving the quality and completeness of analysis and feedback available to decision makers.

FIGURE 6

Integrated Model Framework



Source: UC Davis Integrated (Land Use/Economic/Transportation) Models Studies, 2006.

CONSULTATION AND COMPARISON

In order to initiate the consultation and comparison process, the Department consulted with UC Davis ICE staff to help develop a web interface highlighting resources that transportation planners, agency staff, the public, and others can access to bridge their understanding of transportation and environmental issues.

Under this agreement, ICE staff created a web site included in the Appendix to this CTP update. The web site provides links to resource, environmental, and transportation agency plans, data, and maps for consultation and comparison during early transportation planning and subsequent activities. This web site identifies policy or planning documents, as well as maps and data that can be used for comparing and consulting with agencies and organizations in order to integrate transportation, land use, environmental, and resources planning.

Early Consultation Consultation allows one or more parties to confer with other identified parties in accordance with an established process and, prior to taking action(s), considers the views of the other parties and periodically informs them about action(s) taken. SAFETEA-LU directs that the CTP will be developed in

consultation with federal, State, tribal, and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation. As transportation interacts extensively with economic development, land use, and the environment, the direction from SAFETEA-LU is clear that consultation will involve comparison of transportation plans to State and tribal conservation plans or maps, and to inventories of natural or historic resources.

This multi-agency planning theme echoes throughout this *California Transportation Plan 2030*. Early consultation with other agencies is key to identifying problems and opportunities and creating a cooperative resolution. The comparisons are complex because of the number of jurisdictional entities and their multiple areas of expertise and regulatory responsibilities. Even simply identifying the appropriate resources agencies and locations is a valuable first step in this process. Examples of a few key resources agencies include: US Army Corps of Engineers; US Fish and Wildlife; California Department of Fish and Game; and California Department of Parks and Recreation.

The next full update of the CTP beginning in 2008 provides an opportunity to begin addressing the specific policies, strategies, and processes that will make early consultation and consideration of environmental issues a priority in transportation planning. Each new California Transportation Plan will build upon the prior effort and document the extent to which this consultation and comparison occurs.

Consultation Meeting: A First Step On January 17, 2007, the Department held a meeting focused on the expanded consultation requirements under SAFETEA-LU with stakeholders from federal, State, tribal, and local governments and resource agencies to discuss efforts at linking transportation, environmental, and resources planning. The attendees discussed ways to improve collaborative efforts to consult and compare plans, maps, and data, as well as consultation on mitigation measures.

More than 60 individuals participated in the meeting, representing a broad cross-section of agencies, nongovernmental organizations, and Tribes (see “Consultation Stakeholder Participants”). Key issues were identified, and highlights of this meeting can be viewed at the CTP link to the UC Davis web site at <http://www.dot.ca.gov/hq/tpp/offices/osp/ctp.html>.

Consultation Stakeholder Participants

Resources Agencies Represented

California Resources Agency
California Department of Fish and Game
California Department of Forestry and Fire Protection
California Department of Parks and Recreation
California Department of Water Resources
California Department of Conservation
Sierra Nevada Conservancy

Representatives of Local Government

California League of Cities
California State Association of Counties
Regional Council of Rural Counties

Legislative Representation

California Senate Transportation and Housing Committee

Academic Representation

UC Davis Information Center for the Environment
UC Davis Road Ecology Center

Non-profit Representatives

California State Parks Foundation
Defenders of Wildlife

Federal Agencies Represented

US Environmental Protection Agency
US Fish and Wildlife Service
US Department of Agriculture,
Natural Resources Conservation Service
Federal Highway Administration

Tribal Government Representatives

Agua Caliente Band of Cahuilla Indians
Pechanga Band of Mission Indians
Wiyot Tribe

Transportation and Housing Agencies Represented

Business Transportation and Housing Agency
California Department of Transportation
California Transportation Commission
Department of Housing and Community Development
California Rural Counties Task Force
California Council of Governments

Other State Organizations Represented

Governor's Office of Planning and Research
California Energy Commission
San Francisco Bay Conservation and Development Commission
CALFED Bay-Delta Program

During breakout sessions, participants discussed ways to better link transportation and environmental planning and collaborative methods to consider environmental issues. From these sessions five key opportunities were identified to enhance planning processes that provide the basis for this Addendum and to guide development of the next full plan update in 2008.

Integrated planning principles Agreement on a core set of planning principles by all key agencies provides a prelude to cooperative planning.

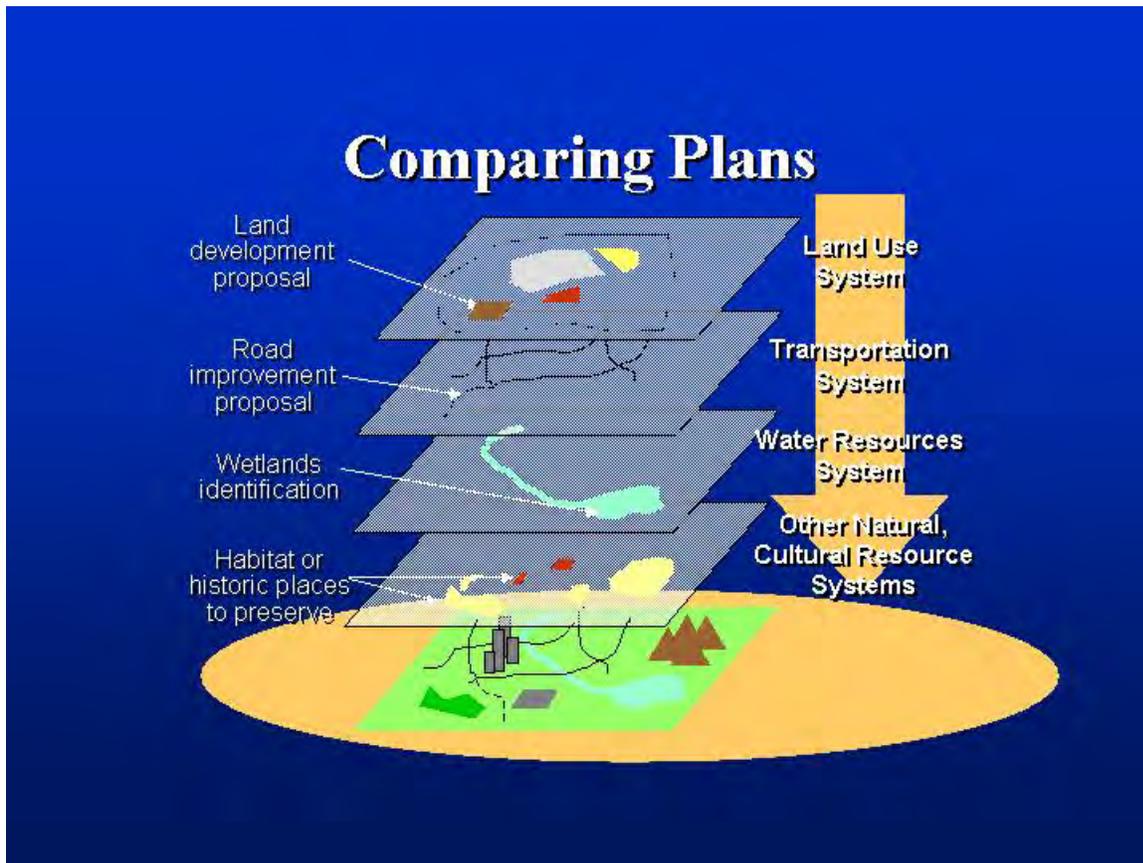
Coordinated State infrastructure planning This is essential to local planners who need to understand the infrastructure available for their plans and to State planners who need to know the assumptions that are being made locally.

Transportation planning that addresses regional impacts of multiple projects Current funding practices often support the fragmentation of projects. Commitment and leadership are needed to modify systemic and programmatic barriers to the allocation of resources for "true" regional planning.

Incentives for efficient land use Current incentive is often to zone land and permit building to yield local governments the highest sales tax revenue possible rather than the most efficient use of land. Proposed incentives to encourage efficient land use must be sensitive to regional differences.

The role of the State as a data, information, and education provider for local planning Appropriately scaled statewide data will aid in making local planning more efficient, consistent, and seamless.

Comparison Planning regulations implementing SAFETEA-LU define the expanded consultation requirement with natural resources and environmental agencies to include the comparison of transportation plans, maps, and data with those of federal, State, and tribal wildlife, land management, and regulatory agencies. During this and future updates of the CTP, the State will focus on data sharing, especially sharing of GIS data, between agencies concerned with land use and transportation, as well as natural, environmental, and cultural resources systems.



Source: FTA webcast, 2006.

Comparing plans, maps, and data with resources agencies will be a new activity for most MPOs and RTPAs as they update their Regional Transportation Plans. However, multi-agency regional planning models exist in California, most notably in the Merced Partnership for Integrated Planning discussed earlier. Regional Blueprint Planning, supported by BLN Workshops throughout the State, also provides a planning model for multi-agency engagement. The State should continue to encourage such comprehensive planning approaches that partner transportation planning with land use and environmental planning.

An initial set of sample maps for use during the consultation and comparison process at both the State and regional levels is included in the Appendix to this CTP update. These infrastructure, environmental, and resources maps and tools include, among other things, the Department’s California Transportation Investment System (CTIS), a statewide GIS tool that displays transportation projects included in long-range plans, and the California Department of Fish and Game BIOS data catalog discussed earlier.

Comparisons should be as comprehensive as possible, extending beyond simply examining a collection of assembled maps. The data underlying the maps should be examined for compatibility, and any problems identified should be documented

and addressed in early consultation. Analysis of the underlying data is critical, as the analysis can lead to the identification of patterns that can be further evaluated for their impacts on transportation, land use, and environmental resources.

The major benefits of this comparison process are: sharing data and the results of the data analysis; identifying opportunities to partner; and optimizing input into State and regional decision making. The desired outcomes would be enhancing and preserving California's environmental resources while providing for adequate infrastructure needs, and addressing the need for public agency accountability while becoming better stewards of the environment.

Framework to Define Consultation and Comparison Process The information in this Addendum is only the first step in defining the actual process of consultation and comparison of maps, plans, and data. This Addendum provides a "framework" of ideas for consideration and evaluation in the next full update of the CTP. The next update will build upon this Addendum and address how to mainstream the consideration of environmental issues during early planning and, specifically, the consultation and comparison process among the appropriate agencies. The CTP 2035 will further address the specific policies, strategies, and processes that will make consultation and comparison work most effectively.

The Department, with its partners and stakeholders, will continue to identify and explore data, information, and maps and further delineate a process and framework for consultation and comparison. While engaging the public in developing this next plan, the Department should also address such promising concepts as "screening" of critical environmental and resource issues during planning and programming. There are successful "screening" efforts in other states to serve as benchmarks, including Florida's program described below.

Benchmarking: "Efficient Transportation Decision Making (ETDM)" The State of Florida provides a benchmark of efficient transportation decision-making that protects the environment. Florida has completely revamped its procedures for planning transportation projects, conducting environmental reviews, and developing and permitting projects. The ETDM program is built around early and continuous agency involvement; comprehensive, up-to-date, and accurate data upon which to base decisions; and feedback about how agency participation leads to better transportation decisions and outcomes. Twenty-two agencies participate in ETDM. The seven Florida Department of Transportation (FDOT) Districts have working interagency councils that have two opportunities to review projects prior to significant engineering work: during the "planning screen" and the "programming screen."

The councils, called Environmental Technical Advisory Teams (ETATs), have access via the Internet to the latest GIS data from their own agencies and all other agencies, as well as participating Tribes. Councils review proposals in light of the best available data and comment on the joint web site regarding their concerns for proposed projects. In response to this, the project proponent creates a summary of

the “degree of effect” of the project that incorporates all comments. This is also made available on the web site for all to comment on and ensures consistency with the councils’ comments.

Projects with large impacts are flagged very early, and project proponents can alter projects to reduce concerns before significant investments in engineering have been made. In some cases, projects are entirely rerouted and in a few cases even abandoned because of discoveries in this screening process.

The ETDM program ensures agreement on NEPA “Purpose and Need” before projects are funded, while maintaining flexibility for unexpected discoveries at the project level. The program provides a mechanism for dispute resolution between agency partners, as well as forming the backbone of the information system used for involving the public in the decision-making process.

FLORIDA’S ETDM PROGRESS REPORT

A total of 265 projects have been reviewed by ETAT participants during Planning or Programming Screens since ETDM implementation began. The seven Districts within FDOT have reported improvements in the following areas:

- Agency Coordination and Problem-solving
- Long-Range Transportation Planning
- Focused Evaluations during Project Development
- Dispute Resolution Process
- Cost of Environmental Studies and Documentation
- Project Delivery timeframe
- Access to Information
- Coordination within FDOT

Source: ETDM Progress Report cited in Greenways Newsletter, February 2007.

CONSIDERATION OF ENVIRONMENTAL AND NATURAL RESOURCE ISSUES—MITIGATION AND CONSULTATION

The *California Transportation Plan 2025* calls for the consideration of environmental and natural resources through a vision of a fully integrated, multimodal, sustainable transportation system.

SUSTAINABLE TRANSPORTATION

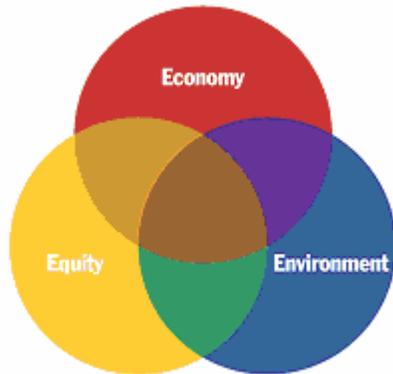
A sustainable transportation system is one that meets people’s needs equitably, fosters a healthy environment, provides a broad, balanced system in which the private vehicle, public transportation, bicycling, and walking are all viable options and can be maintained and operated efficiently and effectively over time.

Source: California Transportation Plan 2025, p. 3

This vision also supports the three outcomes (3Es) that define quality of life, which include a prosperous economy and social equity, as well as a quality environment (see **Figure 7 below**). This vision of a quality environment is fully supportive of the SAFETEA-LU requirements for consultation on potential environmental mitigation activities.

FIGURE 7

CTP 2025 Vision: The Three Es of Quality of Life



Source: *California Transportation Plan 2025*, p. ix

SAFETEA-LU requires states and MPOs to consider and discuss potential environmental mitigation activities along with potential sites to carry out the activities. This discussion is to be developed in consultation with federal, State, and tribal wildlife, land management, and regulatory agencies. While this concept applies to the statewide transportation plan, the regional transportation plans, and ultimately to approved projects, the statewide transportation plan should address any environmental mitigation activities at a policy rather than project level.

This concept of early consultation on environmental mitigation

“ENHANCE THE ENVIRONMENT” IS A MAJOR GOAL OF THE CALIFORNIA TRANSPORTATION PLAN 2025

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...Addressing environmental and habitat conservation issues in the earliest planning stages will help reduce time and cost of transportation projects, while protecting natural environments.

Source: *California Transportation Plan 2025*, p. 59

is based on a hierarchy that embraces the following measures: enhancing the environment when opportunities present themselves during early transportation planning; avoiding and minimizing impacts to the State’s natural and environmental resources; early mitigation; and the more traditional mitigation measures. The use of such a hierarchy of measures becomes even more relevant and compelling if a benefit and cost analysis can be developed to demonstrate savings in delivery time and costs.

MITIGATION MEASURES

The hierarchy below provides an expanded scale of mitigation measures that span early planning through project delivery. “Enhancing the Environment” is at the top of the hierarchy, followed by opportunities for “avoiding” or “minimizing” as environmental issues are addressed during the “early” planning process. These initial measures are preferred to identification of lower-ranked mitigation measures as compensation to address environmental impacts. Examples of actions that illustrate each rank of the scale are shown in parentheses below:

Enhance A major goal of the current *California Transportation Plan 2025* is to “Enhance the Environment.” (*Promote partnerships to address conservation and environmental issues in early planning.*)

Avoid Avoid the impact altogether by not taking certain actions or parts of action. (*Stay away from shrubs and tree covers to avoid disturbance to wildlife, burrow colonies, hibernacula, and nest sites.*)

Minimize Minimize impacts by limiting the degree or magnitude of the action and its implementation. (*Surface grading, topsoil stripping, and excavation will be minimized.*)

Rectify Rectify the impact by repairing, rehabilitating, or restoring the affected environment. (*Spills will be cleaned up immediately using proper remediation procedures.*)

Reduce or Eliminate Reduce or eliminate the impact over time by preservation and maintenance during the life of the action. (*No-idling policy for vehicles where appropriate.*)

Compensate Compensate for the impact by replacing or providing substitute resources or environments. (*Re-vegetation will be undertaken on disturbed sites.*)

Source: NEPA Federal Regulations 40 CFR Sec. 1508.20 Mitigation Measures.

Following such a hierarchy of measures may provide significant savings in project delivery time and cost that can be demonstrated through benefit/cost analysis. The

Department will need to coordinate with the resources agencies in order to ensure a discussion of these measures during the next full update of the CTP in 2008.

ADVANCED OR EARLY BIOLOGICAL MITIGATION

Efforts are underway with the Department and UC Davis ICE in the area of advanced or early biological mitigation. ICE is currently assessing ways that the Department could improve its biological mitigation planning process through implementation of early biological mitigation planning.

Currently, biological mitigation planning is generally implemented on a project-by-project basis with a short time horizon of only a few years. This project-by-project planning on short time frames has led to cost overruns as well as inefficient use of mitigation funds. By assessing biological impacts earlier in the planning process and mitigating for the cumulative biological impacts of many projects in a given area, the Department can save money and provide more effective biological mitigation. Building upon previous efforts and using tools known to be effective for integrated analyses, biological mitigation planning will help the Department improve early planning results by using the best available agency and university data at the earliest conceptual consideration phase of planning.

As part of this project, ICE has integrated GIS data into a database that can be queried by the Department's districts, the counties, or the watersheds, and will return biological resources expected to be impacted by programmed projects in the area. This fruitful early planning approach has provided the capacity to predict mitigation needs for a 10-year planning horizon for impacts to terrestrial habitats. The approach developed by ICE could be adapted to provide early "planning screening" for proposed projects through continued database framework development.

Development of a screening capacity to the ICE product would allow Department, MPO, and RTPA biologists and planners to use agency and other data to potentially "triage" areas and projects in need of the most environmental planning and to determine which projects, if programmed, may incur the highest environmental costs. This capacity would also permit planners to practice the most effective mitigation practice of all, avoidance, by determining that certain sites are prohibitively impacted, and planning to move construction projects away from those biologically sensitive and unique locations. Ultimately, this effort will help the Department to leverage funds and form agreements with other agencies in order to create better plans and acquire land or easements that would mitigate the combined impacts of multiple projects in a given area or affecting any given resource. There are pilot projects currently underway to test this concept in watersheds in California including Elkhorn Slough.

Elkhorn Slough Pilot Project In 2001, the Department's District 5 staff collaborated with the Elkhorn Slough Foundation and the Nature Conservancy to

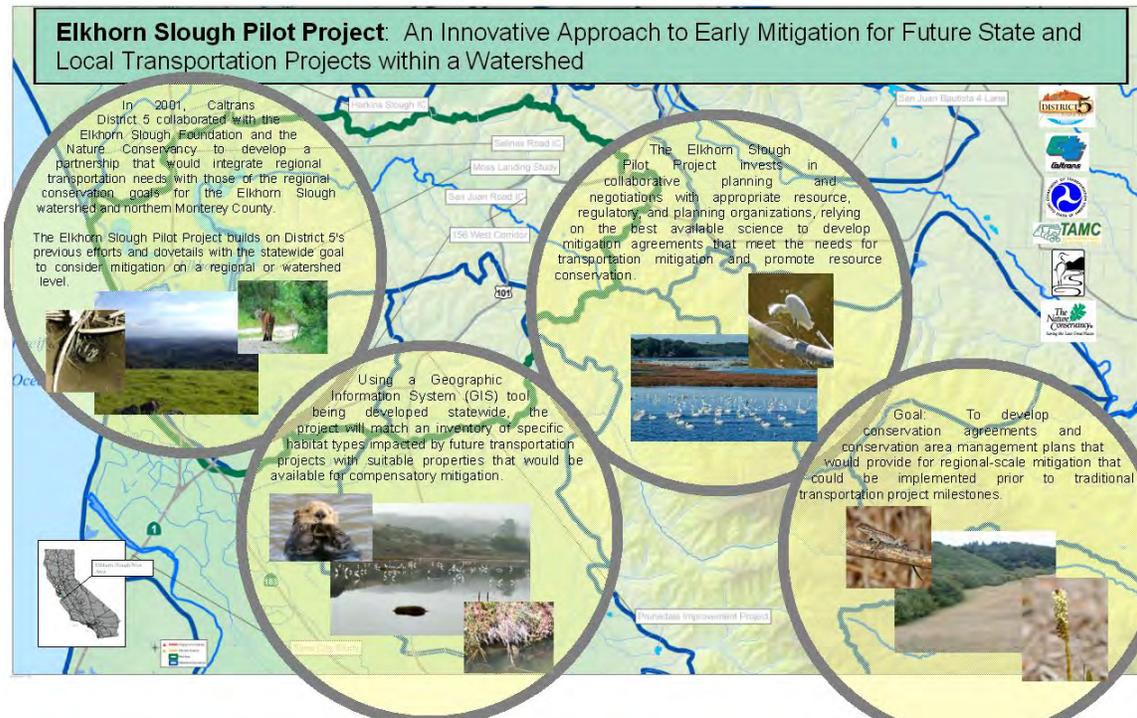
develop a partnership that would integrate regional transportation needs and regional conservation goals for the Elkhorn Slough watershed and Northern Monterey County. The Elkhorn Slough Early Mitigation Project (ESEMP) builds on previous efforts and dovetails with the statewide goal to consider mitigation on a regional or watershed level.

The ESEMP (**see Figure 8**) invests in collaborative planning and negotiations with appropriate resources, regulatory, and planning organizations. It relies on best available science to promote mitigation agreements that meet the needs for both transportation mitigation and resource conservation. Using a GIS tool being developed statewide, the project will match an inventory of specific habitat types impacted by future transportation projects with suitable properties that would be available for compensatory mitigation. The resulting analysis serves as a starting point for collaborative discussions to consider strategic habitat protection and how mitigation by the Department can fit into a larger watershed vision.

The goal of this effort is to develop a process for considering conservation agreements and conservation area management plans that would provide for regional-scale mitigation implemented prior to traditional transportation project milestones. Though still in its infancy, projects like the ESEMP and other best practices could help reinforce the benefits that consultation and collaboration with resources agencies can yield.

FIGURE 8

Elkhorn Slough Early Mitigation Project



Source: Presented at the Department's Statewide Road Ecology Meeting hosted by UC Davis ICE, Graphic by Kelda Wilson, the Department's District 5 staff.

California Department of Fish and Game, California Wildlife Action Plan In addition to calling for early mitigation consultation, SAFETEA-LU also requires that the long-range statewide transportation plan contain a discussion of potential environmental mitigation activities at the policy or strategic level (rather than at the project-specific level). The DFG *California Wildlife Action Plan* provides an example of mitigation strategies and actions that would be appropriate at the statewide level and might also provide evidence of the cost/benefit of such an approach. Implementation of the *California Wildlife Action Plan* is also an excellent opportunity for further coordination between DFG and the Department. It will also support broader involvement of transportation, environmental, and resources planning staff in consultation and comparison processes through strategies such as:

- Developing policies and incentives to facilitate better integration of wildlife conservation considerations into local and regional planning and land use decision making.

- Having permitting agencies, county planners, and land management agencies ensure that infrastructure development projects are designed and sited to avoid harmful effects on sensitive species and habitats.
- Developing policies and incentives to better integrate wildlife conservation into State and regional transportation planning and ensure its incorporation in the earliest stages of the transportation planning process.

Role of Integrated Planning Efforts Integrated planning efforts to date, like the Regional Blueprint Planning and the Merced Partnership for Integrated Planning, have shown promise in addressing environmental mitigation and consultation in a number of regions statewide. In these areas, environmental planning is being conducted in conjunction with land use planning and transportation planning. This is leading to proactive environmental stewardship, as opposed to reacting to environmental concerns once projects have progressed beyond the early planning stage. Partnerships with resources management agencies are being created with full knowledge and participation of the agencies responsible for land use and transportation.

There is growing consensus that integrated planning efforts have strong potential over the long term to reduce greenhouse gases (GHGs) by creating more efficient land use patterns that result in reduced vehicle miles traveled. The role of the State is to provide encouragement, information about best practices, and in some cases, grant funding to continue to promote these integrated planning approaches. These efforts will be further examined with the next full update of the CTP.

Goods Movement Action Plan Finally, the *Goods Movement Action Plan* (GMAP), adopted in January 2007, also addresses environmental mitigation. The GMAP recognizes that, while a robust economy depends on the efficient movement of goods, there are also significant environmental and community consequences resulting from these activities.

The *Goods Movement Action Plan* underscores the importance that California must “Undertake simultaneous and continuous improvement in infrastructure and mitigation.” Therefore, State policy is to identify environmental impacts for goods movement improvement projects and to implement the mitigations concurrently with the projects. Actions necessary to protect public health and mitigate environmental and community impacts must be funded and executed on a simultaneous and continuous basis with actions necessary to improve goods movement transportation infrastructure.

Strong mitigation will be needed if improvements are to be made to meet the growing international trade. Advancing actions with the highest rates of return (an important principle articulated in the GMAP) applies to not only goods movement transportation investments, but also to those actions with the highest potential to improve public health and the environment.

California Climate Change Initiative The CTP 2025 recognized that GHG emissions produced from fossil fuel use have direct links to the environment and global climate change. The Governor's recent "California Climate Change" initiative supports the CTP 2025 vision of sustainable transportation and improved mobility in order to mitigate climate change in California. Executive Order S-3-05, signed by the Governor on June 1, 2005, established climate change emission reduction targets for the State (shown below), and created the Climate Action Team (CAT) to coordinate the statewide effort.

The Executive Order established GHG targets to:

- Reduce to 2000 emission levels by 2010.
- Reduce to 1990 emission levels by 2020.
- Reduce to 80 percent below 1990 emission levels by 2050.

The Governor also signed into law Assembly Bill (AB) 32, the California Global Warming Act of 2006, giving new weight to the State's renewable energy goals. The Governor has directed State agencies to begin implementing AB 32 and issue recommendations in their CAT report.

The Department is a member of the CAT and is committed to implementing transportation strategies that will help reduce fossil fueled energy and GHG emissions. The Department's *Climate Action Program Report* demonstrates the commitment of the Business, Transportation and Housing Agency and the Department to a transportation system that supports environmental quality. The Department's overall approach to lowering fuel consumption and CO₂ from transportation is twofold: 1) making transportation systems more efficient through smart land use, operational improvements, and Intelligent Transportation Systems; and 2) institutionalizing energy efficiency and GHG emission reduction measures into planning, project development, operations, and maintenance of State transportation facilities, fleets, buildings, and equipment.

DELEGATED NATIONAL ENVIRONMENTAL POLICY ACT RESPONSIBILITIES

SAFETEA-LU establishes a pilot program that allows the Secretary of Transportation to assign all or part of the Secretary's environmental responsibilities under NEPA and other federal environmental laws to five states: Alaska, California, Ohio, Oklahoma, and Texas. The Department applied for the Pilot Program in May 2007, submitting an application to FHWA that described the scope of the responsibility it was requesting to assume.

The Department developed its application based on the final rules issued by FHWA on February 12, 2007. The Department applied for the full range of involvement in

the Pilot Program, including assumption of all projects and all federal environmental laws. Per the final rules, the application identified the following exclusions from the Pilot Program:

- Certain projects funded by Federal Transit Administration
- High priority projects under Executive Order 13274
- Federal Lands Highway projects not designed and constructed by the Department

The application also identified a few large projects for which the Department requested that FHWA retain responsibility in order to provide continuity in the final phases of the environmental review process. Finally, the application specified those responsibilities that could not be delegated under the SAFETEA-LU Pilot Program, including air quality conformity determinations, formal government-to-government consultations with Tribal Governments, and planning decisions.

FHWA accepted the application, and the Department negotiated and executed a Memorandum of Understanding (MOU) with FHWA. This MOU describes how the full delegation under the Pilot Program will be carried out.

Operating under the Pilot Program since July 1, 2007, the Department is now fully responsible for NEPA requirements for delegated highway projects in the State. Under the terms of the Pilot Program, the Department is required to comply with FHWA's NEPA regulations and follow FHWA environmental policy and guidance. The program will not change federal environmental protection standards. With the Department essentially becoming the agency with federal approval authority, the program offers the opportunity to provide a more streamlined environmental process. Environmental protection and streamlining are fully in keeping with goals expressed in the CTP 2025.

EXPANDED STAKEHOLDER ENGAGEMENT

Context sensitive solutions are achieved through a collaborative, interdisciplinary approach engaging all stakeholders. The Department recognizes that collaboration with local communities is needed to ensure citizens understand the local, regional, and statewide context of long-range transportation planning. The value in communicating the context of long-range transportation planning is gaining consensus early in the planning process. Collaboration simultaneously builds public support and partnerships for plans and projects that serve the public interest, while minimizing opposition, litigation, and the need to redesign or relocate.

As part of the requirements related to the “public involvement” process, SAFETEA-LU requires states to develop public participation plans in consultation with “interested parties;” hold public meetings at convenient and accessible times and

locations; publish updates of statewide transportation plans, to the maximum extent practicable, in electronically accessible formats (e.g., world wide web); and employ visualization techniques, where feasible, to depict statewide transportation plans and to improve decision making.

Following adoption of the CTP 2030 Addendum, the State will initiate development of a new public participation plan based on the SAFETEA-LU requirements. The plan will be developed in consultation with interested parties, and those parties will be given reasonable opportunities to review, update, and evaluate the public participation structure. This review process will be transparent and fully involve all stakeholders.

During the development of this CTP update, the Department consulted with MPOs, RTPAs, and Tribal Governments. In addition, in order to enhance public participation, invitations were distributed statewide to over 8,000 stakeholders to attend one of three public workshops held in Diamond Bar, Oakland, and Redding.

Public feedback collected during the workshops was supportive of the basic approach and concepts identified in the earlier section on Linking Transportation Planning and Resource/Environmental Planning. Participants discussed: scenario planning, sharing data, integrated models, context sensitive solutions, and Blueprint Planning. The public was also supportive of the five key opportunities to enhance planning processes identified by participants in the earlier Consultation Meeting.

To supplement the workshops and to provide additional methods for submitting input, information on the CTP update was made available on the Department's website (<http://www.dot.ca.gov/hq/tpp/offices/osp/ctp.html>). In addition, a web-based survey was also posted to solicit public comment on specific aspects of the Addendum and to allow for the submittal of written comments. Respondents also had the option of providing comments by e-mail address.

These methods in total were designed to identify and engage stakeholders and to ensure a full and more open public participation process. Finally, every effort was made to include and document input from Native American individuals, as well as community advocacy groups representing such diverse sectors as the elderly, disabled, and non-motorized transportation advocates.

A report documenting all comments received on the CTP Addendum will be published and displayed on the Department's web site following release of this document.

Employ Visualization Techniques to Describe Plans The Department has long supported the use of a variety of visualization techniques (see examples below) to engage stakeholders during the planning process. Such techniques assist participants by moving from general and abstract terms to more concrete images. The Department employed visualization techniques to support outreach efforts for the CTP update, relying extensively on stakeholder feedback through audience response systems, otherwise known as "clicker technology." This clicker technology

was used to collect public input at all three public workshops in April 2007.

The Department has encouraged the same support for the California Regional Blueprint Planning efforts as well. These regional planning efforts have extensively employed sophisticated visualization techniques, such as scenario planning to engage and empower their stakeholders. Whether used at the statewide or regional level, these visualization techniques have been helpful in balancing stakeholder values with transportation needs. They have also proven invaluable in implementing context sensitive solutions, which are critical to the Department's efforts to link transportation planning with environmental planning. Additional information on visualization tools and techniques to depict statewide transportation planning efforts is available at <http://www.placematters.org/>.

VISUALIZATION TECHNIQUES

- Graphics
- Artist renderings and drawings
- Sketches
- Computer modeled images
- Photo-simulations and photo manipulations
- Computer presentations and simulations
- Interactive Geographic Information Systems (GIS)
- Maps
- Models
- Flowcharts
- Interactive displays and kiosks
- Mapping through Geographic Information Systems
- 3D Visualization
- "Dot voting" exercises
- Visual Preference Surveys
- Audience response systems (handheld clicker technology)
- Scenario planning tools

Source: SAFETEA-LU Planning Provisions. Workshop, Cambridge Systematics, Inc. May 2006.

CONSISTENCY WITH STATE AND LOCAL PLANNED GROWTH AND ECONOMIC DEVELOPMENT PATTERNS

SAFETEA-LU expanded its environmental emphasis by adding the phrase "promote consistency of transportation plans and transportation improvements with State and local planned growth and economic development patterns." The *California Transportation Plan 2025* vision supports economic development as one of the three outcomes that define quality of life: a prosperous economy. Beyond that, one of the six CTP 2025 goals is to "Support the Economy."

The economy goal includes a number of policies and strategies for implementation: provide incentives to promote sustainable land use decisions that integrate land

use, housing, and transportation through regional and interregional cooperation; increase densities to facilitate effective transit service, including encouraging transit-oriented development within major transit corridors; provide the ability to conveniently walk to destinations; and promote street and urban design to encourage walking and bicycling to destinations. In addition to the vision, goal, and strategies of the CTP, several other statewide efforts support the consistency of transportation planning with planned growth and economic development.

Strategic Growth Plan In addition to the vision and goals addressed in the CTP 2025, current Administration initiatives support economic growth and increased mobility. Strategies in the transportation component of the Governor's *Strategic Growth Plan* (SGP) are focused on improving mobility and are designed to build needed infrastructure to accommodate California's increasing population, projected growth, and growing economy.

California Regional Blueprint Planning Program The California Regional Blueprint Planning Program is an additional strategy for implementing the Governor's SGP and, specifically, the land use "slice" of the "Mobility Pyramid." (The Mobility Pyramid is discussed in more detail below). These efforts also mirror the current CTP 2025 policy to "Manage Growth," as well as the strategies adopted to support that policy.

California Economic Development Partnership The State also promotes economic development through an Inter-Agency Cabinet Team that leads and coordinates the California Economic Development Partnership (Partnership). The Secretary of Business, Transportation and Housing is one of the three Cabinet representatives. The Partnership itself is broad-spectrum, echoing the wide variety of industry clusters that drive the economic engine of the State. The partners are key industry leaders, as well as committee and organizational representatives, including the California Partnership for the San Joaquin Valley, the California Economic Leadership Network, the California Economic Vitality Conversation Partners, and the California Partnership for International Trade.

While the principal thrust of the Partnership is the attraction and retention of jobs in California, the CTP's economic focus is strongly oriented toward improving the movement of goods while at the same time recognizing the environmental and public health impacts that result from increases in trade volumes. In general, the CTP and Partnership initiatives are complimentary with respect to the importance of improving California's economy. Common themes shared between the two include leadership, cooperation, efficient government operations, quality of life issues, and infrastructure development.

Goods Movement Action Plan The GMAP serves as the action element for goods movement under the umbrella of the CTP. The GMAP's objectives include generating jobs, developing partnerships to advance goals, and implementing those actions with the best potential to achieve high rates of return on investments.

The GMAP is a key component of the *Strategic Growth Plan* and involves inventorying existing and proposed goods movement improvement projects, establishing four “port to border” goods movement corridors, identifying environmental and community impacts of projects together with mitigation strategies, and cataloging public safety and homeland security issues.

The GMAP identifies 28 of the most critical goods movement infrastructure projects in the State (totaling over \$10 billion) including effects to:

- Upgrade the Alameda Corridor East through the Inland Empire.
- Develop truck climbing lanes on the I-580 corridor in the Bay Area.
- Improve access to and through the San Pedro Bay Ports.
- Develop a new border crossing at Otay Mesa East in San Diego County.
- Develop the Port of Oakland Outer Harbor Terminal.

The timing, sequencing, and funding of corridor expansion projects will be addressed in future efforts. Funding issues are challenging, but have been aided by the Administration’s inclusion of rail improvements in the recently approved bond issue for State infrastructure financing. The GMAP helps chart economic policy for the State and is incorporated by reference into the California Transportation Plan.

County-level Economic Forecasts Lastly, the Department’s Office of Transportation Economics provides county-level economic forecasts to assist the local jurisdictions in developing forecasts to support their own economic development efforts.

SECURITY AND EMERGENCY MANAGEMENT AS STAND-ALONE PLANNING FACTORS

SAFETEA-LU requires states to identify security as a new stand-alone planning factor for motorized and non-motorized users. While the Department supports this separate consideration, it also recognizes that security and emergency response efforts are inextricably linked. Clearly both are key in ensuring personal security, system security, and the availability of emergency response services in the event of natural or human-caused disasters. As described in the current CTP, the Department continues to work with federal, State, and local agencies to address security and emergency management planning.

Goal 4 of the CTP 2025 (*Enhance Public Safety and Security*) identifies strategies that support communication and coordination with other stakeholders in the security and emergency areas. These strategies establish a basis for demonstrating

compliance with the new stand-alone security requirement of SAFETEA-LU.

These security and emergency management efforts are focused on securing the State's critical transportation infrastructure, e.g., California's highways, major seaports, airports, and mass transit systems. Efforts to evaluate securing this infrastructure, such as full-scale exercises, are complicated and often face considerable opposition, as disruptions to the transportation system can have far-reaching effects on our economy. Many of these efforts are identified in the Department's *Emergency Operations Plan (EOP)* and the *Continuity of Operations/Continuity of Government (COOP/COG) Plan* summarized below.

These planning efforts, as well as the additional efforts discussed below, are incorporated into the CTP by reference as components of a stand-alone Security and Emergency Management element. Looking forward, the security plans of other State and local agencies will be considered for incorporation into the CTP as they become available.

Emergency Response and Management The Incident Command System (ICS) is the systematic tool for the command, control, and coordination of an emergency response. ICS allows agencies to work together using common terminology and operating procedures for controlling personnel, facilities, equipment, and communications at an incident scene. The ICS is considered part of the broader incident management system as outlined in the Department of Homeland Security's National Incident Management System (NIMS). NIMS covers the entire incident management process, including command structures like ICS as well as preparedness activities, resource management, and communications and information management. Broadly stated, numerous agencies have statutory and program responsibilities for the response to, and the management of incidents and large-scale emergencies, along with related planning activities. The plans of the Department, the Emergency Medical Services Authority, the California Highway Patrol, and other agencies are incorporated by reference.

Emergency Operations Plan The EOP addresses preparation (including pre-event preparation) for natural or human-caused disasters impacting the Department's "external" infrastructure. This includes infrastructure such as highways, bridges, and roadside rest areas. The EOP describes the Department's concept of operation in an emergency, including the use of communications systems to effectively coordinate information flow and resources during a natural or human-caused emergency. The EOP also addresses the Department's support roles with federal, State, and local agencies to ensure consistency in emergency operations. The EOP is incorporated by reference into the CTP.

Continuity of Operations/Continuity of Government Plan Disasters impacting the Department's "internal" infrastructure are addressed in the *COOP/COG Plan*. This includes infrastructure used primarily by the Department's employees, such as office buildings and maintenance facilities. The Department recently completed the initial *COOP/COG Plan* in accordance with Governor's Executive Order S-04-06.

The *COOP/COG Plan* describes the Department's strategy for meeting its responsibilities under extreme circumstances and assesses the survivability of the Department's mandated and/or vital services during a natural or human-caused emergency or catastrophic event. The *COOP/COG Plan* incorporates existing plans, procedures, and checklists developed in previous years for responding to natural and human-caused disasters into a single document. The approved *COOP/COG Plan* is also incorporated by reference in this *California Transportation Plan 2030* Addendum.

Among other things, the *COOP/COG Plan* evaluates the Department's ability to perform essential functions; preserves the established line of succession and delegation of authority for key positions within the Department; leverages the Department's current distributed operations as potential alternate locations; maintains essential functions related to communications, and command and control; protects government resources; safeguards the Department's vital files, records, and databases; documents tests, training, and exercises, including a series of table top exercises; assigns responsibility at the established devolution site; and determines the timeline for restoring services depending on the nature and scope of the emergency.

The *COOP/COG Plan* ensures the Department's resources and assets are protected and managed effectively during an incident that directly impacts its internal operations and facilities. It also enables the continuation of the essential functions that support the Department's mission and establishes a process for restoration.

Transit Security-Related Efforts Significant responsibility for strategic security planning and for the reduction of California's vulnerability to terrorism is delegated to the Governor's Office of Homeland Security (OHS). The Department is a key stakeholder to this agency, serving on the Strategic Plan Advisory Task Force to help shape the *California Statewide Emergency Management Strategic Plan*. The Department is also an active participant in several regional and statewide transit security-related planning efforts.

Safety of public transportation has always been a priority for the Department. Following the September 11 terrorist acts and subsequent transit attacks in India, Spain, and Great Britain, this concern for transit security was expanded to include transit systems large and small. The tragic hurricanes of 2005 further broadened transit's vital role in emergency response and recovery from disasters of all kinds.

To properly address the security threats to our public transportation infrastructure, the Department and its partners have encouraged transit operators to develop strategies to reduce the likelihood and impact of threats. These strategies will help first responders and transit agencies respond to incidents in an organized manner, minimize casualties, and quickly restore operations. The Department has conducted a series of emergency preparedness workshops across the State to ensure transit agencies can implement these strategies and coordinate their

activities during emergencies.

The Department conducted a successful emergency preparedness workshop in October 2006. This event resulted in the development of standardized emergency operations plan guidelines for various organizations, including transit agencies statewide. OHS and the Department also hosted the first statewide “Mass Transit Security” seminar. During the seminar, the public transportation sector collaboratively addressed “next steps” issues, identified best practices, and developed coordination improvements to protect California transportation systems from terrorist attacks. The Department will be collaborating in more statewide emergency exercises.

The goal of transit emergency preparedness in the State also includes response to a wide variety of natural hazards and threats, including earthquake, tsunami, wildfire, and flood. Several actions are essential to meeting the transit emergency preparedness needs facing California, including the development of the *Emergency Operations Plans* for transit incident response, and providing technical assistance to rural transit operators with regard to transit security and disaster preparedness. These activities support and augment the Regional Transit Security Strategies of California’s major transit operators.

The transportation infrastructure is one of the critical elements in the *National Infrastructure Protection Plan*. The Department is involved in the plans and training aspects of this effort, which relies heavily on the coordinated actions and communication of many federal, State, and local partners. This cooperation is the cornerstone of the CTP’s strategy for enhancing security, as many agencies are involved in the protection of people, goods, and property including: local, State, and federal agencies (law enforcement, fire, and other emergency responders); port authorities; transit properties; and numerous other agencies.

Port Security in the Goods Movement Action Plan State efforts related to port security are addressed within the GMAP. A number of actions have been taken or are proposed to address this serious concern. One action is the creation of the California Maritime Security Council. The council is comprised of top officials from the US Coast Guard, the Office of Homeland Security, and other key federal and State agencies. A significant challenge continues to be the fact that the federal government preempts potential State actions in many aspects of port security, so funds to address security needs are very limited. Proposition 1B, passed by the voters in November 2006, will build upon existing efforts at the federal, State, and local level by funding security gaps identified by previously conducted port vulnerability assessments.

Intelligent Transportation System Intelligent Transportation System (ITS) planning at the State level provides a strategic approach for identifying key transportation issues addressing public safety and security, critical stakeholders, and possible technology solutions that can be applied.

Included by reference in this update is the *California Statewide ITS Architecture*

and System Plan. This plan and the source *National ITS Architecture Framework (Version 5)* are equipped to address safety as well as security issues.

The *California Statewide ITS Architecture and System Plan* will be consulted in more detail during the next full update of the CTP. At that time, security issues can be further discussed and refined as the stakeholders identified with specific kinds of threats find their issues "mapped out" and technology responses proposed.

SAFETY AS A STAND-ALONE PLANNING FACTOR

The Department led the effort to develop the *California Strategic Highway Safety Plan* (SHSP) to identify key safety needs of the State and strategies to address those needs. The purpose of the SHSP is to guide investment decisions to achieve significant reductions in fatalities and injuries on all of California's public roads.

The California SHSP was approved on September 26, 2006, and will serve as the stand-alone Safety Element for the CTP 2030 Addendum. This element supplements the discussion of safety in the CTP 2025.

An important benefit of an SHSP is the coordination of statewide goals and safety programs to most effectively reduce highway fatalities and injuries. The collaborative process of developing and implementing a State SHSP brings together and draws upon the strengths and resources of all safety stakeholders. This will help the State and its safety partners better leverage limited resources and work together to achieve common safety goals.

To develop the SHSP, a Steering Committee, which included representatives from 18 federal, State, and local entities, was established. A broader Stakeholder Group, consisting of about 200 representatives from 80 different agencies, was also formed to provide much of the content of the SHSP. Finally, the Department held two SHSP summit meetings (one each in northern and southern California) in March 2006. The summits generated feedback and ideas from over 500 additional transportation and safety policy stakeholders. A draft SHSP was then released for public comment and comments were reviewed and incorporated as appropriate.

The California SHSP is organized around the 16 "Challenge Areas" listed on pages 44-45 (**see Figure 9**). Each Challenge Area incorporates consideration of both behavioral and infrastructure strategies to improve safety on public roads. The goals for each Challenge Area were set by the SHSP team based on an analysis of data trends and an assessment of how difficult it would be to reduce fatalities.

Now that the SHSP has been completed, teams have been established for each Challenge Area, as well as other committees, to develop *Challenge Area Safety Needs Action Plans* and a detailed *Strategic Highway Safety Implementation Plan*

(SHSIP). Nearly 300 individuals representing 80 different agencies and organizations will collaboratively develop the SHSIP. The SHSIP will improve safety on all public roads by quantifying safety issues; identifying performance measures and targets; guiding transportation stakeholders to the most effective safety strategies and countermeasures; identifying available funding sources; and providing methods for monitoring and evaluating safety projects and initiatives.

The SHSIP will contain the most effective engineering, enforcement, education, and emergency services strategies and countermeasures for each of the 16 Challenge Areas. Information on the SHSIP and status updates on implementation are available through the *California Strategic Highway Safety Plan* portal at <http://www.dot.ca.gov/SHSP/>. The SHSP will provide a foundation and framework for understanding the long-range actions that will be needed to effectively address California's growing population and the State's evolving traffic safety issues. The approved SHSP is incorporated by reference in this California Transportation Plan.

SAFETEA-LU established a new core Highway Safety Improvement Program (HSIP) that is structured and funded to make significant progress in reducing highway fatalities on all public roadways.

SAFETEA-LU also introduced several other programs to improve safety on public roadways. The legislation provides funding for a new federal Safe Routes to School Program, which supplements the State-legislated Safe Routes to School Program. SAFETEA-LU also introduced a new High Risk Rural Roads (HR3) Program, which provides funding for construction and operational improvements to address safety problems and opportunities on rural major or minor collector roads or rural local roads.

Preventing Collisions Programs that directly improve the safety of transportation users include collision prevention, the mitigation of collision forces (to reduce injuries and property damage), and the effective response to and management of collisions. State, local, non-profit, and private partners are engaged in planning and implementing a wide range of safety programs. The prevention of collisions and other incidents reduces the need for reactive strategies.

Collision prevention programs include roadway infrastructure improvements, enforcement, public education, and vehicular technology. Whether it is enforcement and education about driving under the influence, vehicular stability control, graduated driver licensing, roadway improvements (e.g., signing, rumble strips, intelligent transportation systems), or a myriad of other programs, the prevention of collisions has direct and indirect societal and personal benefits. Collision prevention not only reduces deaths and injuries on our public roadways, but it also reduces direct governmental costs for incident response and management and, at the same time, reduces congestion and motorist delay.

California is actively engaged in the process of developing and prioritizing safety strategies and countermeasures to prevent, mitigate, and respond to collisions as part of the SHSP. Through the proper identification, development, prioritization, and

implementation of appropriate engineering, enforcement, education, and emergency services strategies, the State can achieve multiple traffic safety objectives in addition to collision prevention.

FIGURE 9

California Strategic Highway Safety Plan Challenge Area Goals

Challenge 1: Reduce Impaired Driving Related Fatalities

Goal: By 2010, reduce the number of roadway user fatalities attributed to alcohol and drug use by 15 percent from their 2004 level.

Challenge 2: Reduce the Occurrence and Consequence of Leaving the Roadway and Head-on Collisions

Goal: By 2010, reduce the number of fatalities attributed to vehicles leaving the roadway by 15 percent from their 2004 level.

Challenge 3: Ensure Drivers are Licensed and Competent

Goal: By 2010, reduce the number of fatalities attributed to drivers with no license, invalid license, or not licensed for class of vehicle by 15 percent from their 2004 level.

Challenge 4: Increase Use of Safety Belts and Child Safety Seats

Goal: By 2010, increase statewide safety belt usage from the 2005 level of 92.5 percent to 95 percent, improve the use of child safety seats from 2005 level of 86.9 percent to 90.0 percent, and increase the percent of all vehicle occupant fatalities that are restrained to 70 percent - this is an indicator of higher total “observational” vehicle occupant restraint use, because a higher percentage of vehicle occupant fatalities that are restrained means that a higher percentage of total vehicle occupants are restrained.

Challenge 5: Improve Driver Decisions about Rights of Way and Turning

Goal: By 2010, reduce the number of fatalities attributed to improper rights of way and turning decisions by 10 percent from their 2004 level.

Challenge 6: Reduce Young Driver Fatalities

Goal: By 2010, reduce the number of fatalities attributed to drivers age 15 – 20 by 15 percent from their 2004 level.

Challenge 7: Improve Intersection and Interchange Safety for Roadway Users

Goal: By 2010, reduce the number of intersection crash fatalities by 15 percent from their 2004 level.

Challenge 8: Make Walking and Street Crossing Safer

Goal: By 2010, reduce the number of pedestrian fatalities attributed to vehicle collisions by 25 percent from their 2000 level

Challenge 9: Improve Safety for Older Roadway Users

Goal: By 2010, reduce the number of fatalities attributed to drivers age 65 and older by 10 percent from their 2004 level.

Challenge 10: Reduce Speeding and Aggressive Driving

Goal: By 2010, reduce the number of fatalities attributed to speeding and other forms of aggressive driving by 15 percent from their 2004 level.

Challenge 11: Improve Commercial Vehicle Safety

Goal: By 2010, reduce the number of commercial vehicle crash fatalities by 10 percent from their 2004 level.

Challenge 12: Improve Motorcycle Safety

Goal: By 2010, decrease the number of motorcycle rider fatalities by 10 percent from their 2004 level.

Challenge 13: Improve Bicycling Safety

Goal: By 2010, reduce the number of bicycle roadway fatalities by 25 percent from their 2000 level.

Challenge 14: Enhance Work Zone Safety

Goal: By 2010, reduce work zone fatalities by 10 percent from their 2004 level.

Challenge 15: Improve Post Crash Survivability

Goal: By 2010, reduce crash-related fatalities in California at least 5 percent from their 2004 level through focused improvements in Emergency Medical Services (EMS) system communications, response and safety education.

Challenge 16: Improve Safety Data Collection, Access, and Analysis

Goal: Improve the quality, timeliness, accessibility, and usefulness of traffic safety data.

Source: California Strategic Highway Safety Plan, 2006.

Tribal Issue As stated in the SHSP, “*The importance of timely, accurate, and consistent collision data cannot be emphasized enough. The who, what, when, where, why, and how of crashes need to be recorded in a uniform and consistent format statewide.*” The SHSP points out that good data is lacking in many areas and includes Challenge Area 16, “Improve Safety Data Collection, Access and Analysis,” to address this issue.

A key implementation issue for this challenge area was raised during consultation with Tribal Governments on this Addendum. Tribal Government representatives noted that traffic safety data is unavailable or limited for Tribal roads. The California SHSP directs the State to “*identify if or where data are missing that affects project development and implementation.*” In order for projects on tribal

roads to compete with all other safety needs, collision data affecting tribal roads will need to be collected.

INCLUDE OPERATIONS AND MANAGEMENT STRATEGIES

SAFETEA-LU directs that the long-range statewide transportation plan include operations and management strategies, investments, procedures, and other measures to ensure the preservation and most efficient use of the existing transportation system.

One of the goals of the current CTP is to “Preserve and Maintain the Transportation System.” This goal is being implemented through the transportation component of the Governor’s *Strategic Growth Plan* represented graphically as the “Mobility Pyramid” depicted in **Figure 10**. This pyramid provides a strategic framework for investing in California’s “complete transportation system.”

The *Transportation Management System (TMS) Master Plan* concepts guided the early development of the Mobility Pyramid. The SGP is based on a key premise that investments in mobility throughout the State’s multimodal transportation system yield significant improvements in congestion relief. The Mobility Pyramid outlines the strategies to be used to achieve the outcome of reduced congestion.

The base of the pyramid is as important as the apex. System monitoring and preservation are a basic foundation upon which other strategies are built. System expansion and completion will provide the desired mobility benefits to the extent that investments in and implementation of the strategies below it establish a solid platform. Operational improvements, Intelligent Transportation Systems, traveler information, traffic control, and incident management and prevention will directly benefit mobility while reducing demand for transportation resources. Existing strategies, including strategies that support operational improvements and incident management, will be reviewed during the next update of the CTP in 2008.

The complete transportation system approach of the pyramid is fully dependent on transportation planning strategies that create a collaborative working environment and promote a comprehensive methodology

to reduce congestion, improve mobility, and enhance safety.

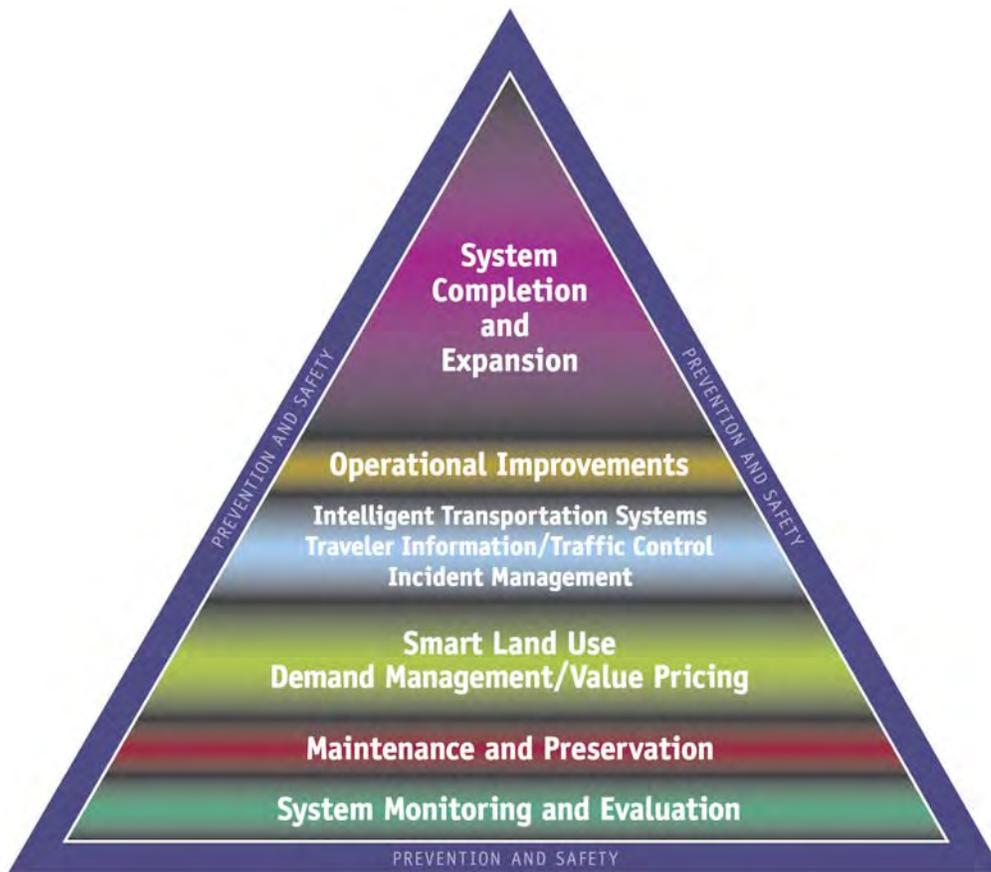
“The Strategic Growth Plan is a historic and comprehensive infrastructure investment package, and the transportation component of the plan will decrease congestion, improve travel times and increase safety, while addressing economic and population growth.”

Will Kempton, Director

California Department of Transportation

FIGURE 10

Mobility Pyramid: Transportation Component of Governor's *Strategic Growth Plan*



Source: GoCalifornia (pyramid modified October 2007).

The Department, with the MPOs, will prepare *Corridor System Management Plans* (CSMPs) to support the strategies for this complete transportation system management approach. The CSMP provides a multi-disciplinary and multi-functional approach through all stages of plan development including representatives from: traffic operations, planning, maintenance, and enforcement; other functions such as design, programming, project management, and environmental; and regional transportation planning agencies, congestion management agencies, and modal operators.

The final plans will ultimately be a comprehensive guide for managing, operating, and improving transportation corridors among all the partners, and provide the basis for prioritizing improvement timing and resources. The Department will use the plans to assess current performance and to identify causal factors for congestion. Based on testing of alternative improvement scenarios (typically

through micro-simulation or macro-simulation), the Department will then propose the best mix of improvements, strategies, and actions to enhance movement, improve travel times, increase reliability, improve safety, and preserve resources within the corridors.

The CSMP supports the SAFETEA-LU provisions for increased emphasis on system and corridor management and performance measurement in metropolitan transportation plans as well as for real-time traveler information. The California Transportation Commission requires the submission of CSMPs for those corridors with Corridor Mobility Improvement Account funding under the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of 2006.

Accountability The Governor’s Executive Order S-02-07 establishes guidelines and procedures for spending the bond funds efficiently, effectively, and in the best interests of Californians. It also directs the Department of Finance to create a web site to provide public access to information on how bond proceeds are being utilized. The Department has established a web-based three-part accountability structure for the infrastructure bonds that includes *Front-End Accountability*, *In-Progress Accountability*, and *Follow-Up Accountability*.

The Mobility Pyramid includes System Monitoring and Evaluation as its foundation and, therefore, strongly supports accountability. Efforts to expand and improve monitoring and evaluation capabilities will provide information to monitor and measure system performance, direct transportation spending to the most effective mix of investments, and assess effectiveness of these choices. Improved real-time data collection through implementation of more robust monitoring systems like the *Performance Measurement System (PeMS)* is key to knowing how the system is performing, establishing performance measures, and increasing accountability for spending transportation bonds and other transportation dollars efficiently and effectively for the highest mobility outcomes.

INCLUDE PEDESTRIAN WALKWAYS AND BICYCLE FACILITIES

SAFETEA-LU requires that investments in pedestrian walkways and bicycle transportation facilities be specifically listed within programming documents. Walking and bicycling are also addressed in the recently adopted California SHSP. Two of the 16 Challenge Areas within the SHSP address pedestrians and bicyclists, and a third identifies the data collection requirements to support these and other transportation modes. More importantly, the Department is developing a separate, stand-alone *Bicycling and Walking Element* to the CTP.

CONSULTATION WITH NON-METROPOLITAN LOCAL OFFICIALS AND TRIBAL GOVERNMENTS

SAFETEA-LU reaffirmed the requirement for consultation with the RTPAs and Tribal Governments to ensure that rural and tribal issues are addressed. This requirement provides an opportunity to begin addressing these consultation issues in this Addendum and to commit to resolve those issues (and any newly identified issues), in the next full CTP update scheduled in 2008.

Consultation to Date The agencies and tribes consulted with in the development of the current CTP are listed in the public participation section (Appendix IV of the CTP 2025). Potential stakeholders identified by SAFETEA-LU have been consulted for this CTP Addendum and they will be included in all future CTP updates. Many of these stakeholders also participated in the consultation meeting in January 2007.

During the development of this Addendum, consultation sessions were held with each MPO and RTPA non-metropolitan planning organization throughout the State, as well as with Tribal Governments. The issues they raised are addressed below.

Addressing Rural Issues While the current CTP addressed a number of rural issues, this Addendum reaffirms the importance of the Interregional Road System to the rural counties as the backbone for the rural transportation system; emphasizes importance of Focus Routes and High Emphasis Routes for goods movement; and recognizes the critical linkage that East/West connector routes provide to economic prosperity.

Addressing Tribal Government Consultation Issues The Department will continue to enhance ongoing consultation efforts with Tribal Governments, in order to ensure their perspectives and issues are addressed in this update or, as appropriate, in the next full update to the CTP. Tribal Governments were represented on the Policy Advisory Committee that guided the development of this Addendum. They also participated in the consultation meeting to begin addressing SAFETEA-LU on January 17, 2007. Tribal Governments were also consulted at the Native American Advisory Committee (NAAC) meeting in Woodland on February 21, 2007. Finally, the Department consulted with Tribal Governments at three regional meetings statewide (in the north, central, and south regions) in early 2007 in order to ensure their perspectives and issues are addressed in this update or, as appropriate, in the next full update.

OTHER SAFETEA-LU OPPORTUNITIES

Coordinated Public Transit-Human Services Transportation Plans Receipt of three significant federal transit program funds – Federal Transit Administration Sections 5310, 5316, and 5317 – is contingent upon having a locally developed coordinated public transit-human services transportation plan (coordinated plan). The State, in its role as the designated recipient for these funds, must certify that projects selected for funding are derived from a coordinated plan. Fulfilling this federal mandate ensures that projects receiving these funds minimize service duplication, thereby enhancing human services transportation statewide. The Department has contracted with a consultant to develop a template to be used by the RTPAs in preparing these coordination plans. The MPOs will be developing their own plans.

California State Rail Plan Update The *California State Rail Plan* was approved in late 2005 and highlights some significant problems with maintaining and expanding the rail infrastructure to meet burgeoning cargo flows into the State. Changes brought about by SAFETEA-LU may provide credit mechanisms to allow railroads to build for the future. The next version of the *California State Rail Plan* is under development, and will include discussion of the Department's vision for the intercity rail passenger service and the changes made possible in goods movement by SAFETEA-LU. The *California State Rail Plan* helps chart policy for the State, and is incorporated by reference into the *California Transportation Plan*.

**CALIFORNIA
TRANSPORTATION
PLAN 2030**

The logo for the California Transportation Plan 2030. It features the words "CALIFORNIA", "TRANSPORTATION", and "PLAN" stacked vertically in a bold, dark blue, sans-serif font. To the right of "PLAN" is the year "2030" in a large, bold, orange font. Behind the "2030" is a stylized sunburst graphic with multiple triangular rays of varying lengths, also in orange.

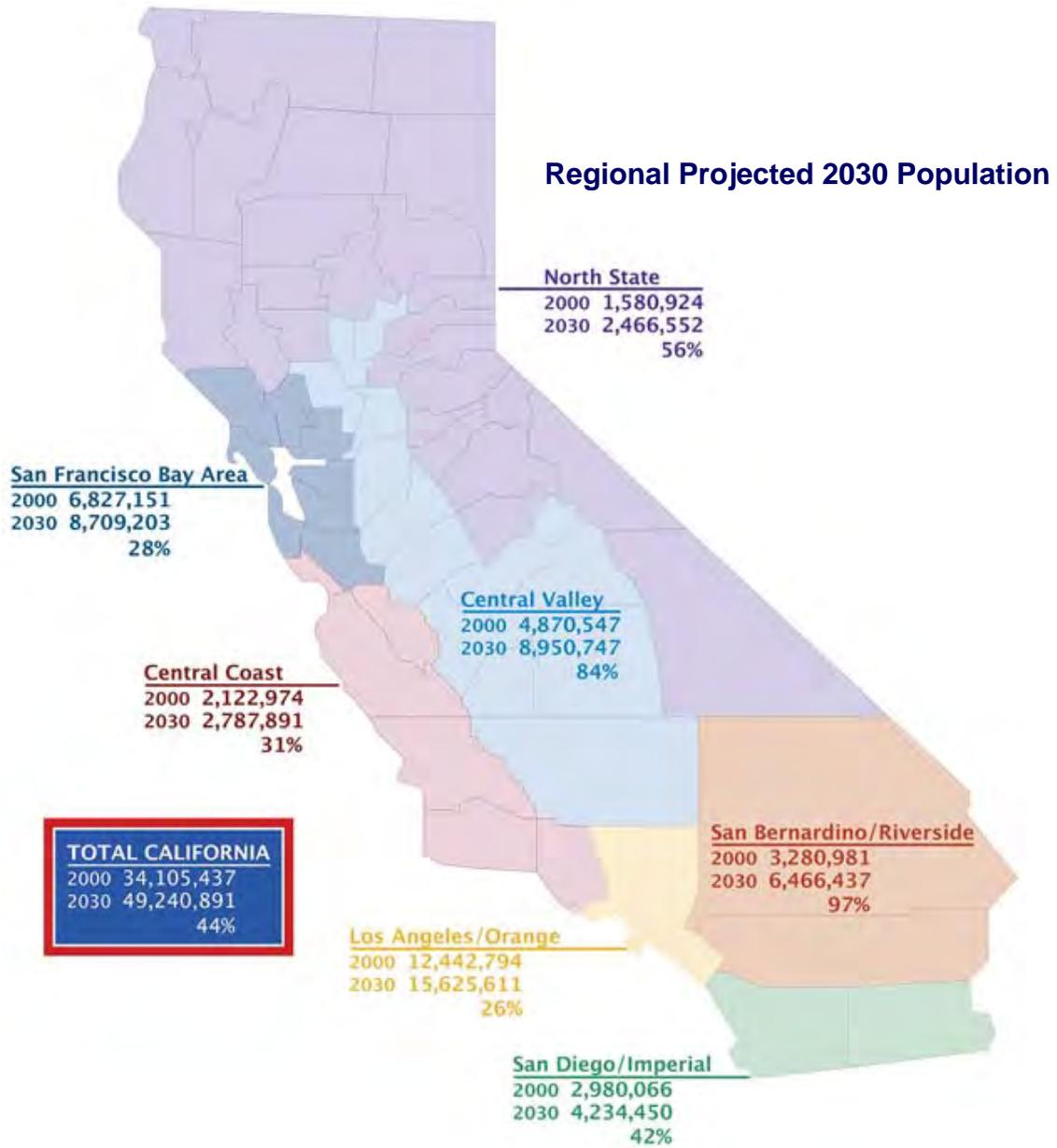
APPENDICES

October 2007

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APPENDIX I

POPULATION MAP



Source: State of California, Department of Finance, Population Projections for California and Its Counties 2000-2050, Sacramento, California, July 2007.

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**DISTRICT BOUNDARIES
 AND
 MAILING ADDRESS**

January 2004

2007 California Department of Fish and Game Regions





BIOREGIONS

- Bay/Delta
- Colorado Desert
- Modoc
- Mojave
- Klamath/North Coast
- Sacramento Valley
- San Joaquin Valley
- Sierra
- Central Coast
- South Coast

The Interagency Natural Areas Coordinating Committee (INACC) bioregion boundaries represent both biological and physical aspects of the environment.



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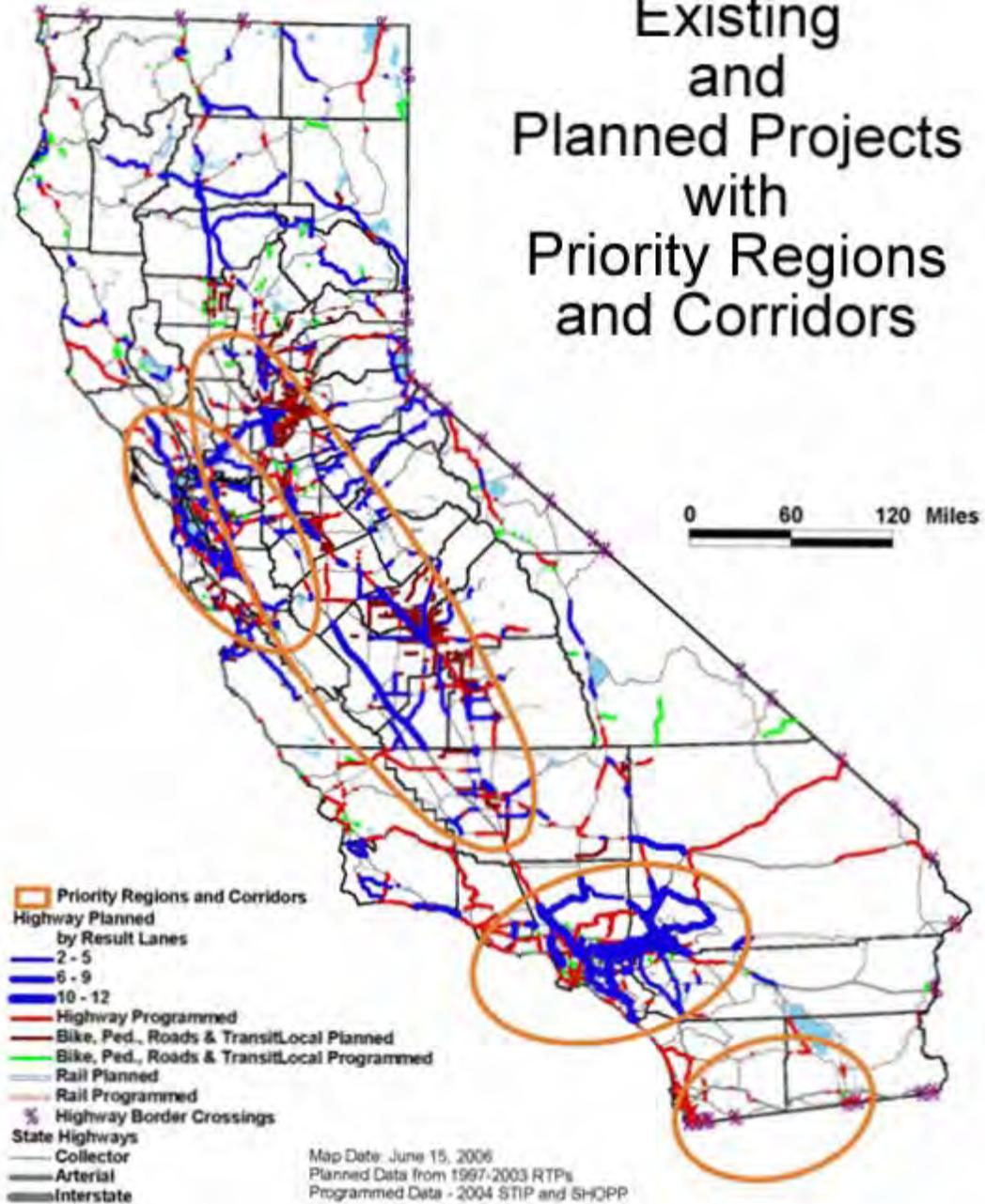
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 CA Dept of Fish and Game

APPENDIX III

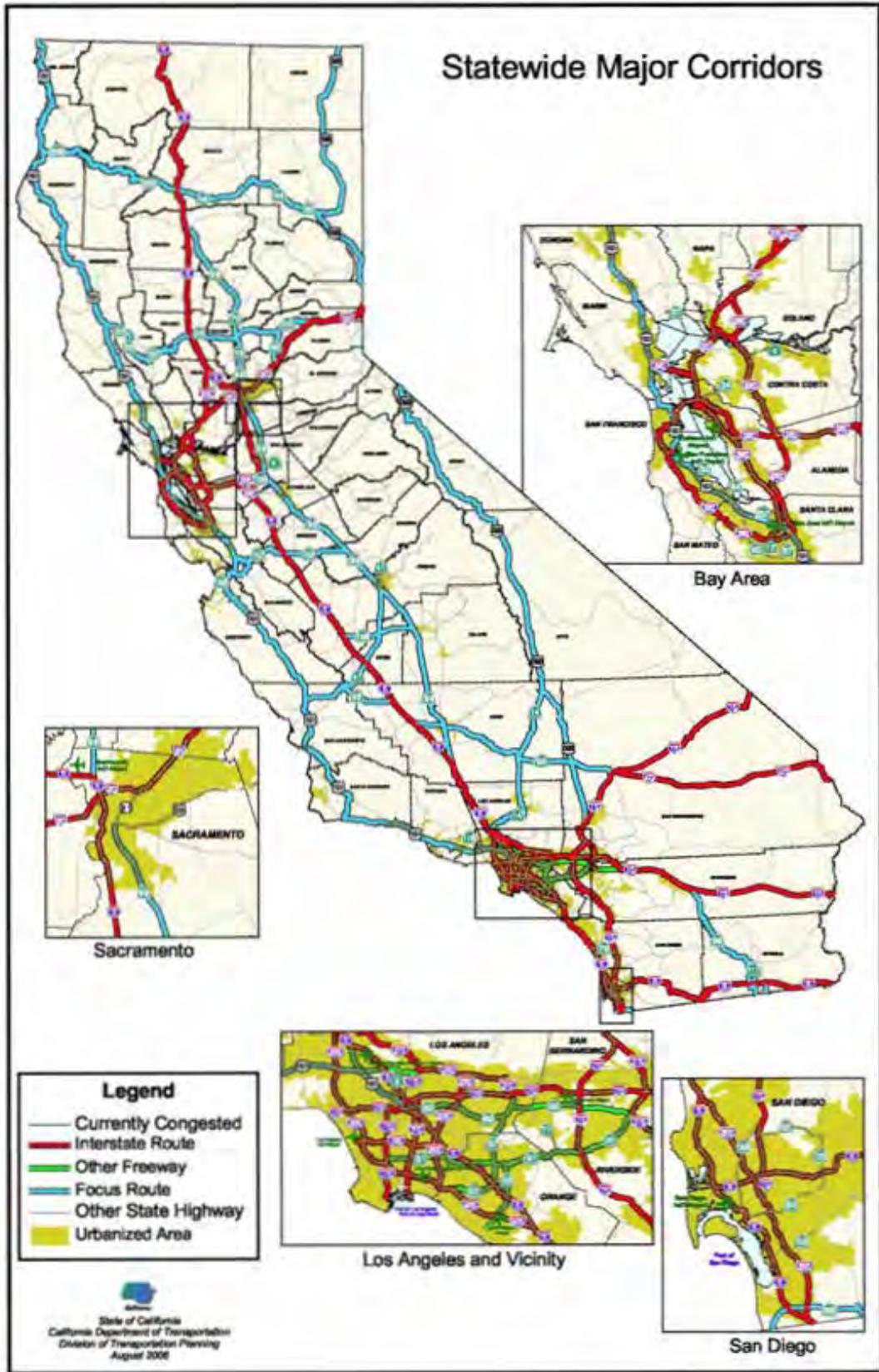
SAMPLE MAPS FOR CONSULTATION AND COMPARISON

DRAFT

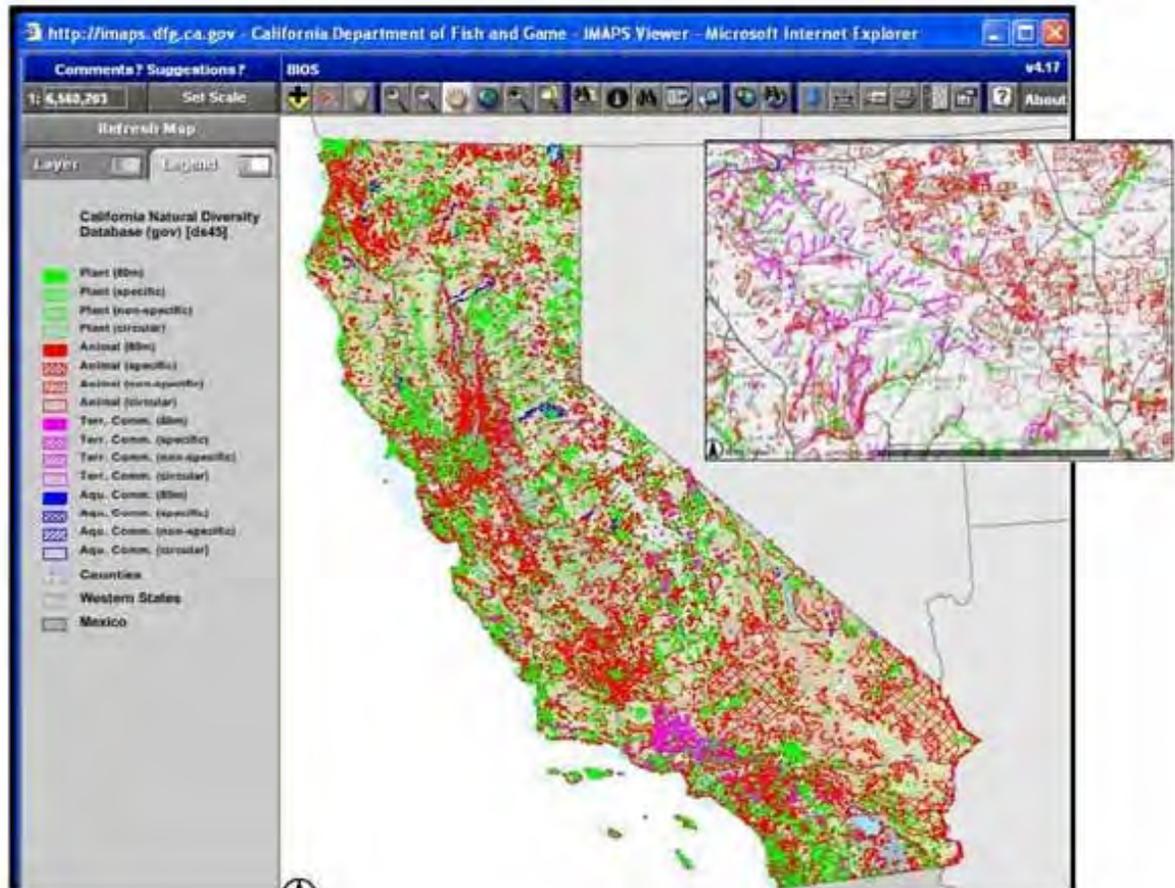
Existing and Planned Projects with Priority Regions and Corridors



Statewide Major Corridors



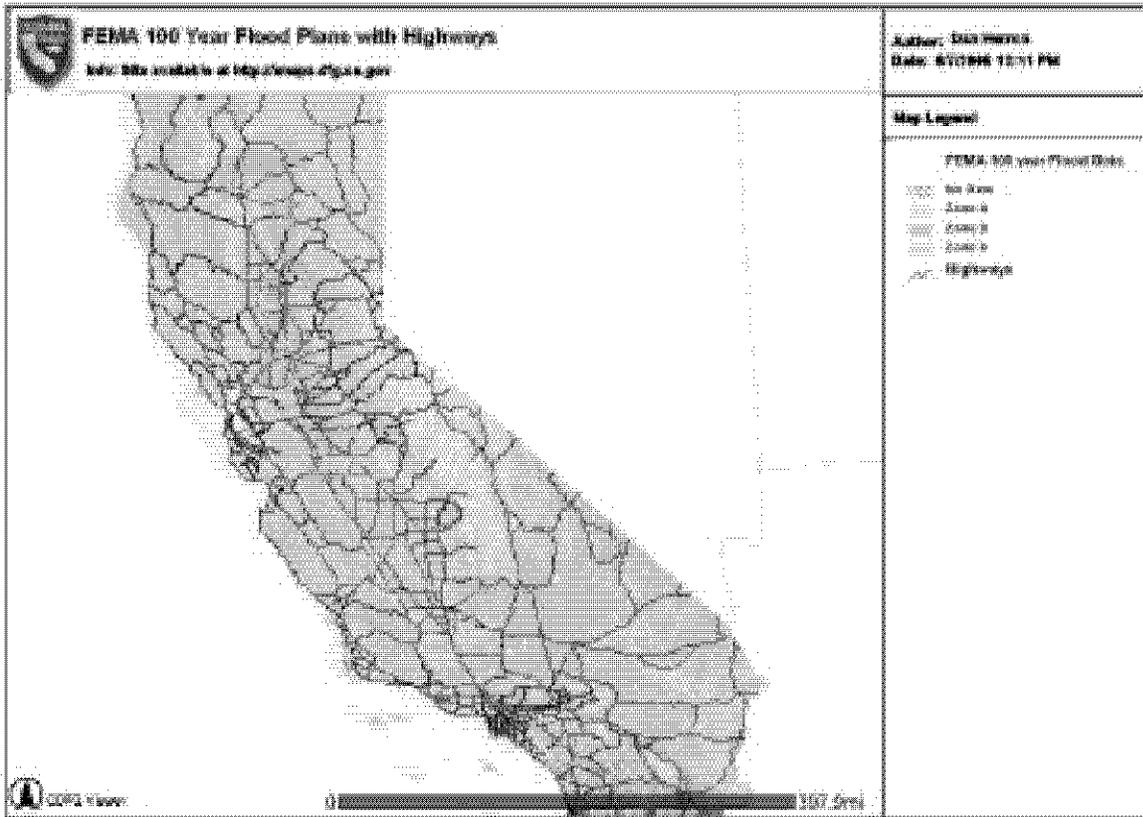
Screenshot of DFG California Natural Diversity Database (CNDDDB)





IMPORTANT FARMLAND IN CALIFORNIA, 2004







STATE OF CALIFORNIA

LAND COVER Multi-Source Data Compiled for Forest and Range 2003 Assessment

- | | | |
|----------|------------|--------------|
| CONIFER | Shrub | Agriculture |
| Forest | Herbaceous | Urban |
| Woodland | Wetland | Barren/Other |
| HARDWOOD | DESERT | Water |
| Woodland | Shrub | Not Mapped |
| Forest | Woodland | |

This map compiles data from multiple sources at varying scales, resolutions and classification systems that have been cross-referenced to the California Wildlife Habitat Assessment system (CWHA). Sources include CDF-FRAP, USFS Remote Sensing Lab, Dept. of Fish and Game, CDF, Chico National Park Service, Dept. of Conservation - Forests Mapping and Monitoring Program, Dept. of Water Resources Land Use - Statewide Planning and UC Santa Barbara - Gap Analysis Program. For a detailed description of these data and methods please visit [http://frapoff.cdf.ca.gov/frap_vgn/index.html](http://frapoff.cdf.ca.gov/frap/frap_vgn/index.html).



This State of California, a public department of Forests and Fire Protection, holds no responsibility or liability regarding the accuracy or quality of the data. Neither the State nor its employees shall be liable for any consequences for any direct or indirect use of the information provided and released by any person in any way or for any person's reliance on the accuracy or quality of the data or maps. © 2003 FRAP. All rights reserved. For more information, please contact: Department of Forests and Fire Protection, 1515 Clay Street, Sacramento, CA 95833, 916.227.1200. FRAP Manual Page #02.3

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APPENDIX IV

COLLABORATIVE PLANNING CONCEPT

		Goals	Actions	Processes/Plans	Products	Desired Outcomes
Collaborative Planning	Slate-Level Interagency Collaboration	Develop Collaborative Planning Framework Demonstration of successful conservation/transportation planning integration Leverage existing efforts to improve tools, enhance regional capacity for collaboration	Establish Interagency Collaborative Planning Team	Collaborative Planning Capacity Assessment: ID leaders, goals, participants, common issues, interrelationships, lead up to initial stakeholder issue framing meeting	Collaborative Planning Framework: On-going framework/forum for integration of transportation/environmental/housing/community development, planning process and community input Engagement of stakeholder agencies, resources agencies, private industry, communities in long-term collaboration	On-going integrated planning framework with State involvement for better infrastructure investment decisions and expedited project delivery Ensure data and tools developed in transportation/habitat planning process are available for regional and local planning processes
Regional and Local Government	RTPA's, Local Government Agencies & Decision Makers	Input from habitat/transportation streamlining effort to inform development of RTPs, RTIPs, housing elements, general plans, growth models and mapping tools		On-going planning processes: RTPs, RTIP, housing elements, general plans, MERCED PIP, Cumulative Impacts Group, Fresno SR 99 Beautification, SR 99 Master Plan Participate in collaborative capacity assessment	RTPs/EIRs/RTIPs in 2007/2008 will have fuller consideration of environmental preservation and have data and tools for integration of transportation/habitat planning and three E's	On-going communication and input from regional/local government and community development leadership to regional transportation planning process
Community Development	Central Valley Community Development Leadership	Economic development Environmental justice Sense of place Agricultural character Aesthetics Quality of Life		On-going community leadership and planning processes: Hwy 99 Main Street Regional Strategy San Joaquin Valley Growth Response Others	Involvement in the transportation/habitat planning process Incorporation of community values in the processes	More environmentally sensitive land use and economic development patterns leading to better quality of life Jobs and affordable housing

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APPENDIX V

RESOURCES FOR TRANSPORTATION PLANNING AND ENVIRONMENTAL PLANNING DATA

The screenshot shows the 'RESOURCES' page of the California Transportation Plan 2030 website. At the top left is the 'CALIFORNIA TRANSPORTATION PLAN 2030' logo with a sun icon. Below it is a welcome message: 'Welcome to the California Transportation Plan'. A navigation bar contains links for HOME, CONTACT, MEETING, FACT SHEET, PIW, PLAN, and 2030. The main content area is titled 'The California Transportation Plan Transportation Planning' and 'Environmental Planning'. It includes a paragraph about GIS resources, three sub-sections with links: 'Data Collection, Libraries and Clearinghouses', 'Regional GIS Analysis Examples in California', and 'Interactive Mapping Sites', and a 'Related Helpful Links' section. A right-hand sidebar contains 'NEWS & EVENTS', 'CONSULTATION MEETING', 'POLICY ADVISORY COMMITTEE (PAC)', and 'PUBLIC INFORMATION WORKSHOP (PIW)'. At the bottom right is a 'CALIFORNIA TRANSPORTATION PLAN 2030' logo.

CALIFORNIA TRANSPORTATION PLAN 2030

Welcome to the California Transportation Plan

[HOME](#) [CONTACT](#) [MEETING](#) [FACT SHEET](#) [PIW](#) [PLAN](#) [2030](#)

RESOURCES

The California Transportation Plan
Transportation Planning

Environmental Planning

If you are a transportation planner unfamiliar with GIS, we recommend you contact your in-house GIS staff to see if you already have some of this data available in your office. Please note these links are frequently updated by their respective owners, while we update this page regularly, some links may have changed.

[Data Collection, Libraries and Clearinghouses](#)
The URL's in this collection link to a variety of California State map data sources that may prove useful to transportation planners. Most of the webates provide access to geographic data as downloadable geographic information system (GIS) files, or they permit you to browse GIS files online.

[Regional GIS Analysis Examples in California](#)
The URL's in this collection link to a variety of state projects that utilize GIS analysis.

[Interactive Mapping Sites](#)
GIS display pages permit you to build a view of a region using data layers held on the host machine, but not necessarily available for download.

[Related Helpful Links](#)

NEWS & EVENTS

[CONSULTATION MEETING](#)

[POLICY ADVISORY COMMITTEE \(PAC\)](#)

[PUBLIC INFORMATION WORKSHOP \(PIW\)](#)

CALIFORNIA TRANSPORTATION PLAN 2030

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