



California Traffic Control Devices Committee Agenda Item Report



Meeting Date: February 02, 2023	From: Pauline Wong, Caltrans HQ Safety Programs
Item Number: 22-08	
Sponsored By: Yue Wang, PE, Caltrans	Presented By: Pauline Wong, Caltrans HQ Safety Programs
Description: Informational item on Strategic Highway Safety Plan's (SHSP) Speed Management/Aggressive Driving (SM/AD) Challenge Areas Action Item 3 (SM.3): Revise the California Manual for Setting Speed Limits (CMSSL) to comprehensively cover speed setting methodology and law in easy-to-understand terminology.	

Recommendation:

None.

This is an informational item that is being continued from the previous meeting as Caltrans hasn't received any nominations from the CTCDC members. The CTCDC is being informed of this item in case any members would like to nominate engineering and traffic survey (E&TS) experts and/or practitioners to assist with the revision efforts.

Agency Making Request/Sponsor:

Pauline Wong, Caltrans / Yue Wang, CTCDC Member.

Background:

In March 2021, the SHSP Steering Committee and Executive Leadership approved new SM/AD action item SM.3 to incorporate in the 2020-2024 SHSP. SM.3 aims to revise the CMSSL to comprehensively cover speed setting methodology and law in easy-to-understand terminology.

The current version of the CMSSL is 2020. This manual was initially developed in 2014, targeted towards Caltrans District engineers performing E&TS. This manual contains policies and practices that are applicable to the State Highway System (SHS). CMSSL was not intended to include local agency practices in conducting and performing E&TS and setting speed limits. Since this action requires the CMSSL revision to focus on extending its applicable to local agency practices, Caltrans is requesting local agency E&TS experts' participation to assist with the revision.

SM.3 involves soliciting key local agency staff who are experts on E&TS and speed surveys to help with revising the CMSSL to include Statewide Integrated Traffic Records System (SWITRS) data and local agency practices on setting speed limits.

Caltrans plans to have 6 to 8 members from local agencies and at least 1 from local law enforcement with experience of enforcing speed limits and defending speed limit



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tickets in the review group. This group will include members from cities and counties, some rural and some urban.

Caltrans is seeking nominee candidates with the following characteristics/qualities:

- An engineer or a non-engineer who conducts E&TS for local agencies or approves the E&TS or manages the group that is conducting the E&TS
- An engineer or a non-engineer who develops strategies, guidance, policies, and procedures governing speed management
- An engineer or a non-engineer who coordinates activities related to speed management, traffic calming, or other proven safety countermeasures
- An engineer or a non-engineer who can integrate proven effective safety elements into Speed Management and Speed Limit Setting related guidance, plans, and specifications

Attachment:

Attachment – Approved SHSP Action SM.3.



ATTACHMENT

Attachment – Approved SHSP Action SM.3.



Challenge Area:	Aggressive Driving / Speed Management
Co-Leads:	Monica Kress-Wooster, Caltrans; Jose Alatorre, CHP
Action Title:	SM/AD-3. Revise the California Manual for Setting Speed Limits to comprehensively cover speed setting methodology and law in easy to understand terminology.
Action Lead(s):	Atifa Ferouz, Caltrans Traffic Safety

Thank you for your participation in the 2020-2024 California Strategic Highway Safety Plan. Complete the fields in this document for each proposed action. Grey boxes indicate areas that should be filled out.

SHSP actions should be bold, high-impact actions that reduce fatalities and serious injuries related to the 16 challenge areas. Consider why the action should be part of the SHSP, such as:

- Innovative
- Requires partnerships
- Improves existing data
- Expands or improves existing effective program
- Applies proven countermeasures

Each action should be **SMART**, as defined below:

SPECIFIC – clear action statement

MEASURABLE - identified performance measures

ACHIEVABLE – committed resources by responsible organization(s)

RELEVANT - statewide significance and data-driven issue and countermeasure

TIME-CONSTRAINED - achievable within SHSP timeframe

Additionally, each action must align with the **Four Guiding Principles**. Each action or action development process is required to align with the Integrate Equity Guiding Principle, as well as align with at least one of the remaining Guiding Principles. See further guidance on the Four Guiding Principles at the end of this worksheet.

Required:		Must align with at least 1 of the following 3:	
<input checked="" type="checkbox"/> INTEGRATE EQUITY	<input checked="" type="checkbox"/> IMPLEMENT SAFE SYSTEM APPROACH	<input checked="" type="checkbox"/> DOUBLE DOWN ON WHAT WORKS	<input type="checkbox"/> ACCELERATE ADVANCED TECHNOLOGY

Indicate which of the 5 E's of traffic safety that this action applies to.
(Can choose more than one)

<input type="checkbox"/> EDUCATION <input type="checkbox"/> EMERGING TECHNOLOGIES <input checked="" type="checkbox"/> ENGINEERING	<input type="checkbox"/> EMERGENCY RESPONSE <input type="checkbox"/> ENFORCEMENT
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PART I: ACTION DESCRIPTION

SPECIFIC – clear action statement

- Be specific on what will be accomplished, and the need being addressed.
- Describe alignment with at least two Guiding Principles.

Please describe your action.

- *What will be accomplished by the action?*
- *What need is being addressed by the action?*

California is divided into 58 counties and 482 cities. Many large local agencies are familiar with policies, procedures, and statutory mandates on posted speed limits and prima facie zones. However, smaller jurisdictions are not as well-versed in these topics and some are unaware of the myriad of existing rules that allow them flexibility to deviate from the 85th percentile speed (when appropriate) to ensure safety for all road-users, including pedestrians and bicyclists. The opportunity exists to provide consistent step-by-step guidance for state and local agency staff on how to establish speed limits below the 85th percentile speed within current statute and where appropriate.

This action will not be contingent on current setting speed limit research efforts and is an update to the manual based on existing law.

This action will be to revise the existing Manual of Speed Setting Methodology in order to clarify existing rules and flexibilities. This is expected to result in more consistent speed-limit setting across all jurisdictions and to result in reduced speed limits or not-increasing speed limits where inappropriate for all present users. Training guides may also be developed. This update may be informed by a committee of State and local subject matter experts. The action leads will collaborate with representatives from Regional Transportation Planning Agencies (RTPAs), Metropolitan Planning Organizations (MPOs), California League of Cities and County Engineers Association of California (CEAC) to provide outreach to their agencies to provide personnel for the advisory group.



PART II: ALIGNMENT WITH GUIDING PRINCIPLES

Guidance on how actions can align with each of the Four Guiding Principles is provided at the end of this worksheet.

*Describe the action's alignment with the **Integrate Equity** guiding principle (required).*

This action would improve the understanding of and utilization of any flexibility within current law and policies to set speed limits that prioritize the safety of all road users. Specifically, vulnerable users, such as pedestrians and bicyclists will greatly benefit from fully understanding the flexibility with the methodology. This is especially beneficial to smaller cities or towns that do not have larger legal teams.

*Describe the action's alignment with the **Implement Safe System Approach** guiding principle (if applicable).*

The following Safe System Principles would align with these efforts on the methodology for setting speed limits:

- Death / Serious Injury is Unacceptable – one-third of fatalities and serious injuries involve speeding.
- Humans Make Mistakes – humans are unlikely to choose the appropriate speed for every roadway context and consider all users of the roadway; therefore, speeds should not be set based on current driver speeds.
- Humans are vulnerable – humans are unlikely to survive high-speed crashes.
- Safety is Proactive – reducing speed limits is a proactive approach to reducing fatalities and serious injuries.

This action also addresses the following Safe System Elements: safe road users and safe speeds.



Describe the action's alignment with the **Double Down on What Works** guiding principle (if applicable).

NHTSA's Countermeasures that Works includes "any measure that can achieve reductions in average operating speeds, including lower speed limits, enhanced enforcement, and communication campaigns as well as engineering measures, are expected to reduce fatal and injury crashes." This action will work to actively reduce speed limits and average operating speeds by clarifying where flexibility to set speed limits appropriate for all users may exist within the current speed limit setting methodology.

Describe the action's alignment with the **Accelerate Advanced Technology** guiding principle (if applicable).

Not applicable



PART III: ABILITY TO EXECUTE

MEASURABLE - identified performance measures

- What will be measured to indicate the completion of the action?
- What will be measured to indicate the effectiveness of the action?
- How and when will this information be collected?
- Who will collect and process the performance measures?

Completion of an update to the California Manual on Setting Speed Limits.

ACHIEVABLE – committed resources by responsible organization(s)

- Identify the process and resources anticipated to complete the action
- Define requested resources or potential obstacles
- Document endorsement by those responsible for the implementation

- What type of resources are needed to complete this action (e.g. funding, staffing, change in rule, regulation, etc.)? Be specific in identifying agencies, organizations, or advocates that are responsible for assisting in this action.

- Recommendations by an advisory group including regional and local representation (i.e. local agency public works and engineering leads) for updates to the manual.
- Caltrans approval of updates to the manual.



- *What partners have agreed to support this action?*

Caltrans and Challenge Area Team members

- *What resources needed to complete this action are not in place? What actions are anticipated to be needed to get those resources?*

Caltrans has agreed to provide the resources to complete this task. The engagement approach will be developed based on input received from representatives from Regional Transportation Planning Agencies (RTPAs), Metropolitan Planning Organizations (MPOs), California League of Cities and County Engineers Association of California (CEAC).

- *Please describe any potential obstacles or risks for completing the action.*

None known



PART IV: IMPACT

RELEVANT - statewide significance and data-driven issue and countermeasure

- Documentation of effectiveness or justification of innovation approach
- Discuss the potential reduction in fatalities and serious injuries based on the collision factors targeted by the action
- Discuss when the reduction should be expected

- Discuss the potential reduction in fatalities and serious injuries based on the outcomes expected by the action. Use data driven results if possible, specifically the SHSP Data Dashboard.

- Speeding contributes to approximately one-third of all motor vehicle fatalities and the speed at impact contributes to the majority if not all fatalities. Speed increases crash risk in two ways: it increases likelihood of being involved in a crash and it increases the severity of injuries sustained by all road users in a crash. While the relationship between speed and crash involvement is complex, the relationship between speed and injury severity is consistent and direct. Crash severity increases with individual vehicle speed.

- Reducing speed limits is a component of speed management that is targeted at reducing vehicle speeds and improving safety across most road environments.

- A study reported in the NHTSA Countermeasures that Work document states that “a reduction of 3 mph in average operating speed on a road with a baseline average operating speed of 30 mph is expected to produce a reduction of 27% in injury crashes and 49% in fatal crashes.”

- When would the reduction in fatalities and serious injuries be expected?

After the manual is updated and more speed limits are set that take into account all road users.

TIME-CONSTRAINED - achievable within SHSP timeframe

- Preference toward 1 to 2-year timeframe
- Recognize that bold, innovative ideas may take longer to accomplish but should still be within the 2020-2024 timeframe

- When is the action planned to be completed (Month & Year)?

December 2022



- Describe any potential obstacles to completing the action by December 2024.

None known