



# Draft California Transportation Asset Management Plan

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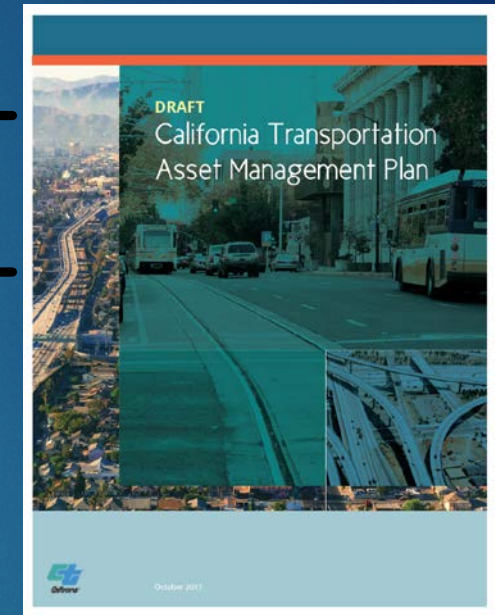
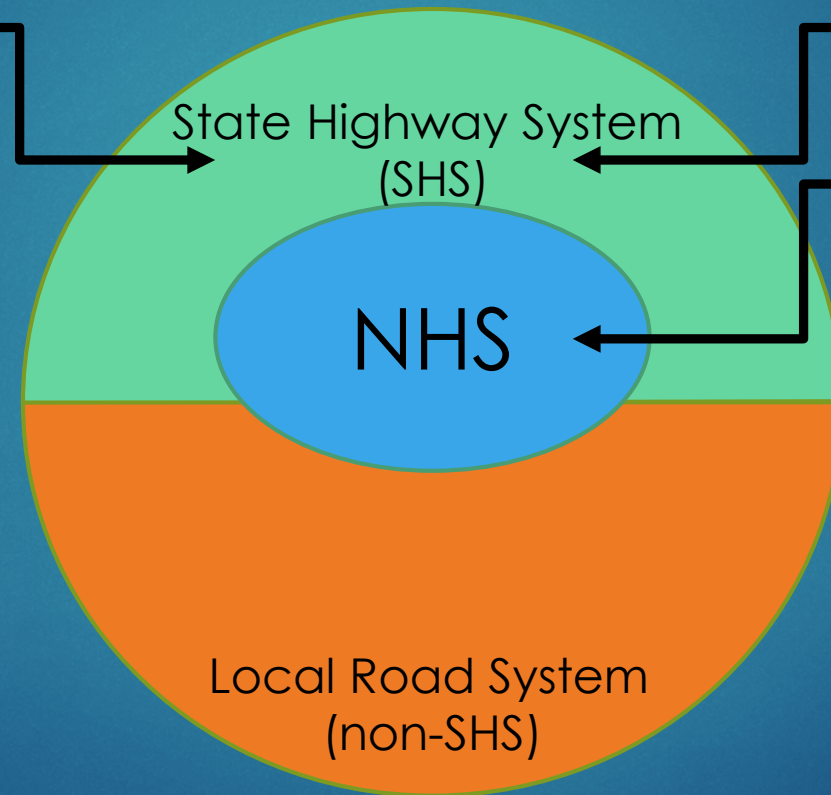
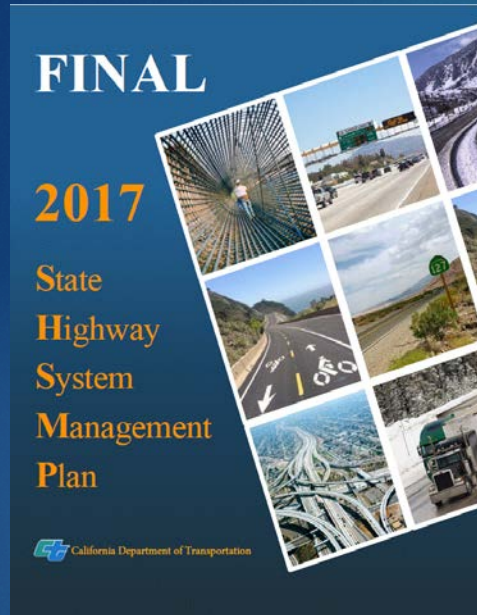


# TAMP Components

- ▶ Performance Gap Analysis (inventory, condition, targets, gaps)
- ▶ Financial Plan
- ▶ Life Cycle Planning
- ▶ Risk Management Plan
- ▶ Investment Strategies
- ▶ Improvement Plan



# Document Scope

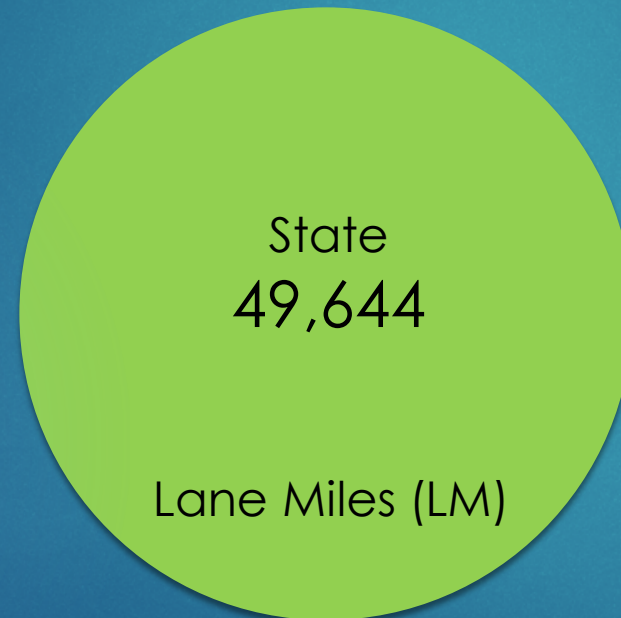




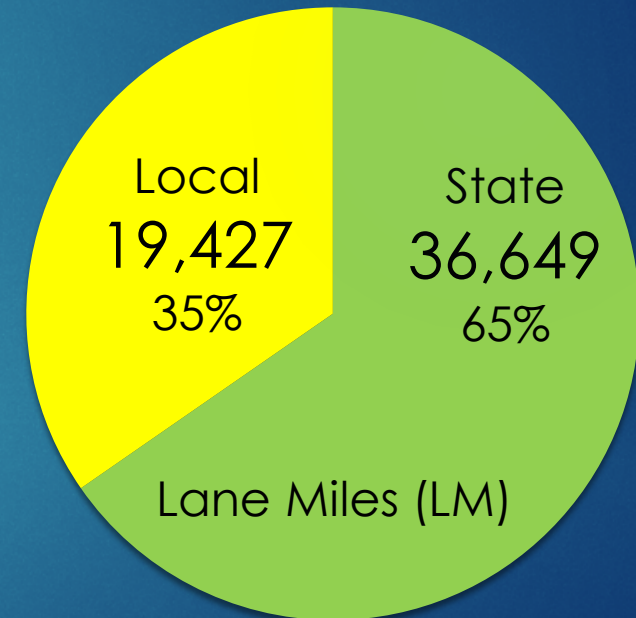
# Pavement Inventory

## Pavement

### State Highway System (SHS)



### National Highway System (NHS)



Ownership Legend	
State	
Local	

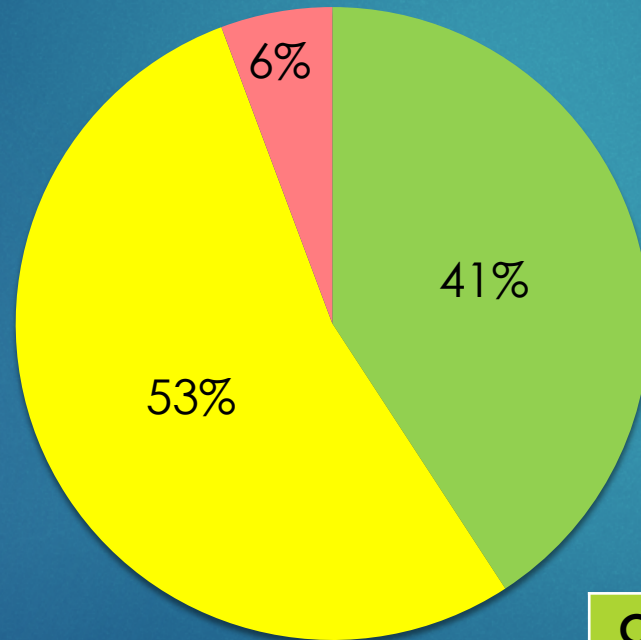


# Pavement Condition

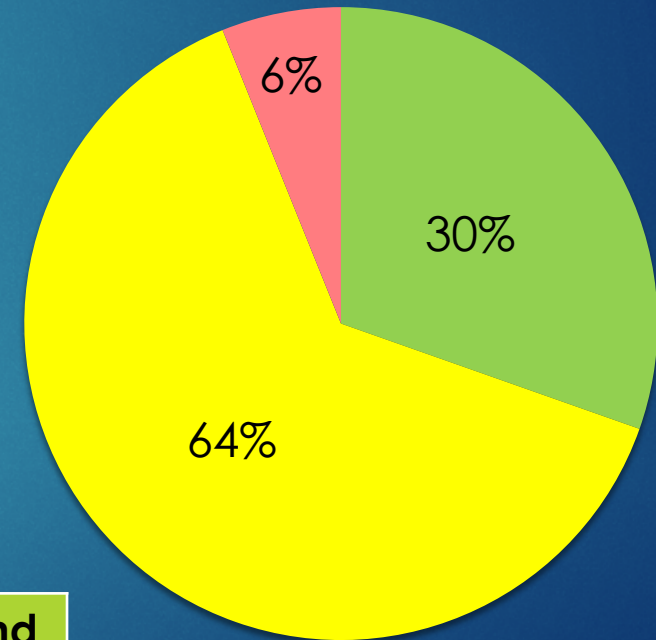


Pavement

### State Highway System (SHS)



### National Highway System (NHS)

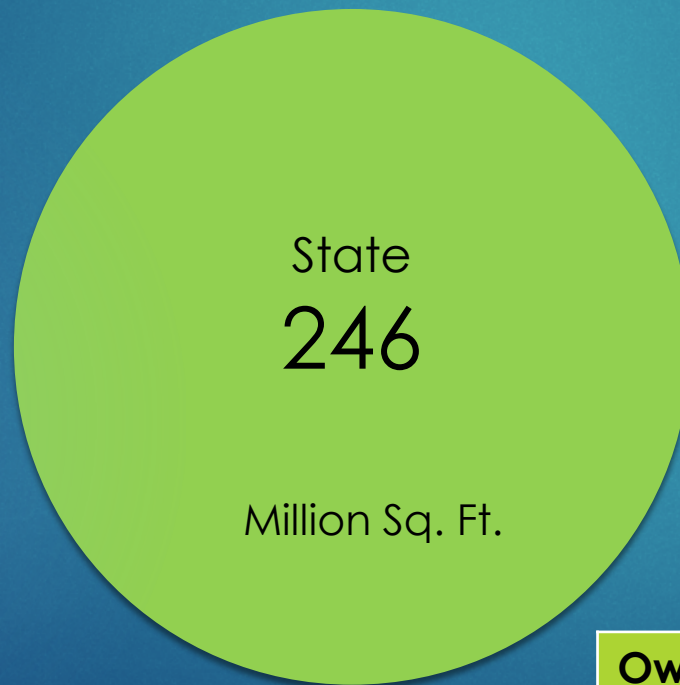


Condition Legend	
Good	
Fair	
Poor	

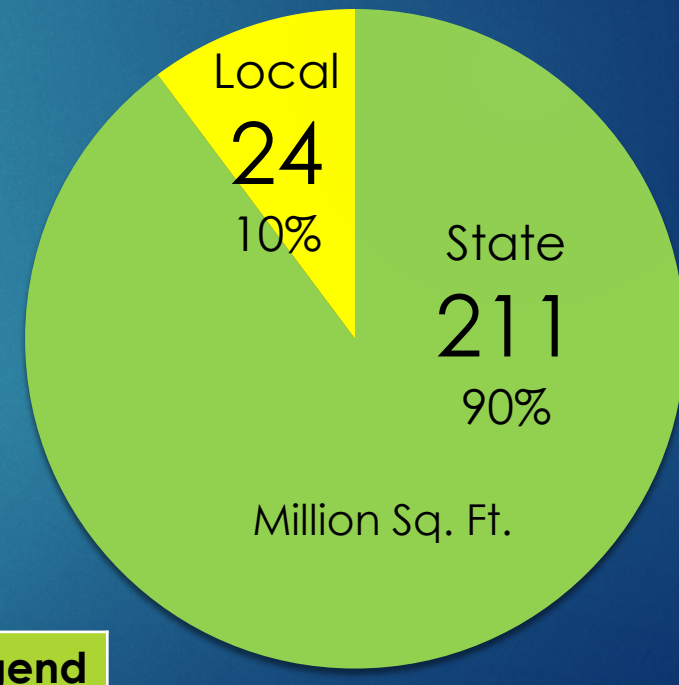
# Bridge Inventory

## Bridges



### State Highway System (SHS)



### National Highway System (NHS)



#### Ownership Legend

State	
Local	

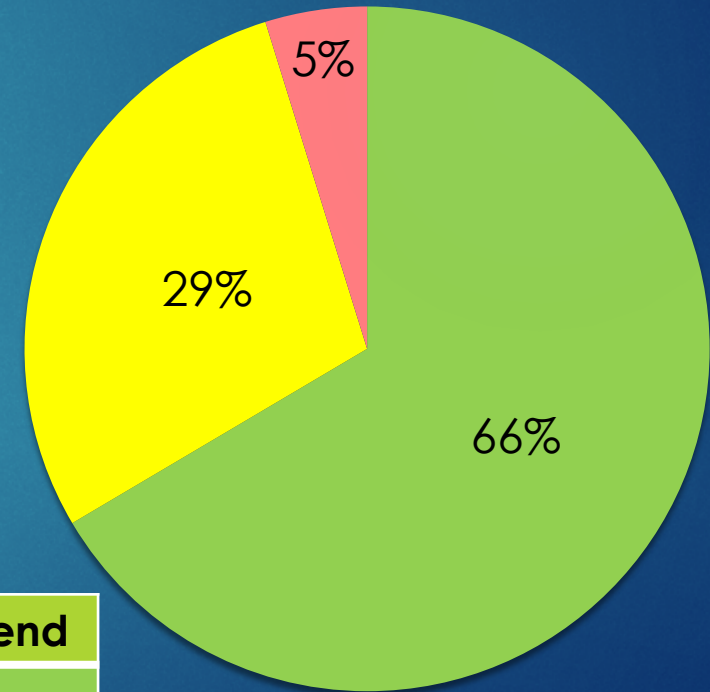
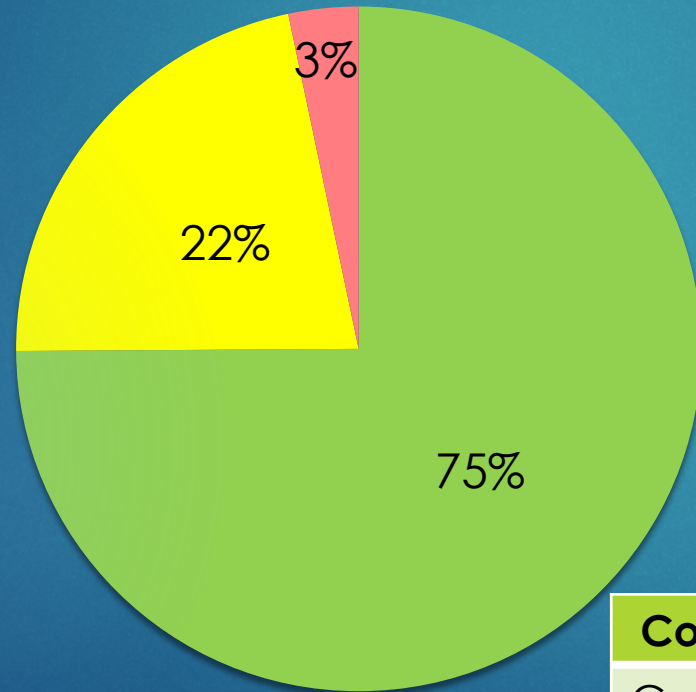


# Bridge Condition

State Highway System (SHS)

National Highway System (NHS)

Bridges



Condition Legend	
Good	
Fair	
Poor	

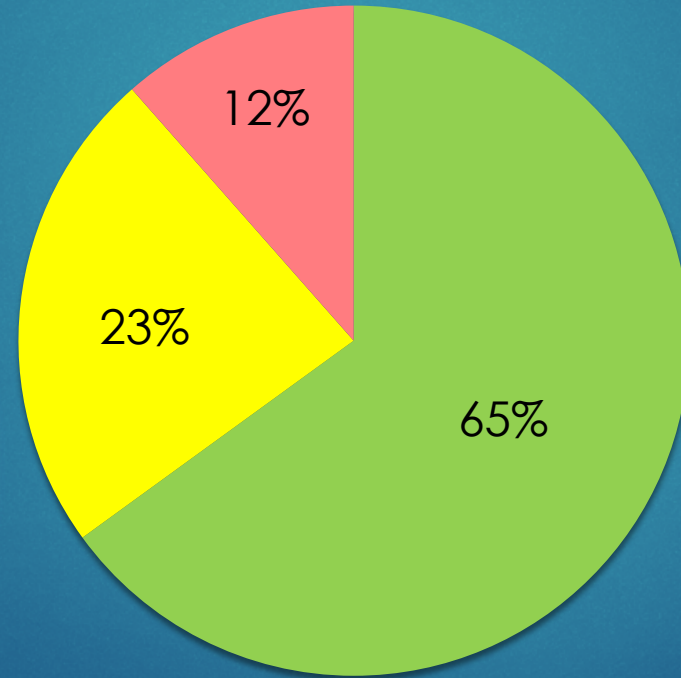


# Culvert Condition



## State Highway System (SHS)

Culverts



Estimated 205,000 Culverts

Condition Legend	
Good	
Fair	
Poor	

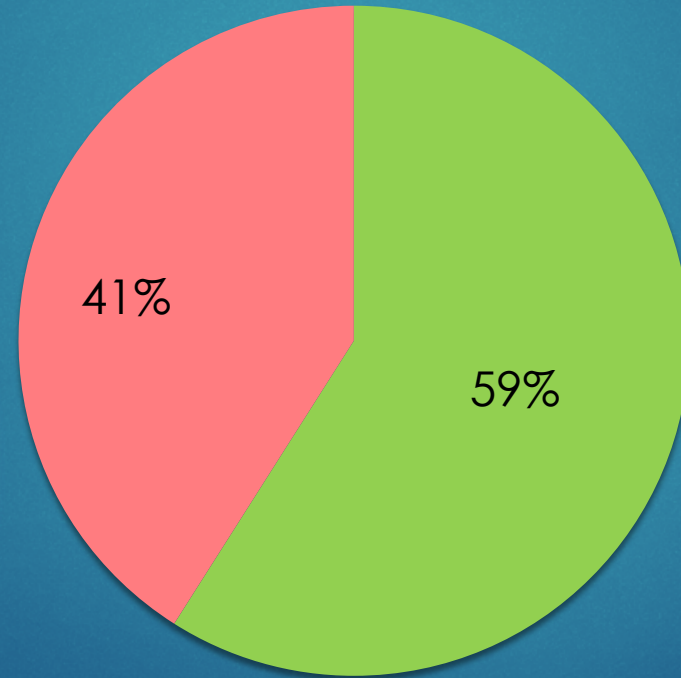


# TMS Condition



## State Highway System (SHS)

Transportation  
Management  
Systems



~ 19,000 Elements

Condition Legend	
Good	
Fair	
Poor	



# SB 1 Improves Highway Asset

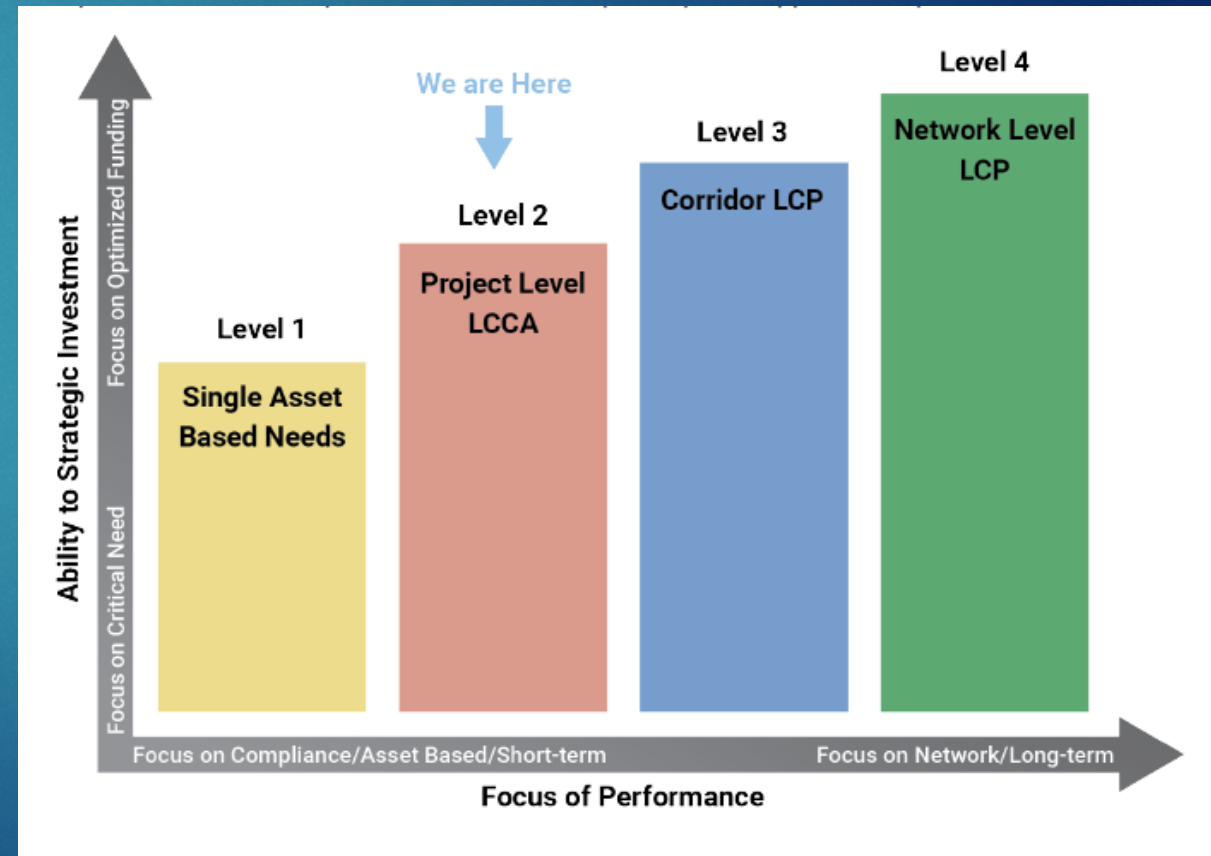
- ▶ The TAMP Presents three Performance Scenarios (pre-SB1, Post-SB1 and Desired state of repair)
- ▶ With the SB 1 funding, the condition of all assets in this plan improve over 10 years
  - ▶ Both the State Highway System and NHS
- ▶ The SHS will achieve asset management goals by the end of the 10 years of the plan
- ▶ The locally-owned portion of NHS benefits from SB 1 funding, but locals would need to prioritize the NHS over the non-NHS system to achieve the targets of the plan.
- ▶ SB 1 will provide \$1.5 billion for state highways and \$1.5 billion for local roads over the next decade, and an additional \$4 billion for highway bridges and culverts.



# Life Cycle Planning

Figure 4-2. Typical Life Cycle Treatments for Pavements Class I in Average Climate

Rubber Asphalt Treatment (20 Year Design)				Rubber Asphalt Treatment w/ Sacrificial Wearing Surface (40 Year Design)			
Treatment	Schedule (in Years)	Cost \$/Lane Mile	Present Value (PV)	Treatment	Schedule (in Years)	Cost \$/Lane Mile	Present Value (PV)
New Pavement	0	1,920,000	1,920,000	New Pavement	0	1,920,000	1,920,000
Seal Surface	4	\$6,000	\$5,129	Seal Surface	4	\$6,000	\$5,129
Crack Seal & Seal Coat	9	\$57,000	\$40,047	Thin Mill & Overlay	8	\$152,000	\$111,065
Seal Surface	13	\$6,000	\$3,603	Seal Surface	12	\$6,000	\$3,748
Digout (2%), Crack Seal, & Seal Surface	17	\$76,000	\$39,016	Thin Mill & Overlay	16	\$152,000	\$81,154
Medium Overlay	21	\$325,000	\$142,621	Seal Surface	20	\$6,000	\$2,738
Thick Overlay (Rehabilitation)	26	\$720,000	\$259,696	Thin Mill & Overlay	24	\$152,000	\$59,298
Seal Surface	30	\$6,000	\$1,850	Seal Surface	28	\$6,000	\$2,001
Crack Seal & Seal Coat	35	\$57,000	\$14,445	Thin Mill & Overlay	32	\$170,000	\$48,460
Seal Surface	39	\$6,000	\$1,300	Digout, Crack Seal, & Seal Surface	36	\$76,000	\$18,519
Digout, Crack Seal, & Seal Surface	43	\$76,000	\$14,073	Mill & Overlay	40	\$325,000	\$67,694
Medium Overlay	47	\$325,000	\$51,442	Digout, Crack Seal, & Seal Surface	45	\$76,000	\$13,011
Thick Overlay (Rehabilitation)	52	\$720,000	\$93,670	Thick Overlay (Rehabilitation)	50	\$1,002,000	\$140,994
Seal Surface	56	\$6,000	\$667	Seal Surface	55	\$6,000	\$694
		Net PV:	\$2,587,559	Thin Mill & Overlay	60	\$152,000	\$14,449
						Net PV:	\$2,488,954





# Financial Plans

- ▶ State Highway System
  - ▶ All financial projections from the approved STIP Fund Estimate and SB1
- ▶ National Highway System
  - ▶ Much more challenging
  - ▶ Neither Caltrans nor partners separately account for NHS spending
  - ▶ Magnitude of NHS investment from SB1/Measures a key factor



# Risk Management



**Figure 8-2. California Transportation Asset Management Risk Categories**

Source: Caltrans



# Asset Management Progress Made

- ▶ Defined Asset Classes and Targets
- ▶ Implemented Performance Management in SHOPP
- ▶ Changed the SHOPP funding structure (eliminated silos)
- ▶ Defined project portfolios to achieve goals over 10 years
- ▶ Beginning July 2017 all new planning starts are performance based
- ▶ Improved communications with partners
- ▶ Developed draft TAMP



# Improvement Plan

- ▶ Data sharing and software tools
- ▶ Tighter coordination between state and local projects
- ▶ Improve asset modeling
- ▶ Better financial reporting
- ▶ Incorporate broader objectives in TAMP



# Next Steps

- ▶ Oct – Nov    Receive draft TAMP comments
- ▶ Dec            Receive CTC comments
- ▶ Dec-Jan      Update the draft TAMP
- ▶ Jan 2018     Seek CTC Adoption of TAMP
- ▶ April 2018   Submit TAMP to FHWA