

CALIFORNIA BUSINESS TRANSPORTATION AND HOUSING AGENCY
PERFORMANCE IMPROVEMENT INITIATIVE

Review of the California Department of Transportation (Caltrans)

Transportation Expert Review Panel
***DRAFT* Report of Recommendations**
March 26, 2004

CHANGING THE CULTURE OF TRANSPORTATION
Transforming Caltrans: Becoming an Accountable, Nimble, Flexible
Organization, Responsive to its Partners

Executive Summary

The Transportation Expert Review Panel submits this Report of Recommendations for the California Department of Transportation (Caltrans) as part of the Performance Improvement Initiative to the Business, Transportation and Housing Agency Secretary. The Panel evaluated the Department's mission, goals, primary outcomes, deliverables and products, operational performance and metrics, ongoing performance improvement efforts, and external constraints on performance. The Panel also engaged Department stakeholders on their ideas for performance improvements and reactions to draft recommendations.

The Panel offers performance improvement recommendations for the purpose of "Changing the Culture of Transportation." It is our intent to "Transform Caltrans to become an Accountable, Nimble, Flexible Organization, that is Responsive to its Partners." These recommendations are in conformance with the Department's mission of "Caltrans Improves Mobility Across California."

Our recommendations are oriented around three themes of changes that must occur to improve or enhance the Department's performance in carrying out its mission (Table A):

1. Moving to Local Centered Decision Making
2. An Activity Oriented Organization
3. Operating as an Effective Entrepreneurial Business

Under each theme we identify the behavioral changes desired, the outcome intended and the actions to achieve those outcomes with the ambition to create a greater business-to-business relationship between Caltrans and its partners.

The Department reviewed the Panel's recommendations and proposes short-term actions and identifies responsible parties, timelines and constraints/challenges to achieving those actions (Table B).

The Panel recognizes that financing policies and procedures are needed to implement these recommendations to transform Caltrans. Many of the ideas that were considered as part of the Panel's deliberation are incorporated in the special white paper report on "Innovative Infrastructure Finance" to the Secretary of the Business Transportation and Housing Agency from the Keston Infrastructure Financing Panel at the University of Southern California, a parallel activity to the Expert Review Panel.

CHANGING THE CULTURE OF TRANSPORTATION (Table A)

Transforming Caltrans: Becoming an Accountable, Nimble, Flexible Organization, Responsive to its Partners

Recommendations

MOVING TO LOCAL CENTERED DECISION MAKING	AN ACTIVITY ORIENTED ORGANIZATION	OPERATING AS AN EFFECTIVE ENTREPRENEURIAL BUSINESS
<p><u>Behavioral Changes</u></p> <ul style="list-style-type: none"> • Collaboration and Shared Accountability <ul style="list-style-type: none"> – Caltrans and Its Partners Support Guiding Principles, as Set Forth in SB45 and AB69 – Caltrans Will Work with Other State Agencies to Accomplish State Goals – Placing Authority and Accountability at the Level of Ability, within Caltrans and with Its Partners • Caltrans and Its Partners Must Secure Stable and Long Term Funding <ul style="list-style-type: none"> – Utilize User/Beneficiary System of Finance – Maximize and Protect Existing Fund Sources (e.g., Prop 42, Local Sales Tax Measures) – Aggressively Explore Alternative Funding Sources (i.e., Private Finances) <p><u>Outcome</u></p> <ul style="list-style-type: none"> • Improve Mobility of People and Goods Across California <ul style="list-style-type: none"> – Support 3 E's of Economy, Equity, Environment (AB857) – Collaboration Across Infrastructure Sectors (AB1473) • Improve Linkages Between Jobs, Housing, Land Use and Transportation 	<p><u>Behavioral Changes</u></p> <ul style="list-style-type: none"> • Activity Centered Instead of Being a Functional Organization • Organize Around Business Activities • Results Oriented • Life Cycle Analysis and Decision Making • Reward/Incentives Driven Results for All Participants <p><u>Outcome</u></p> <ul style="list-style-type: none"> • New Organizational Model Based on Best Practices 	<p><u>Behavioral Changes</u></p> <ul style="list-style-type: none"> • Caltrans to Operate More Like a Business <p><u>Outcome</u></p> <ul style="list-style-type: none"> • Caltrans Achieves Outstanding Customer Satisfaction • Caltrans Contributes to California's Economic Vitality • Funding and Budgets Are Implemented to Maximize Benefit/Cost, Reliability, and Performance • Caltrans Performance to Be Gauged by Goal Performance Measures and Fiscal Responsibility

CHANGING THE CULTURE OF TRANSPORTATION (Table A)

Transforming Caltrans: Becoming an Accountable, Nimble, Flexible Organization, Responsive to its Partners

Recommendations

MOVING TO LOCAL CENTERED DECISION MAKING	AN ACTIVITY ORIENTED ORGANIZATION	OPERATING AS AN EFFECTIVE ENTREPRENEURIAL BUSINESS
<p><u>How to Achieve Outcomes</u></p> <ul style="list-style-type: none"> • Develop Critical Systems Performance Measures with CTC and Locals (By 7/31/04) • Allow Caltrans to Meet Obligations to its Partners <ul style="list-style-type: none"> – Establish the Budget Based on Commitments To its Partners and Provide Flexibility within That Budget (Program and Fund Estimate Should Establish Budget Consistent with Existing Law) – Authorize Caltrans to Access and Retain Appropriate Resources (Staff, Contracts, Tools) to Meet Commitment to Partners. • Remove Constraints in Order to Improve Performance/Minimize Costs • Develop Demand Side Management Programs Including Value-Pricing • Enhance Project/District Level Discretion to Support Performance • Assess Performance of All Significant Department Partnerships For Improvement Opportunities • Relinquish/Add/Enhance Functions to Improve Performance • BT&H Should Establish Community Action Teams to Coordinate Transportation Elements of Local Housing Economic Decisions 	<p><u>How to Achieve Outcomes</u></p> <ul style="list-style-type: none"> • Establish a Two-Year Budget Cycle for Caltrans to Take Effect July 1, 2005 <ul style="list-style-type: none"> – Synchronize Programming Cycles with Budget • Emphasize System Enhancement and Performance • Employ Additional Delivery Tools • Enhance Financial Management Systems • Provide Incentives at All Phases 	<p><u>How to Achieve Outcomes</u></p> <ul style="list-style-type: none"> ▪ Establish Caltrans Activities and Transactional Based Performance Measures ▪ Assess Performance of All Significant Department Partnerships for Improvement Opportunities ▪ Utilize “Value Analysis” with Planning and Capital Projects • Fully Implement Effective Data and Management Systems • Promote Access and Use of Enhanced Technology • Allow Flexible Personnel Strategies to Accomplish Performance Goals • Allow Full and Flexible use of Private Sector Resources • Employ National and International Best Practices

CHANGING THE CULTURE OF TRANSPORTATION (Table B)

Transforming Caltrans: Becoming an Accountable, Nimble, Flexible Organization, Responsive to its Partners

Department Response to Recommendations

ACTIONS TO ACHIEVE OUCOMES	WHO	WHEN	CONSTRAINTS/ CHALLENGES
<p>Develop work plan for agreement and implementation of</p> <ol style="list-style-type: none"> 1) System performance outcomes/measures 2) Departmental performance measures 3) Project level performance measures. 	<p>Caltrans - Lead BT&H Agency CTC Regions/MPOs CMAs Transit Operators Airport Operators Seaport Operators</p>	April-Sept. 2004	<p>-Stakeholder agreement on measures to be reported and agreement to report on them.</p> <p>-Ability to gather data; Budget approval required</p>
<p>Budget - Allow Caltrans to meet obligations to its partners and operate as an activity oriented organization.</p> <ol style="list-style-type: none"> 1. Pursue flexible FY 2004/2005 resources for project delivery – Budget based on CTC 2004 Fund Estimate & Programming Documents. 2. Pursue resources for Performance Measures/System Management. 3. Pursue resources for preventative maintenance 4. Develop proposal for two-year budget cycle that is synchronized with programming cycles. 	<p>Caltrans - Lead BT&H Agency Administration DOF Legislature CTC Regions/MPOs</p>	April-Sept. 2004	<p>-Policy and Statutory changes needed</p> <p>-Budget approval required</p>
<p>Develop proposal for increasing delegation and flexibility in using contracting-out resources.</p>	<p>Caltrans - Lead BT&H Agency Labor Unions DGS Regions/MPOs</p>	April-Sept. 2004	<p>Stakeholder opposition - Policy, Constitutional, and Statutory changes needed</p>
<p>Develop proposal to consolidate budget categories and increase financial flexibility for project development support.</p>	<p>Caltrans - Lead DOF Legislature</p>	April-Sept. 2004	<p>Budget approval required</p>
<p>Develop proposal to fully implement Equipment Service Center concept to operate as an effective entrepreneurial business.</p>	<p>Caltrans - Lead DOF Legislature</p>	April-Sept. 2004	<p>Budget approval required, position control, procurement restrictions</p>

CHANGING THE CULTURE OF TRANSPORTATION (Table B)

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Department Response to Recommendations

ACTIONS TO ACHIEVE OUCOMES	WHO	WHEN	CONSTRAINTS/CHALLENGES
Develop proposal for increasing delegations to provide for flexible resources (e.g. Position Control, Hiring Freeze Exemptions, Establishing CEAs, Streamline Classification Plan, etc.).	Caltrans - Lead BT&H Agency Administration DOF Legislature DPA CTC SPB Labor Unions DGS	April-Sept. 2004	Stakeholder Opposition, Policy and Statutory Changes
Develop stewardship agreements within Caltrans to increase delegations with accountability measures to move toward local centered decision-making.	Caltrans - Lead	April-Sept. 2004	Liability, Safety, Consistency, Standards, Staff Abilities
Develop draft collaboration agreements defining roles, responsibilities and accountabilities covering the exchange of information, products and services between USDOT, Caltrans, Regions/MPOs; include partnering mechanism to continuously monitor effectiveness of relationship and performance of all partners (i.e. SB 45 MOU).	Caltrans - Lead Regions/MPOs CMAs USDOT	April-Sept. 2004	Partnering is a new model for agencies involved
Request Additional Delivery Tools: 1. Request Design Sequencing authority 2. Develop criteria for Design Build implementation 3. Expansion of Programmatic Agreements	Caltrans – Lead BT&H Agency, AGC, SCCA, EUCA, Small Business, PECG, Resource Agencies	1. April-Sept. 2004 2. April-Sept. 2004 3. Ongoing	Stakeholder Opposition, Policy and Statutory Changes

CHANGING THE CULTURE OF TRANSPORTATION (Table B)

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Department Response to Recommendations

ACTIONS TO ACHIEVE OUCOMES	WHO	WHEN	CONSTRAINTS/ CHALLENGES
<p>Emphasize System Enhancement And Performance:</p> <ol style="list-style-type: none"> 1. Initiate dialogue on increasing effectiveness of review of local Government land development decision proposals to mitigate impacts to transportation system and promote land use/housing/transportation linkage (IGR/CEQA). 2. Develop proposal to integrate life cycle cost analysis into transportation investment decision making. 3. Implement Design, Build, Operate & Maintain strategy with private industry to implement technology as part of 2005 ITS World Congress. 	<p>Caltrans - Lead Regions/MPOs CTC DOF Private Industry DGS</p>	<ol style="list-style-type: none"> 1. April-Sept. 2004 2. April-Sept. 2004 3. July 2005 	<p>-Historic reluctance of regions to engage in local development review despite impacts to transportation investments</p> <p>-Resistance to use regionally designated money for total cost of transportation improvements</p> <p>-Budget approval required</p>
<p>Promote Access And Use Of Enhanced Technology and Financial Management Systems.</p> <p>Develop proposal to delegate Feasibility Study Report (FSR) approval to the Director based upon agreed upon criteria.</p>	<p>Caltrans – Lead BT&H Agency DOF Administration</p>	<p>April-Sept. 2004</p>	<p>Stakeholder Opposition, Policy and Statutory Changes</p>
<p>Establish best practices in performance with attention paid to national and international practices.</p>	<p>Caltrans – Lead Research Partners National/International Organizations</p>	<p>Sept. 2004-March 2005</p>	<p>-Budget approval required</p> <p>-CA scaled activities comparable to nations not states.</p> <p>-Aligning activities & resources in accordance with performance outcomes.</p>
<p>Develop Governors Executive Order charging BTH with establishing “Community Solution Teams” of appropriate state agencies to coordinate state assistance to local agencies in areas of “smart growth”, housing, healthiness, economic and infrastructure development.</p>	<p>BT&H Agency - Lead Resources Agency CalEPA Health and Human Services Caltrans</p>	<p>April-Sept. 2004</p>	<p>State agencies not used to speaking with on coordinated voice; local government may not know how to react</p>

Appendices

Expert Review Panel Members
Expert Review Panel References
Stakeholder Comments
Department Primary Outcomes

Expert Review Panel Members and Workshop Participants

Expert Review Panel Members

Title	First	Last	Job Title	Company
Dean	Daniel A.	Mazmanian	C. Erwin and Ione L. Piper Dean and Professor	School of Policy, Planning, and Development University of Southern California
Mr.	Gary	Gallegos	Executive Director	San Diego Council of Governments
Mr.	Tim	Cremins	Director of Education & Research	California-Nevada Conference of Operating Engineers
Mr.	Chuck	Center		California State Council of Laborers
Mr.	Eric	Haley	Executive Director	Riverside Transportation Commission
Mr.	Mike	Evanhoe		
Ms.	Joy	Dahlgren		
Mr.	Thomas V.	McKernan	President & CEO	Automobile Club of Southern California
Mr.	Jim	Pouliot	President & CEO	California State Automobile Association
Mr.	Donald H.	Camph		Aldaron, Inc.
Mr.	Paul	Albritton		Mackenzie & Albritton LLP
Mr.	Hans W.	Korve	President	Korve Engineering
Mr.	John	Barna	Vice President	Planning Company Associates

Expert Review Panel Members

Title	First	Last	Job Title	Company
Mr.	Robert	Wolf	President	Germania Corporation
Mr.	Robert	Poole	Director of Transportation Studies	Reason Foundation
Mr.	Bill	Gray	Founder & Chairman	Gray Bowen & Company
Mr.	Roger A.	Kozberg		J & H, Marsh & McLennan
Mr.	Andrew L.	Poat	Director of Government Relations	City of San Diego
Mr.	David G.	Ackerman	Partner	Apex Group
Mr.	Mark	Watts	Partner	Smith, Watts & Company
Mr.	Thomas E.	Barron	Executive Vice President	PARSONS
Mr.	Wally	Baker	Senior Vice President Economic and Public Policy Consulting	Los Angeles County Economic Development Corporation

Workshop Participants

Title	First	Last	Job Title	Company
Mr.	Kirk	Lindsey	Commissioner	California Transportation Commission
Mr.	John	Ferrera	Deputy Secretary for Transportation	BT&H Agency
Mr.	David	Dowall	Director	Institute of Urban & Regional Development University of California Berkeley
Ms.	Diane	Eidam	Executive Director	California Transportation Commission
Mr.	Robert	Brown	Senior Manager Governmental Public Affairs	California State Automobile Association
Ms.	Anne	Drumm	Legislative Representative	Automobile Club of Southern California
Mr.	Tony	Harris	Acting Director	Department of Transportation (Caltrans)
Mr.	Bruce	Behrens	Acting Chief Deputy	Department of Transportation (Caltrans)
Ms.	Bimla	Rhinehart	Deputy Director	Department of Transportation (Caltrans)
Mr.	Bijan	Sartipi	District 4 Director	Department of Transportation (Caltrans)
Ms.	Anne	Mayer	District 8 Director	Department of Transportation (Caltrans)
Mr.	Gregg	Albright	District 5 Director	Department of Transportation (Caltrans)
Mr.	Pedro	Orso-Delgado	District 11 Director	Department of Transportation (Caltrans)
Mr.	Randy	Iwasaki	Deputy Director Maintenance and Operations	Department of Transportation (Caltrans)
Mr.	Brian	Smith	Deputy Director Planning & Modal Programs	Department of Transportation (Caltrans)
Mr.	Mike	Leonardo	Acting Chief Engineer	Department of Transportation (Caltrans)

Expert Review Panel References

Expert Review Panel References

1. Caltrans 2002/2003 Expenditures
2. Caltrans External Customer Survey
3. Document with the poster boards from the Expert Review Panel meeting on February 27, 2004
4. Making Room for the Future: Rebuilding California's Infrastructure by David E. Dowall and Jan Whittington 2003 Public Policy Institute of California
5. LAO analysis of the Governor's 2004/2005 budget in regards to Transportation
6. Excerpts from the Draft California Transportation Plan 2025
7. California Business Transportation and Housing Agency Expert Review Panel Orientation and Organization Meeting Binder 2/27/04
8. Caltrans' Close-Out Report on Stanford Research International's Report as of December 1998.
9. SRI International Evaluation of the Organizational Structure and Management Practices of the California Department of Transportation
10. Change Management in State DOTS by Steve Lockwood Parsons Brinkerhoff
11. California Commission on Building for the 21st Century – Invest for California – Strategic Planning for California's Future Prosperity and Quality of Life - 2001
12. Developing a Vision for Transportation Infrastructure in California: Discussion of Potential Legislative Initiatives and Administrative Reforms – Prepared by John Barna, 11 February 2004, Amended by Don Camph February 24, 2004
13. Metro Investment Report – February 2004

Stakeholder Comments

REVIEW OF THE DEPARTMENT OF TRANSPORTATION (Caltrans)

The Associated General Contractors of California (AGC) is pleased to provide comment to this panel on the Department of Transportation. AGC members perform a substantial majority of the work Caltrans delivers to contract. AGC's membership totals approximately 1,150 construction related firms with over half of the companies conducting business that involves work for the State of California. We recognize we are here to assist the BT&H in its review of departments under its purview, including the Department of Transportation (Caltrans), for the purpose of ensuring the Department is operating in a business-like, customer-friendly manner that is clear, transparent and accountable to the public, the BT&H has enlisted the aid of a blue ribbon, advisory Expert Review Panel.

AGC's comments will be directed toward project delivery. We realize we are partners with the State of California to deliver quality construction projects that are safe, efficient and state of the art infrastructure. We strongly encourage Caltrans to take full advantage of the ingenuity contractors can provide. With that in mind we offer the following discussion items.

Project Delivery Systems

There are three systems contractors are familiar with: design-bid-build, design-build, and design sequencing. There is a place for each process and Caltrans is encouraged to develop criteria for deciding which system is most appropriate for the projects they intend to deliver. There is a finite number of projects that could fit into design-build and design sequencing processes.

Value Engineering and Cost Reduction Incentive Proposals (CRIPS)

The specifications allow for contractors to provide proposal to save the Department money and/or time, but the review process usually is not timely enough to capture the value. The incentive to the contractor usually is not valuable enough to push these proposals very hard. The process needs further review. The low bid process does not allow for much value engineering but design build projects are an avenue to facilitate these gains. These are opportunities to gain from the technical advances of the industry.

Project Schedules and Night Work

The previous administration pushed for the notion of minimizing the inconvenience to the traveling public. This meant that contractors are to do their work at night. This has lead to reduced working hour windows which has reduced productivity, stretched the completion time and created penalties for late lane openings. Most importantly, this has greatly increased the risk for the workers. We recommend allowing contractors be able to accelerate their schedule, take as many lanes as the traveling public will allow and conduct public information programs so the traveling public know the impact of the construction activities. This has proven to be a valuable program in other states and the motorists appreciate having their highway fully open again in a timely manner.

Empower People

It is very frustrating to have a decision made at the field level and have it overturned by upper management. This has led to decision-making paralysis which becomes a disincentive for field level personnel to be part of the process. We would suggest empowering the field staff, support their decisions, right or wrong, and then given them the tools to make a better decision next time. Whether we are considering contract change orders or claims resolution, the quicker a quality decision can be made, the quicker it can be incorporated into the project. Decisions should be made at the lowest possible level.

Review Inter-Departmental Processes for Duplication

There are a few key departments contractors may interface with during the course of a project. Construction is usually the lead contact, but the Toll program, Structures staff or Maintenance may also be involved. Processes and authority should be consistent. Their processes may be different, and their reporting relationships may not be well-connected. Especially in a time of financial reductions, we suggest a review of reporting lines of command and potentials duplication of effort.

Regulations and Compliance

Contractors realize the needs and purpose of regulations. Recently, though, industry has been caught in the cross-fire between a few State departments. The Department of Industrial relations has developed over-reaching prevailing

wage requirements that reach well beyond the site of construction. The monitoring and administration of the ruling is uncontrollable and has put the State and contractors at odds with each other, and subsequently raised the cost of the projects. The Water Resources Board has put forth more stringent storm water pollution prevention requirements, but there is not a uniform manner to bid this part of the work, so the contractors will bid to protect themselves from liability. This will cost more money that could be minimized if the contractor was bidding on items and quantities developed by the design team. Currently, bid items for stormwater pollution preventions are shown in only a few Districts.

Uniformity of Process

Each Caltrans District or Region has be allowed to develop it own personality, which in many instances is good because the needs are different. However, there are a number of project delivery or compliance efforts which are done differently in each District. This means the contractor does not conduct his business the same in each region for the same owner. This uncertainty effects price.

We have, herein, addressed a few opportunities to review and, hopefully, improve the process. Quantifying the value of these notions is difficult, but there will be savings in time, money and resources. We consider ourselves to be a partner with Caltrans and will welcome any opportunity to work them through this endeavor. If we are to enhance mobility in the future, let us capture every opportunity to deliver the most cost-effective projects to the California Public, today.

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March 16, 2004

Expert Review Panel
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Dear Panel Members,

PECG represents the 13,000 Engineers and related professionals in state service, including nearly 9,000 employees at Caltrans. PECG appreciates the opportunity to provide input to the panel, as invited in the Notice of Public Meeting received by PECG on March 11.

The notice refers to a Performance Improvement Initiative and a California Performance Review designed “to improve the effectiveness and efficiency” of state government. Specifically, it would appear the purpose of the Panel, in addressing Caltrans, is to focus on the “efficiency of departmental operations with the goal of achieving optimal cost-effectiveness so that the citizens and taxpayers” will get “a high rate of return on their investment of tax dollars and fees.” PECG’s following comments are intended to address that goal, particularly the aspect of “**optimal cost-effectiveness**” for California citizens and taxpayers.

Caltrans’ organization and operating procedures have received significant attention in recent years. For example, combining Districts into Regions has been an effort to improve operations.

However, far less attention has been focused on **selection of projects**, particularly with respect to whether the projects selected are ones that provide the most public benefit with optimal cost-effectiveness. Since SB 45 was passed in 1997, project selection, even of state highways, has been increasingly delegated to local and regional governments.

Transportation projects should be selected and scheduled based on consideration of uniform comprehensive criteria. For example, in a given geographic area, are the citizens better served with a light rail line, a widened highway, addition of an HOV lane, or some other transportation alternative? What provides the best service at optimal cost?

The **Commission on Building for the 21st Century** (Infrastructure Commission) was created to develop recommendations on various aspects of infrastructure, including transportation. The Commission included a broad cross section of Constitutional Officers, Legislators, state and local government officials, business representatives, union leaders, the courts, universities, builders, environmentalists, and others.

The Commission’s final report was issued on February 27, 2002. It included (on pages 80 and 81) “**a set of criteria and performance measures for evaluating transportation proposals**, geared toward improving project delivery and maximizing investments.” Those criteria included, in alphabetical order, congestion relief; connectivity; convenience/comfort; cost; efficiency; evolving technology; flexibility; individual mobility; longevity; potential future disruption; project delivery; public acceptance; quality of life impacts; safety; speed/travel time; and use of existing capacity.

PECG recommends that the Panel adopt this criteria list, or some other method of evaluating transportation projects in an objective and uniform manner, to ensure that the optimum and most cost-effective projects are selected, funded, and constructed.

In her February 18, 2004 Analysis of the 2004-05 Budget, the Legislative Analyst noted that \$2.2 billion has been diverted from transportation since 2001-02 and an additional \$2 billion would be diverted under current Administration proposals. She also noted (page 13) that: “When the transportation system fails to keep pace with the state’s population and travel demand, traffic congestion worsens. Such delays cost California drivers more than \$4.7 billion in wasted time and fuel a year.”

The **Legislative Analyst recommends** (page A-28) that Caltrans “project delivery **staffing should remain more stable**” than funding from year to year “to ensure that a steady stream of shelf projects is being readied for construction, in anticipation of increased funding in the next few years.” She also notes that “retaining more staff may help to prevent a loss of expertise, ensuring the department’s ability to deliver projects when sufficient funding returns.” She notes that “reducing and rehiring staff to match the funding fluctuations add to project costs and delays.” Specifically, she recommends “a higher level of permanent staff for storm water management” (page 14).

The Commission on Building for the 21st Century also developed a list of sixteen recommendations “to expedite project delivery and ensure effective use of transportation funding.” Among the recommendations was Recommendation 4: “Expand the **reimbursable work** program.” This permits Caltrans to work on “projects for local agencies at their request on a reimbursable basis. This has the potential to accelerate local project delivery and effectively use STIP funds.”

Recommendation 8 states: “Implement authorized **design sequencing**.” This is a concept, which has already been tested, to permit “construction to begin when design of a project phase is completed,” thus “providing contractors with 100 percent complete plans prior to beginning construction of each phase of a project.” This, in PECG’s view, is far more sensible and cost-effective than using Design/Build for transportation projects, an approach which has resulted in many high-profile failures on transportation projects.

PECG recommends implementation of all of the above recommendations regarding maintaining stable staffing during funding shortfalls, expanding the reimbursable work program, and utilizing design sequencing to expedite project completion where appropriate.

Contracting out of governmental services to the private sector is always a contentious issue, and contracting out of Caltrans engineering and related services has been particularly sensitive, contested, litigated, and legislated for many years. In addressing this issue, PECG would urge the Panel to focus on the stated purpose of “optimal cost-effectiveness” and “getting a high rate of return” for California citizens and taxpayers. The Infrastructure Commission Report referenced above included “Recommendation 15: Utilize contracting out when appropriate.” It was noted that existing law authorizes contracting “when the required services are not available within the civil service system.” Further, “awarding contracts based on lowest cost and timely delivery should also be considered” to expedite projects.

The Legislative Analyst observed (page A-49) that “the department is authorized to rely on contracting to accomplish additional workload” in those years “when funding increases significantly and workload expands.” In approving Proposition 35 in November 2000, the people authorized the State of California to exercise choice and authority in contracting out, but also required “better value” for the taxpayers. This approach appears to be in line with this Panel’s goal of “optimal cost-effectiveness.”

As the Legislative Analyst pointed out, when funding drops, Caltrans staff should be maintained to avoid “the loss of staff expertise” which in turn could “lead to more delays in project delivery” in the future. If, in the future, federal or other transportation funding increases, the question will again arise regarding whether Caltrans should hire more staff or contract out more work to private firms.

PECG recommends that “cost-effectiveness” be the primary criterion for making that decision. This is in line with the Infrastructure Commission’s recommendation regarding “awarding contracts based on lowest cost and timely delivery,” the reference to “better value” in Prop 35, and the Panel’s charge to achieve “optimal cost-effectiveness.”

Currently, Caltrans contracting for engineering and related services **is extremely expensive**. Former Caltrans Director Jeff Morales and his staff testified before the Senate Select Committee on Government Oversight on February 18, 2003, that the “loaded cost” of a Caltrans Engineer, including “salaries and benefits and office expenses” and other costs, is \$92,000 per year. The current state budget authorizes \$168,000 per year for a private contractor performing the same function. The actual cost is somewhat higher. The cost for a consultant in Caltrans North Region (Marysville and north) is \$195,000; in the Bay Area, \$194,000; in Los Angeles/Ventura, \$195,000; in

San Bernardino/Riverside, \$186,000. Thus, not even considering the cost of advertising and awarding a contract and Caltrans' cost of overseeing the contract, **it costs more than twice as much to contract out** Caltrans engineering work than to utilize Caltrans staff to perform the same function.

There is no question that consultants pay their engineers considerably more than the state for doing the same work and that consulting firms encounter costs, including overhead and profit, which is higher than state overhead. However, there is another factor which causes these extremely high contracting out costs for engineering and related services -- **the process** currently utilized by the state in selecting a firm to perform the services.

Currently, Government Code Section 4525 et seq. utilizes a Qualification Based Selection (QBS) System for selecting contractors for engineering and related services, such as design, construction inspection, land surveying, etc. **The procedure** not only disregards competitive bidding, but **prohibits the consideration of cost when selecting a contractor!**

The required procedure currently in law is as follows. Firms submit a proposal for performing work, such as construction inspection. Caltrans selects a firm as being most qualified (even though there are numerous firms which are highly and equally qualified to perform that function). Then, and only then, does Caltrans discuss or consider cost, and **cost is discussed only with the firm Caltrans selected! Thus, the cost for other firms to do the work, or the cost for Caltrans to do the work itself, is totally disregarded!**

It is not at all surprising that **Caltrans pays more than twice what the work is worth** when it contracts out for engineering and related services. This is a substantial and ongoing waste of taxpayer money, directly contrary to the "goal of achieving optimal cost-effectiveness" of the Performance Improvement Initiative.

The **federal government** is effectively addressing this issue for federal contracts. **The President's competitive sourcing initiative** requires that cost be a factor in determining whether or not to outsource engineering and other services.

Congress and the President recently affirmed the federal policy requiring cost consideration and competition in procuring federal engineering services. In November 2003, a House and Senate Conference Committee removed an amendment to the Treasury Transportation Appropriations bill that sought to exempt engineering services from competitive sourcing cost considerations and competition. On January 23 of this year, President Bush signed that legislation into law as part of the Omnibus Appropriations bill.

In acquiring engineering services, **the President and Congress recognize** what would seem to be obvious -- **cost-effectiveness is best achieved by actually considering cost.**

On December 5, 2003, Governor Schwarzenegger issued Executive Order S-4-03. It prohibits new or amended services contracts unless they are determined "to be in the best interest of the state." Contracts that cost twice what the work is worth fail to meet that standard.

Thus, **PECG recommends** that when funding and workload increases, if contracting out is considered as an alternative to hiring Caltrans staff, **a cost effective process** should be implemented to ensure that Caltrans staff or qualified firms perform the work at the lowest cost to the taxpayer.

Thank you for providing PECG with the opportunity to offer the above information and recommendations. We look forward to working with the Agency in the coming months and years to achieve our common goal of providing transportation to California citizens and taxpayers efficiently and cost effectively.

Sincerely,

Mark Sheahan
President

Department
Primary Outcomes

Handout

March 18, 2004

Enhancing Mobility and Accessibility to account for another 13 million people by 2025 –
Expanding the system and enhancing modal choices and connectivity to meet the State's future passenger and goods movement transportation demands.

Transportation Expert Review Panel Meeting

Department Mission: Caltrans Improves Mobility Across California

Department Goals:

- Safety: Achieve the best safety record in the nation
- Reliability: Reduce traveler delays due to roadwork and incidents
- Performance: Deliver record levels of transportation system improvements
- Flexibility: Make transit a more practical travel option
- Productivity: Improve the efficiency of the transportation system

2002/2003 Data

Primary Outcome	Deliverable/ Products	Productivity Measure	Staff (PY's)	Resources (OE & PS\$)	* Capital & Local Assist \$	Metrics for Primary Outcome			
						Description	Current Performance	Benchmark	Goal
A connected multi-modal system provides safe, seamless, local, inter-regional, interstate and international mobility	Regional and Inter-regional Plans	Number of Plans per person year (3.4 plans/py)	47.9	\$ 5,215,042	\$37,000,000	Regional Transportation Plans, Air Quality Conformance Analysis Plan, Tribal Transportation Plan**	90% (163 plans)	38% (Washington DOT)	100% (182 plans)***

Special Circumstances, Constraints and Challenges to Performance:

For the most comprehensive planning efforts to succeed, collaboration with the federal agencies, tribal governments, local governments, and stakeholders must occur. California has 28 regional transportation agencies, 16 Metropolitan Planning Organizations, 12 District Offices within the Department of Transportation, and 109 Tribal Governments. Statistically, California has the largest Metropolitan Planning Organization (MPO) in the nation, more federally recognized tribes than any other state, the largest Native American population, and has one of the largest groups of communities with diverse needs.

Benchmark Notes:

** Regional Transportation Plans (RTP) Air Quality Conformity Analysis/Plan (ACAP), and Tribal Transportation Plans (TTP)

***44 Regional Transportation Plans, 29 Air Quality Conformity Analysis Plans, 109 Tribal Transportation Plans

The Washington State Department of Transportation's (WSDOT) benchmark using the same analysis: WSDOT has 11 Metropolitan Planning Organizations (MPOs) that work directly in coordination with the 14 Regional Transportation Planning Organizations (RTPO's). WSDOT completes 14 RTPs, 4 ACAPs, and 29 TTPs. WSDOT completes a total of 18 of the 47 plans (38%), with a total of 14 PYs (or 1.29 plans per PY).

Regional planning staff perform other duties beyond working on regional and interregional plans. However, to be comparable to WSDOT, the full 47.9 py figure is used in the productivity measure calculation.

Ongoing Efforts to Improve Performance:

Ongoing efforts to improve performance include: training, technical assistance, development of documents that can be used as reference guides (i.e., consultation guidelines, Memorandums of Understanding (MOUs), Master Fund Agreements, Regional Transportation Plan Guidelines, air quality conformity guidelines), and consultation and coordination with local, federal, state, and tribal governments, and other stakeholders.

Additional Comments:

* Local Assistance Planning funds in the Division of Transportation Planning's (DOTP's) budget provided to regional agencies and other entities: Metropolitan Planning/Federal Aid = \$30 million; Rural Planning Assistance = \$4 million; Grants = \$3 million

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2002/2003 Data

Primary Outcome	Deliverable/Products	Productivity Measure	Staff (PY's)	Resources (OE & PS\$)	Capital \$	Metrics for Primary Outcome			
						Description	Current Performance	Benchmark	Goal
Short term system management and strategic system improvements increase mobility and productivity in significant transportation corridors, with minimal disruption to the traveler	Comprehensive Corridor Plans (CCP) include multimodal facilities and operational investment options.	Number of plans produced per person year (1.49 plans per py)	130.8	\$ 11,707,502		Number of plans produced per year	195	195	250 (reflects additional high growth segments)

Special Circumstances, Constraints and Challenges to Performance:

- Performance is dependent upon district planning staff working 100% on this effort; however, intervening related priority work (State Transportation Improvement Program (STIP) cycles, project delivery, regional issues) reduces availability. Performance is also predicated on core information being up-to-date and available from other units (origin/destination surveys, traffic counts, traffic classification, traffic census program, classification program).
- Comprehensive Corridor Plans (CCP) require updated, accurate land-use information from local and regional agencies. Many local general plans are out of date and need to be updated to reflect current conditions and planned landuses.
- The new corridor management concepts for complete system optimization Transportation Management System (TMS) Plan will require significant additional technical skill sets for modeling and analysis and coordinated traffic engineering with traffic operations in districts and headquarters. These changes will require training and resources across planning and operations.

Benchmark Notes:

2002-03 is a “high” benchmark. 2003-04 reductions, if continued, will reduce productivity. Benchmark reflects fully staffed and trained functions in districts after restoration and increase of funding from 95-96 reduction in force (RIF)

Ongoing Efforts to Improve Performance:

Quarterly reports from districts on progress by document and by route. Identification of areas needed to be strengthened to support information needs of process.

Enhancing Capacity or Throughput in Existing Corridors –
Using technology and multi-modal strategies to strategically enhance capacity and reduce congestion.

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						Description	Current Performance	Benchmark	Goal
Reduce traveler delays and improve system efficiency						Delay	N/A		None
			566.0	\$63.30 M	Included in Capital Outlay Support	Incident Clearance	N/A	See Note Below	90 Minutes
	Control of Traffic	None							
	Operational Investigations	None							
	Mobility Projects Delivered	Number of Mobility Projects Delivered							

Special Circumstances, Constraints and Challenges to Performance: Lack of, and inability to obtain system performance data, and thus establish a baseline. Non fully-integrated regional transportation management systems. Incongruent goals among Traffic Operations, CHP, local jurisdictions, and emergency agencies. DOF approval of TMS initiatives such as Performance Management System (PeMS). Programming of TSM-type solutions, such as Freeway Service Patrol (FSP). Inability to further expand or deploy system-enhancing systems such as ATMS and the TMS master plan due to bureaucratic red tape.

Benchmark Notes: Performed on Caltrans by others, such as the federal Highway Performance Management System (HPMS), and reports using that data such as the Hartgen Report and the Texas Transportation Institute Urban Mobility Study. However, such comparisons often are made on disparate information provided by the various states.

Ongoing Efforts to Improve Performance: Identification of system management improvement projects, such as ramp metering, auxiliary lanes, etc. The plan improvements to System Management, including appropriate performance measures, are laid out in the Transportation Management System (TMS) Master Plan. System performance will be measurable with implementation of PeMS.

Additional Comments:

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2002/2003 Data

Primary Outcome	Deliverable/Products	Productivity Measure	Staff (PY's)	Resources (OE & PS\$)	Capital&Local Assist \$	Metrics for Primary Outcome			
						Description	Current Performance	Benchmark	Goal**
Local commercial and residential development approvals provide for maintaining or enhancing transportation system capacity	Mitigation Recommendations for state highway system	Total intergovernmental review documents processed per person year (217 documents per py)	73.7* (combined Planning and Traffic Operations resources)	\$ 5,400,000* (combined Planning and Traffic Operations resources)	\$0	1) Total intergovernmental review documents processed per fiscal year 2) Environmental documents that maintain or enhance the state highway system divided by environmental (CEQA/NEPA) documents reviewed	1) 16,000/FY 2) 73%	Under development; comparing to best practices in other states	2) 80 % of environmental documents that maintain or enhance the state highway system

Special Circumstances, Constraints and Challenges to Performance:

Local jurisdictions make land use decisions. Through the Intergovernmental Review/California Environmental Quality Act (IGR/CEQA) process however, Caltrans is mandated to review thousands of formally proposed local land use planning and project proposals (e.g. a proposed shopping center, residential subdivision, or general plan). Caltrans provides early consultation recommendations and suggestions to the “lead agencies” (usually a city or county).

Benchmark Notes:

Number of mitigation measures recommended drop over time while adequate mitigation measures already included in projects increase.

Ongoing Efforts to Improve Performance:

Influencing local land use and project decisions before a local development proposal enters the formal CEQA process is the most effective and efficient method of reaching the primary outcome.

Additional Comments:

Local land use decisions affect the safety, operations and structural integrity of the state highway system. The Department’s goals are best served by fully engaging local decision makers and developers, providing those decision-makers with better information about the consequences of their decisions, and aggressively seeking recommended mitigation measures

* Traffic Operations portion is 33PY and \$2,730,000 Resources.

**The goal reflects increasing the number of local agencies successfully performing adequate analysis and mitigation and producing “quality” environmental documents.

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Primary Outcome	Deliverable/Products	Productivity Measure	Staff (PY's)	Resources (OE & PS\$)	Capital \$	Metrics for Primary Outcome			
						Description	Current Performance	Benchmark	Goal
Local transit providers provide better service with quality and affordable equipment that give travelers desirable travel options	<ul style="list-style-type: none"> • Provide technical assistance to prepare and submit funding requests • Assist in procurement of small buses 	Staff/number of transit agencies assisted	116	\$16,182,000	* \$568,333	State transit investment per capita	\$ 36.47	FL 5.49 NY 91.88 PA 66.62 TX 1.16	Increase investment in transit to serve needs of the transit dependant and mitigate traffic congestion
	<ul style="list-style-type: none"> • Provide specialized vehicles • Provide operating and capital funds to small and rural operators • Procure specialized transit vehicles 					Federal dollars received for grants	\$ 19,705,000	FL \$12,725,000 NY 15,308,000 PA 14,859,000 TX 21,738.000	Ensure that all available federal dollars are obligated
	<ul style="list-style-type: none"> • Ensure that dedicated funding is used for transit 	Staff /by number of local agencies assisted				Increase passengers per vehicle service mile	At least 10% fare box recovery in rural areas (Plumas County 17.5%) and 20% in urban areas (San Francisco 25.6%)	Unique to California Data not available for other states	Work with local agencies to address transit deficiencies through ongoing dialog with transit partners and traveling public

Special Circumstances, Constraints and Challenges to Performance:

- State limits the amount of federal funds used to administer federal programs, which results in California having less resource available to manage program compared to other states.
- The state is responsible for consistent application of programming and funding actions but local agencies make the project selections. Therefore, what might be a priority from a statewide perspective may differ from the local priority.

Benchmark Notes: Transportation Development Act is unique to California so comparison is not possible.

Ongoing Efforts to Improve Performance:

Additional Comments: * Amount shown for capital funding are local assistance funds for transit projects.

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						Description	Current Performance	Benchmark Capital \$M/PY	Goal
Local agencies deliver needed street, road, highway, and transit improvements to enhance transportation capacity and reduce congestion.	Local project delivery and compliance with state and federal regulations	\$0.018 per \$ delivered (approximately 2 %)	368.3	\$32,523,000	1,543,000,000 includes subvention, STIP and special programs, e.g. EEM, BTA	Percentage of federal funds obligated	≥ 100 % including increased federal dollars to California in annual August redistribution	CA \$4.2M/PY NY \$1.6M/PY Penn \$3.1M/PY	Obligating 100 % of funds available

Special Circumstances, Constraints and Challenges to Performance: Activities are required by state and federal laws. Unlike other Caltrans programs, Local Assistance faces ever-changing conditions driven by diversity of local/regional agency issues, resources, and constraints. Challenges include (1) extensive laws and regulations affecting our business, (2) environmental procedures and requirements, (3) Advance Construction doubles some workload activities, (4) project delays waiting for external approval (e.g. Bicycle Transportation Account (BTA)), (5) report project level activities to external agencies (e.g. Cooperative Work Agreement (CWA), bridge inspection), (6) unstable and unreliable funding sources (e.g. Environmental Enhancement Mitigation (EEM)), (7) loss of matching funds (e.g. Seismic Retrofit), and (8) unresourced work (CWA, Federal Statewide Transportation Improvement Program (FSTIP), Transportation Enhancement Act (TEA)).

Benchmark Notes: State DOTs – States with similar local assistance operations and with support data available: California \$1542/368 PY, New York \$325M/200 PY, and Pennsylvania \$75M/24 PY. Several benchmark states do not operate similarly and therefore do not track comparable support data. Benchmarks with these states would be like apples to oranges: Washington \$240M/50 PY, New Mexico \$25M/3 PY, Oregon \$75M/60 PY, Arizona \$70M/PY N.A., Florida \$67M/PY N.A., Texas data N.A. Direct comparison is challenged because these states do not identify activities in other functional units (e.g. Design, Environmental) supporting local project delivery.

Ongoing Efforts to Improve Performance: 2002 customer survey showed overall positive ratings by cities, counties, Metropolitan Planning Organizations and Regional Transportation Planning Associations. Perform a Business Process Review and Strategic Planning to identify and improve performance. Worked with local/regional agencies to streamline environmental and project delivery; produced guidebook and best practices guide.

Additional Comments: Significant staff reduction (- 22%) down to 286.8 since FY 02/03. Benchmark's 10-year history implies lower project delivery will result.

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Primary Outcome	Deliverable/Products	Productivity Measure	Staff (PY's)	Resources (OE & PS\$)	Capital \$	Metrics for Primary Outcome			
						Description	Current Performance	Benchmark	Goal FY 2013-14
More Californians take rail trips that are increasingly safe, reliable and convenient	Contracts with Amtrak and CCJPA to operate state-supported services	Staff cost per passenger mile is 1.2 cents	49.4 ¹	\$94,210,694 ²	\$394,205,261 ³	Annual Ridership	4,101,000	IL 206,608, MO 139,823; *OR/WA 589,947; WI 417,366	6,875,000
						Weekly Round Trip Frequencies	29	IL 2; MO 2; *OR/WA 3; WI 7	40
						Farebox Ratio	44.7%	⁴	50.1%
						Passenger Miles Per Train Mile	102	IL 2 routes (98, 92); MO 69; *OR/WA 112; WI 81	111.3

Special Circumstances, Constraints and Challenges to Performance:

- Increased local interest in new intercity rail services, including increased frequencies and addition of new corridors. Uncertainty as to Amtrak's future.
- Uncertainty as to funding sources of future intercity rail equipment acquisitions.
- Potential near-term shortfall in the PTA. In 2008-09, Proposition 42 is projected to significantly increase PTA revenues.

Benchmark Notes:

⁴ Not available due to non-comparable costing data in other states

Ongoing Efforts to Improve Performance:

- Continued use of focused marketing that will increase ridership and revenues
- Service provided by both the Burlington Northern Santa Fe and Union Pacific is carefully monitored to improve on-time performance.
- Both the free-transfer programs with local transit operators (allowing Amtrak passengers to use connecting local transit for free) and the Rail 2 Rail Program (allowing Metrolink and Amtrak passengers to use each others trains) are being expanded to improve service flexibility for customers.
- Connecting bus services are continually evaluated to assure cost-effective operation.
- New ticket vending machines are being installed in Amtrak and Metrolink stations allowing through ticketing between these services.

Additional Comments

¹ Does not include 5.3 PY's Crossing Safety related ² Does not include \$25,000,000 Operating Expense dollars allocated to Programs 130 and 190 ³ Includes funding for Capital Projects allocated and under construction.

*Oregon and Washington is one joint route.

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2002/2003 Data

Primary Outcome	Deliverable/Products	Productivity Measure	Staff & Consultants (PY's & PYE's)	Resources (OE & PS\$)	Capital \$	Metrics for Primary Outcome			
						Description	Current Performance	Benchmark	Goal
STIP Program Project Delivery	Milestones completed:		3,492	\$429M	\$1,016M				
	1) Project Approval & Environmental Documents milestone					% Planned PA&ED milestones completed to Baseline Plan	59%	NONE	75%
	2) Ready to List milestone (Plans, Specifications & Estimates completed)					% Planned RTL milestones completed to Baseline Plan	91%	NONE	90%
	3) Right-of-Way Certification milestone					% Planned R/W Cert milestones completed to Baseline Plan	93%	NONE	90%
	4) Construction Contract Acceptance milestone					% Planned CCA milestones completed to Baseline Plan	91%	NONE	90%

Special Circumstances, Constraints and Challenges to Performance: Comparing multi-year projects to fiscal year budgets does not provide adequate performance information; therefore we have been developing measures by project, which may be rolled up by district and/or program.

Benchmark Notes: No consistent established nationwide standard of project delivery performance measures. California is a leader in project delivery performance measuring. There are very few similar measures in other states and no past historical trends available from other DOT's.

Ongoing Efforts to Improve Performance: The Department is engaged in a number of efforts to improve project delivery performance. They are not unique to any particular project or program so they are summarized here for all three programs (STIP, Partnership, SHOPP). Some of these topics are within the Department's control. Others need outside concurrence/action.

Project Consensus – (Purpose and Need Team, PID Quality, Increased public participation efforts)

Environmental- (FHWA Delegation to approve ED's, Lack of Resource Agency response = clearance to proceed, Mandate Fed Resource Agency adherence to Streamlining MOU)

Contract Preparation – (Change Control, Design Build Authority, Expedited Contract Procurement Procedures)

Fiscal Management (Risk Management, Communication Plans/Project Charters, Implementation of FMS, PRSM, and CMS, Multiyear Performance Based Budgeting, QC/QA, Quality Management Plans)

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Primary Outcome	Deliverable/Products	Productivity Measure	Staff & Consultants (PY's & PYE's)	Resources (OE & PS\$)	Capital \$	Metrics for Primary Outcome			
						Description	Current Performance	Benchmark	Goal
Partnership /Locally Funded Project Delivery	Milestones completed:		629	\$78M	\$98M				
	1) Project Approval & Environmental Documents milestone					% Planned PA&ED milestones completed to Baseline Plan	N/A	NONE	75%
	2) Ready to List milestone (Plans, Specifications & Estimates completed)					% Planned RTL milestones completed to Baseline Plan	N/A	NONE	90%
	3) Right-of-Way Certification milestone					% Planned R/W Cert milestones completed to Baseline Plan	N/A	NONE	90%
	4) Construction Contract Acceptance milestone					% Planned CCA milestones completed to Baseline Plan	N/A	NONE	90%

Special Circumstances, Constraints and Challenges to Performance: Project delivery performance is not measured on Oversight projects, since externals are responsible for delivery. Locally Reimbursed projects in which Caltrans is responsible for delivery are measured in a combined category of various project types.

Benchmark Notes:

Ongoing Efforts to Improve Performance:

Additional Comments: These values do not include Regional Measure 1 (Toll)

Maintain and Preserve the Current State Highway System –
Maintaining and rehabilitating the State Highway System to preserve it for future generations.

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Primary Outcome	Deliverable/Products	Productivity Measure	Staff (PY's)	Resources (OE & PS\$)	Capital \$	Metrics for Primary Outcome			
						Description	Current Performance	Benchmark	Goal
Achieve the best safety record in the nation			204.3	\$16.28 M	Included in Capital Outlay Support	Fatalities per 100 million vehicle miles (F/100MVM)	1.27 F/100MVM (All Calif. Roads) 1.085 F/100MVM (State Hwys Only)	1.51 F/100MVM (National Average)	1.00 F/100MVM
	Traffic Safety Investigations	Number of Investigations							
	Safety Projects Delivered	Number of Safety Projects Delivered							

Special Circumstances, Constraints and Challenges to Performance: Significant rate reduction only possible through driver behavior and vehicle safety improvement, which the Department is not resourced to address. Inabilities to further expand or deploy system-enhancing systems such as the fog detection system due to bureaucratic red tape.

Benchmark Notes: Benchmarking is done against all other state Departments of Transportation. “Current Performance” is for 2001, and is for all California highways.

Ongoing Efforts to Improve Performance: Continuous emphasis to Departmental staff that safety is the Department’s number 1 priority.

Additional Comments: Approximately \$70 M to \$80 M of safety projects is delivered each year. The Department funds all safety (010) projects off the top of the SHOPP

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2002/2003 Data

Primary Outcome	Deliverable/Products	Productivity Measure *	Staff (PY's)	Resources (OE & PS\$)	Capital \$	Metrics for Primary Outcome			
						Description	Current Performance	Benchmark	Goal
Open roads free of hazardous conditions attributable to weather.	Snow removal	Cost per vehicle mile for snow removal (R1) is: \$173.	461*	\$ 54,444,322 *		Snow & Ice Level of Service (LOS)	92 (Winter of 02/03)	WA 70	100%
	Deicing	Cost per vehicle mile for Ice control/deicing is: \$239	Included in snow (above)	Included in snow (above)		Snow & Ice Level of Service (LOS)	99 (Winter of 02/03)	None	100%

Special Circumstances, Constraints and Challenges to Performance:

Hiring freezes and staffing cuts hamper our ability to staff snow areas and increase the probability of road closures, particularly during heavy storms. Predictability of annual snowfall, particularly localized conditions is challenging. Increased stormwater/environmental requirements have required us to sweep more and haul snow to snow storage areas. Our current fleet are not all PM 10 compliant and we do not have the required equipment to meet current snow hauling needs.

Benchmark Notes:

The Snow and Ice LOS was discontinued in the FY 03/04 winter season because the attributes being measured were not contributing towards making budgetary decisions. Winter storm response is handled as an emergency, necessitating movement of staff from valley and now snow areas in preparation for storms. WA using different non-comparable rating criteria averages a 70 (C+) from 1999-2002.

Ongoing Efforts to Improve Performance:

Division of Maintenance is developing a more customer-relevant series of metrics for snow and ice, perhaps including traveler information, time to bare pavement and % of time roadways clear and open. Some weather forecasting equipment (Doppler) has been installed assist in preparing for and predict location, and intensity of storms. Converting to roll-off truck beds which reduces the need for overtime. Increasing the use of Permanent Intermittent staff for snow removal.

Additional Comments: Efficiency measures related to cost. Costs vary/averages shown. * Includes all winter operations, (storm maintenance and , snow and ice control).

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						Description	Current Performance *	Benchmark*	Goal
Smooth Pavement (IRI)	Resurfacing, pavement grinding, minor rehabilitation.	\$100K-250K per lane mile (LM)(grinder PCC to overlay)	Included in Capital Outlay Support	Included in Capital Outlay Support	SHOPP	International Roughness Index (IRI)	22% of CA's Urban interstate lane miles (LM) and 7.6% rural interstate LM, have an IRI> 170 (Fed rating for poor condition).	AZ: Urban 1.2% Rural 0% TX: Urban 3% Rural 3% GA: Urban 0% Rural 0%	Working on establishing a goal.
Distressed Lane Miles	FY3/4 Pavement Rehabilitation projects \$328 million Retired 370 lane miles.	CAPM \$125K-700K per LM. Resurfacing, Restoration, Rehabilitation \$300 – \$1M per LM.	Included in Capital Outlay Support	Included in Capital Outlay Support.	SHOPP	Distressed Lane Miles	11,822 distressed lane miles out of 50,000 LM.	None	Reduce distressed lane miles to 5,500 by 2011.
Well-maintained pavement	Filling potholes, crack sealing, etc.	\$25-K to 35K per lane mile for various treatments	492	\$ 118,823,850		Pavement Level of Service (LOS)	82	None	100

Special Circumstances, Constraints and Challenges to Performance:

2004 SHOPP 04/05 to 07/08 \$2.2 Billion retires about 2,030 lane miles of distressed pavement. Focus on balance between full rehabilitation and preventive maintenance.

Benchmark Notes: 2002 data - Interstate Highways only. GA is ranked first. TX is comparable in size to CA. AZ interstates are newer and do not have as high truck ADT. CA ranks 48th in urban LM and 43rd in rural LM smoothness.

Ongoing Efforts to Improve Performance: Seeking additional and dedicated funds for preventive maintenance, validating preventative maintenance strategies, increased use of rubber asphalt concrete, and increased use of dowel bar retrofits (working on one year warranties). AZ has smoothness specifications for pavement. CA has warranty specifications for pavement projects and a longer-life pavement program.

Additional Comments: * Efficiency measures related to cost. Costs vary/averages shown.

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Primary Outcome	Deliverable/Products	Productivity Measure	Staff (PY's)	Resources (OE & PS\$)	Capital \$	Metrics for Primary Outcome			
						Description	Current Performance	Benchmark	Goal
Providing satisfactory Level of Service for Roadside (includes Safety Rest Areas, Stormwater management, landscape, culverts, graffiti, debris and litter).	Preservation of roadside investment while maximizing customer satisfaction.	See additional comments	2,282.67	\$ 259,216,862		Level of Service	80	Florida 79 Texas 89 Wisconsin 90	83

Special Circumstances, Constraints and Challenges to Performance:

Inadequate resources to fulfill storm water mandates. Resources shifted from aesthetics to higher-priority safety and preservation needs. The Culvert Inspection Program has not been adequately resourced and not implemented throughout the Department; the SHOPP element for Drainage System Restoration has similarly been largely under funded and been assigned a low priority among all SHOPP elements, resulting in numerous culvert failures annually that greatly affect the Major Damage Restoration program and the district minor program. Numerous environmental restrictions (herbicide, air and water quality) add costs and reduce the options available to the Department. Aging infrastructure, trash haulers, litter due to high ADT and increases in graffiti all exacerbate the problems.

Benchmark Notes:

WA does not assign numeric scores, rather uses an A, B, C scoring system and does not provide an aggregate Roadside score. Each benchmark state defines “Roadside” differently than each other and Caltrans. Additionally, each benchmark state has different criteria for evaluating the roadside elements, thus LOS scores for Roadside cannot accurately be compared to benchmark states.

Ongoing Efforts to Improve Performance:

Develop the Roadside Condition Survey to better assess condition of roadside elements. Continuous training on storm water permit compliance. Implement innovative techniques and products on the roadsides to more efficiently and/or safely manage the roadsides. Expand Culvert Inspection Program statewide to identify culvert deficiencies early and recommend preventative maintenance strategies to avoid costly rehab/replacement needs and eliminate catastrophic culvert failures. The Department is experimenting with numerous pilot programs to address herbicide, landscape and litter problems. Investigating competitive bid contract for maintenance of safety roadside rest areas (Performance based maintenance contracting). Increase use of Adopt-a-Highway volunteers and Litter campaign “Don’t Trash California”. Use innovative equipment; Ardvacs, PM10 compliant sweepers. Install more Hardscapes, increase use of weedmats to reduce staff effort.

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Primary Outcome	Deliverable/Products	Productivity Measure	Staff (PY's)	Resources (OE & PS\$)	Capital \$	Metrics for Primary Outcome			
						Description	Current Performance	Benchmark	Goal
Safe and efficiently maintained Bridge Inventory	Bridge Inspections	None	503	\$53,287,314		Inspections in compliance with Federal Regulations	89% Compliance	100 % in compliance with Federal Standards	100 % Compliance
	Joint/deck seals, painting, patch spalls and repair potholes.	None	Included above	Included above		Perform Bridge Maintenance and Capital repairs timely	Bridge Health Index (BHI) = 94 4% of the structures are below 80	None	Maintain network between 94 and 96. Have no less than 5% below 80
	Bridge repair and Capital Maintenance	None	Included Above	Included above		Bridges that are SD/FO set the eligibility criteria and allocation levels for Federal HBRRP funding.	14% State Bridges are SD/FO	TX 14% WA 20% OR 32% PA 36% FL 14%	Reduce the number of SD/FO bridges.

Special Circumstances, Constraints and Challenges to Performance: Reduction of resources (mainly Bridge Inspection Personnel) has led to a status of non-compliance. New Federal Regulations are expected in the next year that will increase efforts required for compliance with Federal Law. These new regulations will reduce the current 4-year inspection cycle to a 2-year inspection cycle for fracture critical steel bridges.

Resource reductions (state forces labor, material, equipment and contract dollars) have led to a backlog of bridge repair recommendations. Congestion, night work and environmental concerns lead to lower productivity levels so that the same amount of repair takes longer and is more costly than historical efforts.

Benchmark Notes: 29% of the nations bridges are SD/FO.

Ongoing Efforts to Improve Performance: Looking at contracting out for special inspections (such as underwater bridge inspections).

Additional Comments: SD/FO = To be considered SD (Structural Deficient) a bridge must be in poor structural condition as defined by federal condition data. To be considered Functionally Obsolete (FO) a bridge must not meet federal standards for width clearances, vertical clearances or load capacities.

Transportation Expert Review Panel Meeting

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- Reliability: Reduce traveler delays due to roadwork and incidents
- Performance: Deliver record levels of transportation system improvements
- Flexibility: Make transit a more practical travel option
- Productivity: Improve the efficiency of the transportation system

2002/2003 Data

Primary Outcome	Deliverable/Products	Productivity Measure	Staff & Consultants (PY's & PYE's)	Resources (OE & PS\$)	Capital \$	Metrics for Primary Outcome			
						Description	Current Performance	Benchmark	Goal
SHOPP Program Project Delivery	Milestones completed:		3,892	\$464M	\$899M				
	1) Project Approval & Environmental Documents milestone					% Planned PA&ED milestones completed to Baseline Plan	85%	NONE	75%
	2) Ready to List milestone (Plans, Specifications & Estimates completed)					% Planned RTL milestones completed to Baseline Plan	83%	NONE	90%
	3) Right-of-Way Certification milestone					% Planned R/W Cert milestones completed to Baseline Plan	88%	NONE	90%
	4) Construction Contract Acceptance milestone					% Planned CCA milestones completed to Baseline Plan	89%	NONE	90%

Special Circumstances, Constraints and Challenges to Performance: Comparing multi-year projects to fiscal year budgets does not provide adequate performance information; therefore we have been developing measures by project, which may be rolled up by district and/or program.

Benchmark Notes: No consistent established nationwide standard of project delivery performance measures. California is a leader in project delivery performance measuring. There are very few similar measures in other states and no past historical trends available from other DOT's.

Ongoing Efforts to Improve Performance: Efficiency measures (Capital Outlay Support/Capital Outlay) and financial management measures (COS expenditures/COS budgets) per project are being developed.

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2002/2003 Data

Primary Outcome	Deliverable/Products	Productivity Measure *	Staff (PY's)	Resources (OE & PS\$)	Capital \$	Metrics for Primary Outcome			
						Description	Current Performance	Benchmark	Goal
Safe traffic flow	Timely service on signals performed	\$2,070 per traffic signal maintained	712 PYs	\$108,656,091		Traffic Signal Level of Service	88	None	100
	Reflectivity of signs (condition)	\$25 per sign (500K signs).	Included above	Included above		Traffic Guidance Level of Service	93	None	94
	Reflectivity of stripes (condition)	\$134 per mile striped.	Included above	Included above		Traffic Guidance Level of Service	Included in 93 (above)	None	Included in 94 (above)

Special Circumstances, Constraints and Challenges to Performance:

Inability to hire qualified staff due to restrictions has led to a decreased level of service for electrical operations. Restrictions on oil based paint have led to increased need for routine stripping. New products may be sole source issue and also require specialized training and equipment not currently in fleet.

Benchmark Notes:

Unknown if other states have a similar rating system for these elements.

Ongoing Efforts to Improve Performance: Battery backups and re-lamping with Light Emitting Diodes (LEDs) has increased reliability and reduced energy costs. The LED retrofit program was performed by contract. Invoke existing sign warranties on retro-reflectivity signs. Investigate feasibility of stripe reflectivity warranties (pay for performance).

Additional Comments: * Efficiency measures related to cost. Costs vary/averages shown.

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2002/2003 Data

Primary Outcome	Deliverable/Products	Productivity Measure	Staff (PY's)	Resources (OE & PS\$)	Capital \$	Metrics for Primary Outcome			
						Description	Current Performance*	Benchmark	Goal
The right statewide system improvements are developed and programmed, as needed, consistent with estimated scope, cost and schedule in pre-programming documents	<ul style="list-style-type: none"> • Project Initiation Documents (PIDs); • (Project Study Reports, etc.) • Comprehensive Corridor PID • Preliminary Investigation of Storm water projects • Ten Year SHOPP Development Plan 	Number of PIDs completed per person year (0.3 PIDs per py)	469.1	\$40,825,155		Number of PIDs completed aligned with the scheduled program year and projected Fund Estimate	142 total for \$2.5 billion (In progress for future programming: 392 for \$5.2 billion)	Other State DOTs have been contacted; awaiting responses.	<p>PIDs are completed (just in time) for programming of selected projects.</p> <p>95% - 100% completed projects.</p>

Special Circumstances, Constraints and Challenges to Performance:

Program Initiation Documents (PIDs) are developed for different purposes and vary from year to year due to programming priorities and candidates derived from the 20-year Regional Transportation Plan and Ten Year State Highway Operation Protection Program (SHOPP) Plan; therefore, we are moving to a comprehensive corridor effort. This comprehensive approach will address regional and local agencies' priorities develop stronger partnerships and collaboration resulting in optimal sequencing of high priority corridors.

Benchmark Notes: Florida, Washington, Texas, Nevada, Oregon State Departments of Transportation and the Federal Highway Administration (FHWA) were contacted about their process for developing scoping documents; awaiting response.

Ongoing Efforts to Improve Performance:

- Provided planning expertise to various teams such as the Project Development Procedures Manual (PDPM) update, Work Flow Task Manual (WFTM) development, Risk Management and Quality Assurance. Assisting in promoting a strong Purpose and Need (P/N) statement, identifying deficiencies in the system beginning in Transportation Planning. Working on sponsoring an effort to determine if constructed projects addressed Purpose and Need and was consistent with the scoping document.
- Member of the SHOPP executive, division chiefs' and program managers' teams.
- Encouraged a holistic intermodal approach in the creation of the Comprehensive Corridor Investment Sequencing Document for Programming (CCISDP) pilot - a tiered approach to PID development. The CCISDP identifies transportation improvements along a specific route (corridor) so that they may be programmed in the most beneficial sequence.

Additional Comments:

The estimated dollar amount for construction and support costs of projects should be consistent with the fund estimate as well as other available resources such as local measure funds. This information is captured in a database for each district and then becomes a work program. The work program is a contract between the Headquarters' Division of Transportation Planning that provides the resources and the districts to do the work listed for the identified PIDs. Progress is monitored quarterly for rate of the completion of the PID and expenditure of resources. * PID development to meet program performance goals for the continuing State Highway Operations Protection Program (SHOPP)/STIP cycles. PID staff perform other assignments than just completing PIDs. The productivity measure is a general, overall estimate of staff productivity.