# Draft 2022 Transportation Asset Management Plan (TAMP)

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# TAMP Background

- Updates required every 4 years (2018, 2022…)

- The TAMP includes a limited set of physical assets and key processes for asset management for the next 10 year period (2022-2032)

- The TAMP is a joint state and local agency plan that requires coordination with all MPO's, RTPA's, Cities and Counties.

- The TAMP is consistent with the SHSMP for state assets

# TAMP Federal and State Requirements

- Federal Regulations

  ➢ Federal Regulation requires TAMP's address pavement and bridges

  ➢ Performance Management is required with performance targets to be set using the National Measures

  ➢ TAMP shall include the entire NHS

  ➢ Performance based planning and programming compliment the TAMP.

- California Government Code

  ➢ Government Code (SB 486) requires a "robust asset management plan" that is consistent with Federal Law

  ➢ Commission defined additional assets for the TAMP

  ➢ Performance measures and targets are approved by the CTC

  ➢ TAMP shall include the entire State Highway System (SHS)

# Asset Management in California



The **State Highway System Management Plan (SHSMP)** is an operational plan that includes all major physical assets and deficiencies on the SHS.

The quarterly **SHOPP Ten-Year Project Book Dashboard** establishes a 10-yr portfolio of projects to meet targets set forth in the TAMP and SHSMP. Portfolios are developed by the District to meet DPP fiscal and performance constraints. Projectbook.dot.ca.gov

The annual **Performance Benchmarks** provides a means to monitor and report on progress towards meeting performance targets.

The **California Transportation Asset Management Plan (TAMP)** is the strategic plan that applies the asset management framework to both the NHS and SHS.

**District Performance Plans (DPPs)** provide District-specific performance and funding targets derived from the SHSMP.

The **SHOPP** is comprised of projects spanning four years of the certified SHOPP Ten-Year Project Book.
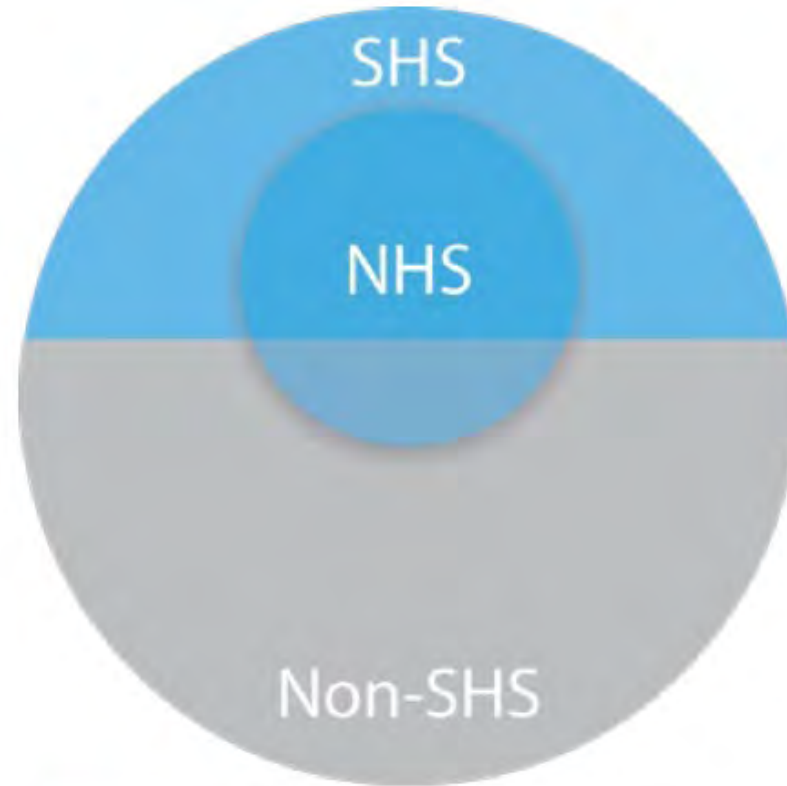
# Required TAMP Components

- Inventory and Condition

- Performance Targets

- Life Cycle Planning

- Risk Management/ System Resiliency/ Repeatedly Damaged Assets

- Financial Plan ( Plan does not include IIJA funds)

- Investment Strategies

- Performance Gap Analysis (inventory, condition, targets, gaps)

- Process Improvements

# TAMP Scope

# National Highway System (NHS)



**NATIONAL HIGHWAY SYSTEM**
— STATE HIGHWAY NHS
— LOCAL NHS
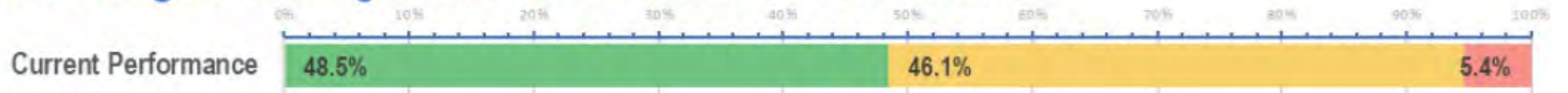
**LOS ANGELES AREA NHS**
— STATE HIGHWAY NHS
— LOCAL NHS

# Intuitive Presentation of Information

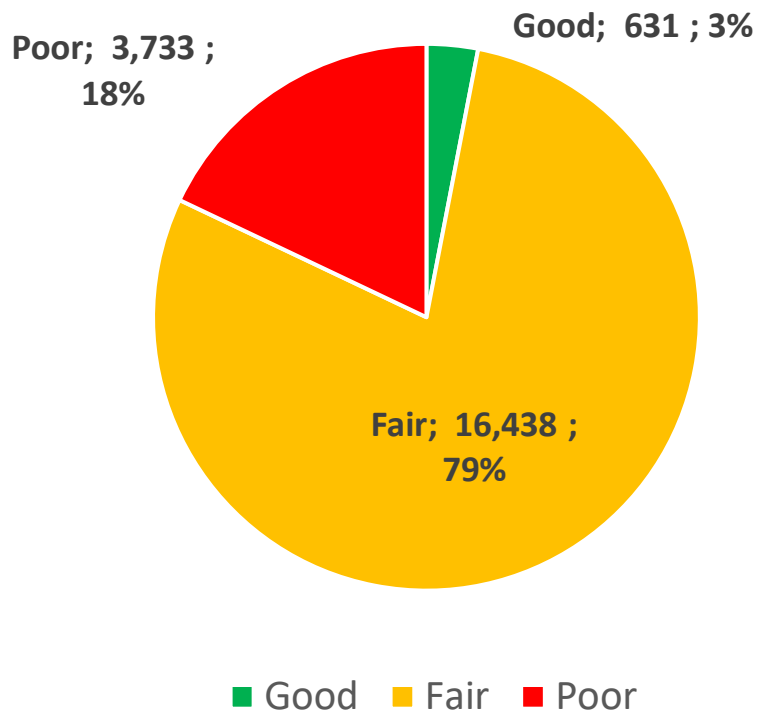**NHS Pavement**: % Lane Miles in Good/Fair/Poor Condition

Current Performance — 29.8% | 62.2% | 7.9%

**NHS Bridges**: % Bridge Deck Area in Good/Fair/Poor Condition

Current Performance — 48.5% | 46.1% | 5.4%

# NHS Pavement Inventory and Condition

**Local**
Lane Miles (LM) of Pavement
**36% of Total NHS**



Good; 631 ; 3%
Poor; 3,733 ; 18%
Fair; 16,438 ; 79%

■ Good  ■ Fair  ■ Poor

**State**
Lane Miles (LM) of Pavement
**64% of Total NHS**



Poor; 840 ; 2%
Good; 16,586 ; 45%
Fair; 19,471 ; 53%

■ Good  ■ Fair  ■ Poor
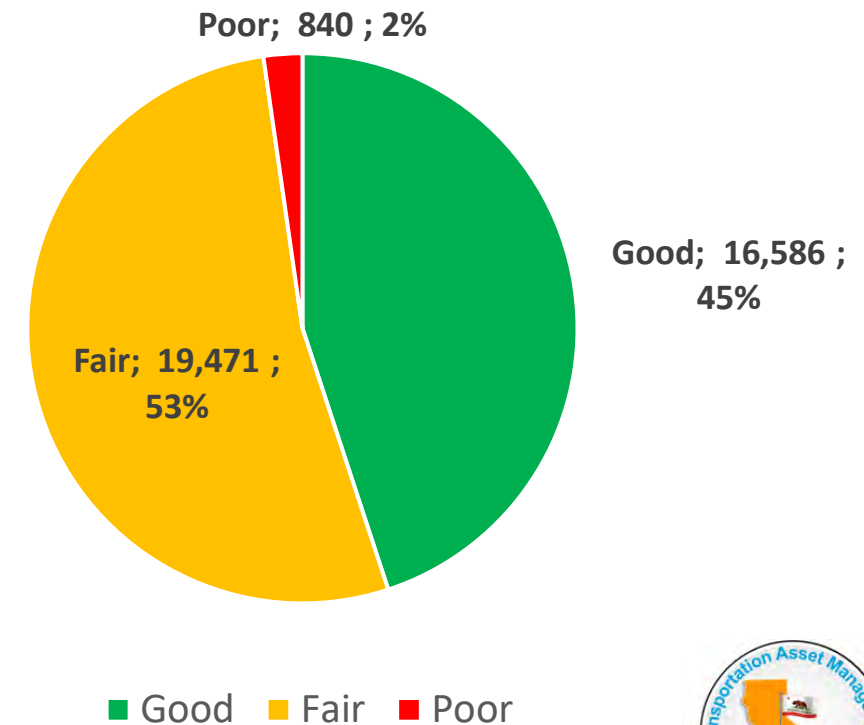
# NHS Bridge Inventory and Condition

## Local
### NBI Bridge Deck Area (SQFT)
### 10% of Total NHS



Poor; 3,323,478 13%

Good; 9,150,655 ; 37%

Fair; 12,270,974 ; 50%

■ Good  ■ Fair  ■ Poor
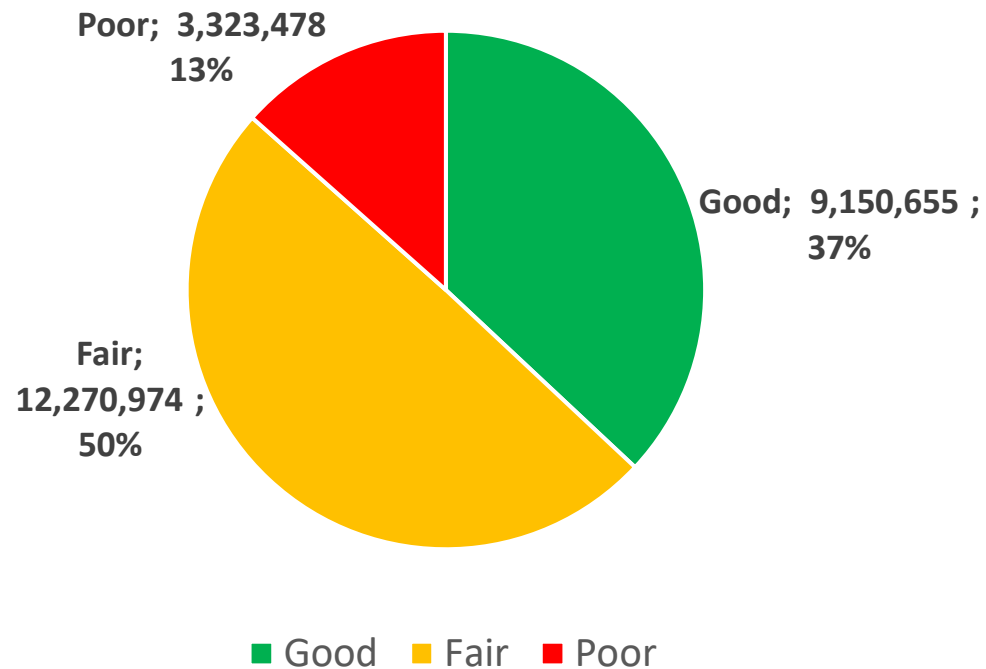
## State
### NBI Bridge Deck Area (SQFT)
### 90% of Total NHS



Poor; 9,182,286 ; 4%

Good; 110,728,266 ; 51%

Fair; 99,348,559 ; 45%

■ Good  ■ Fair  ■ Poor
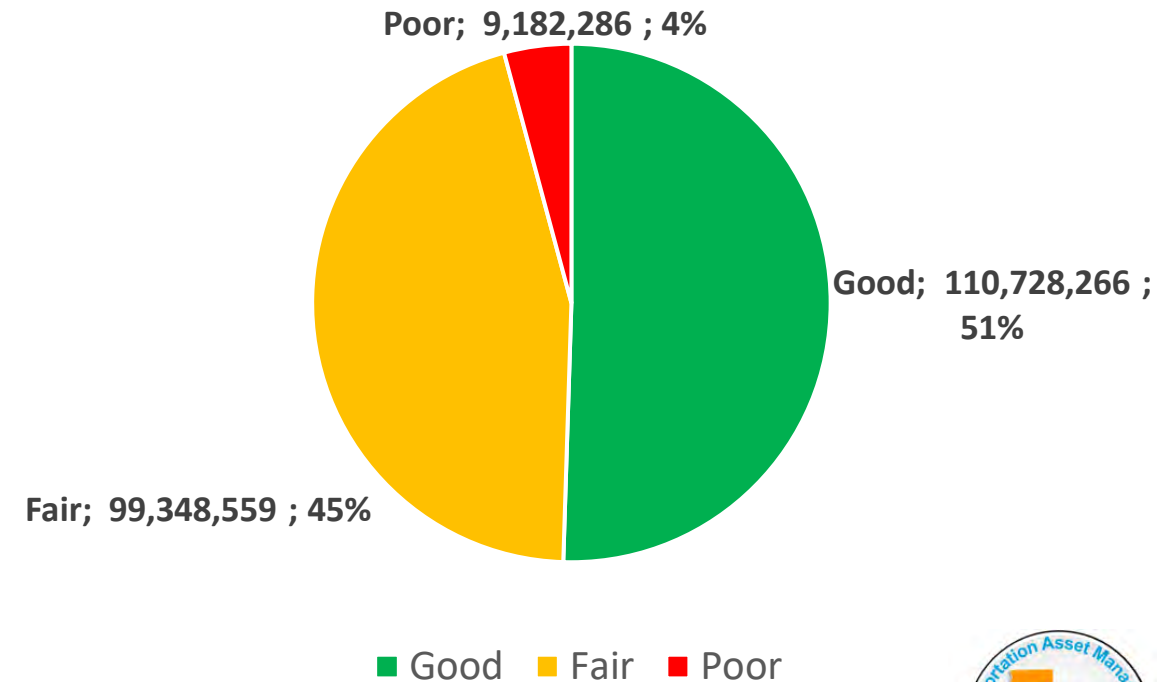
# Performance Targeting Analysis Tool

## Estimated Investment (Expected Annual Funding)

| Use Default or Override Parameters? | Override | | | | |
|---|---|---|---|---|---|
| **Annual Funding by Work Type** | **Initial Const.** | **Maint.** | **Preser/Rehab** | **Reconstruction** | **Total** |
| Default | $ 233,714 | $ 742,756 | $ 1,235,298 | $ 2,537,903 | $ 4,749,670 |
| Override | $ 233,714 | $ 742,756 | $ 1,235,298 | $ 2,537,903 | $ 4,749,671 |
| % on Risk Mitigation | | 10% | 20% | | - |
| $ on Risk Mitigation | | $ 123,530 | $ 507,581 | $ 631,110 | |

| | |
|---|---|
| % Spending on Fair to Good | 11.7% |
| % Spending on Poor to Good | 54.5% |
| % Spending on Adding New | 4.9% |
| % Spending on Risk Mitigation | 13.3% |
| % Spending on Maint. Investment | 15.6% |

## Asset Condition

| Condition | Current | | Do Nothing: 10Y End | | Invested: 10Y End | | Invested: 4Y End | | 10Y TAMP Target | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Lane Miles** | **%** | **Lane Miles** | **%** | **Lane Miles** | **%** | **Lane Miles** | **%** | **Lane Miles** | **%** |
| Good/New | 2.0 | 0.8% | 0.1 | 0.1% | 27.3 | **10.7%** | 12.1 | **4.7%** | 33.3 | 13.0% |
| Fair | 231.2 | 90.8% | 205.3 | 80.7% | 200.5 | **78.3%** | 219.0 | **85.8%** | 203.4 | 79.4% |
| Poor | 21.3 | 8.4% | 49.1 | 19.3% | 28.3 | **11.0%** | 24.1 | **9.5%** | 19.5 | 7.6% |

## 10Y Performance Gap Analysis

| Condition | Gap (10Y Invested - Target) | |
|---|---|---|
| | **Lane Miles** | **%** |
| Good/New | (6.0) | -2.3% |
| Fair | (2.9) | -1.1% |
| Poor | 8.8 | 3.4% |
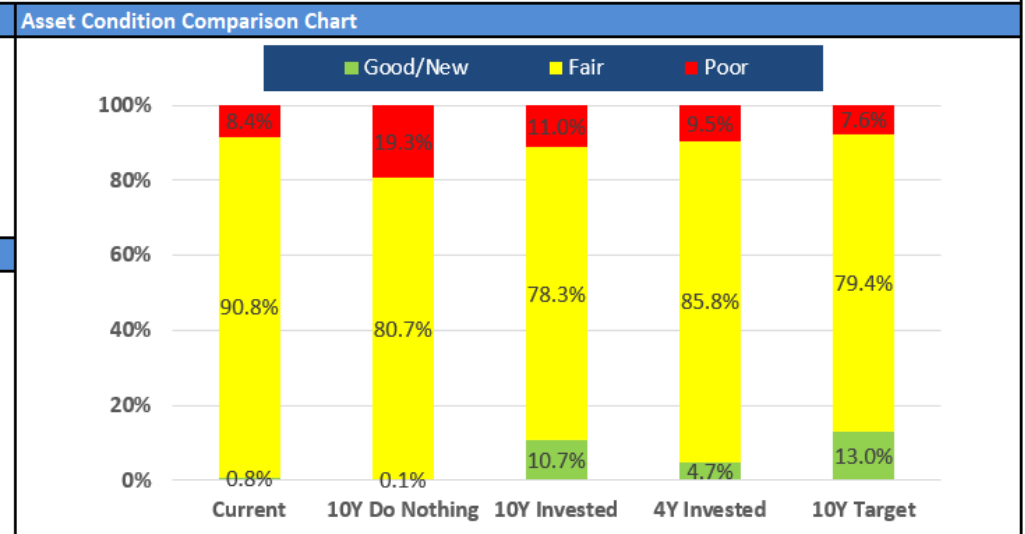
## 10Y Needs Assessment

| | Total Cost of Work | | |
|---|---|---|---|
| **Treatment** | **Invested** | **Cost Gap** | **Total** |
| Fix Fair to Good | $ 5,558,841 | $ - | $ 5,558,841 |
| Fix Poor to Good | $ 25,862,065 | $ 10,989,943 | $ 36,852,008 |
| Add New | $ 2,337,140 | $ - | $ 2,337,140 |
| Risk Mitigation | $ 6,311,104 | $ - | $ 6,311,104 |
| Maintenance | $ 7,427,560 | $ - | $ 7,427,560 |
| Total | $ 47,496,710 | $ 10,989,943 | $ 58,486,653 |

## Asset Condition Comparison Chart

# NHS Targets vary by Agency

| MPO/RTPA | NHS System | NHS Asset | 2022 TAMP 4-Year Target | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Good | Good (%) | Fair | Fair (%) | Poor | Poor (%) |
| State | Interstate | Pavement | 7,188.4 | 49.2% | 7,162.8 | 49.0% | 252.1 | 1.7% |
| State | Non-Interstate | Pavement | 10,482.9 | 46.0% | 11,803.7 | 51.8% | 506.1 | 2.2% |
| State | NHS (combined) | Bridge | 105,642,963.7 | 48.3% | 105,279,046.5 | 48.1% | 7,760,482.1 | 3.5% |
| AMBAG | Non-Interstate | Pavement | 19.8 | 7.3% | 206.5 | 76.3% | 44.4 | 16.4% |
| AMBAG | NHS | Bridge | 28,165.0 | 12.2% | 148,723.9 | 64.3% | 54,391.0 | 23.5% |
| BCAG | Non-Interstate | Pavement | 3.8 | 3.8% | 75.9 | 75.3% | 21.2 | 21.0% |
| BCAG | NHS | Bridge | 9,911.2 | 24.3% | 30,057.3 | 73.7% | 794.5 | 1.9% |
| FCOG | Non-Interstate | Pavement | 41.3 | 7.9% | 387.4 | 74.0% | 95.1 | 18.2% |
| FCOG | NHS | Bridge | 152,206.2 | 43.3% | 194,068.2 | 55.2% | 5,123.6 | 1.5% |
| Glenn | Non-Interstate | Pavement | 0.3 | 4.9% | 4.4 | 78.7% | 0.9 | 16.4% |
| Glenn | NHS | Bridge | | | | | | |
| Humboldt | Non-Interstate | Pavement | 1.4 | 3.8% | 30.0 | 82.9% | 4.8 | 13.3% |
| Humboldt | NHS | Bridge | - | 0.0% | 4,969.8 | 97.2% | 143.2 | 2.8% |
| KCAG | Non-Interstate | Pavement | 2.3 | 6.5% | 32.0 | 91.3% | 0.8 | 2.2% |
| KCAG | NHS | Bridge | | | | | | |
| KCOG | Non-Interstate | Pavement | 78.4 | 10.7% | 573.1 | 78.1% | 82.6 | 11.3% |
| KCOG | NHS | Bridge | 374,572.3 | 40.3% | 483,814.0 | 52.1% | 69,983.8 | 7.5% |
| Lassen | Non-Interstate | Pavement | 0.1 | 1.9% | 7.2 | 94.0% | 0.3 | 4.1% |
| Lassen | NHS | Bridge | | | | | | |
| MCAG | Non-Interstate | Pavement | 2.6 | 3.0% | 59.0 | 68.1% | 25.0 | 28.9% |
| MCAG | NHS | Bridge | 32,800.0 | 61.9% | 19,824.1 | 37.4% | 334.9 | 0.6% |
| MCTC | Non-Interstate | Pavement | 0.0 | 0.3% | 2.9 | 77.2% | 0.8 | 22.5% |
| MCTC | NHS | Bridge | | | | | | |
| MTC | Non-Interstate | Pavement | 310.8 | 9.9% | 2,535.9 | 80.5% | 302.8 | 9.6% |

# Condition Performance Gap Analysis

- Three Performance Scenarios are presented in the TAMP
  - Maintain Current Condition*
  - Expected 10-Year Condition
  - Desired State of Repair*

- Results
  - Performance gaps are projected for the combined state and local NHS
  - No performance gaps for the SHS for core assets – consistent with SHSMP

Performance Analysis does not reflect IIJA funding

# TAMP Development Timeline

| Dates | Action |
|---|---|
| **February – March 2021** | 10 Listening Sessions were held with select MPO/RTPA/Cities/Counties |
| **April – Sept. 2021** | Seven TAMP Development Workshops were held |
| **December 2021** | TAMP distributed for internal/external Comments |
| February 11, 2022 | Final comment due |
| **March 2022** | TAMP required to be submitted to FHWA and CTC for final comments |
| May 2022 | FHWA and Commission comments received |
| June/Aug 2022 | Commission votes to adopt the TAMP |

# Acknowledgements

## Executive Team

**David S. Kim, Secretary,** California State Transportation Agency
**Elissa Konove, Undersecretary,** California State Transportation Agency
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## Caltrans Project Team

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## TAMP Workshop Presenters:

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**Carol Dirksen,** State Controller's Office, Financial Planning Workshop
**Lisa Tam,** State Controller's Office, Financial Planning Workshop
**Brad Allen, APTech,** Investment Strategies Workshop

## Partners and Stakeholders

We would like to acknowledge the valuable input received from numerous local and regional transportation agencies and attendees of the virtual TAMP development workshops and listening sessions. We would especially like to thank the MPO/RTPAs for their input on local NHS funding and the setting of TAMP performance targets.

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Association of Monterey Bay Area Governments
Butte County Association of Governments
Fresno Council of Governments
Glenn County Transportation Commission
Humboldt County Association of Governments
Kern Council of Governments
Kern County
Kings County Association of Governments
Lassen County Transportation Commission
Los Angeles County Metropolitan Transportation Authority
Madera County Transportation Commission
Merced County Association of Governments
Metropolitan Transportation Commission
Orange County
Orange County Transportation Authority
Riverside County Transportation Commission

Sacramento Council of Governments
San Diego Association of Governments
San Joaquin Council of Governments
San Joaquin County
San Luis Obispo Council of Governments
Santa Barbara County Association of Governments
Santa Cruz County
Marin County
Los Angeles County
City of Sacramento
City of Santa Clarita
Shasta Regional Transportation Agency
Southern California Association of Governments
Stanislaus Council of Governments
Tahoe Metropolitan Planning Organization
Tahoe Regional Transportation Agency
Tulare County Association of Governments