Launching an ERM



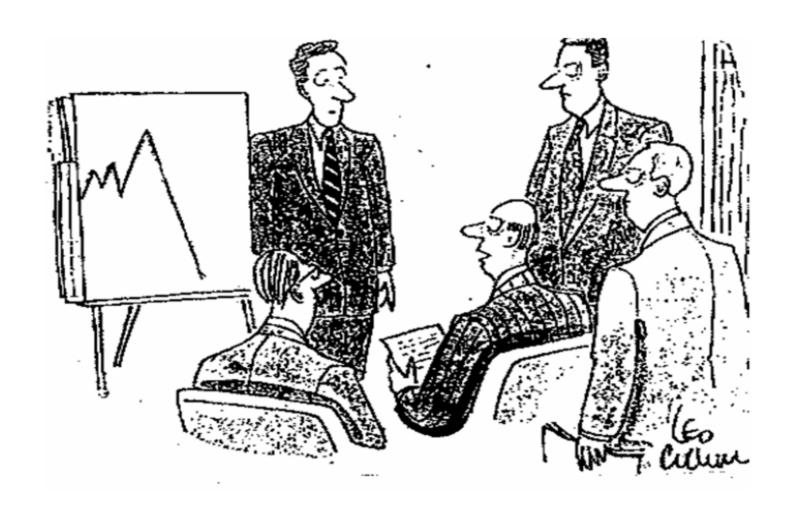
CALTRANS **EXPERIENCE IN** LAUNCHING **ERM**

Michelle Tucker Chief Risk Officer California Department of Transportation August 24, 2015



Office of Enterprise Risk Management





"Would you please elaborate on 'Then something bad happened'?"

Why Enterprise Risk Management

- Employee Conduct
- Legislative Interest in Enterprise Risk Management and Ethics at Caltrans
- Industry Trends
- Surveys
- Program Review



• MAP-21



Let's Tell the Story

Industry Trends

Enterprise Risk Management in the Business
 World

Risk Management at Caltrans Prior to 2013



Why the Industry Change

- Sarbanes Oxley Act of 2002
- Federal Sentencing Standards, revised in 2004
- COSO's 2004 "Enterprise Risk Management Integrated Framework"
- 2009 ISO 31000, a family of standards relating to risk management

What is Enterprise Risk Management

- Enterprise risk management looks at the whole agency
- Also known as "agency" or "corporate" risk management
- Identifies risk from various sources and how they relate; assess overall enterprise-wide risk
- Should be embedded in company culture

Enterprise Risk Management

RESPONSIBILITY: Executives

AGENCY

PROGRAM

PROJECT

TYPE: Risks that impact achievement of agency goals and objectives and involve multiple functions STRATEGIES: Manage risks in a way that optimizes the success of the organization rather than the success of a single business unit or project.

RESPONSIBILITY: Program managers

TYPE: Risks that are common to clusters of projects, programs, or entire business units

STRATEGIES: Set program contingency funds; allocate resources to projects consistently to

optimize the outcomes of the program as opposed to solely projects.

RESPONSIBILITY: Project managers

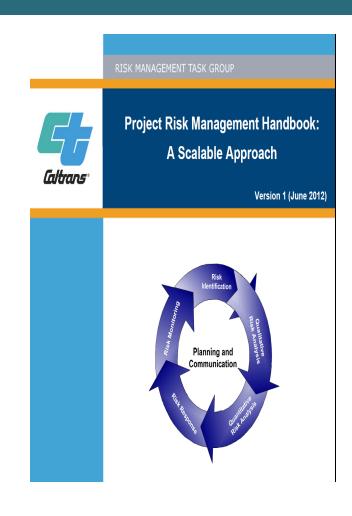
TYPE: Risks that are specific to individual projects

STRATEGIES: Use advanced analysis techniques, contingency planning, and consistent risk mitigation strategies with the perspective that risks are managed in projects.

Figure 3. Levels of enterprise risk management (agency, program, and project).

Risk Management at Caltrans

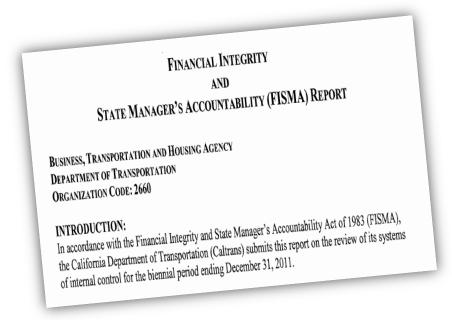
- Caltrans has nationally renowned Project Risk Management practices
 - New Deputy Directive
 - New guidebook, with risk register required and increased approvals
 - District and HQ partnerships





Risk Management at Caltrans

- Biennial risk and control assessments
 - Risk assessments with executive and senior management
 - Look for common areas of risk to develop strategy and prioritize response







It Takes a Village

 Enterprise Risk Management Requires Strong Executive Support

 With the support of the Caltrans Executive Board, the Office of Enterprise Risk

Man





Creating a New Culture



Ad Hoc

- Heroic adventurers sailing into uncharted and incomprehensible territories.
- Did we consult the best oracles?
- Continually reacting in a panic to lives uncertainties.



Managed

- Has the cargo been insured against loss?
- Have we charted the best course to avoid known hazards
- Do we have plans for what we might encounter?



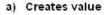
Creating a New Culture

Everyone does some form of risk management – from the boardroom to the mailroom

Creating a formal Process ISO 3100

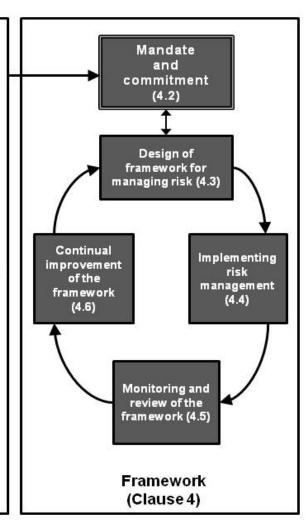


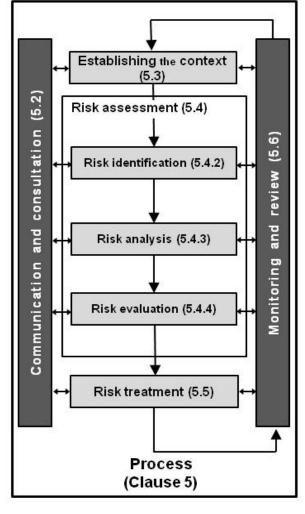
Choosing the Caltrans ERM Process



- b) Integral part of organizational processes
- c) Part of decision making
- d) Explicitly addresses uncertainty
- e) Systematic, structured, and timely
- f) Based on the best available information
- g) Tailored
- h) Takes human and cultural factors into account
- Transparent and inclusive
- j) Dynamic, iterative, and responsive to change
- k) Facilitates continual improvement and enhancement of the organization

Principles (Clause 3)







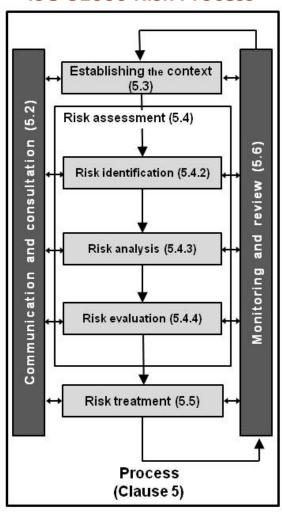
The Caltrans Enterprise Risk Profile

Caltrans 2013 Enterprise Risk Profile



Caltrans Enterprise Risk Profile

ISO 31000 Risk Process



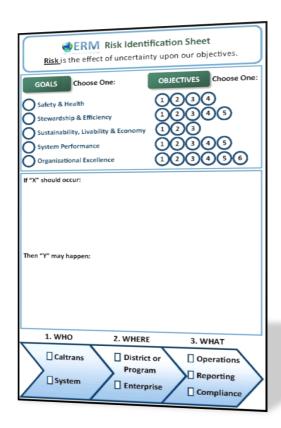
- Caltrans used the Risk
 Management Standards
 from the International
 Standards Organization
 (ISO 31000) to develop
 our risk assessment
 process
- The Enterprise Risk
 Profile is a tool used by
 Caltrans to record, track,
 and address enterprise
 level threats and
 opportunities





Future of ERM at Caltrans: Risk Identification Sheets

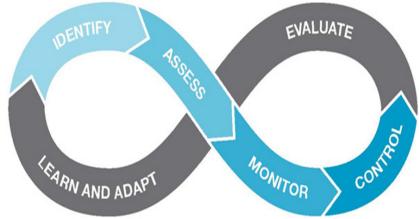
- Aligns risks with 2015-2020 Strategic
 Plan objectives
- Captures who the risk impacts, where the risk occurs, and what category the risk falls into.
- Codes risks relating to transportation system for the Office of Asset Management





Future of ERM at Caltrans: Likelihood and Impact Scoring

- Likelihood and impact scoring has been expanded from a 1:3 to a 1:5 scale
- A consequence table is being provided to facilitate consistent and transferable ratings across the department.





Future of ERM at Caltrans: Heat Maps and Consequence Tables

		Remote 1	Unlikely 2	Possible 3	Likely 4	Expected 5	Expected 5	Likely 4	Possible 3	Unlikely 2	Remote 1		
Impact	Insignifi- cant 1	1	2	3	4	5	5	4	3	2	1	Insignifi- cant	
	Minor 2	2	4	6	8	10	10	8	6	4	2	Minor 2	
	Moderate 3	3	6	9	12	15	15	12	9	6	3	Moderate 3	
	Major 4	4	8	12	16	20	20	16	12	8	4	Major 4	
	Critical 5	5	10	15	20	25	25	20	15	10	5	Critical 5	

Threat Assessment Criteria

The ISO 31000 standard describes risk analysis as the process of developing an understanding of a risk. During this phase, we consider the cause and sources of the risk, its positive and negative impacts, and the likelihood that those impacts can occur. The criteria below have been provided to establish a reference point for analysis. Risk analysis can be done with varying degrees of detail, depending on the risk, the purpose of the analysis, and the information, data and resources available. The criteria below are used for a standard qualitative analysis, but may not be appropriate in all circumstances. For each score, a description has been provided to show the correspondence between a rating and a secretive dimpact or likelihood.

	Li	kelihood l	Evaluation	_	Impact Evaluation						
Score	Risk Type	Value	Description		Score	Risk Type	Value	Description			
1	T	Remote	The chance of the future event or events occurring is slight.		1	1	Insignificant	Minimal or no measurable operational impact. Can be managed with routine activities. Leads to immaterial audit findings.			
2	T	Unlikely	The event could possibly occur, but is unlikely at this time.		2	T	Minor	Minor financial loss, small budget variance. Minor embarrassment, but no harm to image or reputation. Minor operational impact, business not interrupted. Minor compliance infraction.			
3		Possible	The event could occur under specific conditions and some of those conditions are currently evidenced.		3		Moderate	Significant financial loss and variance to budget. Moderate embarrassment impacting short term effectiveness. Moderate operational impact, business not interrupted. Significant compliance infraction.			
4	T	Likely	The event is most likely to occur in most circumstances.		4	Ť	Major	Very significant financial loss, major budget variance. Major embarrassment leading to significant impact on effectiveness. Unacceptable operational impact, short term business interruption. Reportable compliance infraction.			
5	Ī	Expected	The event is expected to occur in most circumstances or is happening now.		5	Ť	Critical	Large unacceptable financial loss, severe budget variance. Very significant harm to image with substantial impact on effectiveness. Large and unacceptable operational impact, long term business interruption. Material compliance infraction.			

Likelihood Likelihood



Future of ERM at Caltrans: Enterprise Risk Management Training Program

- A draft ERM Champion Training has been developed
 - ERM Champions are the stewards of the ERM process for their districts or programs, and act as liaisons for OERM
 - This training will be a more comprehensive course in risk management principles and practices
- An ERM Training Development
 Advisory Team meeting for all employee training is scheduled for late August

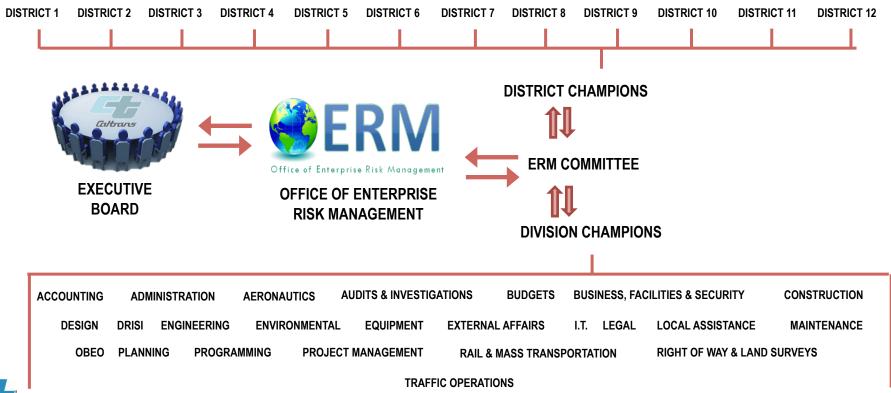




Target deployment for ERM Training is the end of calendar year

Future of ERM at Caltrans: Reporting Risks to Executive Board

 Every District and Program has a voice in the Enterprise Risk Management Process





Thank You

