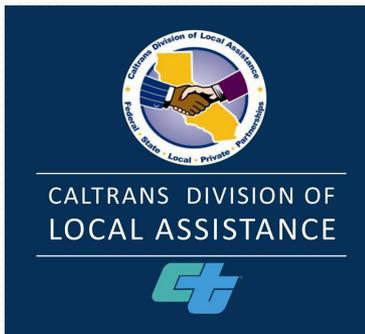


Local Highway Safety Improvement Program (HSIP) and How It Works

For 1st STIC Local Roadway Departure Safety Workshop
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This presentation covers:

- Federal Legislation and HSIP Performance Measures;
- Local HSIP Advisory Committee;
- Eligible applicants and projects;
- Funding and project selection;
- Project delivery requirements and status; and
- Systemic Safety Analysis Report Program (SSARP).

Federal Legislation

- The Fixing America's Surface Transportation Act (FAST) Signed on 12/4/2015.
- The purpose of the HSIP program is “to achieve a significant reduction in traffic fatalities and serious injuries on all public roads” (23 U.S. Code § 148 (b)(2))
 - Includes Performance Measures and Targets
 - HSIP projects:
 - must be based on elements of the Strategic Highway Safety Plan (SHSP);
 - Are identified through a data-driven process;
 - Target identified safety issue;
 - Reduce fatalities and serious injuries.



National Performance Management Measures for the HSIP

FHWA Final Rule (released 3/15/2016; effective 4/14/16) Docket Number: FHWA-2013-0020

Five Performance Measures (5-Year Rolling Averages):

- Number of Fatalities
- Rate of Fatalities per 100 million VMT
- Number of Serious Injuries
- Rate of Serious Injuries per 100 million VMT
- Number of Non-motorized Fatalities and Non-motorized Serious Injuries

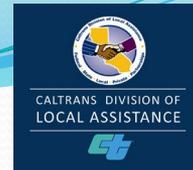
Target setting:

- Caltrans will first establish statewide targets by August 31, 2017 HSIP Annual Report for calendar year 2018, and annually thereafter.
- MPOs will then establish their targets by
 - 1) agreeing to plan and program projects so that they contribute toward the accomplishment of the State targets or
 - 2) committing to a quantifiable HSIP target for the metropolitan planning area.



Local HSIP Advisory Committee

- Members from:
Caltrans; California Transportation Cooperative Committee;
California State Association of Counties; League of California
Cities; Rural County Task Force; RTPAs; MPOs
- Provides high-level balanced strategic guidance to
California's Local HSIP and other safety programs and
efforts regarding safety on California local roadways.
- Meet about 6 times per year.



Eligible Applicants

Any local agency that owns, operates, and maintains the public roadways

- City and County agencies
- Tribal Governments
- Others (reviewed on a case-by-case basis)



Eligible Projects

- Generally, any work on publicly owned roadway or bicycle/pedestrian pathway that corrects or improves the safety for users;
- Improvement-type must have an established Crash Reduction Factor to be included in the Application's Benefit Cost Ratio (BCR) calculation;
- Prefer projects that can be delivered quickly and have minimal ROW and Environmental impacts



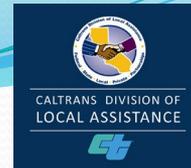
Eligible Projects

- Safety improvements at intersections, such as:
 - Providing left-turn phase;
 - Other signal timing and phasing modifications;
 - Improving signal hardware;
 - Installing roundabouts;
 - New signals;
 - Converting signal to master arm;
 - Dilemma zone detection; and
 - Intersection lighting.



Eligible Projects

- Pedestrian/bike projects, such as:
 - Crosswalks;
 - Bike lanes;
 - Sidewalks;
 - Pedestrian countdown signal heads;
 - Pedestrian hybrid beacons; and
 - Rectangular rapid flashing beacons.



Eligible Projects

- Roadway Departure Prevention, such as:
 - Roadway safety sign audits;
 - High friction surface treatments;
 - Guardrails or guardrail upgrades;
 - Install centerline/edgeline rumble strips/stripes;
 - Remove/relocate fixed objects;
 - Improve curve superelevation/alignments;
 - Install curve advance warning signs; and
 - Install delineators, reflectors and/or object markers.

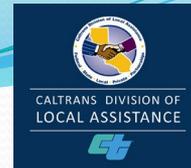


Local HSIP: Funding and Project Selection

- ❖ Local HSIP apportionments: approx. \$81 million per year (2016-2010 average)

National	California	California Local HSIP
\$2.317 billion/year	\$204 million/year	\$81 million/year

- ❖ Calls for Projects:
 - ❖ Interval: every one to two years (8 calls from 2007);
 - ❖ Most recent call (Cycle 8): May, 2016;
 - ❖ Next call (Cycle 9): expected to be around May, 2018.



Local HSIP: Funding and Project Selection

- Key to Successful Applications:
 - 1. Develop good projects:
 - Select locations where safety improvements are most needed (high crash-concentration spots versus systemic approach).
 - Apply effective safety countermeasures.
 - 2. Prepare your applications – no fatal flaws.
 - A technical process not grant writing – engineer’s work.
 - Collect/verify data and use data correctly.



Local HSIP: Funding and Project Selection Cycle 8 Call for Projects (2016):

- ❖ Announced on May 9, 2016;
- ❖ Applications Due August 12, 2016;
- ❖ Min: \$100k per application;
Max: \$10 million per application and per agency.
- ❖ Three Categories:
 - **Benefit/Cost Ratio (BCR) projects:**
Application's minimum BCR: 3.5
 - **Set-aside for guardrail upgrades:**
For upgrades of existing guardrails and end treatments
 - **Set-aside for crosswalk enhancements and pedestrian countdown heads**



Local HSIP: Funding and Project Selection Cycle 8 Call for Projects (2016):

Safety Countermeasures (CMs): a total of 76

- Signalized Intersection (S): 18
- Non-Signalized Intersection (NS): 20
- Roadway (R): 38

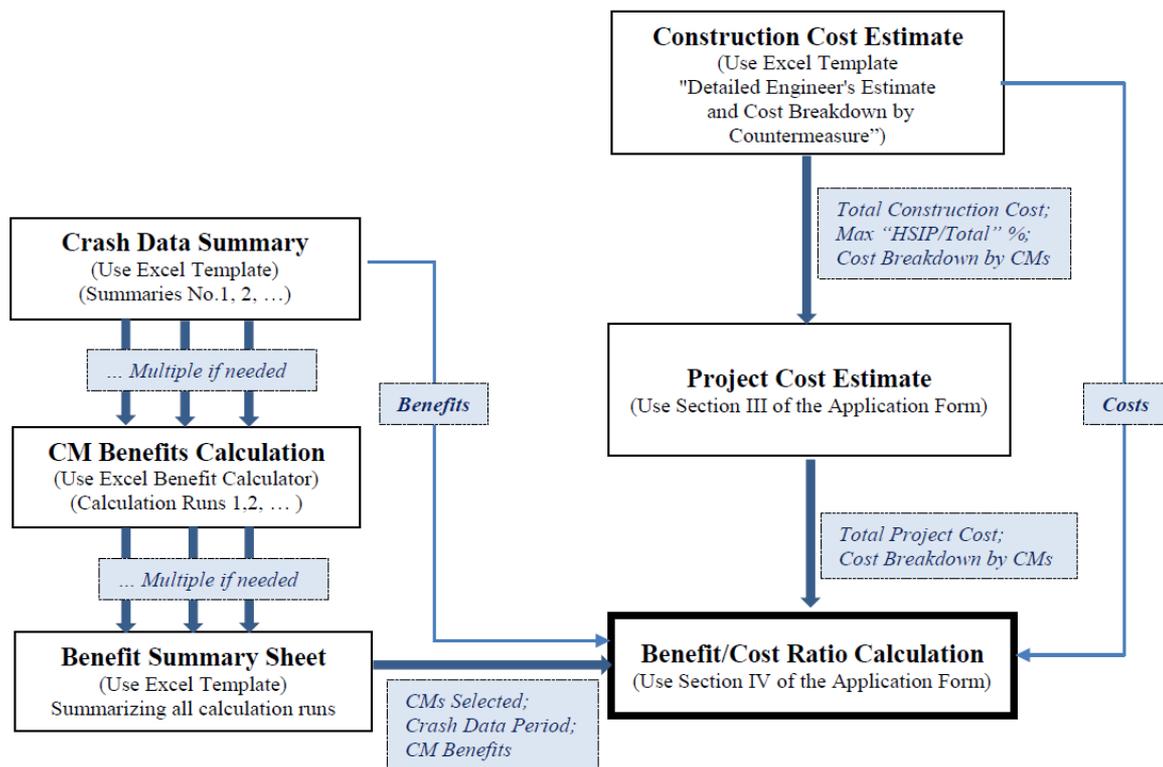
Each countermeasure is associated with:

- A crash type (all; Ped & Bike; Night; etc.);
- A Crash Reduction Factor (CRF): 10% to 70%; and
- A Service Life: 10 or 20 years.



Local HSIP: Funding and Project Selection Cycle 8 Call for Projects (2016):

Benefit/Cost Ratio Calculation Procedure



Applicants Calculate the Benefit/Cost Ratio:

Benefits:

- Collision History (3 to 5 years);
 - Countermeasures and corresponding CRFs
- It is the applicant's responsibility to clearly demonstrate the correlation between the proposed countermeasures and past collisions

Project Costs:

- All phases;
- All funding sources.



Local HSIP: Funding and Project Selection Cycle 8 Call for Projects (2016):

	Applications	Selected Projects	% Selected
	247	225	91%
Federal Funds	\$252 million	\$216.9 million	88%

Selected Projects:

Category	Benefit/Cost Ratio	“Guardrail upgrade” set-aside	“Crosswalk enhancements/ pedestrian countdown heads” set-aside
Number of Projects	167	24	34
Federal Funds	\$187.6 million	\$21.9 million	\$7.4 million



Local HSIP: Funding and Project Selection Cycle 8 Call for Projects (2016):

All BCR Projects vs.
Projects with Roadway Departure Safety Related
Components

	Number of Projects	Federal Funds	Benefit/Cost Ratio
All BCR Projects	167	\$187.6 million	10.3
Roadway Departure Safety Related	56 (34%)	\$47.4 million (25%)	12.9 (25% higher)



Cycles 4-8: Selected Projects

Table of Selected Projects

Cycle	Release Date	Number of Applications	Number of projects selected	Federal funds approved (\$M)	Average BCR of selected projects
4	2/23/2011	357	179	\$74.5	7.9
5	10/19/2012	276	221	\$111.3	14.6
6	11/14/2013	389	231	\$150.0	10.7
7	11/12/2015	212	182	\$160.5	16.9
8	11/21/2016	247	225	\$216.9	10.3
	Total	1,481	1,038	\$713.2	12.3

Expected benefits: \$8.8 billion!



Local HSIP: Project Delivery Requirements

- Need to follow federal-aid process;
- Requirements established to ensure safety projects are delivered in a timely manner
 - PE Authorization - within 9 months; and
 - CON Authorization - within 36 months
 - Can not apply for new HSIP funds if either milestone is not met
 - If there is still no CON authorization within 5 years, project will be removed from the program.

Local HSIP Project Delivery Status

Status of Local HSIP Projects (as of 4/6/2017)

Status	Number of Projects (all 8 cycles)	%	Number of Projects (cycles 1 to 5)
No Authorization	280	20%	8
In Preliminary Engineering / Right of Way	258	18%	24
In Construction	376	27%	265
Completed	494	35%	480
Total	1408	100%	777

Systemic Safety Analysis Report Program (SSARP)



- \$10 million of state funds allocated by the CTC in October, 2015.
- Provides funding to do a comprehensive systemic safety analysis on roadway networks.
- Purpose is to assist local agencies that do not have safety analysis expertise.
- Up to \$250,000 for one agency; up to \$500,000 for a joint application (two or more agencies).

Systemic Safety Analysis Report Program (SSARP)



- Selection results announced on 7/15/16
 - 61 projects; \$10m state funds
 - 41 are cities / 15 are counties / 5 joint.
 - As of 4/10/17: \$7.6 million sub-allocated to 45 projects.
 - 46 applications unselected (requesting \$7.7m of state funds)
 - CTC allocated \$7.7m in its January, 2017 meeting



Questions? Thank you ...

- **Local HSIP Website:**
<http://www.dot.ca.gov/hq/LocalPrograms/hsip.html>

Or

- **Google search: “CA Local HSIP”**