

Chapter 06: Identification of Priority Countermeasures and Strategies

6.1 Countermeasure Development Framework

Introduction

To create a safer transportation network, the U.S. Department of Transportation (USDOT) has adopted the Safe System Approach to guide the development of collision countermeasures in the pursuit of zero fatalities and severe injuries in the future. Additionally, through the Strategic Highway Safety Plan (SHSP), the 4 E's of safety (Engineering, Education, Enforcement, and Emergency Medical Services) are emphasized to guide safety projects toward developing countermeasures and strategies for reducing collisions.

Priority Locations

Multiple priority locations were identified by collision data and HIN analysis, as well as Caltrans LRSM and Highway Safety Manual (HSM) ranking for collision frequency and severity. The priority locations were examined in detail to develop the countermeasures.


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The draft list of the priority locations was developed and reviewed with partner agencies. Based on partner agency consultation (e.g., safety projects in the process of being implemented), some locations were removed and replaced. The final priority intersections (Table 6.1) and segments (Table 6.2) are listed on the following page.

Comprehensive Regional Approach

The Project Team developed countermeasures for priority locations within the HIN. Additionally, engineering countermeasures that mitigate on a systemic basis, while also addressing the priority locations, are presented. In addition to these engineering strategies, non-engineering strategies (i.e., programs and policies) are presented that mitigate on a systemic basis, as well as at priority locations.

A key feature that distinguishes this Plan from prior LRSPs is the inclusion of all jurisdictional agencies in Humboldt County, including Caltrans.

The Humboldt County Regional VZAP includes multiple Caltrans facilities, including priority locations, which have been coordinated and confirmed with Caltrans. The inclusion of Caltrans facilities is especially important given that 16 out of 20 of the top hot spots are Caltrans-owned.

Data-Driven Decision Framework

As detailed in the Injury & Collision Data Analysis Memorandum, consistent with the LRSM ranking and prioritization, high-injury locations were determined by assessing the following for each collision: crash severity type (e.g., property damage only, F+SI, other injury), location type (e.g., roadway, non-signalized intersection, and signalized intersection), and severity ranking (i.e., crash cost and EPDO).

This methodology ensures that F+SI collisions receive the highest values, to distinguish the high-severity locations. For each network and each intersection, the EPDO of each and all collisions was summed, with EPDO 119 and below categorized as “low severity” and EPDO 120 and above categorized as “high severity.” Hot spots are “high severity” high-injury locations, which comprise the HIN.

More information on the Injury & Collision Data Analysis and HIN identification can be found in Appendix A.

Intersection	Control Type	Jurisdiction	Facility Owner
4th St / R St	Signalized	City of Eureka	Caltrans
Alliance Rd / Stromberg Ave	Unsignalized	City of Arcata	City of Arcata
Ocean Ave / W Henderson St	Unsignalized	City of Eureka	City of Eureka
Broadway / W Washington St	Signalized	City of Eureka	Caltrans
H St / Henderson St	Signalized	City of Eureka	City of Eureka
US 101 SB Off Ramp / Singley Rd	Unsignalized	Unincorporated	Caltrans
G St / Samoa Blvd	Signalized	City of Arcata	Caltrans
H St / Harris St	Signalized	City of Eureka	City of Eureka
5th St / H St	Signalized	City of Eureka	Caltrans
4th St / H St	Signalized	City of Eureka	Caltrans

Table 6.1 Priority Intersections

Street Name	Street Limits	Jurisdiction	Facility Owner
Broadway	W Hawthorne St to Vigo St	City of Eureka	Caltrans
SR 96	0.6 miles south of Bull Creek to Mill Creek Road	Unincorporated	Caltrans
SR 299	1.1 miles east of Cedar Creek Road to 200 ft east of Willow Creek	Unincorporated	Caltrans
US 101	L P Mill Rd to Kane Rd	Unincorporated	Caltrans
SR 299	New 3 Creeks Road to M and W Ranch Road	Unincorporated	Caltrans
SR 255 Bridge	100 ft east of Vance Avenue to Startare Drive	City of Eureka	Caltrans
US 101	Redwood Trails Circle to Old State Highway	Unincorporated	Caltrans
US 101	1.6 mile south of Humboldt/Del Norte County Border to 600 ft south of Humboldt/Del Norte County Border	Unincorporated	Caltrans
US 101	Hidden Creek Rd to SR 299	City of Arcata	Caltrans

Street Name	Street Limits	Jurisdiction	Facility Owner
US 101	0.6 miles north of Lake Benbow Drive to US 101 Redwood Drive Off Ramp	Unincorporated	Caltrans

Table 6.2 Priority Segments

6.2 Vision Zero Safety Countermeasures

Building directly on the collision data and High-Injury Network analysis, the Project Team developed a prioritized list of safety projects using the Caltrans' LRSM framework to identify engineering countermeasures and non-engineering strategies for the county's highest-severity locations. Ten priority intersections and ten priority segments were selected in coordination with stakeholders including the County of Humboldt and Caltrans District 1.

At priority intersections, where broadside collisions and traffic signal violations are common, recommended countermeasures focus on signal timing improvements, protected left-turn phases, intersection lighting upgrades, Leading Pedestrian Intervals, and pedestrian hybrid beacons.

At priority segments, the majority of which are rural Caltrans-owned state highways where hit-object collisions and unsafe speed are the dominant patterns, recommended countermeasures include dynamic and variable speed warning signs, curve advance warning signs with flashing beacons, edgeline rumble strips, delineators and object markers, segment lighting, and animal fencing.

In addition to these location-specific engineering improvements, the Plan identifies systemic countermeasures applicable countywide (including high-visibility crosswalks, signal timing upgrades, and expanded lighting) as well as four non-engineering programs: Inclement Weather Education, Alcohol and Drug Awareness, a Sign Audit program, and a Share the Road Awareness campaign.

Three strategy recommendations round out the project list: evaluating habitat connectivity and wildlife corridor crossings to address the significant share of animal-involved collisions on rural US 101 segments; evaluating bicycle network facilities and connectivity to address wrong-way cycling on Eureka's one-way street network; and evaluating truck routes, particularly SR 96, where over a quarter of collisions involve trucks striking guardrails and embankments on a narrow, curving facility that also serves as the primary access route to the Hoopa Valley Reservation and communities to the northeast. These more general recommendations were incorporated into the Goals, Strategies, & Actions section of the Plan.

> *The Safe System Approach considers both human behavior and human vulnerabilities to develop mitigations for high-severity collision locations. In accordance with this approach, both **engineering countermeasures** and **non-engineering strategies** were assessed in the pursuit of reducing collisions.*

Further information on the Priority Countermeasures process can be found in Appendix C.

Initial Priority Intersection	Jurisdiction	Final Priority Intersection	Jurisdiction
5th St / H St	City of Eureka	4th St / R St	City of Eureka
4th St / R St	City of Eureka	Alliance Rd / Stromberg Ave	City of Arcata
Bayside Cutoff Rd / US 101	Unincorporated	Ocean Ave / W Henderson St	City of Eureka
Broadway / W Washington St	City of Eureka	Broadway / W Washington St	City of Eureka
H St / Henderson St	City of Eureka	H St / Henderson St	City of Eureka
Indianola Cutoff Rd / US 101	Unincorporated	US 101 SB Off Ramp / Singley Rd	Unincorporated
Broadway / Highland Ave	City of Eureka	G St / Samoa Blvd	City of Arcata
Alliance Rd / Stromberg Ave	City of Arcata	H St / Harris St	City of Eureka

Initial Priority Intersection	Jurisdiction	Final Priority Intersection	Jurisdiction
Broadway / W Hawthorne St	City of Eureka	5th St / H St	City of Eureka
Ocean Ave / W Henderson St	City of Eureka	4th St / H St	City of Eureka

Table 6.3 Initial and Final Priority Intersections

Intersection (Jurisdiction)	Control	Relative Severity (EPDO)	Total Crashes	Top Type of Collision	Countermeasure Number	CRF	CMF	HSIP Funding Eligibility	Recommended Countermeasures
4th St / R St (Eureka; Caltrans)	Signalized	608	27	Broadside (13)	SI03	15%	0.85	50%	Improve signal timing (coordination, phases, red, yellow, or operation)
					SI06	30%	0.70	90%	Provide protected left turn phase (left turn lane already exists)
Alliance Rd /Stromberg Ave (Arcata)	Unsignalized	594	9	Broadside (2), Rear End (2), Hit Object (2), Veh/Ped (2)	NS01NT	40%	0.60	90%	Add intersection lighting (NS.I.)
					NS02	50%	0.50	90%	Convert to all-way STOP control (from 2-way or Yield control)*
					NS11	30%	0.70	90%	Install flashing beacons as advance warning (NS.I.)
					NS25PB	55%	0.45	90%	Install Pedestrian Signal (including Pedestrian Hybrid Beacon (HAWK))
Ocean Ave / W Henderson St (Eureka)	Unsignalized	573	3	Other-Bicycle (2)	NS01NT	40%	0.60	90%	Add intersection lighting (NS.I.)
					NS22PB	25%	0.75	90%	Install pedestrian crossing at uncontrolled locations (new signs and markings only)
					-	-	-	-	Bicycle track
Broadway / W Washington St (Eureka; Caltrans)	Signalized	451	14	Broadside (3), Rear End (3)	SI03	15%	0.85	50%	Improve signal timing (coordination, phases, red, yellow, or operation)
					SI01NT	40%	0.60	90%	Add intersection lighting (S.I.)
					SI07	30%	0.70	90%	Convert signal to mast arm (from pedestal-mounted)
H St / Henderson St (Eureka)	Signalized	424	12	Broadside (9)	SI03	15%	0.85	50%	Improve signal timing (coordination, phases, red, yellow, or operation)
					SI01NT	40%	0.60	90%	Add intersection lighting (S.I.)

Table 6.4 Recommended Countermeasures: Priority Intersections

Intersection (Jurisdiction)	Control	Relative Severity (EPDO)	Total Crashes	Top Type of Collision	Countermeasure Number	CRF	CMF	HSIP Funding Eligibility	Recommended Countermeasures
US 101 SB Off Ramp / Singley Rd (Unincorporated; Caltrans)	Unsignalized	395	5	Broadside (4)	NS08	15%	0.85	90%	Install/upgrade larger or additional stop signs or other intersection warning/regulatory signs
					NS11	30%	0.70	90%	Install flashing beacons as advance warning (NS.I.)
					NS12	20%	0.80	90%	Install transverse rumble strips on approaches

Intersection (Jurisdiction)	Control	Relative Severity (EPDO)	Total Crashes	Top Type of Collision	Countermeasure Number	CRF	CMF	HSIP Funding Eligibility	Recommended Countermeasures
G St / Samoa Blvd (Arcata)	Signalized	337	29	Broadside (8)	SI03	G	0.85	50%	Improve signal timing (coordination, phases, red, yellow, or operation)
					SI06	30%	0.70	90%	Provide protected left turn phase (left turn lane already exists)
H St / Harris St (Eureka)	Signalized	323	15	Broadside (12)	SI03	15%	0.85	50%	Improve signal timing (coordination, phases, red, yellow, or operation)
					SI01NT	40%	0.60	90%	Add intersection lighting (S.I.)
5th St / H St (Eureka; Caltrans)	Signalized	277	9	Broadside (4)	SI01NT	40%	0.60	90%	Add intersection lighting (S.I.)
					SI03	15%	0.85	50%	Improve signal timing (coordination, phases, red, yellow, or operation)
4th St / H St (Eureka; Caltrans)	Signalized	262	4	Sideswipe (2), Veh/Ped (2)	SI01NT	40%	0.60	90%	Add intersection lighting (S.I.)

Table 6.4 (Continued) Recommended Countermeasures: Priority Intersections

Segment (Jurisdiction)	Relative Severity (EPDO)	Total Crashes	Top Type of Collision	Countermeasure Number	CRF	CMF	HSIP Funding Eligibility	Recommended Countermeasures
Broadway St, W Hawthorne St to Vigo St (Eureka; Caltrans)	1088	24	Rear End (10)	-	-	-	-	Parking study
				-	-	-	-	Speed study
				R26	30%	0.70	90%	Install dynamic/variable speed warning signs
SR 96, 0.6 mi s/o Bull Creek to Mill Creek Rd (Unincorporated; Caltrans)	1071	42	Hit Object (28)	R25	30%	0.70	90%	Install curve advance warning signs (flashing beacon)
				-	-	-	-	Limit trucks along roadway
	1071	42	Hit Object (28)	-	-	-	-	Speed study
				R31	15%	0.85	90%	Install edgeline rumble strips/stripes
				R26	30%	0.70	90%	Install dynamic/variable speed warning signs
				R27	15%	0.85	90%	Install delineators, reflectors and/or object markers
SR 299, 1.1 mi e/o Cedar Creek Rd to 200 ft e/o Willow Creek Rd (Unincorporated; Caltrans)	912	32	Hit Object (16)	-	-	-	-	Sign audit
				R22	15%	0.85	90%	Install/Upgrade signs with new fluorescent sheeting (regulatory or warning)
				R27	15%	0.85	90%	Install delineators, reflectors and/or object markers
				R26	30%	0.70	90%	Install dynamic/variable speed warning signs
US 101, L P Mill Rd to Kane Rd (Unincorporated; Caltrans)	899	73	Hit Object (56)	R31	15%	0.85	90%	Install edgeline rumble strips/stripes

Segment (Jurisdiction)	Relative Severity (EPDO)	Total Crashes	Top Type of Collision	Countermeasure Number	CRF	CMF	HSIP Funding Eligibility	Recommended Countermeasures
				R27	15%	0.85	90%	Install delineators, reflectors and/or object markers
				-	-	-	-	Sign audit
SR 299, New 3 Creeks Rd to M and W Ranch Rd (Unincorporated; Caltrans)	899	63	Hit Object (38)	R31	15%	0.85	90%	Install edgeline rumble strips/stripes
				R27	15%	0.85	90%	Install delineators, reflectors and/or object markers
				R26	30%	0.70	90%	Install dynamic/variable speed warning signs

Table 6.5 Recommended Countermeasures: Priority Segments

Segment (Jurisdiction)	Relative Severity (EPDO)	Total Crashes	Top Type of Collision	Countermeasure Number	CRF	CMF	HSIP Funding Eligibility	Recommended Countermeasures
SR 255 Bridge, 100 ft e/o Vance Ave to Startare Dr (Eureka; Caltrans)	890	30	Hit Object (11)	R27	15%	0.85	90%	Install delineators, reflectors and/or object markers
				R26	30%	0.70	90%	Install dynamic/variable speed warning signs
				R01NT	35%	0.65	90%	Add segment lighting
US 101, Redwood Trails Cir to Old State Hwy (Unincorporated; Caltrans)	859	24	Hit Object (11)	R39AL	80%	0.20	90%	Install animal fencing
				R31	15%	0.85	90%	Install edgeline rumble strips/stripes
				R26	30%	0.70	90%	Install dynamic/variable speed warning signs
					15%	0.85	90%	Install delineators, reflectors and/or object markers
US 101, 1.6 mile s/o Humboldt/Del Norte County Border to 600 feet s/o border (Unincorporated; Caltrans)	755	19	Hit Object (11)	R26	30%	0.7	90%	Install dynamic/variable speed warning signs
				R27	15%	0.85	90%	Install delineators, reflectors and/or object markers
				R25	30%	0.7	90%	Install curve advance warning signs (flashing beacon)
US 101, Hidden Creek Rd to SR 299 (Arcata; Caltrans)	753	47	Hit Object (28)	R39AL	80%	0.20	90%	Install animal fencing
				R01NT	35%	0.65	90%	Add segment lighting
				R26	30%	0.70	90%	Install dynamic/variable speed warning signs
				R31	15%	0.85	90%	Install edgeline rumble strips/stripes
US 101, 0.6 mi n/o Lake Benbow Dr to US 101 Redwood Dr Off Ramp (Unincorporated; Caltrans)	736	25	Hit Object (12)	R39AL	80%	0.20	90%	Install animal fencing

Segment (Jurisdiction)	Relative Severity (EPDO)	Total Crashes	Top Type of Collision	Countermeasure Number	CRF	CMF	HSIP Funding Eligibility	Recommended Countermeasures
				R25	30%	0.70	90%	Install curve advance warning signs (flashing beacon)
					30%	0.70	90%	Install dynamic/variable speed warning signs

Table 6.5 (Continued) Recommended Countermeasures: Priority Segments

6.3 Goals, Strategies, & Actions

Introduction

The Priority Countermeasures described above primarily reflect location-specific interventions based on the HIN analysis. However, a broader set of policy recommendations is crucial to establish a holistic framework for incorporating Vision Zero business as usual. The recommendations listed here are organized into a three-tier structure of Goals, Strategies, and Actions that work together to support a Safe System approach to Vision Zero. At the highest level, there are six goals connected to the Safe System elements: Safe Roads, Safe Road Users, Safe Speeds, Safe Vehicles, Safe Post-Crash Care, and Safer Land Use. These reflect the key elements of the Safe System and acknowledge that no single factor on its own can prevent serious or fatal crashes. There is also an initial goal, Establishing a Framework for Action, that lays the groundwork of coordination to achieve all the following goals.

Each goal is backed by a set of strategies that outline how it will be achieved. These strategies are informed by crash data, proven safety countermeasures, and input from the community, helping ensure that priorities are both evidence-based and responsive to local needs. In turn, each strategy is supported by specific actions that outline practical, measurable steps. Responsible parties and time periods are noted for each action, with Short-term, Medium-term, and Long-term intended to refer to the timeframe after HCAOG has developed sufficient capacity to implement the plan. Activities involved in the process of developing that capacity, as well as crucial tasks that can be initiated within current capacity, are noted as *Immediate*.

Across all three tiers, the goals, strategies, and actions are designed to work together. They address driver behavior, road design, vehicle safety, land use, and emergency response as parts of one system.

Overall Prioritization Principles

When implementing the actions below, the fundamental prioritization concerns should be:

1. HIN network (The HIN will be updated every 5 years. See Appendix A for detailed methodology.)
2. Equity score (The Equity Score will be updated every 5 years. See Appendix B for detailed methodology.)

This framework advances safety improvements most urgently in locations and populations with the greatest need.



Figure 6.1 Phasing Strategy

Goal 1: Establishing a Framework for Action

Lay the groundwork for achieving Vision Zero by establishing the critical partnerships, protocols, and workflows.

Strategy 1.1 Capacity Building

Create a foundation for success with the following strategies and actions by developing sufficient capacity within HCAOG to administer a Vision Zero program.

Strategy 1.2 State Highway Coordination

Establish a formal, ongoing coordination process with Caltrans District 1 to align state highway operations, maintenance, and capital investment with local Vision Zero priorities, recognizing that a substantial share of the High-Injury Network runs through Caltrans right-of-way, where HCAOG does not have direct design or maintenance authority. Work together with Caltrans District 1 towards the Caltrans DP-36 and DP-37 commitments.

Why it Matters

A substantial portion of Humboldt County's High-Injury Network runs through Caltrans right-of-way, including US-101, SR-36, SR-96, and other state routes that function as primary corridors for many communities.

HCAOG and its member jurisdictions do not have direct authority to design, modify, or maintain these segments. This highlights the importance of implementation of Caltrans Complete Street commitments. Without a structured coordination process, locally identified safety needs on state routes risk being overlooked or addressed inconsistently through one-off encroachment permit interactions rather than as part of a shared safety strategy.

Caltrans DP-37 and SB 960 together create new obligations and pathways for Caltrans to incorporate Complete Streets and safety improvements into all capital and maintenance projects, and to develop a more transparent encroachment permit process for locally-sponsored safety work within state ROW. This strategy positions HCAOG and member agencies to proactively use these mechanisms.

Process & Funding

Complete Streets Coordination

Implementation of the Caltrans Complete Streets commitment is critical, with a focus on community listening, equity and access considerations, and local context.

Solutions must be appropriately funded, holistic, have community buy-in, and be monitored for effectiveness. The mechanism of accountability should be the Interagency Working Group (IWG) referenced in the Actions table.

HCAOG should meet with the Caltrans District 1 Regional Transportation Liaison and Complete Streets Coordinator within the first year to discuss all Vision Zero-related requests for data, permits, or project coordination.

HIN Alignment

HCAOG should share its local HIN methodology and data with Caltrans District 1 and request reciprocal access to TASAS/TIMS collision data for state route segments. This creates a unified view of the HIN and improves joint eligibility for HSIP funding, which requires documented crash history.

STRATEGY 1.1 CAPACITY BUILDING				
	Action	**Lead**	**Partners**	**Target Timeframe**
1.1a	Apply for grant funding to support administration of the Vision Zero program.	HCAOG	Caltrans District 1, Member Jurisdictions	Immediate
1.1b	Use grant funding to hire or contract new staff support for Vision Zero program management.	HCAOG	Caltrans District 1, Member Jurisdictions	Immediate (after securing grant funding)
1.1c	Assist jurisdictions with establishing and improving quality of baseline data for Vision Zero metrics.	HCAOG	Caltrans District 1, Member Jurisdictions, City/County Public Works, OTS, CTC	Long-term

Table 6.6 Strategy 1.1 Capacity Building

STRATEGY 1.2 STATE HIGHWAY COORDINATION				
	Action	**Lead**	**Partners**	**Target Timeframe**
1.2a	Include Caltrans District 1 as a standing participant in the Vision Zero Interagency Working Group (IWG) described in task 1.3a below.	HCAOG	Caltrans District 1, All Member Jurisdictions	Immediate
1.2b	Meet with the Regional Transportation Liaison and Complete Streets Coordinator to establish processes for Vision Zero-related requests, data sharing, and project coordination.	HCAOG	Caltrans District 1	Immediate
1.2c	Jointly identify state highway segments and intersections within the local High-Injury Network and incorporate them into Caltrans' collision data review so that state and local HIN methodologies are aligned.	HCAOG, Caltrans District 1	City/County Public Works, OTS	Immediate
1.2d	Pursue joint funding applications (HSIP, SHOPP Collision Reduction, and SS4A) for state-local partnership projects on HIN segments within Caltrans ROW.	HCAOG	Caltrans District 1, City/County Public Works, CTC	Short-term
1.2e	Request documentation of Complete Streets exceptions (per DP-37) for any Caltrans capital or maintenance project within the county, and establish a local agency comment step prior to exception approval.	HCAOG	Member Jurisdictions, Caltrans District 1	Short-term

STRATEGY 1.2 STATE HIGHWAY COORDINATION				
	Action	**Lead**	**Partners**	**Target Timeframe**
1.2f	Leverage the Caltrans encroachment permit process proactively for locally-initiated safety retrofits within state ROW, requesting pre-application coordination meetings to reduce permit review cycles and assisting jurisdictions where needed.	Member Jurisdictions (City/County Public Works)	Caltrans District 1, HCAOG	Medium-term
1.2g	Coordinate speed limit and speed zone review requests on state routes through Caltrans' engineering and traffic survey process, incorporating context-based justifications consistent with AB 43 authority.	Caltrans District 1	Member Jurisdictions, HCAOG, Law Enforcement	Medium-term

Table 6.7 Strategy 1.2 State Highway Coordination

Encroachment Permits

SB 960 requires Caltrans to develop a dedicated project intake and encroachment permit review process for Complete Streets facilities sponsored by local jurisdictions or transit agencies, and to designate an encroachment permit manager in each district. Member agencies should use this process and request pre-application meetings for crosswalk upgrades, curb extensions, signal modifications, and lighting improvements within state ROW. HCAOG can provide coordination support and help smaller cities navigate the process.

Speed Limit Coordination

AB 43 expands local authority to reduce speed limits on local roads beyond the 85th percentile Engineering and Traffic Survey (E&TS) result, but it does not apply to state routes. Speed limit changes on Caltrans-managed roads still require a formal E&TS, which could result in a speed limit increase if operating speeds have risen. Physical infrastructure changes should be implemented first to slow operating speeds, consistent with CA MUTCD 2026 and DIB 94, before any E&TS re-evaluation is requested.

Key Funding Sources

- Highway Safety Improvement Program (HSIP): federal safety funding administered by Caltrans that fits with documented crash-reduction projects on state and local routes
- SHOPP Collision Reduction: Caltrans' capital program. DP-37 and SB 960 require Complete Streets evaluation in all SHOPP projects, creating a new lever for state-route improvements
- STIP: regional capital programming through HCAOG that can incorporate state-local partnership projects when ROW and cost-sharing agreements are in place
- Potential federal funding under surface transportation reauthorization

Performance Measures

Primary

- PM-1A: Caltrans District 1 participation in IWG

Secondary

- PM-1B: Protocols established during meeting with Regional Transportation Liaison and Complete Streets Coordinator
- PM-1C: State highway HIN segments incorporated into shared HCAOG/Caltrans collision data review
- PM-1D: Number of locally-initiated safety retrofits within state ROW successfully permitted annually

- PM-1E: Number of joint HSIP/SHOPP/ SS4A funding applications submitted per funding cycle
- PM-1F: Number of DP-37 Complete Streets exceptions documented and subject to local agency comment

Notes

- Caltrans District 1 is currently developing a 4th & 5th Street Feasibility Study (FY 2026–27) examining safety, operations, and bicycle/pedestrian/transit integration in downtown Eureka. This study impacts priority intersections in the local HIN (4th & 5th/H Street; 4th Street/R Street) and should be closely coordinated with HCAOG and the City of Eureka throughout its development.
- Leading Pedestrian Intervals (LPI) have already been implemented at traffic signals owned and operated by Caltrans District 1 within the county. Coordination under this strategy should confirm full LPI coverage at state-controlled signals and identify any remaining gaps.
- Edge line rumble strips on state routes are installed by Caltrans District 1 only where at least 4 feet of clear space remains for cyclists beyond the strip. This constraint should be factored into any jointly developed corridor safety plans on rural state routes.
- The encroachment permit process applies to all locally-sponsored work within state ROW, including minor items such as signage and pavement markings. Early coordination with the District encroachment permit manager (required under SB 960) is strongly recommended before scoping any project that touches state right-of-way, regardless of scale.

Strategy 1.3 Local Jurisdiction Coordination

Establish a formal, ongoing coordination framework between HCAOG and all member jurisdictions, as well as Tribal governments and the Humboldt Transit Authority to ensure that each agency's individual safety priorities, funding parameters, and capital programming cycles are reflected in the regional Vision Zero effort, and that HCAOG's planning and funding support is accessible and responsive to jurisdictions of all sizes.

Why it Matters

HCAOG does not build or maintain roads or control the budgets or capital programs of member jurisdictions. Each city and the county is independently funded, operates under its own planning cycle, and sets its own safety priorities. A structured coordination framework ensures that Vision Zero is connected to the project decisions, resurfacing schedules, and grant applications that lead to concrete progress.

This strategy addresses that gap by establishing working relationships, shared data tools, and joint processes that allow HCAOG to function as an effective regional coordinator of Vision Zero. It ensures that smaller cities and rural communities, which often lack in-house engineering staff and have fewer resources to pursue competitive grants independently, receive targeted support to navigate the process.

Process & Funding

Interagency Working Group

The Vision Zero Interagency Working Group (IWG) should meet quarterly, with a standing agenda covering crash data trends, fatal crash review, funding opportunities, project updates, and lessons learned. Representation should include Public Works and/or Planning staff from each member jurisdiction, Caltrans District 1, County Public Works, Tribal governments, and HCAOG staff. This may build upon the existing Technical Advisory Committee (TAC), potentially established as a subcommittee. The existing TAC consists of staff from each member agency (typically from the Public Works Departments) as well as representatives from HTA, Caltrans, and each of the Tribes. The TAC has the qualifications and structure to allow it to

periodically convene as the Vision Zero IWG. The working group is the primary vehicle for implementing coordination projects in this strategy.

Annual Check-In and Project Pipeline

HCAOG should develop a simple annual check-in form for jurisdictions, capturing current safety priorities, upcoming resurfacing and reconstruction projects, available local match, and known funding barriers. Responses feed directly into the countywide project pipeline: a living, ranked list of Vision Zero-aligned projects organized by jurisdiction, funding status, and readiness. This pipeline should be the primary tool for identifying and programming projects into the RTIP/FTIP ahead of grant cycles.

The process of ranking should begin with the Equivalent Property Damage Only (EPDO) values identified for road segments and intersections as part of the HIN analysis process. Additional prioritization factors may be incorporated to reflect equity considerations and community support. Because lower Equity Scores (ES) indicate greater social vulnerability, the equity term is inverted so that more vulnerable communities receive higher priority. Petition signers (PS) may also be included as a measure of community interest. A potential equation may look like this:

Ranking Score = (EPDO/1000) + (1 − ES) + (PS/100)

Technical Assistance for Smaller Jurisdictions

HCAOG should provide Vision Zero-specific technical assistance to smaller and rural communities, assisting with crash data analysis, grant writing, project scoping, and review of proposed safety improvements. Caltrans District 1 Local Assistance and OTS are key partners.

Shared Data Agreement

A shared data agreement should establish that all member jurisdictions have access to SWITRS, TIMS, and local crash report data through a common platform or dashboard, potentially building on the public Vision Zero dashboard and using existing tools such as ArcGIS. HCAOG should lead configuration of a shared data tool in coordination with CHP and OTS, ensuring that smaller cities have the same analytical foundation as larger jurisdictions when making project decisions.

CIP and RTIP Cycle Coordination

HCAOG should plan for a regular calendar touchpoint, ideally 12–18 months before each RTIP update, for jurisdictions to flag upcoming capital projects that could serve as Vision Zero improvement opportunities, allowing HCAOG to help identify funding and scope safety elements before project designs are finalized.

STRATEGY 1.3 LOCAL JURISDICTION COORDINATION				
	Action	**Lead**	**Partners**	**Target Timeframe**
1.3a	Establish a Vision Zero Interagency Working Group (IWG) under HCAOG with standing representation from each member jurisdiction, meeting at minimum quarterly . This may be an offshoot of the existing TAC, or may follow a process similar to the creation of the Greater Eureka Traffic Safety Task Force.	HCAOG	City/County Public Works, Tribal liaisons, HTA, Humboldt County Public Works, Humboldt County Planning, Caltrans District 1	Immediate
1.3b	Develop a standardized annual check-in process, within the TAC framework, between HCAOG and each member jurisdiction to document current safety priorities, capital project schedules, and funding availability.	HCAOG & TAC	All Member Jurisdictions	Immediate
1.3c	Within the IWG, establish a protocol for crash data sourcing and analysis so that all member jurisdictions work from a common data foundation.	HCAOG	CHP, OTS, Member Jurisdictions, Caltrans District 1, Tribal liaisons, HTA	Immediate

STRATEGY 1.3 LOCAL JURISDICTION COORDINATION				
	Action	**Lead**	**Partners**	**Target Timeframe**
1.3d	Require that all locally-initiated safety projects receiving HCAOG-programmed funding demonstrate alignment with regional Vision Zero principles.	HCAOG	All Member Jurisdictions	Immediate
1.3e	Report annually to the HCAOG Board of Directors on Vision Zero progress across all member jurisdictions.	HCAOG	All Member Jurisdictions, OTS, Caltrans District 1	Immediate
1.3f	Provide targeted technical assistance to smaller cities and rural unincorporated communities without in-house traffic engineering staff. Assist the larger jurisdictions as well if needed.	HCAOG	Caltrans District 1, OTS, Smaller City Public Works Depts.	Short-term
1.3g	Coordinate local capital improvement program (CIP) annual updates with HCAOG's RTIP update cycle to identify upcoming projects as Vision Zero improvement opportunities.	HCAOG	City/County Public Works	Short-term
1.3h	Establish a protocol for cross-jurisdictional safety projects, including lead agency designation and shared cost and maintenance agreements.	HCAOG	Relevant Member Jurisdictions, Caltrans District 1, Tribal liaisons, HTA	Short-term
1.3i	Develop a process for creating a countywide safety project pipeline, ranking Vision Zero-aligned projects as noted below and listing by jurisdiction, priority, and funding status.	HCAOG & TAC	All Member Jurisdictions, Caltrans District 1, Tribal liaisons, HTA	Medium-term

Table 6.8 Strategy 1.3 Local Jurisdiction Coordination

Cross-Jurisdictional Project Protocol

Corridors that cross city limits or city/county boundaries present a recurring coordination challenge. HCAOG should develop a protocol in such cases for lead agency designation, cost-sharing, and maintenance responsibility.

Funding Alignment Requirement

The Vision Zero alignment requirement for HCAOG-programmed funding (HSIP, ATP, TDA Article 3, STIP) should be operationalized through a simple checklist (see Appendix J) completed by project sponsors at time of funding nomination.

Performance Measures

Primary

- PM-1G: Vision Zero IWG established

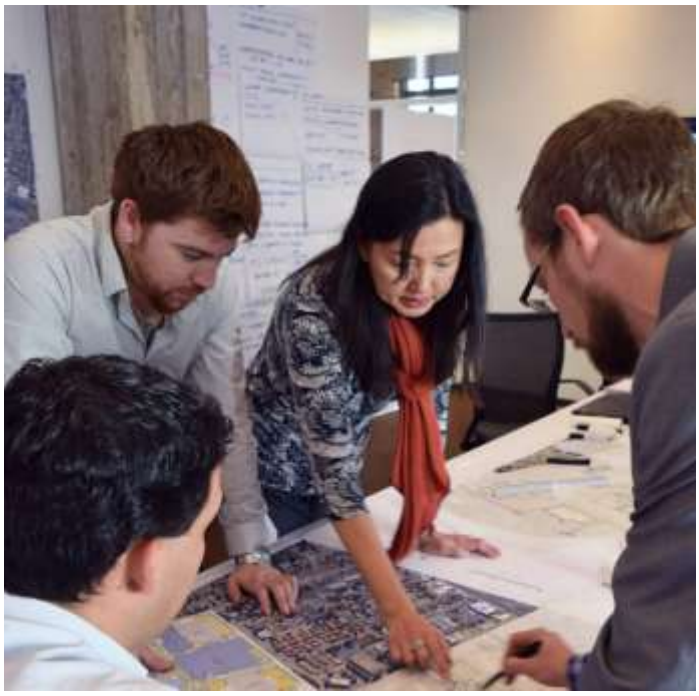
Secondary

- PM-1H: Number of member jurisdictions completing annual HCAOG check-in
- PM-1I: Countywide safety project pipeline established and updated at least annually
- PM-1J: Number of jurisdictions receiving technical assistance from HCAOG
- PM-1K: Shared crash data procedures implemented by member jurisdictions
- PM-1L: Percentage of HCAOG-programmed projects with documented Vision Zero alignment
- PM-1M: Number of cross-jurisdictional safety projects advanced
- PM-1N: Annual Board report produced and presented

Notes

- HCAOG's coordination role under this strategy does not override member jurisdictions' independent authority over their capital programs, budgets, or project decisions. The framework is intended to provide support and alignment.
- The annual check-in and project pipeline should be living tools that are updated continuously. HCAOG staff capacity to maintain these tools should be reflected in the Overall Work Program (OWP).
- Smaller cities with very limited staff may not have a dedicated Public Works Director. Outreach and check-in processes should be adapted to the scale of each jurisdiction.
- The annual Board of Directors report should include equity metrics showing whether safety improvements are reaching rural and low-income communities proportionally.
- Tribal governments are sovereign entities and are not member jurisdictions of HCAOG, but Tribal governments should be closely consulted and involved in the IWG.





Goal 2: Safe Roads

Strategy 2.1 Complete Streets Implementation

Align Complete Streets Policy with Vision Zero by evaluating crash data to identify corridors for road diets, curb extensions, two-way conversion, enhanced crossings, and other Complete Streets tools across Humboldt County. Prioritize these projects and work with local and state agencies to include the projects in TIPs and fund them. Ensure that all roadway and safety improvement projects are scoped and designed to incorporate a range of strategies, prioritizing vulnerable users including pedestrians and cyclists.

Why it Matters

Complete Streets are designed to provide safe and accessible options for multiple travel modes, including walking, cycling, transit, mobility devices, automobiles, and freight. It differs from conventional street design, which has historically prioritized vehicle throughput over safety and access for all users.

Complete Streets design is one of the most effective tools to slow driver speeds, increase attentiveness and visibility of all road users, and move the needle towards Vision Zero.

The Caltrans Complete Streets Elements Toolbox 3.0 reflects this with its inclusion of road space reallocation and bicycle & pedestrian elements that facilitate safe multimodal travel to meet the goals of DP-37. Furthermore, the Caltrans Proven Safety Countermeasures features strategies such as Bicycle Lanes, Pedestrian Crossing Islands, Road Diets, and Walkways.

Complete Streets changes to physical road design typically focus on decreasing driver speed, since this is one of the most important factors in crash severity. However, several strategies increase safety through other mechanisms as well. For instance, a pedestrian refuge island with bumpouts serves to both decrease driver speed and increase driver attentiveness through visual friction, and simultaneously reduces pedestrian exposure to traffic.

STRATEGY 2.1 COMPLETE STREETS IMPLEMENTATION				
	Action	**Lead**	**Partners**	**Target Timeframe**
2.1a	Utilizing the City of Eureka's Complete Streets Program as a sample/template, assist each HCAOG member agency with establishing a Complete Street Program and/or Policies.	HCAOG	Member Jurisdictions, Caltrans District 1 Complete Streets Coordinator	Medium-term
2.1b	Identify appropriate roads for curb extensions, median refuges, and other Complete Streets Engineering tools*, then aid in design and implementation.	City/County Public Works	HCAOG, Caltrans District 1, HTA	Medium-term
2.1c	Identify and address missing and inadequate crosswalks, utilizing high-visibility markings and enhanced crossings where needed and implementing best practices for signalization.	City/County Public Works	HCAOG, Caltrans District 1	Medium-term
2.1d	Identify appropriate roads, particularly in the HIN, to implement road diets and lane narrowing, reducing vehicle speeds and reallocating space for all road users.	HCAOG	Caltrans District 1, City/County Public Works, California Transportation Commission	Long-term
2.1e	Reevaluate one-way streets to assess opportunities for conversion to two-way operation or other design changes that improve pedestrian and bicyclist safety, reduce vehicle speeds, and enhance access to adjacent land uses.	City Public Works Departments	Caltrans District 1, HCAOG, local planning departments, HTA, local businesses	Long-term

Table 6.9 Strategy 2.1 Complete Streets Implementation

Process & Funding

All countermeasures identified in this section are preliminary recommendations. Improvements at specific locations must be grounded in site-specific data, engineering judgment, and context-sensitive design.

Identifying priority sites should begin by referencing the HIN and Equity Score in this report, and move into more detailed crash history analysis. For road diets, FHWA guidance recommends focusing on roads with Average Daily Traffic (ADT) of less than 20,000, in addition to evaluation speed conditions, crash history, and land use context.

Implementing these projects in coordination with routine street resurfacing significantly reduces the cost. Quick-build pilot projects should be utilized as practical to test new designs and gather before/after data.

Key Funding Sources

- HSIP: Federal safety funding; strongest fit for data-supported crash reduction projects.
- STIP: State capital program through HCAOG regional programming (RTIP)
- ATP Cycle 9: Monitor Cycle 9 timeline, regional ATP component may still offer near-term opportunities.
- SHOPP: SB 960 now requires Complete Streets elements to be evaluated in SHOPP projects, a significant new lever for state-route improvements in Humboldt communities.
- Local Transportation Measures: Varies by jurisdiction.
- CDBG: For improvements in low-income communities.
- Potential federal funding under surface transportation reauthorization.

Performance Measures

Primary

- PM-2A: Reduction in fatal and serious injury crashes within 5 years of implementation

- PM-2B: Reduction in pedestrian and bicycle-involved collisions on treated corridors

Secondary

- PM-2C: Reduced vehicle operating speeds on road diet and lane-narrowed corridors
- PM-2D: Target 100% Complete Streets element inclusion in evaluated resurfacing and reconstruction projects, with exclusions documented per DP-37
- PM-2E: Number of Complete Streets projects successfully programmed into RTIP/FTIP/STIP/local CIPs annually



Figure 6.2 Complete Street Illustrative Example





Notes

- The California Complete Streets Act of 2008 (AB 1358) requires all cities and counties to include Complete Streets policies as part of any substantial revision to the circulation element of their general plans.
- In 2024, Caltrans released its 2024–25 Complete Streets Action Plan, which outlines key efforts to implement the Director's Policy for Complete Streets (DP-37) from January 2024 to December 2025.
- SB 960 requires Caltrans to prioritize road improvements for pedestrians, bike riders, and public transit users whenever it performs maintenance or does road work, including sidewalks, bike lanes, bus-only lanes, comfortable and accessible public transportation stops, frequent and safe crosswalks, median islands, accessible pedestrian signals, curb extensions, and narrower travel lanes.
- Each member agency independently programs and implements Complete Streets projects within its limits according to its own CIP and budget.

COMPLETE STREETS ENGINEERING TOOLBOX		
Tool	**Best Context**	**Notes**
Road diet/lane reduction	4-lane undivided roads, <20,000 ADT	FHWA proven countermeasure; cost-effective with resurfacing
Lane narrowing	High-speed corridors with wide lanes	Can slow operating speeds; must comply with CA MUTCD 2026 minimum widths
Two-way conversion	Streets with high speeds, bus routes, double-jeopardy pedestrian crossings	Many one-way couplets were historically two-way and altered to maximize throughput
Sidewalk installation/repair	Corridors with pedestrian crash history or school proximity	ADA compliance required
Protected/buffered bike lanes	Arterials ≥30 mph	Coordinate with Caltrans on state routes
Raised crosswalks/speed tables	Posted speeds ≤25 mph	Vertical deflection slows vehicles at crossings
Curb extensions/bulb-outs	Urban intersections with pedestrian volumes	Reduces crossing distance; not suitable on bus routes without coordination
Roundabouts	Rural intersections, stop-controlled intersections with crash history	Can reduce fatal and serious injury crashes significantly; evaluate case-by-case
Median refuge islands	Wide arterials, high-speed crossings	Improves pedestrian crossing safety on multi-lane roads

COMPLETE STREETS ENGINEERING TOOLBOX		
Tool	**Best Context**	**Notes**
Bus stop improvements	Transit corridors	Required under SB 960 prioritization of transit
Accessible pedestrian signals	All new/reconstructed signalized intersections	ADA requirement

Table 6.10 Complete Streets Engineering Toolbox

Strategy 2.2 Pedestrian Network

Work with local agencies to establish a countywide pedestrian network gap analysis and identify corridors and intersections with high pedestrian fatalities and injuries. Develop a strategy with agency partners to design, fund, and implement pedestrian safety improvements in these areas.

Why it Matters

Pedestrians using the transportation network are unprotected by vehicles and subject to severe or fatal injury even in relatively low-speed collisions. In Humboldt County, pedestrian crashes are concentrated in a few locations: high-activity urban corridors with sidewalk gaps and inadequate crossings, rural state highway segments where pedestrians walk in travel lanes due to the absence of sidewalks or shoulders, and locations near transit stops and social services with high pedestrian volumes and poor infrastructure.

People experiencing homelessness are disproportionately represented in pedestrian fatality data both locally and statewide, as are seniors, people with disabilities, and people walking in areas with limited or no pedestrian infrastructure. These can be addressed with a gap analysis and targeted investment strategy.

Effective pedestrian safety requires both infrastructure and education working, and these strategies should be applied in concert with the human-centric and empathetic education campaign described in Strategy 3.1.

Process & Funding

Pedestrian network gap analysis: The gap analysis should combine SWITRS pedestrian crash data mapped against the HIN, field inventory of sidewalk coverage, crosswalk presence, curb ramp condition, and lighting on priority corridors, and ADA Transition Plan data from each member jurisdiction. Smaller jurisdictions without recent ADA Transition Plan updates should be flagged for HCAOG technical assistance support.

Walk audits: Walk audits are a structured field activity where community members walk a defined route and document specific problems: broken sidewalks, missing curb cuts, inadequate crossing times, poor lighting, vegetation blocking sight lines, and locations where they feel unsafe.

STRATEGY 2.2 PEDESTRIAN NETWORK				
	Action	**Lead**	**Partners**	**Target Timeframe**
2.2a	Develop a prioritized pedestrian safety improvement strategy with agency partners, identifying specific projects for design, funding, and implementation in high-injury areas.	HCAOG	City/County Public Works, Caltrans District 1, OTS	Immediate
2.2b	Establish a countywide pedestrian network gap analysis using SWITRS crash data, HCAOG's Level of Traffic Stress Analysis tool, and field inventory to identify sidewalk gaps, missing crosswalks, inadequate lighting, and ADA deficiencies on HIN corridors.	HCAOG	City/County Public Works, Caltrans District 1, Tribal Governments	Short-term

STRATEGY 2.2 PEDESTRIAN NETWORK				
	Action	**Lead**	**Partners**	**Target Timeframe**
2.2c	Conduct walk audits in partnership with community members, particularly seniors, people with disabilities, and residents of low-income and Tribal communities, to validate gap analysis findings and identify barriers not captured in data.	HCAOG	Local community organizations, Senior centers, Tribal liaisons	Medium-term
2.2d	Coordinate with transit agencies to identify where bus stop access is a contributing factor to unsafe pedestrian behavior, and identify locations where bus stops and/or crossings can be improved.	HCAOG	Local community organizations, Senior centers, Tribal liaisons	Medium-term

Table 6.11 Strategy 2.2 Pedestrian Network

Walk audits should be conducted in each jurisdiction as part of the gap analysis validation process, with particular attention to reaching seniors, people with disabilities, and residents of communities that may not participate in standard public meetings. The Community Education Campaign Plan's community engagement structure provides a pathway to recruiting walk audit participants from these groups.

Key Funding Sources

- HSIP: primary source for infrastructure improvements at documented high-crash locations; crosswalk markings, signals, lighting, and curb ramps are eligible
- ATP: monitor Cycle 9 and regional ATP component for near-term opportunities
- STIP: through HCAOG regional programming for larger corridor projects
- CDBG: pedestrian improvements in low-income communities
- Section 504 / ADA compliance funding: for curb ramp and accessibility upgrades required under ADA Transition Plans
- Tribal Transportation Safety Fund: for improvements on or near Tribal transportation facilities
- OTS grants: pedestrian safety education program component

Performance Measures

Primary

- PM-2F: Reduction in pedestrian-involved crash rates within the HIN.
- PM-2G: Reduction in pedestrian-involved crash rates on treated corridors

Secondary

- PM-2H: Countywide pedestrian gap analysis completed, with deficiency inventory and prioritized project list delivered to all member jurisdictions
- PM-2I: Number of walk audits conducted annually, by jurisdiction
- PM-2J: Number of sidewalk gap segments closed on HIN corridors
- PM-2K: Number of crosswalks upgraded to high-visibility markings on HIN corridors
- PM-2L: Number of ADA curb ramps installed or upgraded on priority corridors
- PM-2M: Number of pedestrian-scale lighting gaps addressed at high-crash nighttime locations
- PM-2N: Percentage of priority pedestrian projects successfully programmed into RTIP/FTIP or local CIPs
- PM-2O: Reduction in gap in sidewalk coverage and crossing quality between low-income/rural communities and county average

Notes

- **People experiencing homelessness:** Unhoused individuals are disproportionately represented in pedestrian fatality data in Humboldt County and statewide. Pedestrian safety improvements near encampment areas, social service facilities, and transitional housing should be flagged as priorities in the gap analysis, and outreach through the Humboldt Housing and Homeless Coalition should be incorporated into the walk audit program.
- **ADA Transition Plan compliance is a legal requirement:** All public agencies are required to maintain current ADA Transition Plans identifying accessibility deficiencies and timelines for correction. HCAOG provide technical assistance to those that do not have a plan.
- **State route pedestrian improvements require**

Caltrans coordination. Many of the most dangerous pedestrian corridors in smaller Humboldt County communities are on state routes. Any crosswalk, sidewalk, or signal improvements within Caltrans right-of-way require encroachment permits and design approval through District 1. The coordination protocol under Strategy 1.2 should be used proactively to advance these projects.

- **Walk audits are education as well as data collection.** Participants in walk audits learn about pedestrian safety and the Vision Zero Action Plan in the process of contributing to it. Campaign materials, reflective gear, and safety lights should always be distributed at walk audit events, consistent with the Community Education Campaign Plan's Year 2 engagement strategy.
- **Tribal roads and communities** may have pedestrian safety needs that fall outside standard sidewalk gap analysis frameworks. HCAOG should coordinate directly with Tribal transportation departments to understand connectivity needs and incorporate Tribal road pedestrian conditions into the countywide analysis where data is available.

Strategy 2.3 Bicycle Connectivity

Work with local agencies to establish a countywide low-stress bicycle network gap analysis, identify corridors and intersections with high bicyclist fatalities and injuries, and develop a strategy with agency partners to design, fund, and implement bicycle safety improvements in these areas.

Why it Matters

The county's bicycle network has developed over time in disconnected fragments, often leaving riders to navigate high-speed arterials or unpaved shoulders. This fragmentation excludes children, seniors, people with disabilities, and any riders seeking higher-comfort facilities from using bicycles as a mode of transportation.

Both the perception of safety and actual crash rates play a role in determining whether people choose to cycle. Roughly 51% of adults describe themselves as "interested but concerned," people who would ride more if they felt safer. Building a connected low-stress network addresses this concern by either physically separating cyclists from fast-moving traffic or sharing streets where speeds are low enough for most people to feel comfortable.

Bicycle-involved collisions in the county cluster at high-speed arterials with no dedicated facilities, uncontrolled trail crossings with right-of-way ambiguity, and gap locations where bike lanes abruptly end. These conditions vary by geography, with urban jurisdictions facing intersection density and right-of-way constraints and smaller cities and rural areas encountering higher speeds, longer distances, and greater reliance on state highways.

Process & Funding

Low-Stress Network Gap Analysis

Using the LTS framework, HCAOG should map all existing bicycle facilities countywide and generate a low-stress connectivity score for each community that shows what percentage of key destinations can be reached through LTS 1–2 routes. Route selection for improvements should include network gap analysis, estimate of demand, crash analysis, community input, and feasibility screening by right-of-way, cost, and engineering constraints.

STRATEGY 2.3 BICYCLE CONNECTIVITY				
	Action	**Lead**	**Partners**	**Target Timeframe**
2.3a	Expanding on the existing LTS for the Greater Humboldt Bay Area, conduct a countywide low-stress network gap analysis using the Level of Traffic Stress (LTS) framework, identifying corridors where LTS 3–4 conditions interrupt connectivity between key destinations.	HCAOG	City/County Public Works, Caltrans District 1, Tribal Governments	Short-term
2.3b	Design and implement low-stress bicycle facility improvements on priority corridors, selecting treatments based on road classification, operating speed, and available right-of-way.	City/County Public Works; Caltrans District 1 (state routes)	HCAOG (prioritization, funding), Tribal Governments	Long-term
2.3c	Inventory and classify all multi-use trail crossings of public roads, and implement appropriate crossing treatments based on vehicle speed, volume, and crash history.	City/County Public Works; Caltrans District 1	HCAOG, Law Enforcement	Long-term

Table 6.12 Strategy 2.3 Bicycle Connectivity

Facility Design Hierarchy

Treatments should be selected based on road classification, posted and operating speed, and right-of-way, in the following order of priority:

1. Class I separated paths
2. Class IV/II protected/buffered bike lanes
3. Class II conventional bike lanes (25 mph or below only)
4. Bike boulevards/neighborhood greenways
5. Class III shared roadway with speed management

Trail crossings

Crossings should be assessed for vehicle speed/volume, trail user volume, sight distance, crossing angle, existing controls, and crash history, then evaluated for the following treatments:

- Full signal
- HAWK beacon
- RRFB
- Pedestrian refuge island

Right-of-way protections at all crossings should include high-visibility ladder crosswalk markings, advance yield signs, trail approach pavement legends, and sight triangle clearing.

Key Funding Sources

- ATP: monitor Cycle 9 and regional ATP component
- HSIP: for infrastructure improvements at documented high-crash locations
- STIP: through HCAOG regional programming

- Recreational Trails Program (RTP); trail construction and crossing improvements
- CDBG: in low-income communities
- Local Transportation Measures: where available by jurisdiction

Performance Measures

Primary

- PM-2P: Reduction in bicycle-involved crash rates within the HIN.
- PM-2Q: Reduction in bicycle-involved collision rates on designated low-stress corridors

Secondary

- PM-2R: Countywide LTS gap analysis completed, with low-stress connectivity scores for each member jurisdiction
- PM-2S: Number and length of low-stress corridor segments constructed or upgraded annually
- PM-2T: Percentage of residents countywide within 0.25 miles of an LTS 1–2 route
- PM-2U: Number of trail crossings inventoried and treated
- PM-2V: Driver yielding compliance at treated crossings
- PM-2W: Reduction in operating speeds on bike boulevard corridors
- PM-2X: Reduction in gap in low-stress network access between low-income/rural census tracts and county average

Notes

- HCAOG coordination role: Each jurisdiction independently funds and manages its own bicycle capital projects. HCAOG's role is gap analysis, prioritization, and technical assistance for cities with limited engineering staff.
- Preliminary countermeasures: Treatments must be evaluated individually at each location through site-specific data and engineering judgment.
- Tribal coordination: Outreach to Tribal communities on bicycle connectivity and crossing improvements should be conducted through direct coordination with Tribal transportation departments.
- The Caltrans 4th & 5th Street Feasibility Study impacts bicycle connectivity in downtown Eureka and should be monitored as a potential implementation vehicle for near-term corridor improvements on priority intersections.
- On rural corridors where edge line rumble strips are considered, coordinate with Caltrans District 1, which requires at least 4 feet of clear space beyond the strip for cyclists.

Strategy 2.4 Intersection Safety

Improve safety at intersections where crashes are concentrated by applying system-based countermeasures

Why it Matters

Intersections are among the most dangerous locations on any road network, and approximately two-thirds of all intersection fatalities occur at unsignalized intersections. In Humboldt County, the intersection crash picture reflects both urban and rural conditions, with signalized intersections in Eureka and Arcata showing pedestrian and bicycle conflicts, rear-end crashes, and red-light-running incidents, and rural stop-controlled intersections on state highways and county roads producing the highest-severity angle and head-on crashes.

Intersection crashes are highly preventable through engineering intervention, often through low-cost operational changes or moderate-cost physical treatments. The countermeasures in this strategy range from near-term operational adjustments to longer-term capital investments.

Process & Funding

Crosswalk Identification And Prioritization

HCAOG should conduct a countywide crosswalk inventory, cross-referenced with the HIN to identify intersections where crosswalks are missing, substandard, or where pedestrian crash history is concentrated. High-visibility "ladder" crosswalk markings, which increase driver yielding compliance by 30–50% compared to standard two-line crosswalks, should be the default treatment. Crosswalks at state-route intersections require Caltrans coordination and encroachment permits, and the protocol established under Strategy 1.2 should be used to streamline this process.

Signal Timing and LPIs

Leading Pedestrian Intervals give pedestrians a head-start before vehicles receive a green light, significantly reducing turning-vehicle conflicts with pedestrians in the crosswalk. LPIs have already been implemented at Caltrans District 1-operated signals in the county, but local agencies should confirm current LPI coverage at locally-operated signals and fill any gaps as a near-term, low-cost action. Signal timing changes on state-route signals require Caltrans District 1 Traffic Operations coordination.

STRATEGY 2.4 INTERSECTION SAFETY				
	Action	**Lead**	**Partners**	**Target Timeframe**
2.4a	Identify and address missing and inadequate crosswalks at HIN intersections , installing high-visibility markings and enhanced crossing treatments as prioritized by crash data.	HCAOG; City/County Public Works	Caltrans District 1, OTS	Short-term
2.4b	Implement signal timing and phasing best practices at signalized intersections on HIN corridors, including pedestrian signal recall, extended crossing phases, and Leading Pedestrian Intervals (LPIs).	City/County Public Works	HCAOG, Caltrans District 1	Short-term
2.4c	Evaluate and implement right-turn-on-red (RTOR) restrictions at high-priority intersections with documented pedestrian and bicycle conflicts.	City/County Public Works; Caltrans District 1	HCAOG, Law Enforcement	Medium-term
2.4d	Deploy red light camera enforcement at high-priority signalized intersections with documented red-light-running crash histories, consistent with California Vehicle Code §21455.5 and SB 720 (2025) civil enforcement options.	City Police Depts.; CHP	HCAOG, City/County Public Works, Courts	Medium-term
2.4e	Assess the feasibility of roundabout conversions at high-injury intersections where angle, head-on, and left-turn crashes are concentrated, using FHWA crash modification factors to evaluate expected safety benefit.	City/County Public Works; Caltrans District 1	HCAOG	Long-term

Table 6.13 Strategy 2.4 Intersection Safety

RTOR Restrictions

Right-turn-on-red restrictions can be applied by ordinance on city streets and by resolution on county roads. They are most effective at intersections with high pedestrian volumes, limited sight distance, or a history of pedestrian conflicts with turning vehicles, and should be paired with clear signage.

Red Light Cameras

Red light cameras are authorized under Vehicle Code §21455.5. Cities must post clear warning signs before intersections, keep the equipment calibrated, and follow strict evidence standards. A new measure, SB 720, gives cities the option to issue civil violations through a Safer Streets Program. Member cities considering red

light camera deployment should evaluate SB 720 program adoption alongside traditional criminal enforcement options and assess program costs carefully.

Roundabout Feasibility

A roundabout feasibility assessment should be data-driven and site-specific, evaluating crash history, traffic volumes and turning movements, available right-of-way, pedestrian and bicycle accommodations, and estimated construction cost. Roundabouts have been effective in improving safety, reducing delay, and providing environmental benefits, and can be implemented in both urban and rural areas under a wide range of traffic conditions. They are an effective option for managing speed and transitioning traffic from high-speed to low-speed environments, such as freeway interchange ramps and rural intersections along high-speed roads.

Key Funding Sources

- HSIP: primary funding source for all intersection safety improvements
- STIP / SHOPP: Caltrans SHOPP for state-route intersection improvements
- OTS grants: red light camera programs and intersection enforcement coordination
- ATP: pedestrian crossing improvements at active transportation priority intersections
- Local CIP budgets: low-cost changes through routine operations and maintenance budgets
- Potential federal grant programs supporting safe streets


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Performance Measures

Primary

- PM-2Y: Reduction in collisions at intersections
- PM-2Z: Reduction in pedestrian- and bicycle-involved crashes at treated intersections (before/after, SWITRS baseline)

Secondary

- PM-2AA: Number of HIN intersections with inadequate or missing crosswalks identified for upgrade
- PM-2AB: Number of crosswalk upgrades to high-visibility markings completed annually on HIN corridors

- PM-2AC: Number of signalized intersections where LPIs and pedestrian signal recall have been implemented
- PM-2AD: Number of intersections where RTOR restrictions have been evaluated and implemented
- PM-2AE: Number of red light camera programs operational and number of intersections monitored
- PM-2AF: Number of roundabout conversions completed or in design/ construction

Notes

- **Roundabouts can increase minor crashes while reducing serious ones:** Roundabout construction has generally been associated with an increase in the total number of crashes, although the number of injury crashes and severity of crashes are reduced. Converting an intersection to a roundabout is most beneficial at intersections that experience a disproportionate number of severe crashes, such as angle and head-on/ left-turn collisions. This tradeoff should be clearly communicated to the public and elected officials during feasibility assessment: a roundabout that reduces fatal crashes while increasing fender-benders is a Vision Zero success.
- **RTOR restrictions on state routes require**

Caltrans approval: For intersections within Caltrans right-of-way. The encroachment and coordination process under Strategy 1.2 applies.

- **Intersection safety education:** The Community Education Campaign Plan's crosswalk safety and pedestrian awareness materials should be deployed in coordination with physical intersection improvements, so that driver behavior change reinforces the infrastructure investment.
- **The Caltrans 4th & 5th Street Feasibility Study** (FY 26–27) will examine three priority intersections identified in the plan's High-Injury Network analysis: 4th & 5th Streets at H Street and 4th Street at R Street. Results of this study should inform the intersection safety project pipeline for downtown Eureka and should be tracked under this strategy's performance measures.

Strategy 2.5 Infrastructure Operations and Maintenance

Prioritize proactive, system-wide infrastructure operations and maintenance to support safe travel and prevent crashes caused or exacerbated by roadway condition deficiencies, with particular attention to rural and Tribal communities.

Why it Matters

Roadway condition deficiencies are contributing factors that often do not appear in collision reports as the cause, but may have directly influenced behavior at the moment of a crash. In Humboldt County, this challenge is compounded by the scale and geographic diversity of the road network: rural and Tribal roads frequently operate with limited maintenance budgets and less frequent inspection cycles, but carry traffic at speeds where any loss of roadway clarity has severe consequences. Proactive, safety-focused maintenance is a cost-effective intervention, protecting the investment already made in roadway infrastructure and preventing crashes before they occur.

The Local Road Safety Plans (LRSP) and Pavement Management Systems (PMS) for HCAOG member jurisdictions provide the data foundation for this strategy. However, PMS programs have historically prioritized structural pavement condition over safety outcomes. This action reorients maintenance prioritization to ensure that safety-critical elements are treated as primary criteria.

Process & Funding

Maintenance Schedules

HCAOG should facilitate a joint working session with all member agencies and Tribal governments to compare current maintenance schedules, identify gaps, and agree on minimum standards for each treatment category.

Signage Audit

Each jurisdiction should conduct a field audit of safety-critical signs using MUTCD compliance criteria (CA MUTCD 2026) as the baseline, prioritizing HIN corridors and school/pedestrian zones. Results should feed into each agency's capital replacement schedule. HCAOG can support smaller cities without in-house capacity.

STRATEGY 2.5 INFRASTRUCTURE OPERATIONS AND MAINTENANCE				
	Action	**Lead**	**Partners**	**Target Timeframe**
2.5a	Assist member agencies as needed to establish consistent maintenance schedules and standards among agencies, ensuring continuity of treatments that prioritize safety outcomes.	HCAOG &TAC	City/County Public Works, Caltrans District 1, Tribal governments	Immediate
2.5b	Implement a systematic safety-critical signage audit program, covering regulatory, warning, and wayfinding signs across all jurisdictions.	City/County Public Works	HCAOG, Caltrans District 1, Tribal governments	Short-term
2.5c	Establish a pavement condition and markings refresh program on HIN corridors, prioritizing faded lane lines, crosswalk markings, and bike lane markings.	City/County Public Works	HCAOG, Tribal governments	Medium-term
2.5d	Conduct a countywide lighting and sight line assessment, identifying gaps in roadway lighting at HIN locations, and addressing vegetation and physical obstructions that reduce visibility.	City/County Public Works	HCAOG, Tribal governments	Medium-term
2.5e	Assess the condition of shoulders and ADA-accessible infrastructure on key corridors, prioritizing rural roads and routes connecting Tribal communities, schools, and transit stops.	City/County Public Works; Caltrans District 1	HCAOG, Tribal Governments	Medium-term

Table 6.14 Strategy 2.5 Infrastructure Operations and Maintenance

Pavement and Markings

The most cost-effective implementation window is alongside scheduled resurfacing. Agencies should flag upcoming resurfacing projects so that marking upgrades are included proactively. HCAOG's project pipeline coordination under Strategy 1.3 supports this.

Lighting and Sight Lines

A countywide lighting gap assessment should cross-reference known high-crash nighttime locations from SWITRS with existing streetlight coverage maps. Utility coordination will be required for lighting on public streets where fixtures are utility-owned. Vegetation management should be incorporated into existing right-of-way maintenance contracts where possible..

Shoulders and ADA Infrastructure

The LRSP provides a starting framework for rural shoulder condition prioritization. ADA transition plans should be reviewed and updated to ensure they reflect current field conditions. HCAOG should support smaller jurisdictions in updating their ADA transition plans where they are outdated.

Key Funding Sources

- HSIP: eligible for signage, markings, lighting, and shoulder improvements with documented crash reduction potential
- STIP / SHOPP: Caltrans SHOPP program covers maintenance and safety on state routes; SB 960 requires Complete Streets evaluation in SHOPP projects

- Tribal Transportation Safety Fund: federal funding administered through FHWA for safety improvements on tribal transportation facilities, if available going forward
- TDA Article 3: can fund bike/pedestrian marking and signage improvements

Performance Measures

Primary

- PM-2AG: Reduction in collisions that can be attributed to infrastructure operations and maintenance

Secondary

- PM-2AH: Number of jurisdictions with a documented, safety-outcome-based maintenance schedule
- PM-2AI: Percentage of HIN corridor signage meeting CA MUTCD 2026 compliance standards
- PM-2AJ: Lane-miles of pavement markings refreshed annually on HIN corridors and key pedestrian/bicycle routes
- PM-2AK: Number of lighting gaps identified and addressed at high-crash and high-pedestrian locations
- PM-2AL: Number of rural shoulder and ADA deficiencies inventoried and programmed for correction
- PM-2AM: Percentage of scheduled resurfacing projects on HIN corridors that include marking upgrades

Notes

- Tribal governments are sovereign entities, and coordination on Tribal road maintenance should be approached as a government-to-government relationship.
- Maintenance actions on state routes require Caltrans involvement at every stage, as local agencies cannot directly modify state ROW markings, signage, or lighting without an encroachment permit. The coordination protocol established under Strategy 1.2 should be used to streamline this.

Goal 3: Safe Roads Users

Strategy 3.1 Education Campaign

Develop a comprehensive, countywide education campaign in collaboration with healthcare, enforcement, and education partners to inform the public and strategically target high-risk behaviors and priority user groups.

Why it Matters

Infrastructure and enforcement alone cannot achieve Vision Zero, and behavior change is an essential component of the road safety strategy. Education campaigns shift individual behaviors by raising awareness of risks and responsibilities, and build the broader public understanding and political will needed to sustain long-term infrastructure investments and policy changes.

In Humboldt County, the case for a robust education campaign is grounded in local crash data. Speed, impairment, and distraction are consistently among the leading contributing factors in serious and fatal crashes countywide, and these are behaviors that can be influenced through well-designed, targeted outreach. At the same time, the county's geographic and demographic diversity means that effective education requires culturally responsive messaging, multiple delivery channels, and trusted local messengers.

Humboldt County already has a foundation to build on. Previous local campaigns, including Go Slow Watch the Road, Heads Up Eureka, I Give 3 Feet for Safety, I Drive 45 in Manila, and the statewide Go Safely California campaign, have established local familiarity with road safety messaging. The Vision Zero Action Plan campaign should extend and reinforce this existing identity rather than starting from scratch, while

sharpening messaging to reflect Vision Zero principles: crashes are not accidents, deaths are preventable, and slowing down protects our neighbors.

Process & Funding

Branding and messaging foundation

All campaign materials should adhere to the established Humboldt County Vision Zero Action Plan branding identity, using the Plan's color palette, icons, and logos consistently across all channels. Storytelling and diverse representation should be centered in all materials, with particular attention to groups who experience the greatest road violence: people experiencing homelessness, people with disabilities, communities of color, seniors, and children.

STRATEGY 3.1 EDUCATION CAMPAIGN				
	Action	**Lead**	**Partners**	**Target Timeframe**
3.1a	Develop campaign branding, core messaging, and a press toolkit aligned with the Humboldt County Vision Zero Action Plan identity, building on existing local and statewide campaigns.	HCAOG	City PIOs, Humboldt Transit Authority, Community nonprofits	Immediate
3.1b	Implement culturally responsive safe road use campaigns focused on speed management, distraction avoidance, and road user rights and responsibilities, delivered through local media channels and community events.	HCAOG	City PIOs, Community nonprofits, local media channels	Short-term
3.1c	Develop and deliver targeted, data-driven education on DUI and impaired driving prevention and safe travel during inclement weather.	HCAOG, Law Enforcement Agencies	Humboldt County Public Health, OTS, Local healthcare providers	Short-term
3.1d	Expand Safe Routes to School (SRTS) education to encourage safe walking, biking, and driving behaviors around schools, using Bike Rodeos, Walk to School Day, and school assembly presentations.	HCAOG	School Districts, Safe Routes to School program, PE teachers, City/County Public Works	Short-term
3.1e	Train Public Information Officers (PIOs) across all member jurisdictions on campaign branding, messaging language, media toolkit use, and consistent application of Vision Zero framing.	HCAOG	City PIOs, CHP	Medium-term
3.1f	Identify, recruit, and train Community Champions to serve as local voices for the campaign, mobilize their networks, and help plan and lead community events across the county.	HCAOG	Community nonprofits, Tribal community liaisons, Senior centers, Disability advocates	Medium-term

Table 6.15 Strategy 3.1 Education Campaign

Three-year campaign structure

The Community Education Campaign Plan developed as part of this project outlines a phased, three-year campaign structure:

- Year 1- Develop and deploy: Identify priority safety challenges, refine messaging, define target communities, develop and mobilize media toolkits, table at community events recruit local champions, conduct school assembly presentations, and reach out to partner agencies
- Year 2 - Direct engagement: Mobilize street events including pop-up demonstrations, bike rodeos, and walk audits; distribute reflective gear and safety lights at events, schools, and bus stops; coordinate and train PIOs, local champions, teachers, and students
- Year 3 - Scale and sustain: Continue engagement, coordinate with schools for Walk to School Day and Ruby Bridges events, work with community champions to identify additional strategies

Media and outreach channels

The campaign should use the full range of local media available in the county:

- Online: Lost Coast Outpost, Redheaded Blackbelt, NorCAN email list
- Print: Times-Standard, North Coast Journal, Mad River Union
- Radio: KMUD Redwood Community Radio, KHUM
- TV: Access Humboldt, KIEM TV Redwood News, KAEF North Coast News of KRCR
- In-person: Pop-up demonstrations, community event tabling, bike rodeos, walk audits, school assemblies, senior center visits

DUI and impaired driving

Targeted DUI and impaired driving education should be data-driven, using SWITRS crash data to identify the times, locations, and demographics most associated with impairment-related crashes in Humboldt County. It should be coordinated with OTS-funded enforcement campaigns so that education and enforcement reinforce each other. Inclement weather safety messaging should be incorporated into seasonal outreach, particularly for rural corridors where weather-related run-off-road crashes are a documented pattern.

Key Funding Sources

- OTS grants: primary funding source for public education and awareness campaigns targeting specific behaviors
- HCAOG Overall Work Program (OWP):campaign coordination and staff time are appropriate OWP work elements
- Local in-kind contributions: partner organizations (nonprofits, school districts, transit) can contribute staff time, event space, and distribution networks at no direct cost
- Potential federal grant programs supporting safe streets education

Performance Measures

Primary

- PM-3A: Reduction in speed, impairment, and distraction-related crashes on HIN corridors over the campaign period, tracked against SWITRS baseline

Secondary

- PM-3B: Campaign branding package and press toolkit completed and distributed to all member jurisdiction PIOs
- PM-3C: Number of PIOs trained on Vision Zero messaging and media toolkit use
- PM-3D: Number of community events, pop-up demonstrations, and school presentations conducted annually
- PM-3E: Number of community champions recruited, trained, and active
- PM-3F: Number of schools participating in SRTS education activities and Bike Rodeo events annually

Notes

- "**Crashes," not "accidents."** All plan documents, campaign materials, and public communications should consistently use "crash" or "collision" rather than "accident" to reflect the core Vision Zero principle that traffic deaths are preventable system failures, not random unavoidable events.
- **Community champions are a high-leverage, low-cost strategy** particularly well-suited to Humboldt County's dispersed geography. A trusted local will be more effective than centralized outreach from

HCAOG alone. Champion recruitment should prioritize people who are already embedded in communities that experience disproportionate road violence.

- **Tribal community outreach** requires a government-to-government approach and should not be treated as equivalent to outreach to general community organizations. HCAOG should coordinate directly with Tribal governments on culturally appropriate engagement strategies for Tribal community members.
- Additional details on education campaign are provided in Section 4.3 and Appendix F.

Goal 4: Safe Speeds

Strategy 4.1 Speed Limit Setting and Management

Set speed limits that reflect safety outcomes, street context, and the presence of vulnerable users rather than solely traffic flow.

Why it Matters

Lowering speeds is critical to improving crash outcomes. At 20 mph, a pedestrian struck by a vehicle has roughly a 90% chance of survival. At 40 mph, that probability drops below 50%. This relationship between speed and survivability is the core reason for Vision Zero's emphasis on speed management.

The standard mechanism for setting speed limits in California is the Engineering and Traffic Survey (E&TS), based on the 85th percentile of free-flowing traffic. This has historically produced speed limits that reflect how fast drivers choose to travel, rather than what speeds are safe for the full range of road users. AB 43 and AB 1938 together created new flexibility for local jurisdictions to set lower speed limits in defined sensitive areas without being entirely bound by the 85th percentile result. The provisions of AB 43 and AB 1938 identify specific criteria for speed reductions based on road classification, land use, and other designations.

Despite this increased flexibility, in most cases physical infrastructure changes must be implemented first to reduce operating speeds, followed by re-evaluation through the E&TS process. This ensures that posted speed limits reflect actual conditions and prevents the risk that a new E&TS produces a speed limit increase.

Automated speed enforcement is a proven complement to infrastructure-based speed management. Speed safety systems have been long identified as an effective and immediate measure to slow excessive speeding, and according to FHWA, speed cameras can reduce crashes on urban streets by 54%. However, AB 645 currently does not authorize Humboldt County to establish a Speed Safety System Pilot Program. HCAOG should monitor the pilot's outcomes and advocate for future expansion, while deploying available near-term tools such as speed feedback signs in the interim.

STRATEGY 4.1 SPEED LIMIT SETTING AND MANAGEMENT				
	Action	**Lead**	**Partners**	**Target Timeframe**
4.1a	Monitor the AB 645 automated speed camera pilot program in eligible California cities and advocate for future legislative expansion to additional jurisdictions, while pursuing available speed feedback sign deployment on HIN corridors in the near term.	HCAOG	City/County Public Works, Law Enforcement Agencies	Immediate
4.1b	Optimize signal timing on HIN corridors to reduce vehicle operating speeds and improve pedestrian crossing conditions, including extending pedestrian signal phases and reducing cycle lengths on high-injury streets.	City/County Public Works	HCAOG, Caltrans District 1	Short-term

STRATEGY 4.1 SPEED LIMIT SETTING AND MANAGEMENT				
	Action	**Lead**	**Partners**	**Target Timeframe**
4.1c	Evaluate opportunities to modify speed limits on locally-controlled roads in sensitive areas using the authority provided by AB 43 and AB 1938, including school zones, senior zones, business activity districts, safety corridors, and high pedestrian and bicycle activity areas.	City/County Public Works; Local Jurisdictions	HCAOG, Caltrans District 1	Medium-term
4.1d	Implement physical traffic calming measures (including curb extensions, lane narrowing, raised crossings, speed tables, speed humps, edge line treatments, gateway treatments, and chicanes) to reduce operating speeds; use documented speed reductions to support subsequent speed limit adjustments through the E&TS process.	City/County Public Works; Caltrans District 1	HCAOG, Local Jurisdictions	Long-term

Table 6.16 Strategy 4.1 Speed Limit Setting and Management

Process & Funding

Speed limit modifications under AB 43 / AB 1938

The process for implementing speed limit reductions under AB 43 and AB 1938 differs by road type and zone designation. For school zones, senior zones, and business activity districts, local jurisdictions may adopt reduced prima facie limits by ordinance with minimal additional process. For safety corridor designations on high-injury streets, jurisdictions must first designate the corridor using criteria consistent with the CA MUTCD 2026.

Signal timing optimization

Extending pedestrian crossing phases, reducing cycle lengths, and adjusting progression speeds are operational modifications by the agency that owns and operates the signal. For Caltrans-owned signals on state routes, coordination through District 1 Traffic Operations is required. For locally-owned signals, city and county Public Works departments can implement changes directly. HCAOG can support by providing crash data and pedestrian volume data to justify timing changes at specific intersections.

Traffic calming

The design standards described in Strategy 2.1 apply here: treatments should be selected based on road classification, operating speed, and available right-of-way, and must comply with CA MUTCD 2026 minimum lane width and clearance requirements. Quick-build pilots may be used for testing configurations before permanent installation.

Automated enforcement

While AB 645 speed cameras are not currently available to Humboldt County jurisdictions, speed feedback signs are available and have documented effects on reducing speeds. These should be deployed on HIN corridors and in school zones as a near-term action while the AB 645 pilot program is monitored.

Key Funding Sources

- HSIP: physical speed management infrastructure at documented high-crash locations
- OTS grants: speed management education and enforcement programs
- STIP / SHOPP: signal timing and operations improvements on state routes through Caltrans
- Potential federal grant programs supporting safe streets
- Local transportation measures where available for traffic calming capital projects

Performance Measures

Primary

- PM-4A: Reduction in collisions that can be attributed to speeding

Secondary

- PM-4B: Number of speed limit reductions successfully implemented on local roads, by zone type
- PM-4C: Number of signalized intersections where pedestrian phase timing has been extended or cycle lengths reduced on HIN corridors
- PM-4D: Number and location of speed feedback signs deployed on HIN corridors and school zones
- PM-4E: Reduction in 85th percentile operating speeds on corridors where physical traffic calming has been implemented
- PM-4F: Number of traffic calming projects completed annually, by treatment type
- PM-4G: Number of subsequent E&TS evaluations conducted on corridors where physical calming has reduced operating speeds

Notes

- **AB 43 and AB 1938 apply to local roads only.** Any speed limit changes on Caltrans right-of-way require a formal E&TS through Caltrans District 1, which could result in a speed limit increase if operating speeds have risen. Physical infrastructure changes should precede any E&TS request on state routes, consistent with CA MUTCD 2026 and DIB 94.
- **The E&TS caveat applies throughout this strategy**. Initiating a new Engineering and Traffic Survey on any corridor where operating speeds have not yet been reduced by physical means risks producing a speed limit increase rather than a decrease. The sequence should always be physical changes first, speed measurement second, limit adjustment third.
- **"Quick-build" pilots are appropriate and encouraged.** Using these traffic calming measures before permanent installation reduces cost, allows community feedback, and generates before/after data that strengthens future HSIP funding applications.

Goal 5: Safe Vehicles

Strategy 5.1 Vehicle Safety and Maintenance Standards

Ensure vehicles operating on public roadways are in safe working condition to prevent crashes caused by mechanical failure. Leverage public procurement and contracting authority to promote safer vehicles.

Why it Matters

Brake failure, tire blowouts, lighting deficiencies, and steering failures do not always appear as primary collision causes in crash reports, but they can contribute to or worsen crashes. For large vehicles such as commercial trucks, buses, and heavy equipment, the consequences of mechanical failure are amplified by vehicle mass and the limited ability of other road users to respond in time.

The geography of the county, with long driving distances on steep, winding roads, can cause extreme wear on braking systems and tires, particularly for commercial and agricultural vehicles that are prevalent in the county. Many rural residents and low-income households face significant barriers to accessing regular vehicle maintenance due to the cost of inspections and repairs, distance from service providers, and limited availability of affordable alternatives.

Well-maintained vehicle public and private vehicles critical to the Safe Vehicles pillar of the Safe System approach. While HCAOG and member jurisdictions have limited direct authority over private vehicle

maintenance, they can influence outcomes by supporting access to services for low-income residents, enforcing standards for high-risk commercial vehicles through CHP coordination, and holding public agency fleets to a documented standard.

STRATEGY 5.1 VEHICLE SAFETY AND MAINTENANCE STANDARDS				
	Action	**Lead**	**Partners**	**Target Timeframe**
5.1a	Evaluate, and, where appropriate, establish enhanced inspection requirements and enforcement for high-risk vehicle classes, including large commercial trucks, school buses, and transit vehicles operating on HIN corridors.	CHP	City/County Public Works, School Districts, Transit providers, HCAOG	Short-term
5.1b	Encourage public agency fleets to continue to meet defined safety and maintenance standards, with documented inspection schedules and clear accountability.	City/County Public Works; Transit providers	HCAOG, School Districts	Short-term
5.1c	Evaluate opportunities to partner with community organizations to provide low-cost vehicle inspection and maintenance services, prioritizing low-income households and rural communities with limited access to commercial services.	HCAOG	Community nonprofits, Humboldt County DHHS, Local auto repair businesses, Community colleges	Medium-term
5.1d	Track and review fleet-involved crashes to inform continuous improvement.	HCAOG	CHP, City/County Police, City/County Public Works, Transit providers	Medium-term

Table 6.17 Strategy 5.1 Vehicle Safety And Maintenance Standards

Process & Funding

Low-cost inspection and maintenance services

HCAOG should work with the IWG to assess the current landscape of vehicle inspection and maintenance services available to low-income and rural residents, including existing community programs, Workforce Development Board training opportunities, and vocational automotive programs.

Where gaps are identified, HCAOG can convene and facilitate partnerships between community organizations, local repair shops, and social service agencies to develop low-cost or sliding-scale inspection clinics, potentially providing funding support through OWP or grant pass-through mechanisms.

Outreach should specifically target rural communities, Tribal community members, and households identified through DHHS as transportation-cost-burdened.

Enhanced inspection for high-risk vehicle classes

CHP is the primary enforcement authority for commercial vehicle inspection in California, operating through its Commercial Vehicle Enforcement program.

HCAOG can share data and request that CHP's enforcement activity is aligned with local HIN data and mobile inspection activities are prioritized on corridors with the highest concentration of commercial vehicle crash risk. School bus and transit vehicle inspections are governed by separate state mandates, but HCAOG should confirm that all member transit providers and school districts are in compliance with current inspection requirements as a baseline action.

Public agency fleet standards

Each member jurisdiction and transit provider should maintain a documented vehicle maintenance schedule with defined inspection intervals and clear out-of-service criteria. HCAOG should request copies of current fleet maintenance policies from all member agencies and identify any jurisdictions without a current policy.

A template fleet maintenance policy, developed with input from Public Works staff, can be offered to smaller cities that lack the internal capacity to develop one independently.

Key Funding Sources

- OTS grants: vehicle safety and inspection programs, particularly for high-risk vehicle classes
- NHTSA Section 405 grants: occupant protection and vehicle safety programs
- CDBG: community development funds can support low-cost vehicle services in low-income communities
- Workforce Innovation and Opportunity Act (WIOA): can fund vocational automotive training that supports a community inspection clinic model
- Public agency fleet budgets: inspection compliance is primarily a budget and operations matter for each jurisdiction; HCAOG's role is coordination and standard-setting, not direct funding



Performance Measures

Primary

- PM-5A: Reduction in collisions that can be attributed to vehicle condition/ maintenance

Secondary

- PM-5B: Number of low-cost vehicle inspection or maintenance events held annually, and number of vehicles served
- PM-5C: Number of HIN corridors where CHP commercial vehicle enforcement activity has been coordinated using local crash data
- PM-5D: Number of fleet-involved crashes reviewed annually for mechanical contributing factors

- PM-5E: Percentage of school district and transit agency fleets in compliance with current state inspection requirements

Notes

- **CHP enforcement:** Commercial vehicle inspection enforcement is a CHP function. HCAOG's role under this strategy is to share data, coordinate priorities, and support access programs.
- **Agricultural and forestry vehicles:** These vehicles operate under different regulatory frameworks than standard commercial vehicles in some contexts. HCAOG should confirm with CHP and the County Agricultural Commissioner which inspection standards apply to the types of heavy equipment most commonly operating on Humboldt County roads, and ensure that the enhanced inspection coordination action covers the relevant vehicle classes.
- **College of the Redwoods** operates an automotive technology program that could be a meaningful partner for community inspection clinics, providing both trained student labor and supervised service in a low-cost setting. This partnership should be explored as part of the community services action.

Strategy 5.2 Automated & Emerging Vehicle Technologies

Ensure that new vehicle technologies are deployed in ways that support Vision Zero outcomes.

Why it Matters

Vehicle technology is changing rapidly, with inconsistent impacts on traffic safety. Technologies such as automatic emergency braking (AEB), lane departure warnings, and Intelligent Speed Assistance (ISA) reduced crash frequency and severity. However, emerging technologies including semi-autonomous driving systems introduce new failure modes, driver over-reliance risks, and infrastructure compatibility requirements that transportation agencies are only beginning to understand.

The Humboldt County road network includes a wide range of conditions, from urban signalized corridors to rural two-lane state highways to Tribal roads with variable maintenance standards. For this reason, technologies designed and tested in urban or suburban environments may perform unpredictably. At the same time, the high share of serious and fatal crashes on rural state highways means that a technology that can reduce run-off-road crashes, speeding, or impaired driving could have significant impact.

The authority to regulate vehicle technology lies primarily with the state (DMV, CHP) and federal government (NHTSA). However, HCAOG can ensure that new technologies are deployed on county roads in ways that are consistent with Vision Zero priorities, and that the county is not left behind as infrastructure requirements evolve.

Process & Funding

Evidence-based safety expectations and operating guidelines

HCAOG should develop a brief policy framework, in coordination with Caltrans District 1 and member jurisdictions, that establishes what the region expects from operators of automated or emerging vehicle technologies on public roads. This should cover minimum safety reporting requirements, data sharing expectations, and reinforcement of desired Vision Zero safety outcomes.

STRATEGY 5.2 AUTOMATED & EMERGING VEHICLE TECHNOLOGIES				
	Action	**Lead**	**Partners**	**Target Timeframe**
5.2a	Monitor deployment of autonomous and connected vehicles (AVs/CVs) in Humboldt County and establish a local data-sharing expectation for any operator testing or deploying on public roads.	HCAOG	Caltrans District 1, CHP, Member Jurisdictions	Immediate

STRATEGY 5.2 AUTOMATED & EMERGING VEHICLE TECHNOLOGIES				
	Action	**Lead**	**Partners**	**Target Timeframe**
5.2b	Advocate for the state to establish evidence-based safety expectations, operating guidelines, and data requirements for automated and emerging vehicle technologies operating on county roads.	HCAOG	Caltrans District 1, City/County Public Works, CHP	Immediate
5.2c	Evaluate and promote the deployment of Intelligent Speed Assistance (ISA) technologies on public agency fleets and in sensitive areas such as school zones and HIN corridors.	HCAOG	City/County Public Works, School Districts, Transit providers	Medium-term
5.2d	Assess infrastructure readiness for emerging vehicle technologies, including signal communication systems, lane marking visibility standards, and lighting.	City/County Public Works; Caltrans District 1	HCAOG, Utilities, Technology vendors	Long-term

Table 6.18 Strategy 5.2 Automated & Emerging Vehicle Technologies

Intelligent Speed Assistance (ISA)

ISA technology uses GPS mapping and onboard speed monitoring to alert drivers or limit vehicle speed when the posted limit is exceeded.

The most practical near-term opportunity for HCAOG member agencies is deployment in public agency fleets such as county vehicles, city maintenance trucks, transit buses, and school district vehicles. HCAOG should survey member agencies on current fleet composition and identify procurement windows where ISA-equipped vehicles could be specified at minimal additional cost. For school zones and HIN corridors, speed feedback signs can be deployed in the near term while ISA adoption develops.

AV/CV monitoring

Humboldt County is not currently a primary market for large-scale AV deployment, but the technology landscape is shifting quickly and HCAOG should be proactive by staying current on state permitting activity, communicating local road condition data to operators where appropriate, and establishing a clear data-sharing expectation before deployment occurs.

Infrastructure readiness assessment

Many emerging vehicle technologies depend on infrastructure inputs including high-quality lane markings, consistent signage, and signal communication systems. The infrastructure readiness assessment should be integrated with the maintenance and markings work under Strategy 2.5.

Key Funding Sources

- Caltrans SHOPP: technology and operations improvements on state routes
- HSIP: where technology deployment can be tied to documented crash reduction at specific locations
- OTS grants: technology-based impaired driving and speed management programs
- ATP/STIP: for infrastructure readiness improvements that also serve active transportation goals
- Fleet procurement budgets: ISA and AEB specifications can often be incorporated into normal fleet replacement cycles at minimal incremental cost

Performance Measures

Primary

- PM-5F: Reduction in speed-related crashes on corridors where ISA or speed management technology has been deployed
- PM-5G: Number of crashes involving AV or emerging vehicle technology

Secondary

- PM-5H: Number of public agency fleet vehicles equipped with ISA or equivalent speed management technology
- PM-5I: Number of school zones and HIN corridor locations where ISA-compatible speed feedback infrastructure has been deployed
- PM-5J: Number of AV or emerging vehicle technology operators sharing safety data with HCAOG or member jurisdictions
- PM-5K: Infrastructure readiness assessment completed with number of corridors assessed for lane marking visibility, signage consistency, and V2I compatibility
- PM-5L: Annual report to HCAOG Board on emerging vehicle technology deployments and safety data received

Notes

- **ISA and AB 43 as complementary tools:** AB 43 gave local agencies new authority to reduce speed limits on local roads in certain contexts, and ISA technology is most effective when speed limits accurately reflect safe operating speeds. As speed limit updates occur under Strategy 4.1, corresponding ISA deployment opportunities should be evaluated on the same corridors.
- **Equity considerations:** Technology-dependent safety interventions risk creating a two-tier system where safety improvements accrue primarily to drivers of newer, better-equipped vehicles while older vehicle owners see fewer benefits. The plan's overall equity framework should be applied when evaluating technology investments, ensuring that infrastructure-based and education-based interventions remain the primary tools on equity-priority corridors.

Strategy 5.3 Truck Operations, Routing, and Size Management

Manage truck routes, vehicle size, and operational characteristics to reduce crash risk, minimize conflicts with vulnerable road users, and align heavy vehicle movements with appropriate roadway contexts.

Why it Matters

Heavy vehicles are disproportionately involved in fatal crashes with vulnerable road users. A pedestrian or cyclist struck by a large truck faces dramatically lower survival odds than one struck by a passenger vehicle, due to the vehicle's mass and blind spots. Nationally, large truck-involved crashes account for a disproportionate share of traffic fatalities.

In Humboldt County, the regional economy depends heavily on timber, agriculture, and port activity, meaning large commercial trucks operate on roadways that are not necessarily designed for them. Rural state highways and county roads that serve as freight corridors frequently have narrow lanes, limited shoulders, sharp curves, and no separation between truck traffic and pedestrians or cyclists. Many of these same corridors pass through small communities where state routes double as main streets, creating direct conflicts between freight movement and other road users.

Managing the impact of freight requires ensuring that heavy vehicles operate on roadways that are geometrically appropriate for them, and that through-truck traffic is directed away from streets with the highest concentration of pedestrians, cyclists, children, and transit users.

Process & Funding

Truck route evaluation

The truck route review process should begin with a data-driven conflict analysis: map all currently designated truck routes against the HIN, school locations, pedestrian activity zones, and bicycle network gaps to identify

where heavy vehicles conflict with high-risk environments. Where conflicts are identified, alternative routing options should be evaluated for geometric feasibility and impact on freight efficiency. Stakeholder engagement with freight operators, particularly timber and agricultural industries that are significant employers in Humboldt County, is essential to developing workable alternatives.

KPRA restrictions and size/weight assessments

Kingpin-to-Rear-Axle (KPRA) restrictions are a regulatory category distinct from general California legal truck dimensions (65-foot combination vehicles).

STRATEGY 5.3 TRUCK OPERATIONS, ROUTING, & SIZE MANAGEMENT				
	Action	**Lead**	**Partners**	**Target Timeframe**
5.3a	Establish a coordination mechanism with major freight generators and carriers to communicate route restrictions, HIN conflicts, and construction detours that affect truck routing countywide.	HCAOG	Caltrans District 1, City/County Public Works, CHP, Port of Humboldt Bay, Timber/agricultural industry representatives	Immediate
5.3b	Assess truck size and weight regulations, including Kingpin-to-Rear-Axle (KPRA) restrictions, to ensure compatibility with roadway design, land use, and safety objective.	Lead: City/County Public Works	HCAOG, Caltrans District 1, CHP	Immediate
5.3c	Develop freight-specific guidance for high-conflict locations, including turning radius accommodations, loading zone placement, and driveway consolidation near pedestrian corridors and school zones.	City/County Public Works	HCAOG, Local businesses, School districts	Short-term
5.3d	Evaluate and update designated truck routes where feasible to minimize truck traffic on streets with high pedestrian, bicycle, and transit activity.	HCAOG	City/County Public Works, Caltrans District 1, CHP, Local businesses/freight operators	Medium-term
5.3e	Identify and remediate roadway segments where geometric conditions such as curve radius, lane width, and sight distance create elevated crash risk for large vehicles.	Caltrans District 1; City/County Public Works	HCAOG, CHP	Long-term

Table 6.19 Strategy 5.3 Truck Operations, Routing, And Size Management

KPRA restrictions limit the distance between the kingpin of a semi-trailer and the centerline of the rear axle, and are applied on roads where tight curves or geometric constraints make longer trailers unsafe. Assessment of truck size compatibility should explicitly address KPRA restrictions as a separate category from overall length limits, and proposed route maps should clearly distinguish between roads that accommodate 65-foot CA legal trucks and those with KPRA restrictions. Caltrans District 1 should be a primary partner in this assessment for state routes.

Geometric hazard identification

Assessments of roadway geometry should be based on field surveys, as-built drawings, and formal geometric analysis.

Freight coordination mechanism

A standing freight coordination forum between HCAOG, Caltrans, public works agencies, and major freight generators can reduce the frequency of ad-hoc conflicts between truck routing and safety improvement projects. This is particularly important during construction periods, when detour routes may inadvertently direct truck traffic onto roads with weight or size restrictions.

Key Funding Sources

- HSIP: eligible for geometric safety improvements on high-crash freight corridors

- STIP / SHOPP: Caltrans SHOPP covers safety and operational improvements on state routes used as freight corridors
- Freight Formula Funds (STBGP / NHFP): federal National Highway Freight Program funds can support infrastructure improvements on freight network routes
- Port of Humboldt Bay / industry partnerships: freight generators may have interest in co-funding routing or access improvements that reduce operational costs or delays



Performance Measures

Primary

- PM-5M: Reduction in large-vehicle-involved collisions
- PM-5N: Reduction in large-vehicle-involved crashes on corridors where routing or geometric improvements have been implemented

Secondary

- PM-5O: Number of designated truck route segments overlapping HIN and vulnerable user conflict maps
- PM-5P: Number of truck route modifications implemented to reduce conflicts on high-pedestrian/bicycle corridors
- PM-5Q: Number of roadway segments with KPRA or size/weight restrictions clearly documented, mapped, and communicated to freight operators
- PM-5R: Number of geometric deficiencies remediated on HIN-overlapping freight corridors
- PM-5S: Number of freight operators and generators participating in countywide coordination

Notes

- **KPRA vs. 65-foot legal trucks:** These are two distinct regulatory categories and should not be conflated in route maps, plan text, or communications with freight operators. Route maps should clearly label which restriction applies to each segment. Reference the current Caltrans District 1 truck route map as the authoritative source, and note any discrepancies between the official map and field conditions identified during the review process.
- **Timber and agricultural industry engagement:** Log trucks and agricultural vehicles are a significant and economically important part of the Humboldt County freight picture. Route restriction proposals that do not account for the operational realities of these industries are unlikely to be successfully implemented. Engagement should begin early and be structured as collaborative problem-solving rather than regulatory notice.
- **Tribal roads and freight:** Some routes connecting Tribal communities or natural resource areas may carry significant truck traffic outside of state or county jurisdiction. Coordination with Tribal transportation departments on freight-related safety concerns should be incorporated into the broader Tribal engagement framework.
- **Enforcement:** CHP is the primary enforcement agency for truck size, weight, and route compliance on state routes and county roads, while city police departments enforce within city limits.

Goal 6: Safe Post Crash Care

Strategy 6.1 Data-Driven Post-Crash Analysis

Use crash and injury data to improve emergency response and prevent repeat harm.

Why it Matters

Crash data is the foundation of Vision Zero. Without accurate, timely, and complete information about where crashes are happening, who is being harmed, and under what conditions, it is impossible to prioritize resources or evaluate interventions. SWITRS data, the primary statewide crash database, is typically 12–18 months behind real time, limiting its usefulness for rapid response. It does not track injury outcomes beyond an initial severity classification, meaning true injury rates are often undercounted. Rural and Tribal road crashes may also be underrepresented due to lower law enforcement coverage. Finally, since crashes on state routes, county roads, and city streets are all reported through different channels, no single agency has a complete picture of the county's full crash landscape.

A systematic, multi-agency approach to crash data, combining SWITRS with local incident reports, EMS run data, and hospital admission records, can produce a more accurate picture of where harm is concentrated and what countermeasures are needed while also supporting funding applications.

Process & Funding

Crash data dashboard

HCAOG should establish a shared dashboard that all member jurisdictions can access, built on TIMS (Transportation Injury Mapping System) or a comparable platform. This may build upon the public Vision Zero dashboard and can display crash locations, severity, mode, time of day, lighting conditions, and HIN locations. It should be designed for use without specialized technical support, completed within the first six months and updated annually as new SWITRS data is released.

Multi-jurisdictional crash analysis process

Serious and fatal crash reviews should be conducted by the IWG, including as needed transportation staff, law enforcement, and EMS. It should convene within a defined window after a serious or fatal crash to review contributing factors, site conditions, and potential systemic improvements. Reviews should focus on prevention of similar crashes in the future, and findings should feed directly into the HIN update process and project prioritization.

STRATEGY 6.1 DATA-DRIVEN POST-CRASH ANALYSIS				
	Action	**Lead**	**Partners**	**Target Timeframe**
6.1a	Develop and maintain crash data dashboards that track crash trends, injury severity, and response times across jurisdictions.	HCAOG	City/County Public Works, Caltrans District 1, Local EMS/Fire	Immediate
6.1b	Conduct annual review of HIN locations using updated crash data to assess whether previous improvements have reduced injuries, and flag locations with repeat crashes for priority follow-up.	HCAOG	Member Jurisdictions, Caltrans District 1, OTS	Immediate
6.1c	Engage the IWG in a crash analysis process for serious and fatal crashes, focused on identifying systemic factors and preventing repeat harm.	HCAOG	County Sheriff / City Police	Short-term
6.1d	Establish a data-sharing protocol between law enforcement, EMS, hospitals, and transportation agencies to enable more complete injury outcome tracking beyond what SWITRS captures.	HCAOG	CHP, Humboldt County Sheriff, City Police Depts., local hospitals, local EMS	Medium-term

Table 6.20 Strategy 6.1 Data-Driven Post-Crash Analysis

Data-sharing protocol

Establishing a formal data-sharing agreement between transportation agencies, law enforcement, EMS, and health systems will require legal review and coordination across agencies. HCAOG should convene an initial working session through the IWG to identify data available, legal barriers, and phasing. The California SHSP's emphasis on post-crash care as a core Safe System element provides state-level backing for this interagency data work.

Key Funding Sources

- OTS grants: California Office of Traffic Safety funds data collection, analysis, and crash review programs
- HSIP: requires crash data documentation, investment in data infrastructure strengthens future HSIP applications
- NHTSA Section 405 grants: federal funding for occupant protection and data programs
- HCAOG Overall Work Program (OWP): dashboard maintenance and coordination functions can be OWP elements

Performance Measures

Primary

- PM-6A: Reduction in overall, repeat, fatal, and serious injury crashes

Secondary

- PM-6B: Countywide crash dashboard operational and accessible to all member jurisdictions
- PM-6C: Number of serious/fatal crashes reviewed through the IWG analysis process annually
- PM-6D: Incorporation of crash occurrences into 5-year HCAOG data updates
- PM-6E: Percentage of HIN locations reviewed annually for repeat crash patterns
- PM-6F: Reduction in lag between crash occurrence and agency awareness

Notes

- The crash analysis review process described here is a transportation safety function, not a legal or liability proceeding. Care should be taken to establish clear documentation protocols that distinguish safety review findings from any records that could be subject to discovery in legal proceedings.
- Tribal communities may have crash data gaps due to limited law enforcement coverage on Tribal roads. HCAOG should work with Tribal transportation departments to identify the best available data sources for Tribal road crashes and incorporate them into the countywide picture where possible.
- SWITRS data should always be cross-referenced with local collision reports and EMS run data, since it will undercount crashes in areas with lower law enforcement response coverage.



Strategy 6.2 Emergency Response Coordination

Improve coordination and effectiveness of post-crash response.

Why it Matters

Even when a crash is not prevented, the quality and speed of post-crash response can determine whether a serious injury becomes a fatality. Research in trauma care consistently identifies the “golden hour,” the period immediately following a traumatic injury in which rapid medical intervention has the greatest impact on survival. In Humboldt County, geography makes this especially important, as many rural corridors are far from trauma centers and vulnerable to long response times. Secondary crashes, which occur at a primary

crash scene during incident response, can be a risk on high-speed corridors when traffic is not adequately managed.

Effective post-crash care is recognized as one of the six Safe System elements in the 2025–2029 California SHSP, reflecting the understanding that a complete Vision Zero approach must address crash survivability in addition to prevention.

Coordination among transportation agencies, law enforcement, fire, EMS, and trauma centers is critical but challenging in a county with multiple independent jurisdictions, Tribal territories, and a mix of state, county, and city roads.

Process & Funding

Response standards

HCAOG should facilitate the development of a countywide crash response standards document that establishes common expectations for response times, scene access, inter-agency communication, and handoffs between first responders and transportation agencies. It should be developed jointly with Humboldt County OES, CHP, and the major fire and EMS providers.

Traffic control protocol

The highest-priority traffic control need is on HIN corridors with high speeds and limited alternate routes, particularly rural state highway segments. Caltrans District 1 Maintenance should be involved as a partner, as they are responsible for traffic control on state routes.

STRATEGY 6.2 EMERGENCY RESPONSE COORDINATION				
	Action	**Lead**	**Partners**	**Target Timeframe**
6.2a	Develop and implement a traffic control protocol for serious crash scenes on HIN corridors, establishing clear procedures for lane management, detour routing, and secondary crash prevention during incident response.	CHP, City/County Police	Caltrans District 1, City/County Public Works, Local Fire/EMS	Immediate
6.2b	Establish and document emergency response standards for crash scenes, covering access routes, arrival targets, on-scene protocols, and coordination between first responders and transportation agencies.	Humboldt County OES /EMS	HCAOG, City/County Fire Depts., CHP, City Police, Caltrans District 1	Short-term
6.2c	Establish triage and transport protocols that prioritize rapid movement of seriously injured crash victims, including pre-designation of landing zones on rural corridors where ground transport times to trauma care exceed critical thresholds.	Humboldt County EMS / Humboldt County Sheriff	Local hospitals / trauma centers, Local Fire Depts., Air ambulance providers	Medium-term
6.2d	Coordinate joint training between transportation agencies, law enforcement, fire, and EMS to test and improve multi-agency crash response on HIN corridors.	Humboldt County OES	All response agencies, HCAOG	Medium-term

Table 6.21 Strategy 6.2 Emergency Response Coordination



The protocol should address when to close lanes, how to communicate detour routes, how to prevent secondary crashes through upstream warning, and how to coordinate scene clearance.

Triage and transport

Rural trauma response in Humboldt County is constrained by distance to the regional trauma center and limited availability of air ambulance services. The pre-designation of helicopter landing zones on key rural corridors is a low-cost, high-impact action. HCAOG can support this by mapping corridors where ground transport times exceed 30 minutes and working with EMS to identify feasible landing sites.

Training and exercises

Annual or biennial joint exercises are standard practice in emergency management and relatively low-cost and high-value. Humboldt County OES should convene, with HCAOG providing scenario development and data support.

Key Funding Sources

- FEMA Hazard Mitigation grants: can fund preparedness and coordination activities
- NHTSA Section 405 / 405(c) grants: traffic records and EMS data improvement programs
- OTS grants: emergency medical services and crash response programs
- Caltrans SHOPP: traffic management and incident response improvements on state routes
- Homeland Security grants (HSGP): multi-agency emergency preparedness exercises and planning

Performance Measures

Primary

- PM-6G: Reduction in secondary crashes at or near primary crash scenes on HIN corridors

Secondary

- PM-6H: Number of HIN corridors with documented, agency-endorsed traffic control protocols
- PM-6I: Average emergency response time to serious injury crashes on HIN corridors
- PM-6J: Percentage of serious/fatal crash scenes on HIN corridors where traffic control was implemented within a defined target time
- PM-6K: Number of agencies participating in the countywide crash response standards framework

Notes

- Tribal governments with road jurisdiction should be engaged in the response standards and triage protocol development. Crash response on Tribal roads may involve different agency relationships and access considerations than county or state routes.
- Post-crash traffic control on state routes is a Caltrans Maintenance responsibility, and local agencies cannot place or modify traffic control without coordination. The protocol established under Strategy 1.2 should be the mechanism for formalizing Caltrans' role.

Goal 7: Safer Land Use

Strategy 7.1 Urban Planning and Design

Integrate safety-focused urban design, land use planning, and travel demand management strategies to create street environments that reduce VMT, calm traffic, minimize travel conflicts, and improve safety for all road users.

Why it Matters

The 2025–2029 California Strategic Highway Safety Plan incorporates Safer Land Use as an additional Safe System element, formally recognizing that land use decisions and transportation safety are interdependent. Where homes, schools, jobs, and services are located relative to each other, and how sites connect to the street network, determines how people travel, how far they travel, and how exposed they are to crash risk. Compact, mixed-use, transit-oriented development reduces the need for long vehicle trips, shortens pedestrian and bicycle distances, and supports transit viability. Auto-oriented development patterns generate high VMT, concentrate pedestrian exposure on high-speed arterials, and make Vision Zero goals structurally harder to achieve regardless of safety infrastructure.

In Humboldt County, this link is important in both urban and rural contexts. Auto-focused site designs, fragmented sidewalk networks, and the absence of safe access requirements for new development have contributed to street environments where vulnerable road users are frequently in conflict with vehicle traffic. Addressing land use at the front end, through General Plan policy, development standards, and TDM programs, is a robust and cost-effective safety investment.

Process & Funding

Land use decisions are made primarily by local governments within the framework of state planning law. HCAOG does not have land use authority, but it plays a critical coordination role by aligning regional transportation investment with land use, supporting member jurisdictions in updating General Plan Circulation Elements, and providing technical assistance on safety-focused site design standards. Recent examples of City planning efforts that have had HCAOG input include the City of Eureka Waterfront Specific Plan, the City of Arcata Gateway Area Plan, and the County of Humboldt McKinleyville Town Center Plan.

STRATEGY 7.1 URBAN PLANNING & DESIGN				
	Action	**Lead**	**Partners**	**Target Timeframe**
7.1a	Establish minimum active transportation connectivity standards for new development as conditions of project approval.	City & County Planning Depts.	City/County Public Works, HCAOG	Short-term
7.1b	Advance Transportation Demand Management (TDM) strategies, including transit incentives, shared mobility, employer programs, and parking management, to reduce VMT on high-injury corridors.	HCAOG	Humboldt Transit Authority (HTA), City & County Planning Depts., Caltrans District 1, Employers & Institutions	Short-term
7.1c	Incorporate safety considerations into development review and site design, ensuring new and redeveloped properties provide safe access for all modes.	City & County Planning Depts.	City & County Public Works Depts., HCAOG	Medium-term
7.1d	Update General Plan Circulation Elements to reflect Complete Streets and Vision Zero priorities, consistent with AB 1358.	City & County Planning Depts.	HCAOG, Caltrans District 1	Medium-term
7.1e	Coordinate land use with roadway design to support compact, transit-oriented, mixed-use development.	HCAOG	Humboldt County Planning Dept., City Planning Depts., Governor's Office of Land Use and Climate Innovation (LCI)	Long-term

Table 6.22 Strategy 7.1 Urban Planning And Design

Compact / TOD coordination

HCAOG should work with city and county planning departments to identify areas where land use or zoning can be updated to support transit-oriented, mixed-use patterns near transit stops and on HIN corridors. The Governor's Office of Land Use and Climate Innovation (LCI) provides technical assistance and grant programs to support local planning updates.

Development review

With HCAOG support, cities and the County should adopt or update checklists for safety review of new development, covering pedestrian and bicycle connectivity to the street network, driveway conflict minimization, on-site crosswalk and paths, and lighting.

TDM programs

Strategies including transit incentives, employer commute programs, shared mobility, and parking management are most effective in partnership with major employers, Cal Poly Humboldt, and the Humboldt Transit Authority. HCAOG can coordinate a countywide TDM working group, potentially as part of the IWG, and explore funding through Caltrans' Transportation Demand Management grant program.

General Plan updates

All member cities and the county are required under AB 1358 to include Complete Streets policies in their Circulation Elements with any substantial revision. HCAOG should track the update status of each Circulation Element and provide technical support to ensure that Vision Zero language is incorporated consistently.

Active transportation connectivity standards

HCAOG should develop model development standards covering minimum sidewalk widths, bicycle parking, driveway frequency limits, and safe site access design.

Relevant Funding Sources

- LCI Planning Grants: support General Plan and zoning updates aligned with climate and safety goals
- Caltrans Sustainable Transportation Planning Grants: funds TDM and land use/ transportation coordination studies
- ATP Cycle 9 (regional component): can fund active transportation connections required as part of development approvals
- CDBG: supports planning and infrastructure improvements in low-income communities
- Local development impact fees: can be structured to fund off-site active transportation improvements

Performance Measures

Primary

- PM-7A: Areas rezoned or upzoned to support mixed-use and compact development near transit stops and HIN corridors
- PM-7B: Reduction in VMT per capita on HIN corridors over 5 years

Secondary

- PM-7C: Number of member jurisdictions with an updated Circulation Element compliant with AB 1358 and incorporating Vision Zero language
- PM-7D: Number of new development projects reviewed using a safety checklist or incorporating active transportation connectivity conditions of approval
- PM-7E: Number of minimum active transportation connectivity standards formally adopted by member jurisdictions
- PM-7F: Number of active TDM programs countywide and estimated vehicle trips reduced annually
- PM-7G: Percentage of new residential and commercial development within 0.25 miles of a transit stop or low-stress bicycle route

Notes

- Land use authority rests entirely with local jurisdictions. HCAOG's role is to coordinate, educate, and provide technical assistance.
- The Safer Land Use element is new to the 2025–2029 SHSP. HCAOG should monitor LCI, Caltrans, and OPR guidance as it is released and update this section in subsequent plan revisions.
- Many compact development strategies apply primarily to the urban cores. Rural community centers may benefit more from rural main street design approaches under DIB 94.
- Development review improvements have the greatest impact when applied to projects on HIN corridors. Jurisdictions with limited planning staff may wish to apply enhanced safety review selectively to larger projects or high-priority locations first.