

# Department of Transportation

## 2015 SLAA REPORT

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March 10, 2016

Brian Kelly, Secretary  
California Transportation Agency  
915 Capitol Mall, Suite 350-B  
Sacramento, CA 95814

Dear Mr. Kelly,

In accordance with the State Leadership Accountability Act (SLAA), the Department of Transportation submits this report on the review of our systems of internal control and monitoring processes for the biennial period ended December 31, 2015.

Should you have any questions please contact Kome Ajise, Chief Deputy Director, at (916) 654-5791, [Kome.Ajise@dot.ca.gov](mailto:Kome.Ajise@dot.ca.gov).

### **BACKGROUND**

#### **Caltrans' Mission**

Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.

#### **Caltrans' Vision**

A performance-driven, transparent and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.

To achieve our mission and vision, Caltrans has established the following goals and values:

#### **Goals:**

- **Safety and Health:** Provide a safe transportation system for workers and users, and promote health through active transportation and reduced pollution in communities.
- **Stewardship and Efficiency:** Money counts. Responsibly manage California's transportation-related assets.
- **Sustainability, Livability and Economy:** Make long-lasting, smart mobility decisions that improve the environment, support a vibrant economy, and build communities, not sprawl.
- **System Performance:** Utilize leadership, collaboration and strategic partnerships to develop an integrated transportation system that provides reliable and accessible mobility for travelers.
- **Organizational Excellence:** Be a national leader in delivering quality service through excellent employee performance, public communication, and accountability.

#### **Values:**

- **Integrity** – We promote trust and accountability through our consistent and honest actions.
- **Commitment** – We are dedicated to public service and strive for excellence and customer satisfaction.
- **Teamwork** – We inspire and motivate one another through effective communication, collaboration, and partnership.
- **Innovation** – We are empowered to seek creative solutions and take intelligent risks.

The goals and values provide the foundation for Caltrans' strategic planning efforts including the development and implementation of the 2015-2020 Strategic Management Plan.

#### **Statutory Duties and Critical Business Functions**

Caltrans derives statutory authority from California Government Code section 14001-14016. Caltrans is responsible for management of the California highway and freeway system, and the overall movement of people, goods and commerce within California's transportation system.

## Districts and Programs

In accordance with Government Code section 14007, Caltrans is organized into twelve geographic districts and ten programs.

District 1: Eureka, District 2: Redding, District 3: Marysville/North Region, District 4: Oakland, District 5: San Luis Obispo,  
District 6: Fresno, District 7: Los Angeles, District 8: San Bernardino, District 9: Bishop, District 10: Stockton, District 11: San Diego, District 12: Irvine

Administration, External Affairs, Finance Program, Information Technology, Maintenance & Operations, Planning & Modal, Project Delivery, Audits & Investigations, Business & Economic Opportunity, and Legal

## RISK ASSESSMENT PROCESS

Caltrans used the Risk Management Standards from the International Standards Organization (ISO 31000) to develop our risk assessment process. From May to October 2015, the OERM conducted separate risk assessments with each district and headquarters program. The risk assessment team consisted of two managers and two risk analysts from Caltrans' Office of Enterprise Risk Management (OERM). A representative from Caltrans' Audits and Investigations was in attendance at each risk assessment. Audits & Investigations participated in the risk assessment process to gain a better understanding of the risks identified for control testing and future audit planning.

Each risk assessment meeting included executive and senior management from the respective district or program, and their key staff. During the meetings, OERM reviewed the:

- Purpose of the enterprise-wide risk assessment,
- Standard risk language (taken from the ISO 31000 Risk Management Vocabulary booklet),
- Tools for describing a risk, and,
- Process for documenting the risk.

Caltrans used a combination of brainstorming and expert interviews to identify risks. Both risk identification methods are congruous with the ISO 31000 Risk Management Process. The risk assessment meetings allowed attendees to openly identify risks that have uncertainty upon our objectives. When establishing the context, our objectives were defined as the Caltrans goals and values. Each group was asked to write the risk in such a manner that if "x" happened then "y" may occur. Risks were evaluated as both threats and opportunities.

For each risk, the program and district managers identified the Caltrans objectives that were most greatly affected, the controls in place, the likelihood of occurrence and the impact of occurrence. In alignment with the ISO model, attendees reviewed the controls that are in place today to address the outcome; the controls included human and cultural factors as well as legal and procedural controls. Once controls were identified, attendees rated the likelihood and impact of each risk. The rating was done on a 5x5 scale and the findings were charted on heat maps, which displayed threats and opportunities in relation to each other in a single graphic chart. Caltrans has completed the risk identification process and is currently evaluating risks to determine appropriate treatment. In some cases, treatment has already begun or has been identified. For other risks, the treatment plan is in development.

## EVALUATION OF RISKS AND CONTROLS

**Operations- Internal- Physical Resources—Maintenance, Upgrades, Replacements, Security**

### ASSET MANAGEMENT

*Executive Sponsor:* Kome Ajise, Chief Deputy Director

*Risk Manager:* Michael B. Johnson, State Asset Management Engineer

Federal and state legislation now requires that all state departments of transportation adopt an asset management model for prioritizing project investments for pavement and bridges. Asset management involves the balancing of costs, opportunities and risks against the desired performance of assets, to achieve our organizational objectives. Caltrans' Transportation Asset Management Plan (TAMP) is a risk-based initiative that seeks to improve investment decision making to maximize the value of public transportation infrastructure in support of California's livability, environmental sustainability, and economic health. This program is establishing new ways of doing business that integrates Caltrans' approach to risk, project delivery, maintenance, and continuity planning for users of the transportation system.

The asset management program involves uncertainties involved in implementation in terms of our ability to meet our stated objectives, and in the potential unintended consequences stemming from our new method of prioritizing investments. Significant penalties also apply if Caltrans does not meet performance targets set at the national level for the National Highway System (NHS).

## MITIGATION / CONTROLS

### **Control A - Fully Implemented**

Develop pilot evaluation criteria for a Multi Objective Decision Analysis (MODA) approach to project selection.

### **Control B - Partially Implemented**

Apply pilot criteria on a subset of State Highway Operation and Protection Program (SHOPP) projects and present to the California Transportation Commission (CTC).

### **Control C - Fully Implemented**

Create an Office of Asset Management.

## **Operations- Internal- Staff—Key Person Dependence, Succession Planning**

### **WORKFORCE AND SUCCESSION PLANNING**

*Executive Sponsor:* Cris Rojas, Deputy Director of Administration

*Risk Manager:* Michelle Tucker, Chief Risk Officer

If Caltrans does not recruit and retain new high-caliber employees—particularly those in leadership positions—while utilizing knowledge transfer techniques, then Caltrans may experience a generational vacuum with less experienced and knowledgeable employees. This may lead to a less effective workforce, low morale, diminished work output, and criticism from external agencies and the public.

Caltrans has been designated along with a handful of other agencies as “high risk” by the California State Auditor (CSA) in terms of the prospective loss of organizational knowledge through retirement attrition. As of June 2015, 55.5% of Caltrans employees are over the age of 50. Knowledge management, retention, and recruitment practices will play an ever-increasing and pivotal role as mid-level managers promote to senior-level positions vacated by the current wave of retiring staff. This will cause a ripple effect throughout all levels of management, supervision, and rank and file in the department. It will be imperative for Caltrans to have knowledge transfer strategies in place to help transition promoting staff and put them in the best situation to succeed.

It is possible to minimize the impacts of workforce transitions by planning for and closing gaps between existing capabilities and forecasted needs in a way that addresses their related recruitment and retention challenges. Proactive knowledge management practices may mitigate these threats even further. We can work to ensure that recruitment and staff development resources are utilized efficiently and in response to highest priority needs.

## MITIGATION / CONTROLS

### **Control A - Fully Implemented**

Surveyed all employees to determine state of Caltrans workforce and succession planning efforts. These questions will be included in subsequent all employee surveys.

### **Control B - Fully Implemented**

Adopted a strategic objective in Caltrans 2015-2020 Strategic Management Plan that all major occupational groups adopt at least one WFP strategy by 2020.

### **Control C - Fully Implemented**

Identified WFP champions to act as focal points/liaisons in districts and divisions for quarterly reporting.

### **Control D - Fully Implemented**

Implemented bi-monthly workforce planning forums and brown bag sessions.

### **Control E - Fully Implemented**

Created a 2015 Annual Caltrans Workforce Plan summarizing of workforce and succession plans for Caltrans occupational groups, including demographic data, workforce solutions, and activities.

## Operations- Internal- Oversight, Monitoring, Internal Control Systems

### INNOVATION SYSTEMS

*Executive Sponsor:* Kome Ajise, Chief Deputy Director

*Risk Managers:*

Coco Briseno, Deputy Director Planning and Modal Programs

Michelle Tucker, Chief Risk Officer

Kimberly Reilly, Program Review, Process Improvement and Communications Manager

Loren Turner, Senior Transportation Engineer

Transportation infrastructure delivery, operation, and maintenance requires a complex orchestration of stakeholders and resource management. Over time, these activities must be responsive to changing needs from local, regional, and statewide perspectives. At Caltrans, we know that this happens in many different ways through examples such as the development and adoption of new transportation technologies, network design, and service delivery change initiatives. This process of experimentation and improvement is what we call innovation. Innovation is, fundamentally, about changing the way we do things. There is a strong desire to actively engage opportunity in the department, but questions remain about organizational support and capacity for innovation due to regulatory and resource constraints.

Attempting to create an environment of innovation has inherent risks, both threats and opportunities.

There are significant threats related to innovation, such as the potential of losing time and money to unsuccessful or underutilized endeavors and potential compliance issues with bypassing mandated activities in the search for new solutions. Guidelines and methods to address the inherent threat of failure within innovation may need further exploration and communication; a lack of clear employee guidelines inhibits innovative behavior. The Caltrans 2015 Organizational Excellence Survey indicates that employees felt less encouraged to innovate than in 2013.

If Caltrans succeeds in fostering a more creative culture, there are significant opportunities to generate innovative solutions that will ultimately save Caltrans money and time. Innovation encourages risk management and open communication—industry trends that have been proven as key to continued success. Other opportunities include improving our reputation as policy pioneers, participating in new technological advancements with partners, and continuing to honor our employees' contributions.

## MITIGATION / CONTROLS

**Control A - Fully Implemented**

Set a strategic objective to encourage recognition of employee creativity and innovation.

**Control B - Fully Implemented**

Pilot a crowdsourcing tool as a method to engage employees in organizational innovation efforts

**Control C - Fully Implemented**

Create a departmental innovation group to create and oversee departmental innovation strategy

**Operations- External- Business Interruption, Safety Concerns**

**RESOURCE SCARCITY AND CLIMATE CHANGE ADAPTATION AND MANAGEMENT**

*Executive Sponsor:* Steven Cliff, Assistant Director of Sustainability

*Risk Manager:* Melissa Thompson, Sustainability Program Manager

No one in California is unaffected by the drought, leastways California's Department of Transportation. Now in our fourth year of drought, many of northern California's rivers are at their lowest points ever for this season; the State's biggest reservoirs, Shasta and Oroville, are both at 57% of historical levels at this time of year. While Caltrans has been making significant strides in water conservation, particularly with a goal to cut irrigation water use by 50%, there are subsequent ramifications for irrigating less and for changing the variety of highway vegetation. In addition, Caltrans faces large loss exposures to its plant inventory. Loss of plant inventory generates threats for erosion control, environmental mitigation, loss of aesthetic value, and increased need to mobilize emergency response resources.

Many Californians have placed their hopes on the El Niño meteorological effect to restore our dwindling water supplies, but after a prolonged drought, even a water year of above-average precipitation would not replenish California's reservoirs. Caltrans needs to continue to implement conservation techniques, and to explore water recycling opportunities and other methods of dust suppression and landscaping in addition to mud and erosion control.

A wide range of other potential climate change events requires Caltrans to make hard decisions about which climate change modeling to rely upon for its adaptation and resiliency strategy. These decisions will impact the allocation of large sums of scarce transportation dollars. Sustainability in these areas will need to focus on resilience in Caltrans' facilities, the transportation system, and its people.

**MITIGATION / CONTROLS**

**Control A - Fully Implemented**

Develop a climate vulnerability assessment plan for transportation infrastructure. Projected completion time is February 2017.

**Control B - Not Implemented**

Create statewide criteria to identify the most critical Caltrans-owned assets. Projected completion time is 2020. This activity is contingent upon the results of the climate vulnerability assessment currently in progress.

**Operations- Internal- Technology—Inadequate Support, Tools, Design, or Maintenance**

**DIGITAL TRANSFORMATION AND CYBER SECURITY**

*Executive Sponsor:* Kome Ajise, Chief Deputy Director

*Risk Manager:* George Akiyama, Chief Information Officer

The presence of a wide range of tools and technology is driving thinking about how different business units at Caltrans can solve problems in fundamentally different ways. The possibilities created by advances in technology are also spurring thoughts about how Caltrans can embrace a digital identity.

Major themes in the 2015 enterprise risk assessment indicate a strong desire to enhance operational and transit system efficiency, expand the use of data-driven analytics, and expand integration with and usage of mobile devices.

Like all businesses, Caltrans faces challenges in its ability to effectively leverage investments, as well as threats to its existing infrastructure and information assets. The 2015 assessment revealed significant uncertainty about the reliability and efficiency of a range of legacy data-management systems, including scenarios of expected system failures. Some IT solutions in the department have also exposed Caltrans to threats related to integration, organizational capacity to maintain continuity of services, and lost investments from projects not ultimately deployed as intended.

Recent internal audit findings also show that information-security capacity and procedures at Caltrans may not be sufficient to ensure adequate inventory, use, and protection of information assets. This internal audit was released in September 2015, and corrective action is being taken on audit findings.

The information technology environment within state service is highly regulated. Information technology deployment and management is resource-intensive in terms of financial and human capital. Caltrans has the opportunity to engage in an enterprise-level conversation on mitigating high risk exposures in this area.

## **MITIGATION / CONTROLS**

### **Control A - Not Implemented**

Produce a white paper on high priority IT program risks based on identifications from the 2015 enterprise risk assessment, and communicate to incoming Chief Information Officer and the Caltrans Executive Board.

### **Control B - Fully Implemented**

Conduct Information Security and Risk Management audit to assess the adequacy of Caltrans' information security and risk management policies and procedures as required by the State Administrative Manual (SAM) and the Statewide Information Management Manual (SIMM) section 5300 et seq.

## **ONGOING MONITORING**

Through our ongoing monitoring processes, the Department of Transportation reviews, evaluates, and improves our systems of internal controls and monitoring processes. The Department of Transportation is in the process of formalizing and documenting our ongoing monitoring and as such, we have determined we partially comply with California Government Code sections 13400-13407.

## **Roles and Responsibilities**

As the head of Department of Transportation, Malcolm Dougherty, Director, is responsible for the overall establishment and maintenance of the internal control system. We have identified Cristiana Rojas, Deputy Director, Administration, Kome Ajise, Chief Deputy Director, Michelle Tucker, Chief Risk Officer, as our designated agency monitor(s).

## **Frequency of Monitoring Activities**

Caltrans develops, implements, and monitors policy through management review, risk assessment, and internal audit as standard business practice. As part of a self-evaluation and inventory of its current internal policy and control management practices, standards of planning, frequency, and updating of monitoring results will be developed. As a large and geographically dispersed organization, this self-evaluation is projected to take approximately two years.

## **Reporting and Documenting Monitoring Activities**

The Chief Deputy Director, Deputy Director of Administration, and Chief Risk Officer have been designated as Agency Unit Monitors who will sponsor and oversee this process. As a large and geographically dispersed organization, this self-evaluation is projected to take approximately two years.

Regular reporting and documentation of monitoring activities outside of expectations set by management in their respective business areas occurs through committees. The Caltrans Executive Board, a body comprised of the Director, Chief Deputy Director, Program Deputies, and District Directors, maintains oversight of broad operational policy and the department's strategic direction. Caltrans maintains twenty additional headquarters committees that exercise oversight over departmental policy and procedure. These committees include bodies such as the Financial Policy Board, Audit Committee, IT Executive Steering Committee, SHOPP Executive Committee, and Project Delivery Advisory Committee. The California Transportation Commission oversees Caltrans project programming and allocations.

### **Procedure for Addressing Identified Internal Control Deficiencies**

As part of a self-evaluation and inventory of its current internal policy and control management practices, standards for reporting and remediation of internal control deficiencies will be developed. As a large and geographically dispersed organization, this self-evaluation is projected to take approximately two years.

### **CONCLUSION**

The Department of Transportation strives to reduce the risks inherent in our work through ongoing monitoring. The Department of Transportation accepts the responsibility to continuously improve by addressing newly recognized risks and revising risk mitigation strategies. I certify our systems of internal control and monitoring processes are adequate to identify and address material inadequacies or material weaknesses facing the organization.

Malcolm Dougherty, Director  
Department of Transportation

cc: Department of Finance  
Legislature  
State Auditor  
State Library  
State Controller  
Secretary of Government Operations