



# 2-YEAR PLAN

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## Executive Summary

The vision for Caltrans is to be a high-performance, efficient, transparent, accountable, and modern organization—meeting transportation challenges by improving communication, building stronger partnerships, and fostering a culture of performance and innovation. The department's Strategic Management Plan is a key tool to achieve that goal.

The Strategic Management Plan is the roadmap for Caltrans' role, expectations, and operations as we meet the challenges of modernization to establish Caltrans as a world-class Department of Transportation.

The Plan serves a number of functions:

- Provides clear direction for meeting statewide objectives;
- Creates and deepens strategic partnerships; and
- Provides performance measures that monitor success.

This two-year plan is intended to call out priority policy or program objectives that are representative of our Strategic Management Plan. It identifies 12 policy and program objectives and how or what it takes to deliver them. Appropriate to a performance focus, this two-year plan also identifies outcomes.

## Our Mission

Guided by our Mission to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability, Caltrans will focus on the following Goals to deliver on key Policy and Program Objectives over the next two years.

## Our Goals

### 1. SAFETY AND HEALTH

Provide a safe transportation system for workers and users, and promote health through active transportation and reduced pollution in communities.

### 2. STEWARDSHIP AND EFFICIENCY

Money counts. Responsibly manage California's transportation-related assets.

### 3. SUSTAINABILITY, LIVABILITY, AND ECONOMY

Make long-lasting, smart mobility decisions that improve the environment, support a vibrant economy, and build communities, not sprawl.

### 4. SYSTEM PERFORMANCE

Utilize leadership, collaboration and strategic partnerships to develop an integrated transportation system that provides reliable and accessible mobility for travelers.

### 5. ORGANIZATIONAL EXCELLENCE

Be a national leader in delivering quality service through excellent employee performance, public communication, and accountability.

## Contents

Executive Summary .....	1
Contents .....	2
Department Highlights and Accomplishments.....	3
Looking Forward—The Next Two Years.....	6
Policy and Program Objectives	
Policy Implementation and Program Delivery	
Outcomes and Benefits	
Appendix A: Summary Matrix .....	20

## ***Department Highlights and Accomplishments***

**2015-2020 CALTRANS STRATEGIC MANAGEMENT PLAN (SMP):** The adoption of the 2015-2020 SMP was a significant milestone reached in March 2015, and was a culmination of internal and external assessments that began in 2012. The SMP refocused the Department's Mission and Vision, and aligned our Goals to statewide policy directions in pursuit of our mission. The SMP focused on creating an excellent organization as the basis of accomplishing these strategic goals.

**CALIFORNIA TRANSPORTATION PLAN 2040 (CTP 2040):** The CTP 2040 roll-out started in summer 2016. As required by Senate Bill 391 (2009), this is the first CTP published that provides a pathway for the transportation sector to help meet our State climate goals. CTP 2040 outlines how transportation stakeholders can align actions to support a sustainable transportation system.

**ALTERNATIVE DELIVERY METHODS:** Projects in California are primarily delivered using the design-bid-build (DBB) methodology in which the design is completed, advertised and awarded prior to beginning construction. Alternative delivery methods are becoming more widely used and have demonstrated significant benefits for appropriately selected projects. The method of delivery should be carefully selected to meet the characteristics and the goals of the project being delivered. Caltrans has piloted both design-build and construction manager/general contractor (CMGC) methods of delivery with some significant results. Effective and efficient delivery of projects requires access to a variety of delivery methods instead of the traditional "one size fits all" approach.

The design-build program was established in 2009 and 10 projects with a total contract value of \$1.4 billion have been awarded to date. The Caltrans CMGC program was established in 2012 and six projects with estimated construction costs of \$1.2 billion have been awarded to date. Caltrans plans to begin using its design-build and CMGC authority on appropriately selected projects beginning in 2017 and anticipates awarding two to eight projects over the next two years.

**TEX WASH BRIDGE (I-10 EASTBOUND):** The emergency replacement project was a collaborative accomplishment employing rapid response, public and private resources, and innovative *Accelerated Bridge Construction* (ABC) strategies to expedite the re-opening of one of the vital interstate links between Southern California and the rest of the country. On July 19, 2015, the eastbound bridge collapsed due to a 1000-year storm event that caused flooding and erosion strong enough to undermine an abutment. I-10, a primary freight corridor, was closed for five days before a 1.03 mile-long crossover detour was constructed to shift eastbound traffic to the westbound roadbed and back, thus allowing one lane of traffic in each direction for the traveling public and freight use. The new replacement bridge was opened on September 24, 2015, 67 days after it collapsed.

**JOINT POWERS AUTHORITIES (JPA):** On July 1, 2015, two new Joint Powers Authorities (JPA) assumed management responsibilities (Operations, Marketing and Administration) for the *San Joaquin* and *Pacific Surfliner* Intercity Rail routes. Interagency Transfer Agreements (ITA) were executed between the Department and the San Joaquin Joint Powers Authority (SJJPA) and the LOSSAN Rail Corridor Agency (LOSSAN Agency), respectively. The Capitol Corridor Joint Powers Authority (CCJPA) has managed the Capitol Corridor route since 1998. The Department retains ownership and responsibility for the long term maintenance of state owned rail equipment.

During the first year of management by the new JPAs, the Department assisted in the transition of duties to the new JPAs, developing new processes and procedures to provide guidance and structure to the JPAs in carrying out their duties. The Department has established Statewide Working Group meetings, whereby the three JPAs, the Department, the California State Transportation Agency, and the California High-Speed Rail Authority, come together to share information, discuss issues, and make decisions that affect Statewide Service Integration. In the next year, the Department plans to continue to refine processes and procedures related to JPA partnership and oversight to execute an updated ITA with the CCJPA which is in line with SJPA and the LOSSAN Agency.

**SENATE BILL 743:** SB743 changes transportation analysis within the Council of Environmental Quality Act, moving away from using automobile delay and level of service to identify and mitigate transportation impacts. Caltrans supports the new analysis metric, Vehicle Miles Traveled (VMT), and is subsequently pivoting programs toward it. In 2016, approximately 300 Caltrans planners, engineers, and modelers were trained on how to approach reviews of land use development from a VMT perspective. Caltrans continues to develop technical materials for its work along with multimodal transportation analysis for transportation projects on the State Highway System.

**COLTON CROSSING:** A project that unlocked delays at a major rail at grade crossing in Southern California, Colton Crossing was delivered significantly under budget and ahead of schedule. Original estimates calculated the project would cost about \$202 million and be finished in 2014. Cooperation between Caltrans and San Bernardino Associated Governments, innovative construction methods, and a competitive marketplace resulted in much lower bids than expected. The project wrapped up eight months ahead of schedule for \$93 million. Additionally, transportation officials estimate the project will deliver \$241 million in travel-time savings and reduce greenhouse gas emissions by 34,000 tons annually.

**CALDECOTT TUNNEL:** In 2013 Caltrans opened the \$417 million fourth bore of the Caldecott Tunnel to traffic. The tunnel connects Alameda and Contra Costa counties; it was completed roughly a month ahead of schedule and three million dollars under budget. The fourth bore of the Caldecott Tunnel provides congestion relief to residents and workers in the East Bay by ending the daily process of switching the traffic direction of the third bore to accommodate travel. The new bore includes wide travel lanes, shoulders, bright lighting, emergency exits, and various safety systems.

**STATE ROUTE 99 THROUGH CENTRAL VALLEY:** The South Bakersfield Project added one new lane in each direction on SR-99 from State Route 119 to the Wilson Road overcrossing. The average daily traffic volume along this section can reach as high as 140,000. In Merced County, the Plainsburg and Arboleta projects rebuilt about 10 miles of SR 99, converting this section from expressway to full-access-controlled freeway. Finally, in San Joaquin County, the Manteca Widening and South Stockton Widening projects also rebuilt heavily travelled sections of the SR 99 to provide safer and standard facilities to facilitate better goods movement and commutes through the valley. These projects received over half a billion dollars from Proposition 1B, the 2006 voter-approved transportation bond. To date, more than \$17 billion in Proposition 1B funds have been put to work statewide for transportation purposes.

**WATER CONSERVATION:** California has been in a declared drought condition since April 2012 when Governor Edmund G. Brown Jr. enacted Executive Order B-18-12 which directed state

agencies to reduce water consumption by 20% by 2020, from a 2010 usage baseline. As the drought continued, the Governor implemented Executive Order B-29-15 in April 2015, which modified the baseline year for measuring water consumption to 2013 and required the State Water Resources Control Board to impose restrictions to achieve a 25% statewide reduction in potable urban water usage. Caltrans has responded to the call to be wise stewards of our resources and the need to implement more sustainable water conservation practices. Director Malcolm Dougherty directed Caltrans to strive to achieve a 50% water reduction goal through modified irrigation practices and other conservation efforts. This goal was met and exceeded. Director Dougherty also established a Caltrans goal to convert 100% of landscape irrigation water sources to recycled water by 2036.

**ACTIVE TRANSPORTATION PROGRAM:** On September 26, 2013, Governor Brown signed legislation creating the Active Transportation Program (ATP) in Caltrans. In just over a year, Caltrans established the Office of Active Transportation; worked with the CTC to develop the Program Guidelines, application form, and selection process; and assisted with the adoption of the first program of projects. To date, two calls for projects have been programmed, including:

- 472 projects utilizing \$725,000,000 in ATP funds.
- The ATP funding leveraged other local funding for a net total project costs of over \$1.6B.
- Over 80% of the projects directly benefit disadvantaged communities.

Target: Increase non-auto modes; triple bicycle, double pedestrian, and double transit.  
Target: Achieve 90% average on-time performance (for intercity rail).

**GPS ON VEHICLES:** In 2012, Caltrans installed 200 GPS units in partnership with UC Davis. A survey legitimized installation of devices on the light fleet (less than  $\frac{3}{4}$  ton) to document usage and provide data necessary to participate in the Bureau of Automotive Repair's Continuous Testing Program Pilot for Smog compliance. As of 2016, the installed device count is approximately 11,500. The implementation of GPS has resulted in approximate yearly fuel savings costs of \$2,000,000, or roughly 300,000 gallons of fuel.

**INTERSTATE 15 INTEGRATED CORRIDOR MANAGEMENT (ICM) PROJECT:** The I-15 ICM project covers a 20-mile section of Interstate 15 from just north of State Route 52 in the City of San Diego to State Route 78 in the City of Escondido. The final phase of this project was activated in the summer of 2016. The Interstate 80 Smart Corridor Mobility Project covers the corridor between the Carquinez Bridge and the Bay Bridge. The project was fully activated in August 2016.

## Looking Forward - The Next Two Years

### STABILIZE TRANSPORTATION REVENUE

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#### 1. Governor's Funding Package

##### POLICY AND PROGRAM OBJECTIVES

The Governor's transportation funding and reform package was first outlined in September 2015. The package includes a combination of new revenues, additional investments of Cap and Trade auction proceeds, accelerated loan repayments, Caltrans efficiencies and streamlined project delivery, accountability measures, and constitutional protections for the new revenues.

Specifically, the January 2017 package includes annualized resources as follows:

- Road Improvement Charge - \$2.1 billion from a new \$65 fee on all vehicles, including hybrids and electrics.
- Stabilize Gasoline Excise Tax - \$1.2 billion by setting the gasoline excise tax beginning in 2018-19 at the 2013-14 level of 21.5 cents and eliminating the current annual adjustments. (broader gasoline tax would then be adjusted annually for inflation)
- Diesel Excise Tax - \$350 million from an 11-cent increase in the diesel excise tax beginning in 2018-19. (tax would also be adjusted annually for inflation)
- Cap and Trade - \$500 million in additional cap and trade proceeds.
- Caltrans Efficiencies - \$100 million in cost-saving reforms.

Although the special legislative session dealing with transportation did not result in additional funding, the Administration's efforts in this area will be part of the 2017-18 Budget Proposal. The Governor's package of revenues will be split evenly between state and local transportation priorities. The ten-year funding plan would provide a total of \$42 billion for transportation with an emphasis on repairing and maintaining the existing transportation infrastructure. It also includes a significant investment in public transit.

##### POLICY IMPLEMENTATION AND PROGRAM DELIVERY

###### MANAGEMENT AND ADMINISTRATIVE

The scope of the Governor's proposal is greater than any funding changes previously seen, including the highly successful Proposition 1B. If new funding is approved, the Department must react immediately to implement a flexible and aggressive hiring plan, and to implement expanded programs identified in the Governor's proposal. Doing so will provide the greatest chance for immediate success in utilizing the much-needed new funding. Not doing so will lead to significant criticism, given that the need for new funding has been highly emphasized and universally agreed upon.

###### STATUTORY

New provisions to allow for the contracting of Right-of-Way workload, which is currently not allowable and difficult to hire state staff for, could benefit from the same flexible hiring used for traditional engineering work.

Project Initiation Document (PID) development could also benefit from express authority to contract workload for a large influx of funding. PID development is the first step in project development, and a bottleneck here could jeopardize downstream success.

#### FISCAL

BCPs will be needed for each of the programs identified, and budget appropriations will need to be made for Capital Outlay and Local Assistance. Depending on the timing of any transportation bills, a special BCP/ Finance letter package would need to be developed, possibly even seeking an off-cycle appropriation in order to quickly hire and appropriately utilize the new fund sources.

Early in the implementation of the staffing plan, we must rely on broad estimates of resource needs. This will undoubtedly cause the need for adjustments to initial estimates in subsequent years. Such adjustments will likely be heavily scrutinized, even though the necessity will likely be agreed to in advance.

In the buildup regarding new and expanded transportation funding, the Department estimated the number of staffing that would be needed to appropriately utilize \$2 billion in additional annual funding. This amount was related to a request by Assembly Budget Subcommittee #3, but the staffing levels should be scalable for any level of new funding. The following table lays out the estimated staffing changes based on a very high level analysis. Specific policy changes could significantly change the make-up or the size of the staffing increases. Of particular note is the maintenance level, which, as part of the policy discussion at the time, is set at the level to utilize approximately \$100 million of annual funding as identified in the development of the Governor's Transportation Funding proposal, released in September of 2015.

Estimated Full-Time Equivalent Need to Support an Additional \$2 billion Annual Investment						
Resource Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Planning Efforts and PIDs	160	160	160	160	160	160
Capital Outlay Support	850	1,800	2,300	2,800	3,300	3,300
Maintenance	925	925	925	925	925	925
Administrative Support	150	150	150	120	120	120
<b>Total</b>	<b>1,935</b>	<b>2,885</b>	<b>3,385</b>	<b>3,885</b>	<b>4,385</b>	<b>4,385</b>

Note: Amounts shown include state staff and consultant resources, and represent total need in each year, not additive across years.

#### **OUTCOMES AND BENEFITS**

A ten-year, \$16 billion investment of increased funding on state highways, bridges, and culverts will achieve measurable improvements to the state transportation system. A table, that outlines the projected outcomes and benefits expected from targeted increases in transportation investment is being updated as part of the 2017-18 budget proposal.

## **2. Road Charge**

#### **POLICY AND PROGRAM OBJECTIVES**

The live demonstration of the Road Charge Pilot Program will be concluding in March, 2017. Over the remaining months of the 2016/2017 fiscal year, Caltrans will be analyzing the data



and preparing the road charge pilot findings report for submittal to the policy and fiscal committees of the Legislature and the California Transportation Commission (CTC). Investments to preserve transportation systems simply have not kept pace with the demands on them, and this underfunding has led to the decay of one of California's greatest assets, jeopardizing California's economy and quality of life. State and Federal resources for addressing this issue are limited.

Leveraging the work of the California Road Charge Pilot Program, Caltrans successfully applied for Fixing America's Surface Transportation (FAST) Act grant funds to enhance the state's road charge pilot program. Specifically, the state was awarded FAST Act funds for the following work:

- Development and launch of a robust education and outreach effort
- Study of organizational design issues related to implementation of a statewide road charge program
- Investigation into a pay-at-the-pump/charging station option featuring a mileage recording and reporting method that mimics the current gas tax model.

*Supports: Stewardship and Efficiency*

## **POLICY IMPLEMENTATION AND PROGRAM DELIVERY**

### MANAGEMENT AND ADMINISTRATIVE

In order to manage and administer the FAST Act Phase 2 work, and to ensure adequate resource levels are provided for the development, implementation and monitoring of processes, strategies, and outcome measures, a three year extension of the five (5) limited term positions provided in SB 1077 will be required, and the potential addition of two (2) limited term position would be necessary to provide the level of oversight and data analysis required for this effort.

### STATUTORY

Depending on the outcome of the current road charge pilot program and the intent of the Administration and Legislature, legislation could be needed to develop and implement a road charge program. This legislation would need to address, at a minimum, the implementing body, timeline for implementation, and transition strategy, as well as rate setting methodology.

Currently, SB 1077 has a sunset date of January 1, 2019. In order to manage and administer the FAST Act Phase 2 program, legislation would be required to extend the sunset date as well as the extension of the limited term positions currently in statute. Additionally, a great level of uncertainty exists surrounding the FAST Act grant award structure and timing, therefore, legislation would be needed to allow for an extended encumbrance period for the road charge contract dollars, which will give Caltrans the flexibility to mitigate any risks associated with changes in scope, tasks, activities, schedule and budget.

### FISCAL

Caltrans, in anticipation of the Phase 2 FAST Act Notice of Funding Opportunity (NOFO), submitted a Budget Change Proposal (BCP) (2017/2018) for the demonstration of a pay-at-the-pump/charging station option, valued at \$20M (\$10M federal/\$10M state). Initially, Caltrans anticipated the release of the NOFO in the spring of 2017, however FHWA has accelerated their timetable and have indicated they will be releasing the NOFO in December, 2016.

Additionally, FHWA had indicated their desire to program the remaining \$80M in Surface Transportation System Funding Alternatives (STSFA), Section 6020 of the FAST Act, during the Phase 2 process, however with the accelerated timeline they are considering a smaller solicitation of \$20M. Depending on the parameters of the December NOFO, Caltrans will need to revisit the BCP request and adjust appropriately. It is anticipated that Phase 3 of the FAST Act grant funding will be for the remaining funding available in the overall program; \$60M.

### **OUTCOMES AND BENEFITS**

The State is under tremendous pressure to maintain its service levels and the quality of its transportation network while at the same time facing a rapid decrease in funding. Therefore, Caltrans intends to pursue a Phase 3 FAST Act grant, in the 2018/2019 fiscal year to continue the demonstration of the pay-at-the-pump/charging station model, or depending on the preference of the Administration and Legislature, to potentially provide seed money for the development of a statewide road charge program.

## **SAFETY**

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### **3. Bike & Pedestrian Safety Plan**

#### **POLICY AND PROGRAM OBJECTIVES**

The Pedestrian Safety Improvement Monitoring (Pilot) Program was implemented in 2016. The purpose of the program is to identify and address pedestrian-related high collision concentration locations. A similar Bicycle Safety Improvement Monitoring (Pilot) Program is being developed, and is scheduled to be implemented in 2018. Both Pilot Programs will be funded through the Highway Safety Improvement Program (HSIP).

Future Pilot program activities will include development and implementation of a pedestrian volume data system and pedestrian infrastructure inventory for the California State Highway System. It will also include refinement and implementation of improved methods for monitoring concentrations of collisions.

A complimentary pedestrian safety improvement program is underway, which identifies an alternate risk assessment method called systemic safety analysis. The objective is to develop a tool to identify safety countermeasures that can be implemented systemically across sites with similar characteristics. To accomplish this, crashes along the study region are counted for specific crash type and facility type pairs. The result will provide guidance about the possible set of countermeasures that can be used to reduce the specific type of crashes for each facility type.

The long term objective is to establish an ongoing, comprehensive pedestrian and bicycle safety program to substantially reduce fatalities and serious injuries on the California State Highway System.

*Supports: Safety & Health*

## POLICY IMPLEMENTATION AND PROGRAM DELIVERY

### MANAGEMENT AND ADMINISTRATIVE

The 129 pedestrian-related collision locations identified in the Pilot Program are currently undergoing traffic safety investigations to determine probable cause and to identify potential countermeasures to reduce collisions involving pedestrians. The investigations will be completed by February 2017.

The Department has started working on the first-ever California State Bicycle and Pedestrian Plan, which will be a Caltrans plan for non-motorized transportation facilities on the state highway system that focus on connectivity with transit, passenger rail, high speed rail, and local and regional transportation systems, as well as addressing bicycle and pedestrian safety.

### FISCAL

The Department is exploring the possibility funding systemic safety improvements through the Active Transportation Program (ATP). It will continue to fund the spot safety improvement programs through the HSIP.

## OUTCOMES AND BENEFITS

These initiatives will help the Department to achieve its objective of tripling bicycle travel and doubling walking by 2020, as well as reducing bicycle and pedestrian fatalities by 10 percent annually through 2020. Specific outcomes include:

- Completion of 129 pedestrian-related traffic safety investigations. Based on Pilot Program progress, 90 countermeasures are anticipated to be programmed into the 2018 SHOPP.
- Identification of bicycle-related high collision concentration locations most likely to benefit from safety improvements, and traffic safety investigations of those locations.
- The Department will submit Cycle 4 ATP applications for viable pedestrian-related systemic safety improvements.

## *INNOVATION and PROCESS IMPROVEMENT*

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### **4. Accelerated Delivery Bridge Program**

#### **POLICY AND PROGRAM OBJECTIVES**

The Department's bridge program has been well managed. However, with perennial funding constraints, the program is falling behind on replacing aging and critical bridges. The program will strategically identify bridges on critical freight corridors for improvement and using innovative delivery options, these will be delivered in waves as they become ready.

*Supports: Stewardship and Efficiency*

#### **POLICY IMPLEMENTATION AND PROGRAM DELIVERY**

##### MANAGEMENT AND ADMINISTRATIVE

Department experts and managers are reviewing bridge inventory with stated criteria to expedite the repair of critical bridges. Efforts are also underway to resource the development of scoping documents to better inform the project development process for these bridges. The Department expects to use innovative delivery options like design-build

and CMGC for efficient and accelerated delivery. While project identification is well underway, project delivery activities will begin in the 2017/18 fiscal year.

#### FISCAL

The Department is considering the use of Grant Anticipation Revenue Vehicle (GARVEE) bonds as a funding mechanism for these bridges among other resources including SHOPP and potential new revenues. This program will use up to \$450 million in GARVEE bonds to leverage the accelerated delivery of appropriate bridge bundles.

#### **OUTCOMES AND BENEFITS**

This program will retire several high-volume corridor bridges and restore extended service lives, resulting in lower maintenance costs. While the program is still under development, Caltrans estimates about 150 bridges will be repaired faster and with cost savings due to this effort. It should also eliminate weight restrictions on some bridges along critical freight corridors. After these bridges have been fixed, it is expected that these addressed corridors will result in significant freight movement time savings. Identification process is almost concluded for projects that will require scoping documents.

### **5. Integrated Corridor Management**

#### **POLICY AND PROGRAM OBJECTIVES**

Caltrans will continue to support several initiatives over the next 18 to 24 months involving Integrated Corridor Management (ICM). One of the objectives in the Department's System Performance goals is *to develop integrated corridor management strategies for those corridors of highest statewide significance.*

ICM employs advanced intelligent transportation technologies to manage the entire transportation network – from freeways to arterials, transit to parking. According to the United States Department of Transportation, “Through an ICM approach, transportation professionals manage the corridor as a multimodal system and make operational decisions for the benefit of the corridor as a whole.”

*Supports: System Performance*

#### **POLICY IMPLEMENTATION AND PROGRAM DELIVERY**

##### MANAGEMENT AND ADMINISTRATIVE

Caltrans committed to complete five ICM implementation plans by 2018. The five corridors are Interstate 210 in Los Angeles County, Interstate 80 in Alameda and Contra Costa Counties, State Route 57 in Orange County, Interstate 110 in Los Angeles County, and State Route 91 in Orange County. Concept of Operations documents (Implementation Plans) have been completed for the Interstate 80 and Interstate 210 projects. Work is underway to create Concept of Operations documents for the Route 57, 91 and I-110 corridors; all three of which should be completed by mid-2018.

Caltrans has committed to implementing three ICM corridors by 2020. Two projects have been implemented and are in operation. These projects are located on Interstate 15 in San Diego County and Interstate 80 in Alameda and Contra Costa Counties.

## OUTCOMES AND BENEFITS

A third project on Interstate 210 in Los Angeles County is in the high-level design phase and is on schedule for activation in late 2018. The first phase includes the corridor segment that extends from Pasadena 12.5 miles eastward, just past the intersection with I-605 in Duarte.

Results of Caltrans' operational ICM projects and the I-210 pilot will assist in determining the exact benefits of ICM, while expected benefits include the following:

- improved multi-modal access
- travel-time reliability;
- safety;
- system efficiency;
- information availability;
- reduced delay resulting from events and incidents; and
- increased throughput of people and goods through the corridor.

## 6. e-Construction

### POLICY AND PROGRAM OBJECTIVES

The mobile device and electronic document pilot project will outline potential statewide savings for both direct costs and reduced environmental impacts if mobile devices are implemented for field construction. The pilot project and subsequent report will be complete in Spring of 2017.

*Supports: Safety & Health, Stewardship and Efficiency*

### POLICY IMPLEMENTATION AND PROGRAM DELIVERY

#### MANAGEMENT AND ADMINISTRATIVE

The goal of the pilot project is to report on the benefits of using updated technology in the administration of construction contracts. The draft pilot report is 85% complete with the final report due in early 2017.

The methodology is to supply construction staff with a pre-loaded tablet device with construction contract documents and reference materials necessary to administer their construction contract. The pilot project is monitoring and evaluating the following three areas:

- The efficiency of using electronic documents on the tablet device in lieu of paper documents.
- The benefits of using electronic daily reports in lieu of handwritten daily reports.
- The benefits of an electronic document management system as a replacement for the current paper filing process.

The pilot also identifies challenges and actions that need to be addressed so this innovative method can be successful such as:

- The acquisition and security issues associated with tablet devices..
- The right scope and scale of technology and infrastructure needed.
- The construction record-keeping and record-retention policies need to be re-evaluated to allow digital records.

### OUTCOMES AND BENEFITS

The implementation of this pilot is being performed to evaluate: the potential reduction of the Department's environmental footprint; potential efficiencies achieved by using tablet devices; and data management systems and transparency.

The report will be completed in early 2017. The intention is to be able to obtain tablet devices for field staff over the next two years so the Department can take advantage of these benefits. While not complete, preliminary benefits include elimination of paper documents, allowing for fewer trips back and forth to the field to consult various paper documents and allowing for potential quicker resolution of field issues with the information available at a person's fingertips in the tablet device.

## SUSTAINABILITY/CLIMATE

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### 7. Tier 4 Construction Equipment Pilot Projects

#### POLICY AND PROGRAM OBJECTIVES

The Tier 4 Construction Equipment Pilot Project objectives are to advertise and award two construction projects which require contractors to use Tier 4 off-road diesel equipment during construction. Informed by the outcome of the two project awards, the Department will advertise eight additional projects which will be located in Air Resource Board nonattainment areas for off-road diesel equipment. Requiring contractors to use Tier 4 construction equipment, which is cleaner than currently required by ARB regulations, will reduce the equipment exhaust emissions anticipated during construction. Reducing air pollution from exhaust emissions during construction demonstrates Caltrans' commitment to meeting the air pollution and greenhouse gas reduction objectives identified in both the "Sustainability, Livability and Economy" and the "Safety and Health" goals outlined in the Caltrans Strategic Management Plan.

*Supports: Sustainability, Livability, and Economy; Safety and Health*

#### POLICY IMPLEMENTATION AND PROGRAM DELIVERY

##### MANAGEMENT AND ADMINISTRATIVE

In 2017, Caltrans will advertise and award two construction pilot projects requiring utilization of Tier 4 off-road diesel equipment during construction:

1. Pilot Project No. 1 in District 6. EA 06-0K460, a SHOPP-funded \$17.9 million dollar bridge replacement project on Route 99 in Kern County. This project is located in the San Joaquin Valley Air Basin.
2. Pilot Project No. 2 in District 8. EA 08-0N971, a SHOPP-funded \$21.4 million dollar median buffer and shoulder widening project on US Route 395 in San Bernardino County. This project is located in the Mojave Desert Air Basin.

Based on the bids received for the two pilot projects, we will determine if requiring the use of Tier 4 construction equipment results in a change in the order of the bids compared to those received for performing the work as required by current Air Resources Board (ARB) regulations. Estimated accomplishment date of this objective is fall 2017.

#### **OUTCOMES AND BENEFITS**

In 2018, Caltrans will establish an ongoing program requiring Tier 4 off-road diesel equipment on select construction projects.

Reducing particulate matter and oxides of nitrogen (NOx) from exhaust emissions during construction reduces environmental impacts from the transportation system and promotes community health.

### **8. ZEV Action Plan**

#### **POLICY AND PROGRAM OBJECTIVES**

In 2012, Governor Brown issued Executive Order B-16-12 directing State government agencies to help accelerate the market for zero-emission vehicles (ZEVs) in California. The Executive Order called for 1.5 million ZEVs in California by 2025 and established several milestones on the pathway toward this target. In October, 2016, the Governor's Office released its updated ZEV Action Plan, setting new strategies and targets to help accelerate the adoption of zero-emission technologies in California.

*Supports: Sustainability, Livability, and Economy*

#### **POLICY IMPLEMENTATION AND PROGRAM DELIVERY**

##### MANAGEMENT AND ADMINISTRATIVE

To accomplish these targets, the Department has prioritized ZEV implementation actions and assigned a "30-in-30" program manager to assure that at least 30 new public charging stations are in place by 2018.

##### REGULATORY

The Department will work through constraints associated with the implementation of ZEV fueling stations within the public rights-of-way such as restriction on commercialization of public property; cost recovery of capital investments; and maintenance and operations costs.

##### STATUTORY

Installation of ZEV charging stations will require programming these projects into the State Highway Operation and Protection Program (SHOPP). All programmed projects in the SHOPP need to be approved by the California Transportation Commission. If the ZEV projects are deemed to be ineligible for SHOPP funds, statutory actions may be required.

##### FISCAL

The fiscal impacts of implementing the Governor's 2016 ZEV Action Plan at Caltrans facilities can be accommodated through normal budgetary processes as long as these projects are successfully programmed in the SHOPP.

#### **OUTCOMES AND BENEFITS**

Consistent with the objectives of the Executive Order, our ZEV 2-year outcomes include:

- Installing public DC fast-charging stations for Electric Vehicles (EVs) at a minimum of 30 locations (six pilot projects and 24 other locations). Part of this goal includes accelerating existing projects.
- Implementing three hydrogen fueling stations, with the first installation at Sylmar in the Los Angeles area for Caltrans fleet with a trailer-mounted refueling station.
- Increasing workplace charging stations to allow employee EV charging in at least 5 percent of Department-owned parking spaces.

## 9. Complete Streets Implementation Action Plan (CSIAP2)

### POLICY AND PROGRAM OBJECTIVES

The Division of Transportation Planning created the Office of Smart Mobility and Active Transportation to provide focused and practical guidance on implementing the Department's goals of Smart Mobility, Complete Streets, and Active Transportation into planning and project development, and to implement the Department's Complete Streets policy.

As of June, 2016, 86% of the High Focus Action items are underway or completed. Caltrans produced the Smart Mobility Framework (SMF) Learning Network Forums and Webinars. A total of six Forums were delivered in 2016, and six Webinars will be delivered late in 2016 and early 2017 on SMF principles and performance measures, health in transportation, and real-world implementation examples that incorporate Smart Mobility and Complete Streets approaches.

*Supports: Sustainability, Livability, and Economy*

### POLICY IMPLEMENTATION AND PROGRAM DELIVERY

#### MANAGEMENT AND ADMINISTRATIVE

To ensure the action plan and other implementation activities on Complete Streets are actively pursued, a management steering committee will be re-established to provide responsible direction and accountability.

To integrate Smart Mobility and Complete Streets principles into Caltrans planning, project development, and delivery in an effort to institutionalize these principles such as Smart Mobility Framework Learning Network;; guidance and technical assistance; integration of 33 Complete Streets Features into the SHOPP tool to track complete streets in project development; and tracking progress of action items identified in the Complete Streets Implementation Action Plan (CSIAP) 2.0 from June, 2014-June 2017.

### OUTCOMES AND BENEFITS

By assuring streets meet the transportation needs of all users of the transportation system, including pedestrians, bicyclists, transit users, and the mobility-impaired, we are helping to reach the goals laid out in our Caltrans Strategic Management Plan (triple biking, double walking and transit) and CTP 2040. These include transportation equity, improved health by reducing greenhouse gas emissions, and providing opportunities for active transportation.

As of November 15, 2016, of the 510 Project Initiation Documents (PIDs) in queue for the 2018 SHOPP, 181 are projects with Complete Street features. The Caltrans Performance Measures associated with the Complete Streets target 39 percent of projects having complete street features by 2020. As the current SHOPP PID achieve about 35 percent of



projects with complete street elements, Caltrans will both add/modify PIDs toward this goal and set aside a sufficient reservation account to ensure the department's target is met with the 2018 SHOPP. These features include intersection, sidewalk and ramp improvements for pedestrians and mobility impaired, bike and pedestrian gap closures, transit pull outs and stops, lighting, park and ride lots, bicycle lanes and separated bikeways, commonly called cycle tracks.

## **10. California Sustainable Freight Action Plan (CSFAP)**

### **POLICY AND PROGRAM OBJECTIVES**

Several upcoming federal and State initiatives will result in freight transportation system efficiencies. The two primary undertakings involve implementation of the California Sustainable Freight Action Plan (CSFAP) and meeting the requirements of the federal Fixing America's Surface Transportation (FAST) Act.

In 2015, Governor Brown issued Executive Order B-32-15, directing State government agencies to develop a plan aimed at improving freight efficiency, transitioning to zero-emission technologies, and increasing the competitiveness of California's freight system by July, 2016. Caltrans is responsible for meeting the resulting CSFAP's target to improve freight system efficiency by 25 percent through the implementation of several actions.

To receive federal reauthorization FAST Act funding, an updated freight plan containing additional elements such as a Freight Investment Plan, designated Critical Rural and Urban Freight Corridors, and an assessment of freight system performance must be submitted by December 2017.

*Supports: Sustainability, Livability, and Economy*

### **POLICY IMPLEMENTATION AND PROGRAM DELIVERY**

#### MANAGEMENT AND ADMINISTRATIVE

Caltrans is the lead for 25 State agency actions, a joint partner for five other agencies, and is responsible for two of the three pilot projects listed in CSFAP. Success will require a department-wide effort with support, commitment, and cooperation at all levels.

An efficiency group, consisting of public and private stakeholders including academia and technical and modal experts, has been established to help vet potential project ideas, provide advice on investments, and cultivate partnerships. This group will also assist in developing the freight efficiency target metric and method for its measurement through a research task order using workgroup meetings and statewide webinars & teleconferences. Reporting to the Caltrans Executive Board, California Freight Advisory Committee, the interagency group, and others will occur as needed.

The Department will lead activities involved with new requirements of the FAST Act through statewide coordination, collaboration, and communication with private, state, local, and federal stakeholders. Multiple teleconferences and workshops are scheduled throughout the next year and beyond.

#### REGULATORY

Potential changes such as truck weights and sizes, and use of public rights-of-way for fueling facilities may need new regulation.

STATUTORY

FAST Act § 8001; 49 U.S.C. 70101-70103, 70201-70204, provides statutory provisions for investments in the area of freight transportation. Mandates found in this legislation sets the ground rules for States to receive federal funding.

### FISCAL

The fiscal impacts of fully implementing the CSFAP and new FAST Act could be substantial. Without additional funding and personnel resources, meeting the targets will be difficult. FAST Act authorizes roughly \$305 billion for highway, transit, safety, and rail-related programs. California apportionment is estimated at \$582.6 million for the NHFP, distributed over a five-year program.

### **OUTCOMES AND BENEFITS**

An updated and comprehensive plan to meet the new FAST Act requirements will enable California to receive federal freight funding and efficiently plan for its use through performance monitoring. Additional funding will help drive freight efficiency contribution to the economy as freight represented 32 percent of the State GDP and generated over 5 million jobs in 2014.

## ***PERFORMANCE MANAGEMENT and ORGANIZATIONAL EXCELLENCE***

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### ***11. Director's Office of Innovation, Risk, and Strategic Management (DOIRSM)***

#### **POLICY AND PROGRAM OBJECTIVES**

The Director's Office of Innovation, Risk and Strategic Management (DOIRSM) was created to harness the synergistic opportunities inherent in the alignment of the Department's strategic management, process improvement, and innovation and risk management activities. These activities, which had reported to various managers in the past, now report directly to the Chief Deputy Director and the Director, thus providing opportunity to align these important functions to the Department's strategic focus. The Office Chief will be the Department's lead on performance management, risk and innovation.

*Supports: Organizational Excellence*

#### **POLICY IMPLEMENTATION AND PROGRAM DELIVERY**

##### MANAGEMENT AND ADMINISTRATIVE

The Office was created through redirection of existing resources and the realignment of some existing functions within the Department. Leadership will also use the Office as a training opportunity for staff on a rotational basis to further supplement the unit's staffing. Efforts are underway to recruit a candidate for the Office Chief position.

#### **OUTCOMES AND BENEFITS**

DOIRSM enhances the Department's ability to execute the Strategic Management Plan, and its short existence has already yielded benefits hitherto unrealized through the coordination of enterprise risk management and strategic planning. DOIRSM will ensure further accountability through a more transparent management of the various goal metrics under the Strategic Management Plan.

## 12. Organizational Excellence

### POLICY AND PROGRAM OBJECTIVES

As a result of the findings of the 2016 Organizational Excellence employee survey the department is focusing its efforts over the next 24 months on four major focus areas: improve management; facilitate communication; promote innovation and process improvement; and increase training.

*Supports: Organizational Excellence*

### POLICY IMPLEMENTATION AND PROGRAM DELIVERY

#### MANAGEMENT AND ADMINISTRATIVE

Strategies to improve management include; annual supervisor refresher courses, quarterly newsletters, a manager's helpline. Also included are ways to engage employees, such as; regular staff meetings, communication portals, mentorship programs, rotations, plus-ones, individual development plans, leadership visits to all-staff meetings, and internal communication plans.

To facilitate communication, continued support and improvements will be made to the Mile Marker, Director's Town Hall meetings, and News Flash communications. Other modes of communication are being tested as well; social media, online communication portals, and communication guidance documents.

Innovation has been an integral part of Caltrans history, but there are new dimensions to facilitate creativity in the workplace. Lean 6-Sigma, Innovation Station, Lean White Belt training, and Innovation Fairs are all part of the plan to increase employee participation in creative thinking.

In order to increase the amount of training at Caltrans, a number of strategies are being considered. These strategies include; creating a web portal for digital training and open universities to provide on-demand training, creating a training history in the Learning Management System to capture additional training, include lower ranks in management and leadership training courses.

### OUTCOMES AND BENEFITS

The purpose of the efforts above are to ensure that the Department fulfills its strategic goal of Organizational Excellence through the four major focus areas of: improve management; facilitate communication; promote innovation; and increase training. The department's process improvement initiative has resulted in efficiencies of approximately \$12M in the first 2 years, from 19 projects. Continuance of the initiative over the next 2 years will result in at least 30 more process improvements with the expectation of achieving a similar level of efficiencies in process improvements.

These combined efforts will get us to our goal to be a national leader in delivering quality service through excellent employee performance, public communication, and accountability.

### APPENDIX A – SUMMARY MATRIX

WHAT	HOW	OUTCOMES AND BENEFITS
<b>Governor’s Funding Package, and Staffing Strategy</b>	<ul style="list-style-type: none"> <li>• Management &amp; Administrative</li> <li>• Statutory</li> <li>• Fiscal</li> </ul>	A ten-year, \$16 billion investment of increased funding on state highways, bridges, and culverts will achieve measurable improvements to the state transportation system.
<b>Road Charge</b>	<ul style="list-style-type: none"> <li>• Management &amp; Administrative</li> <li>• Statutory</li> <li>• Fiscal</li> </ul>	Continuance of demonstration of the pay-at-the-pump/charging station model, or potentially provide seed money for the development of a statewide road charge program.
<b>Bike &amp; Pedestrian Safety Plan</b>	<ul style="list-style-type: none"> <li>• Management &amp; Administrative</li> <li>• Fiscal</li> </ul>	Completion of 129 pedestrian-related traffic safety investigations; 90 countermeasures are anticipated to be programmed into the SHOPP; identification of bicycle-related high collision concentration locations and traffic safety investigations of those locations; Cycle 4 ATP application for pedestrian-related systemic safety improvements.
<b>Accelerated Bridge Delivery Program</b>	<ul style="list-style-type: none"> <li>• Management &amp; Administrative</li> <li>• Fiscal</li> </ul>	Retires several high volume corridor bridges; restores extended service life and lowers maintenance costs; eliminate weight restrictions on some bridges along critical freight corridors.
<b>Integrated Corridor Management</b>	<ul style="list-style-type: none"> <li>• Management &amp; Administrative</li> </ul>	Pilot project on I-210 in Los Angeles County scheduled for activation in late 2018. Improves multi-modal travel-time reliability; safety; system efficiency; information availability; reduced delay resulting from events and incidents; and increased throughput of vehicles, people and goods on the corridor.
<b>e-Construction</b>	<ul style="list-style-type: none"> <li>• Management &amp; Administrative</li> </ul>	Tablet devices for field staff over the next two years; reducing need to produce paper documents, fewer trips back & forth to the field; quicker resolution of field issues with information available at a person’s fingertips.
<b>Tier 4 Construction Equipment</b>	<ul style="list-style-type: none"> <li>• Management &amp; Administrative</li> </ul>	Ongoing program which requires utilization of Tier 4 equipment during construction; eight additional construction pilot projects requiring utilization of Tier 4 equipment during construction; resulting in reduction of particulate matter and NOx from exhaust emissions during construction reducing environmental impacts, promoting community health.
<b>ZEV Action Plan</b>	<ul style="list-style-type: none"> <li>• Management &amp; Administrative</li> <li>• Regulatory</li> <li>• Statutory</li> <li>• Fiscal</li> </ul>	Minimum of 30 Public DC fast-charging stations for Electric Vehicles (EVs); three hydrogen fueling stations; workplace charging stations at least 5 percent of department-owned parking spaces.
<b>Complete Streets Implementation Action Plan (CSIAP2)</b>	<ul style="list-style-type: none"> <li>• Management &amp; Administrative</li> </ul>	181 Project Initiation Documents (PIDS) in the 2018 SHOPP contain Complete Street features: intersection, sidewalk and ramp improvements for pedestrians and mobility impaired; bike and pedestrian gap closures; transit pull outs and stops; lighting; park and ride lots; bicycle lanes and separated bikeways.
<b>California Sustainable Freight Action Plan (CSFAP)</b>	<ul style="list-style-type: none"> <li>• Management &amp; Administrative</li> <li>• Regulatory</li> <li>• Statutory</li> <li>• Fiscal</li> </ul>	Additional freight funding to improve freight efficiency, transitions to zero-emission technologies, and increases competitiveness of California’s freight system.
<b>Director’s Office of Innovation, Risk, and Strategic Management (DOIRSM)</b>	<ul style="list-style-type: none"> <li>• Management &amp; Administrative</li> </ul>	Enhances the Department’s ability to execute its SMP; short existence has already yielded benefits hitherto unrealized through the coordination of enterprise risk management and strategic planning; will ensure further accountability through managing the various goal metrics under the Strategic Management Plan.
<b>Organizational Excellence</b>	<ul style="list-style-type: none"> <li>• Management &amp; Administrative</li> </ul>	Improved national leadership; excellence in employee performance; improved public communication, and accountability; continuance of innovation and process improvement efforts with at least 30 new process improvements over the next two years.