



# Caltrans - Asset Management Implementation

March 2015

# Asset Management Plan Definition

- An asset management plan is a strategic plan for managing an organization's infrastructure and other assets to deliver an agreed standard of service.
- Typically, an asset management plan will cover more than a single asset, taking a system approach -especially where a number of assets are co-dependent and are required to work together to deliver an agreed standard of service.

# Asset Management Requirements Comparison

## MAP-21 (23 U.S.C. 119(e)(1))

### Minimum Requirements

- A summary listing of the pavement and bridge assets
- A description of the condition of those assets
- Asset management objectives and measures;
- Performance gap identification,
- Lifecycle cost and risk management analysis,
- A financial plan, and
- Investment strategies

## Government Code (14524)

### Minimum Requirements

- CTC may define “focus areas” for analysis and evaluation related to our TAMP
- Caltrans will prepare a robust asset management plan to guide the selection of projects in the SHOPP
- The commission shall adopt targets and performance measures for the TAMP
- The TAM Plan is defined as a “document assessing the health and condition of the state highway system”.
- Projects limited to capital improvements relative to maintenance, safety and rehabilitation... without adding new lanes”
- Define the information to be included in the SHOPP, the review process, **(14526.6)**

# Asset Management Comparison

## **MAP-21** (23 U.S.C. 119(e)(1))

- Extent of Inventory
  - NHS Only
  - Includes local NHS assets
- Assets Included
  - Pavements
  - Bridges

## **Government Code** (14524)

- Extent of Inventory
  - State Highway System
  - Local projects coordinated but not included
- Assets Included
  - Not specifically defined
  - Implied to be all State Highway projects

# Asset Management Phases

TAM  
Phase 1

**Prior to Jan 2016**

- Establish Asset Classes
- CTC Approval of Asset Classes
- Implement SHOPP Management Tool
- Pilot the SHOPP Prioritization Method
- Baseline Inventory
- Baseline Condition
- Establish draft Performance Measures
- CTC Approval of Draft Performance Measures
- Develop target performance levels.

TAM  
Phase 2

**Prior to Jan 2017**

- Establish new fiscal target setting method
- Finalize Perf. Measures.
- CTC Approval of final Performance Measures
- Move Prioritization to PID Stage.
- Business process changes
- Software Development

TAM  
Phase 3

**Prior to Jan 2018**

- Multi- Asset Pilot Projects in SHOPP
- Fund allocation business changes
- Asset Management
- Software Development

TAM  
Complete

**Jan 2020**

- Software complete
- TAMP Implemented

# Typical SHOPP Project Cycle



# Caltrans Transportation Asset Management Implementation

## Phase 1

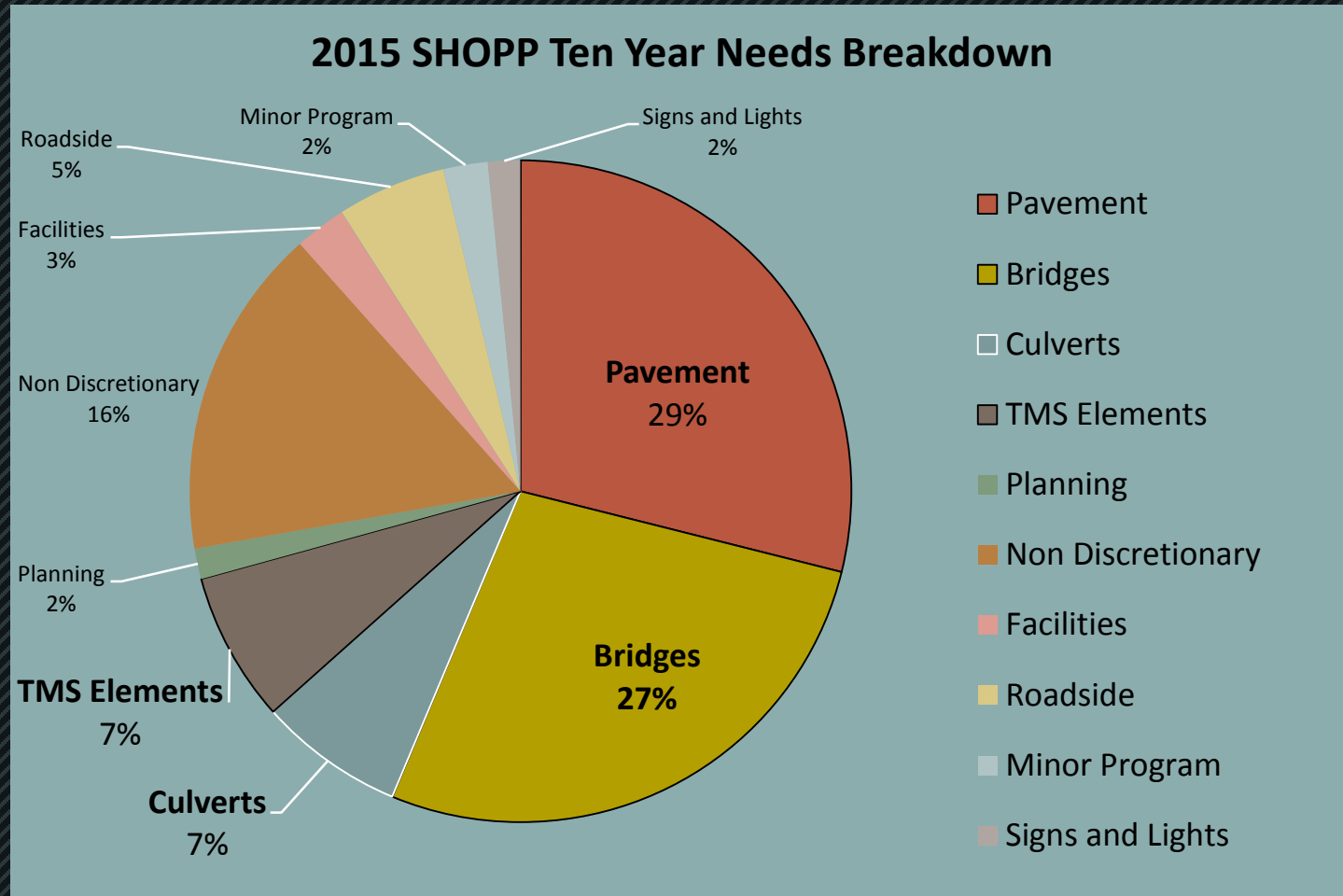
# Asset Classes

- Caltrans is recommending the following asset classes:
  - Pavement – Required by MAP-21
  - Bridges – Required by MAP-21
  - Culverts
  - Intelligent Transportation System Elements
- Seeking CTC approval of proposed asset classes





# Asset Classes



- These four assets represent 70% of 2015 SHOPP 10 Year needs

# Inventory Definition and Condition Baseline

- The inventory for the four asset classes will be defined.
- The current breakdown of condition for the asset classes will be presented.
- The baseline will provide a basis for future operational and condition targets.
- The current inventory numbers, condition baselines and condition targets to be submitted for approval in the Fall of 2015.

# SHOPP Project Prioritization

- Multi – Objective prioritization methodology piloted at the programming stage
- Prioritization provides benefit cost analysis of projects
- Improves transparency of project benefits by objective
- Dynamic policy and budget scenario capability

# Performance Measures

- Performance measures for the four asset classes are defined

Asset	Measurement Units	Current Measure	Proposed Measure	MAP-21 Req.
Pavements	Area	Distressed Miles	Good, Fair, Poor	Yes
Bridges	Area	Distressed Bridges	Good, Fair, Poor	Yes
Culverts	Length	# Rehabilitated	Good, Fair, Poor	No
ITS Elements	Percent	ITS Replacement	Operational or Not	No

- MAP-21 performance measure not final yet
- Seek CTC approval of performance measures

# Summary

- Asset Management Plan – Phase 1 underway
- Seek CTC approval for four asset classes (pavement, bridges, culverts and ITS elements)
- Pilot of new SHOPP project prioritization method.
- Inventory, condition baseline, a draft targets reporting in October 2015
- Seek CTC approval of performance measures