Asset Management

Caltrans D7/ ACEC
Professional Liaison Committee Meeting
Roger C. Yoh
District 7 Asset Manager
September 16th, 2019
Transportation Asset Management (TAM) is a strategic and systematic process of operating, maintaining, upgrading, and expanding physical assets effectively throughout their life cycle. It focuses on business and engineering practices for resource allocation and utilization, with the objective of better decision making based on quality information and well-defined objectives.
Statutory Requirements

- **MAP-21 and FAST Acts** – each state is required to develop a risk-based asset management plan to address its pavement and bridges for the National Highway System
- **SB 486** – implement a robust asset management plan by 2020
- **SB 1** – defines the performance measures
- **AB 515** – State Highway System Management Plan, quantifiable accomplishments, goals, objectives, costs, and performance measures consistent with the asset management plan
Significance of SHSMP

SHSMP

FINAL
2017
State Highway System Management Plan

Attach Needs to Nominated Projects to meet targets

10-Year Project Book

Delivery/M&O: Pipeline Projects Execute Performance

Performance & Financial Projections & Target Monitoring

Performance & Financial Projections

Performance & Financial Gaps

Funding Commitments

Certify Targets

Project Book

Transportation Asset Management

Wheel

Plan & Targets

Needs/Involvements

Measure

Execute

Accomplishments

Programming

District 7 (Los Angeles and Ventura Counties)
**2019 SHSMP**

**SHOPP**: First five years represent the pipelined SHOPP projects. Last five years constitute the SHOPP performance gap.

**Maintenance**: All ten years constitute the Maintenance performance gap.

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**Current:**
- 2018 SHOPP
- 2020 PID Work Plan
- Pipelined SHOPP Projects
- SHOPP Performance Gap
- Maintenance Performance Gap

**Future:**
- 2018 SHOPP
- 2020 SHOPP
- 2022 PID Work Plan
- Last 3 Years of the Ten-Year Project Book

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*District 7 (Los Angeles and Ventura Counties)*
SHSMP Components

**Needs Assessment (goal-constrained)**
- Provides a picture of all the needs on SHS regardless of available resources.
- Is determined by a performance-based gap analysis.
- Captures the needs for preventive and corrective maintenance as well as minor and major rehabilitation and reconstruction.

**Investment Plan (fiscally-constrained)**
- Is constrained by available SHOPP and Maintenance resources.
- Allocates available resources to specific objectives to effectively manage SHS.
Performance-Based Gap Analysis

The need:
- Is a function of the baseline condition.
- Is a function of the pipelined projects.
- Is a function of deterioration rates.
- Is not a function of prior year allocations.

Bridge and Tunnel Health (Statewide Analysis)

- Baseline Condition
- Future Condition (Do Nothing)
- Future Condition (w/ Pipelined Projects)
- Desired State of Repair (Targets)

- Poor
- Fair
- Good

Fix Poor by 3.31% of total
Fix Fair by 8.20% of total
Fix Good by 1.50% of total

Performance - Based Gap Analysis

Is a function of the baseline condition.
Is a function of the pipelined projects.
Is a function of deterioration rates.
Is not a function of prior year allocations.
District 7 (Los Angeles and Ventura Counties)
Listing of Actionable Needs

Actionable Needs on LA-101 between Post Miles 0 and 2

Please use Google Chrome or Firefox for best results.

Click on the buttons inside the tabbed menu for detail.

ADA, TML, Overhead Sign Structures & Signs, Lighting, BMP, Safety Barriers, Complete Streets, Fish Passage

ADA, TML, Overhead Signs, Structures & Signs, Lighting, BMP, Safety Barriers, Complete Streets, Fish Passage

Record Source: District 7


* Possible Difficulty Level: 1 = No RW or Utility Issues, 2 = RW Only, 3 = Utility Only, 4 = No RW or Utility Issues

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District 7 (Los Angeles and Ventura Counties)

2022 SHOPP Programming Cycle
Desired Outcome

- Having the right information to make good decisions
- Providing a strategic framework for consistent decision making
- Demonstrating asset needs with quantitative information is compelling
- Minimizing long term costs of ownership through life-cycle planning
- Being a fiduciary and be accountable for public funds
- Supporting the 2015-2020 Caltrans Strategic Management Plan’s Stewardship and Efficiency goal explicitly and all other goals through project accomplishments
Opportunities

- Implement more multi-asset projects
- Utilize quality data to help develop better project scope efficiently
- Develop project and implement codependent item effectively
- Avoid construction fatigue, inconvenience the public once
Questions?

Roger C. Yoh  Hamid Saadatnejadi
District 7 Asset Manager  District 7 Acting Asset Manager
213.897.3669  213.897.1662

Caltrans Transportation Asset Management
https://dot.ca.gov/programs/asset-management

Rebuilding California SB 1
http://rebuildingca.ca.gov/