

SANDAG

VISION ZERO Action Plan

NOVEMBER 2024



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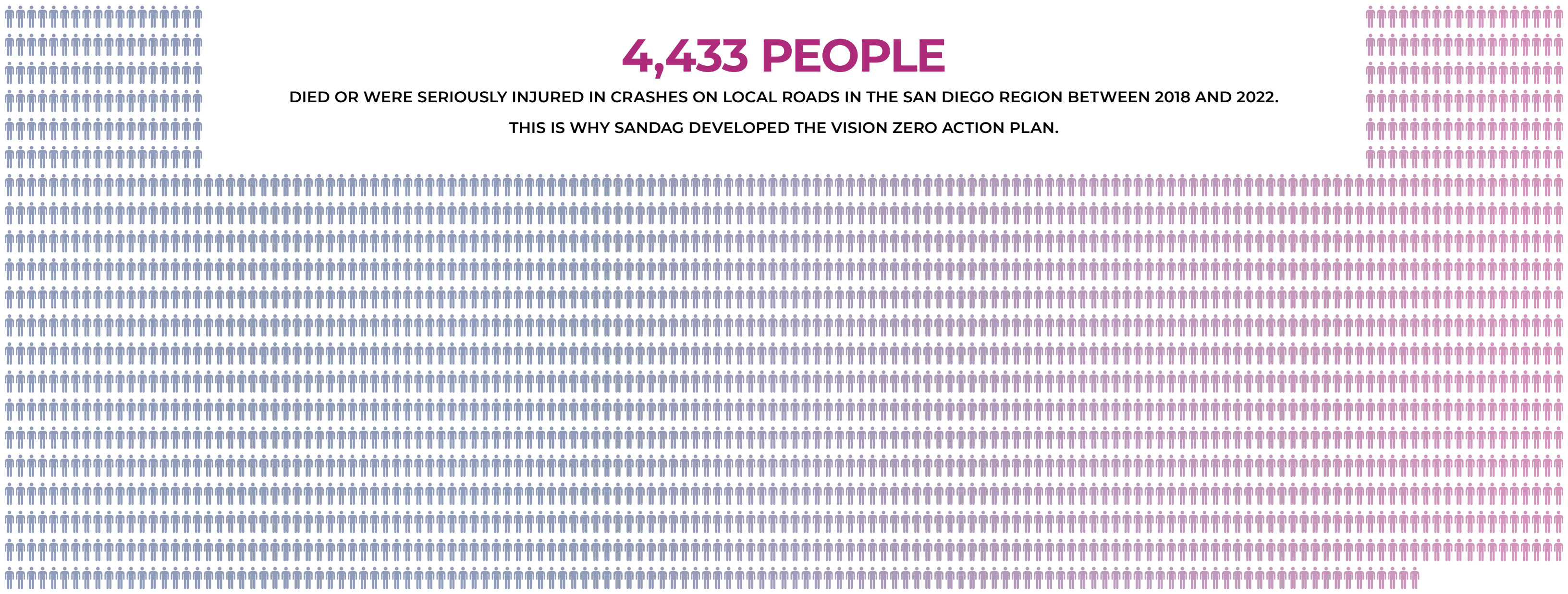
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4,433 PEOPLE

DIED OR WERE SERIOUSLY INJURED IN CRASHES ON LOCAL ROADS IN THE SAN DIEGO REGION BETWEEN 2018 AND 2022.

THIS IS WHY SANDAG DEVELOPED THE VISION ZERO ACTION PLAN.





Executive Summary

Nearly 3 people are killed or seriously injured on our region's roads every day. The Federal Highway Administration is clear that safety is everyone's responsibility and needs safe roadway users, safe vehicles, safe roads, safe speeds, and post crash care.

In November 2022, the San Diego Association of Governments (SANDAG) Board of Directors adopted a resolution acknowledging the critical role SANDAG plays in implementing safe streets across the region. With this resolution, SANDAG affirmed that traffic-related deaths and serious injuries are preventable and directed staff to develop an action-oriented plan to reduce or eliminate fatal and serious injury crashes.

The Vision Zero Action Plan is a bold commitment to the safety of everyone who calls the San Diego region home, works here, or visits this beautiful place. The plan outlines the SANDAG approach for reaching the Vision Zero goal by 2050.

This plan, and accompanying technical appendices, illustrates where crashes occur, who is bearing the greatest burden, and what strategies can be implemented. While the San Diego region has over 10,000 miles of non-freeways, local roads, and rural state highways, 54% of the fatal and serious injury crashes occur on just 6% of those roads. By using a data-driven Safe System Approach, SANDAG and its partners can focus their efforts on where they will make the most meaningful impact.

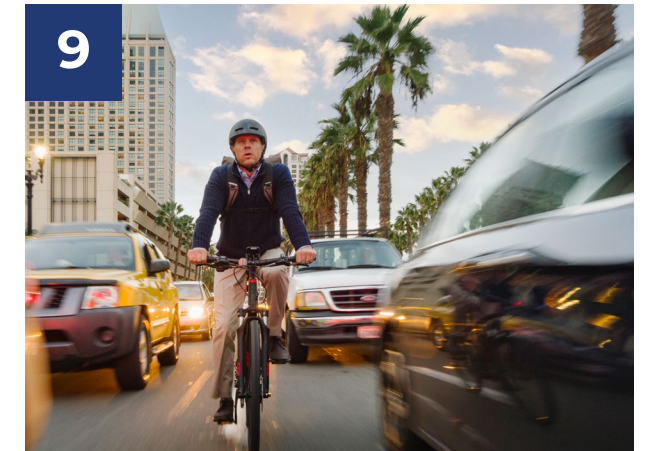
This Action Plan details a multi-layered approach for supporting traffic safety in the region and advancing Vision Zero goals at the local government level. The successful outcome of this plan is a regional road network that allows everyone—regardless of whether they walk, bike, roll, drive, or ride transit—to arrive at their destinations safely whenever they travel.

Table of Contents



CHAPTER 1 About Vision Zero

Introduces Vision Zero and the SANDAG commitment to eliminating all fatal and serious injury crashes in the region.



CHAPTER 2 Understanding the Problem

Describes who is most impacted by fatal and serious injury crashes and where these crashes occur.



CHAPTER 3 Developing Solutions

Summarizes community and stakeholder engagement and the prioritization process used to identify locations with the greatest opportunity.



CHAPTER 4 How We Get to Zero

Details the role of SANDAG in implementing safety solutions as the regional planning agency and how progress toward Vision Zero will be evaluated.

CHAPTER 1

About Vision Zero

Introduces Vision Zero and the SANDAG commitment to eliminating all fatal and serious injury crashes in the region.

Vision Zero is a goal to eliminate all traffic deaths and serious injuries, while increasing safe, healthy, and equitable mobility for everyone.

Vision Zero is a transportation philosophy, design strategy, and agency commitment founded on the belief that every traffic-related death or serious injury is preventable.

Vision Zero shifts the focus from simply reducing crashes to proactively preventing fatal and serious injury crashes from occurring through multidisciplinary approaches, such as engineering, education, enforcement, and emergency response strategies. The successful outcome of Vision Zero in our region is a road network that allows everyone—regardless of whether they walk, bike, roll, drive, or ride transit—to arrive at their destinations safely whenever they travel.

The region needs Vision Zero to further advance traffic safety.

Vision Zero rejects the notion that fatal and serious crashes are inevitable, and believes that death and serious injury are not an acceptable cost for using our public roadway system. Every statistic in this plan represents a human life.

Over 40,000 people died on U.S. roads in 2021—the highest total number of recorded fatalities since 2005.¹ For decades, deaths on our roads were declining, but progress has stalled, and deaths began to increase in 2020 and 2021.²

From 2018 to 2022, more than 4,000 people in the San Diego region died or were seriously injured in traffic crashes. This translates to an average of nearly 3 people killed or seriously injured on our region's roads every day.³ The impact on human lives is substantial.

1. U.S. Department of Transportation, [The Roadway Safety Problem](#) (2023).

2. National Highway Traffic Safety Administration, [Overview of Motor Vehicle Traffic Crashes in 2021](#) (2023).

3. SANDAG Traffic Safety Dashboard (2018-2022).

SANDAG is committed to Vision Zero.

We are committed to bringing the region's diverse residents and local partners together with unifying regional plans, policies, and programs that result in more healthy, sustainable, and economically resilient communities.

We recognize that hundreds of individuals lose their life and thousands experience life altering injuries each year on our region's public roads.

The number of fatalities and serious injuries in the region continues to grow despite efforts to reduce these incidents.

A basic tenet of Vision Zero is that fatal and serious crashes are not inevitable, and death and serious injury are not an acceptable cost for using our public roadway system

Traffic safety is a social equity issue, and low-income and minority populations are disproportionately impacted by fatal and serious injury crashes.

Cities across the country are successfully implementing Vision Zero interventions to reduce fatalities and serious injuries.

A data-driven safe system approach is proven to be effective at reducing traffic fatalities and injuries, including through taking into account all aspects of the transportation environment and recognizing there are vulnerable roadway users.

Information presented in this plan is derived from the SANDAG Traffic Safety Dashboard. The data represent reported, geocoded crashes that happened on local roads and rural state highways only. This excludes crashes that happened on freeways and other controlled access roads. Each crash may involve more than one victim, and crashes may involve more than one fatality or serious injury.



The Safe System Approach is how we achieve Vision Zero.

Recognizing that humans make mistakes, the Safe System Approach aims to create a forgiving road system that reduces risk and eliminates fatal and serious injury crashes. The Safe System Approach is a framework supported by the U.S. Department of Transportation (USDOT) to advance the implementation of Vision Zero. The Safe System Approach was founded on the principle that humans make mistakes, and those mistakes should never lead to death or serious injury. Applying the Safe System Approach involves designing and managing road infrastructure to support safe road use, and when crashes do happen, ensuring that the impact does not result in a death or serious injury.

Vision Zero strives for a transportation system:

- ✓ **With no fatal or serious injury crashes**
- ✓ **Forgiving of errors in human judgment**
- ✓ **That manages speed for the community**
- ✓ **With investments that prevent future crashes**
- ✓ **With engagement and coordination from all transportation safety agencies**
- ✓ **With investments in solutions across the system, not just individual locations**

The Safe System Approach has five key elements:

- ✓  **Safe speeds**
- ✓  **Safe roads**
- ✓  **Safe vehicles**
- ✓  **Safe road users**
- ✓  **Post-crash care**





CHAPTER 2

Understanding the Problem

This chapter describes who is most impacted by fatal and serious injury crashes and where these crashes occur.

People from across the region told us how road safety impacts their lives.

To understand the daily challenges of road users in the region, SANDAG asked residents to provide their lived experiences and locations of concern in an online survey in fall-winter 2023. The responses highlighted safety issues and the urgent need for targeted improvements.



“I have had near misses on several occasions while crossing the street walking, most often with turning vehicles.”

“This street sees a lot of traffic traveling over the speed limit. It’s scary to be a pedestrian or cyclist around here.”

“People speed through the lights like they are optional, and I have been nearly hit with my daughter and dog several times.”

“I was hit by a driver who ran a stop sign and have had several near misses at the same intersection.”

“Crosswalks are a 15-minute walk apart. I constantly see families sprinting across four lanes of 50mph traffic.”

“I was in my wheelchair heading up the road when sidewalk abruptly ended.”

Certain groups are particularly vulnerable to life-altering crashes in the San Diego region.

TEENAGERS

Teenagers (15-19) make up 6% of the population but 8% of bicycle fatal and serious injury crash victims.

YOUNG ADULTS

Young adults (20-29) make up 16% of the population but 24% of fatal and serious injury crash victims.

OLDER ADULTS

Older adults (55+) are 33% more likely than other groups to sustain a fatal or serious injury in a crash.

PEDESTRIANS

Pedestrians make up only 7% of all crashes but 23% of fatal and serious injury crashes.

BICYCLISTS

One out of every eight crashes involving a bicyclist results in a bicyclist fatality or serious injury.

MOTORCYCLISTS

27% of fatal and serious injury crashes involve a motorcycle.

Equity Areas cover 19% of the land in the SANDAG region and they experience 40% of all fatal and serious injury crashes.

Fatal and serious injury crashes in Equity Areas happen:



Equity Areas are Census Tracts meeting the USDOT Equitable Transportation Community Explorer definition of disadvantage.

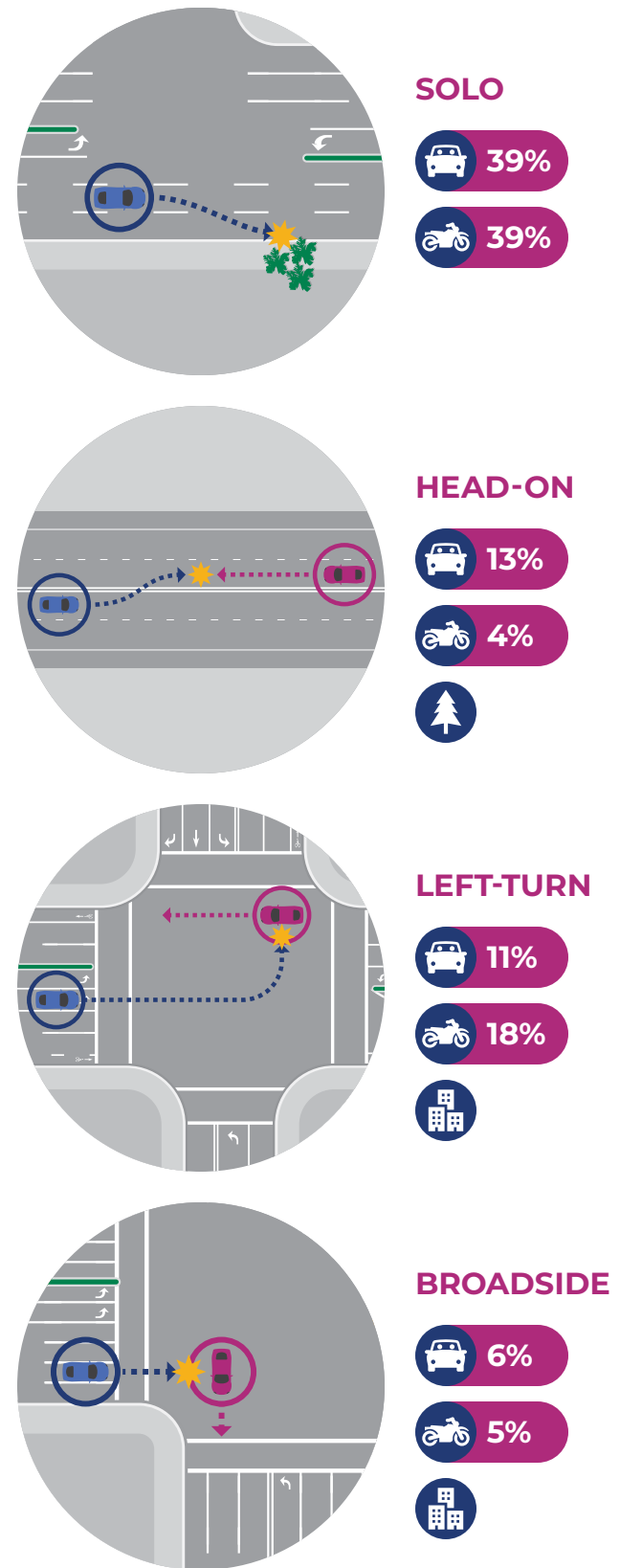
These are the most common crash profiles in our region.

Crash profiles describe the modes and contributing factors frequently associated with fatal and serious injury crashes. Prioritizing locations experiencing the most common crash profiles supports the Vision Zero goal of reaching zero fatal and serious injury crashes in our region.

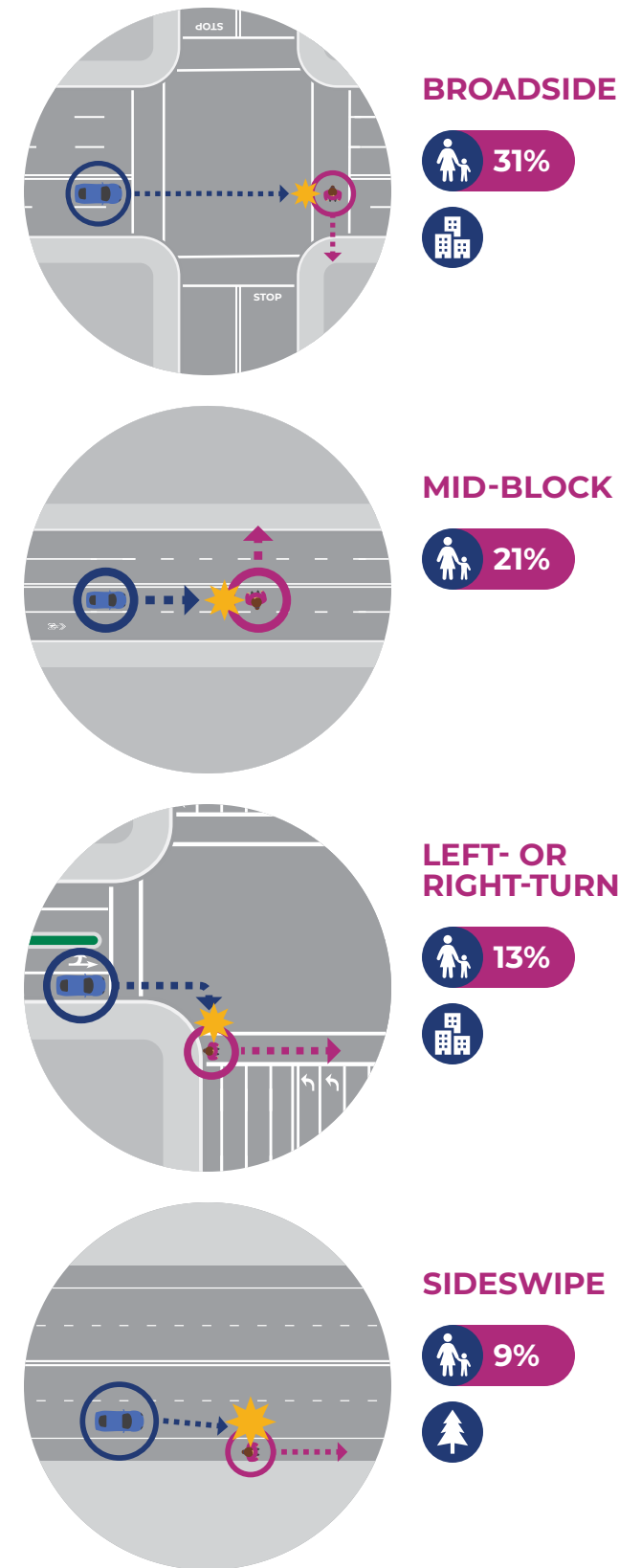
Crash severity
Percent of fatal and serious injury pedestrian, bicyclist, motorcyclist, and motor vehicle crashes, respectively

Land use context
Describes when the crash profile is more present in urbanized or rural areas, respectively. When no icon is present, this means the crash profile is present in both land use contexts.

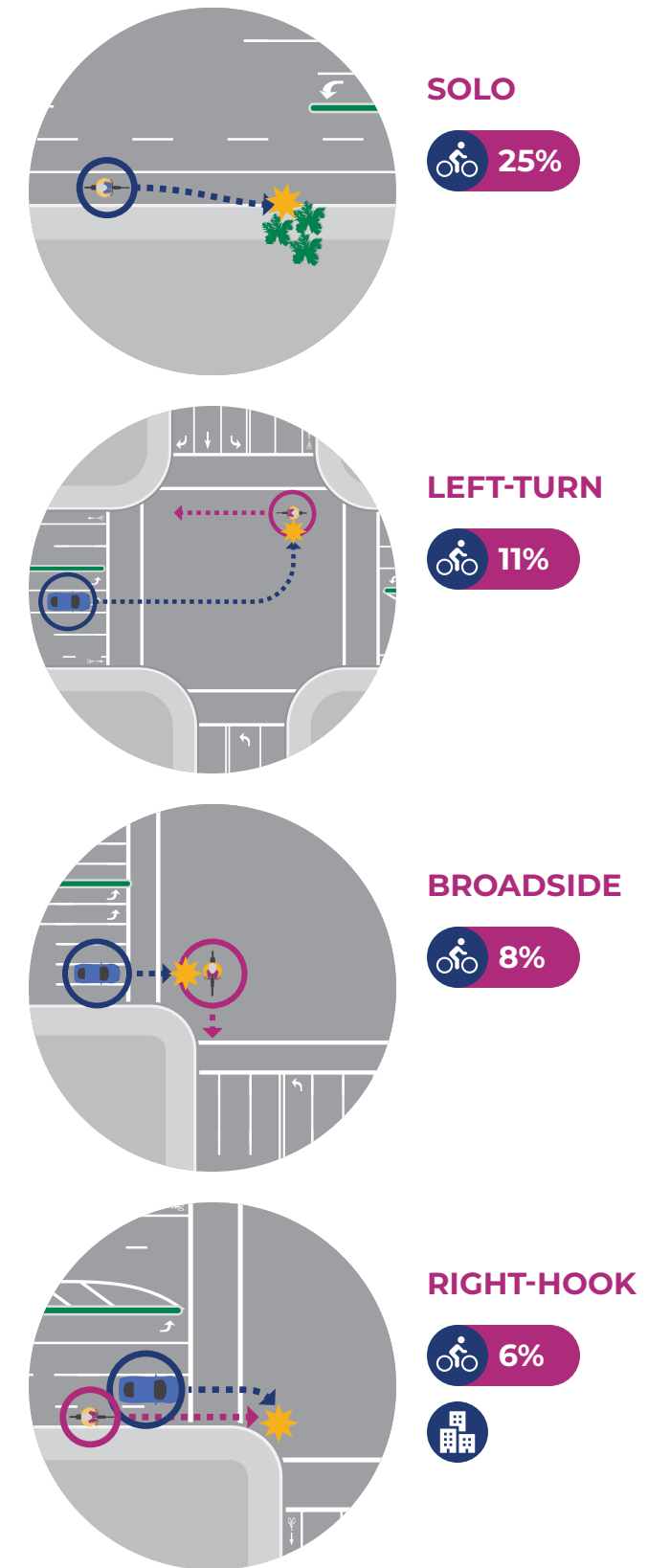
Motor vehicle crash profiles



Pedestrian crash profiles



Bicyclist crash profiles



What does crash data tell us about patterns in our region?

63%

of pedestrian fatal and serious injury crashes happen in poor lighting

23%

of fatal and serious injury crashes involve a pedestrian, despite pedestrians making up only 7% of all crashes

34%

of fatal and serious injury crashes occur near multi-family housing

27%

of motorist fatal and serious injury crashes involve a driver under the influence

78%

of fatal and serious injury crashes occur on roads with posted speed limits of 35 mph or higher

27%

of fatal and serious injury crashes involve a motorcycle

12%

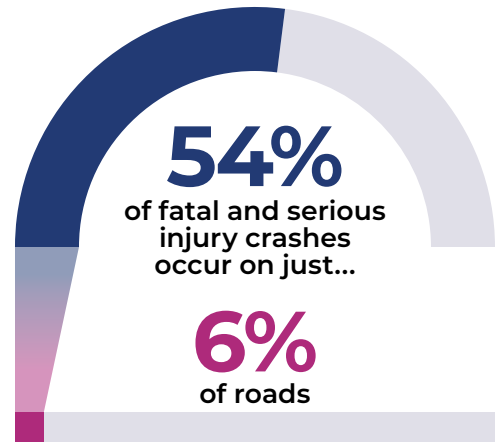
of bicycle crashes result in a fatal or serious injury

49%

of fatal and serious injury crashes occur on roads with four or more lanes

A responsive approach

On our region's local roads:



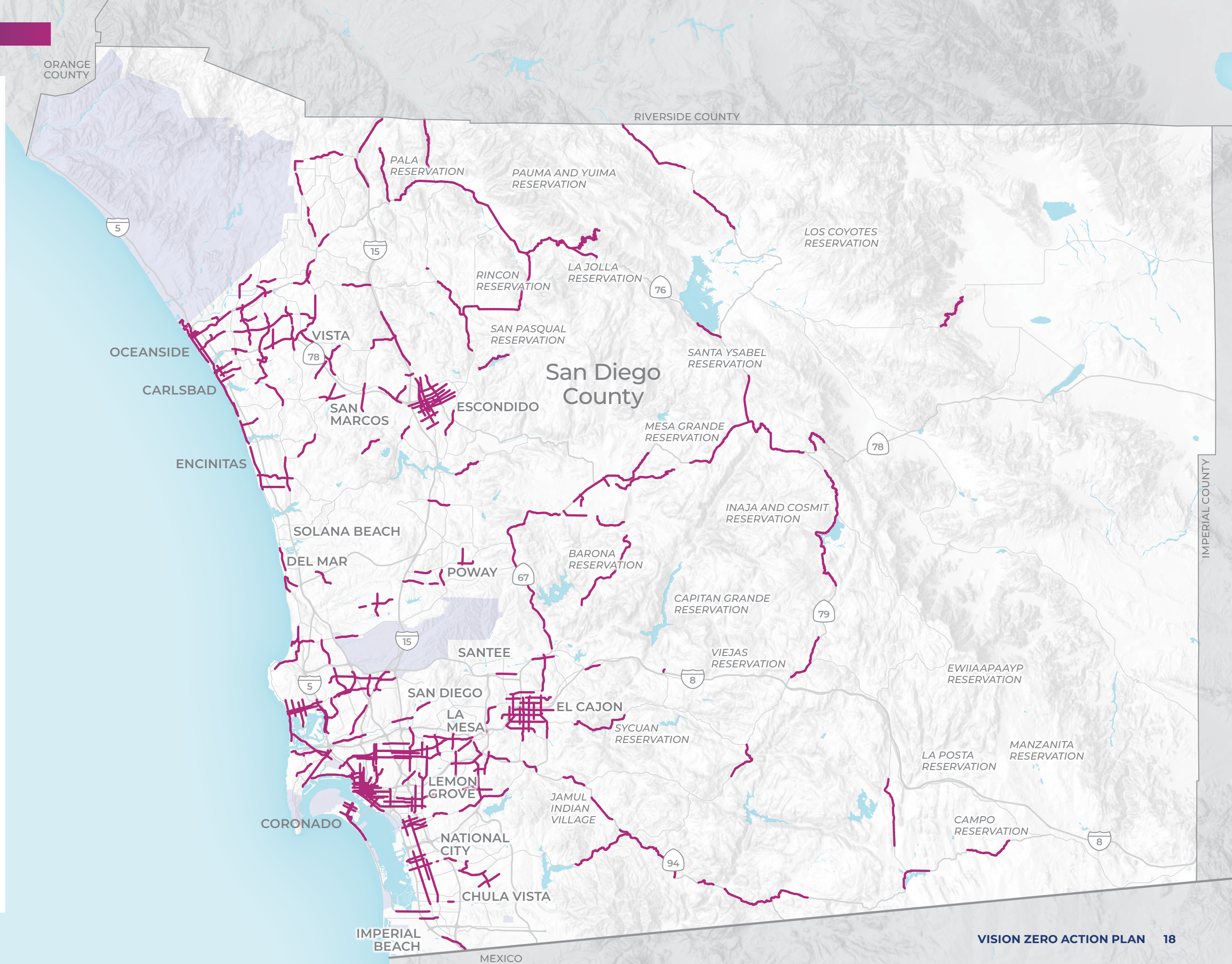
The Safety Focus Network identifies roads with the highest concentration of fatal and serious injury crashes. There are more than 10,000 non-freeway, local road, and rural state highway miles in the San Diego region, but most fatal and serious injury crashes occur on just a small percentage of these roads.

The Safety Focus Network stretches across the San Diego region, spanning urban and rural communities. It is overrepresented in Equity Areas, which make up 19% of the region and account for 44% of the Safety Focus Network. This network highlights where we can make the most meaningful impact to address road safety in the region.

Safety Focus Network
Roads where 54% of fatal and serious injury crashes happen



Source: SANDAG Traffic Safety Dashboard (2018-2022).



A proactive approach

Systemic Safety identifies common traits across fatal and serious injury crashes to identify risk factors.

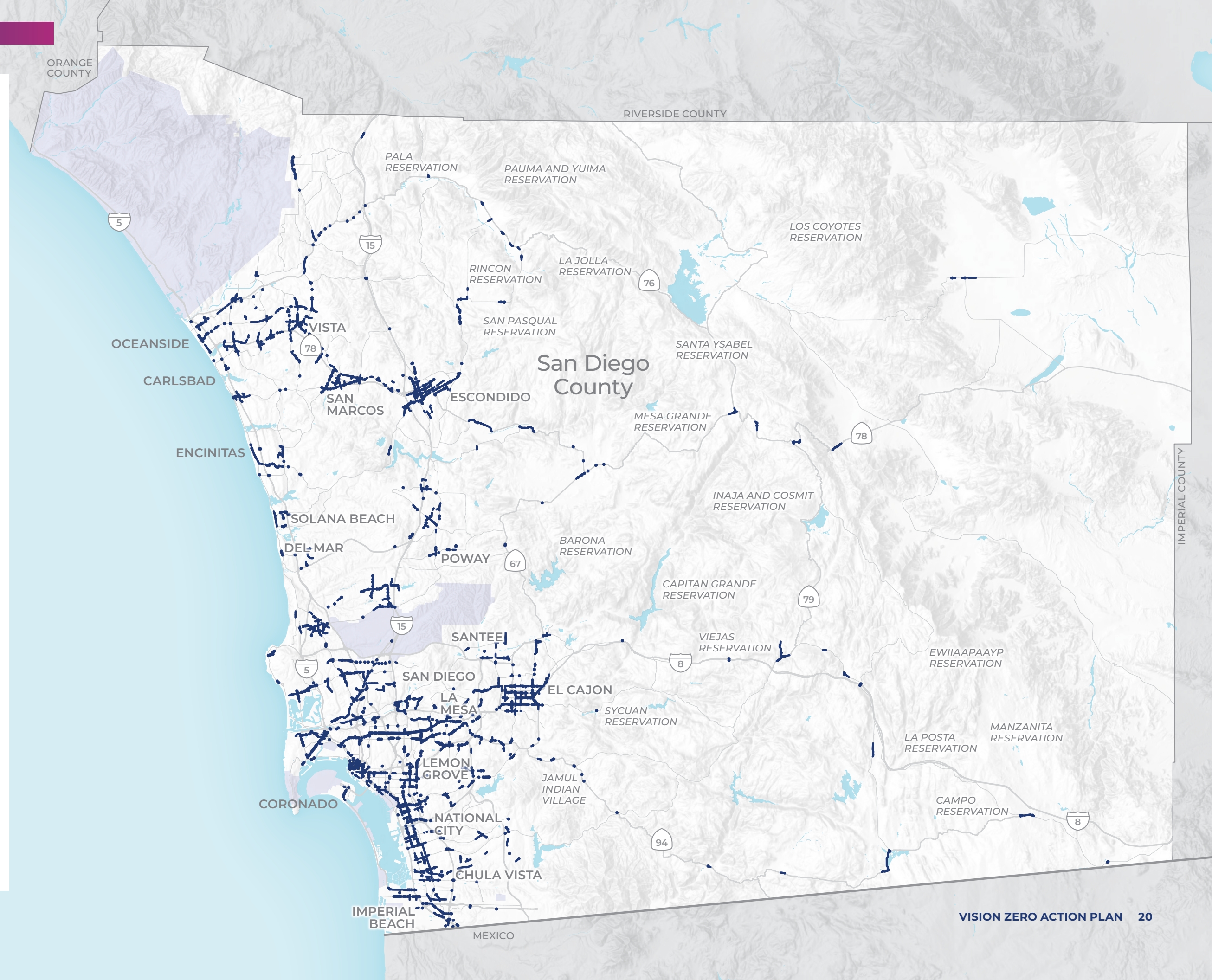
Risk factors are roadway and land use characteristics present at locations where fatal and serious injury crashes have occurred. They help us understand areas of opportunity to apply countermeasures proactively. Five risk factors are common in the region:

- **Road classification:** Major roads and freeway ramps
- **Number of lanes:** Roads with two or more lanes per direction
- **Posted speed limit:** Roads with posted speed limit of 35 MPH or higher
- **Intersection type:** Side-street stop-controlled and signalized intersections on wide, high-speed roads
- **Proximity to activity generators:** Roads or intersections near commercial areas, multi-family housing, transit stops, or schools

The Systemic Safety Network identifies locations where multiple risk factors are present. Understanding these risk factors supports proactive application of safety countermeasures.

Systemic Safety Network
 Road segments (lines) and intersections (dots) with common safety risk factors

▲ N
 10 MILES



Source: SANDAG Traffic Safety Dashboard (2018-2022).

CHAPTER 3

Developing Solutions

This chapter summarizes community and stakeholder engagement and the prioritization process used to identify locations with the greatest opportunity.

Community and stakeholder voices helped to co-create a safer transportation future.

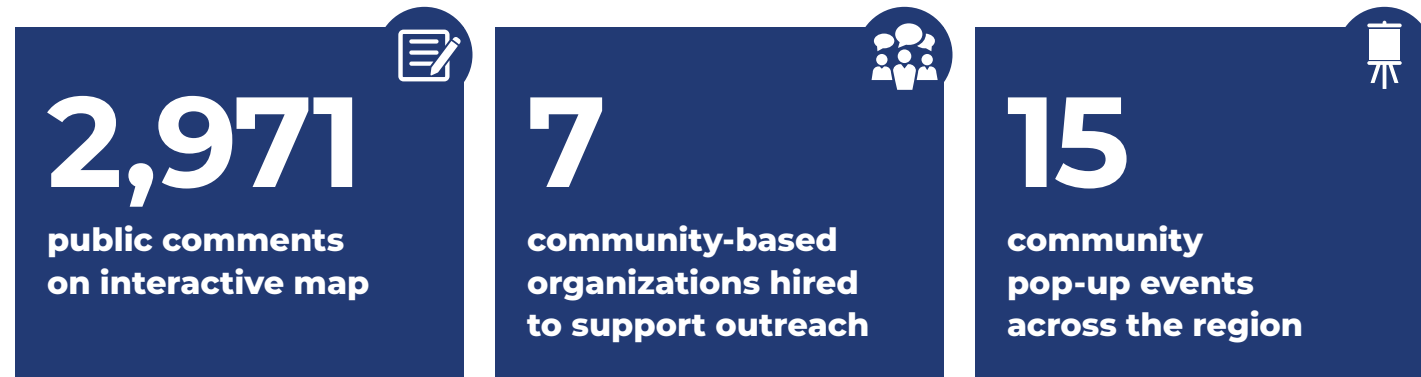
Between October 2024 and September 2025, residents of the region shared insights on safety priorities and challenges to guide the region's safety program. The main requests we heard included improved lighting, wider sidewalks, and protected bike paths. Understanding residents' concerns helps SANDAG and partners identify issues and prioritize regional efforts to reduce the number and severity of crashes.

All of the region's local governments plus Caltrans, North County Transit District, and San Diego Metropolitan Transit System helped develop the Vision Zero Action Plan. Through meetings with local governments and partners, presentations to SANDAG committees and the Board of Directors, and formation of an interdisciplinary Technical Advisory Group, local government and partner representatives shared opportunities for SANDAG to support existing efforts and ensure regional safety efforts align with local implementation. The Technical Advisory Group brought together local governments, federally recognized tribal governments, transportation agencies, advocacy groups, first responders, health professionals, and academic researchers to collaboratively set a regional commitment to enhancing road safety.

For more information on engagement, see Technical Appendix E.



COMMUNITY ENGAGEMENT AT A GLANCE



STAKEHOLDER ENGAGEMENT AT A GLANCE

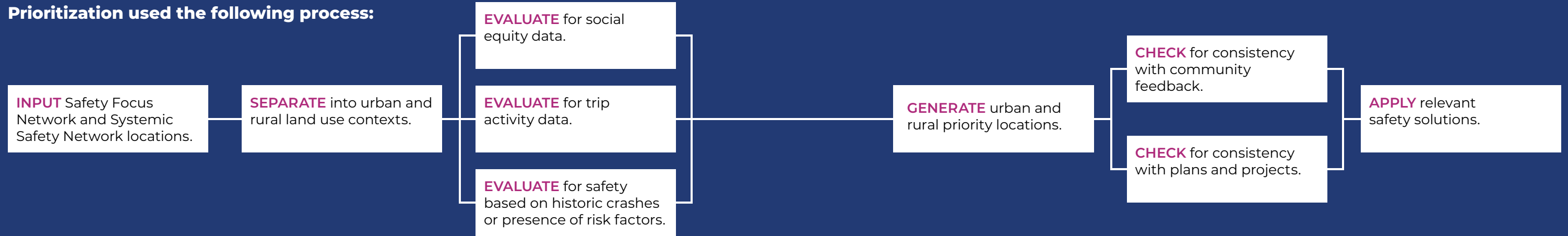


Prioritization helps SANDAG, local governments, and partners focus safety investments.

Priority locations on the Safety Focus Network and Systemic Safety Network were identified based on:



Prioritization used the following process:



With limited resources, SANDAG and regional partners need to focus investments in the greatest opportunity areas. For this reason, we have developed a data- and community-driven approach to prioritize those locations. Doing so helps focus available resources where they can make the most impact saving lives and reducing serious injuries. For more information on prioritization scoring, see Technical Appendix B.

Prioritization scoring identified the following locations:



A targeted response

SANDAG used the prioritization process to identify top locations for safety solutions.

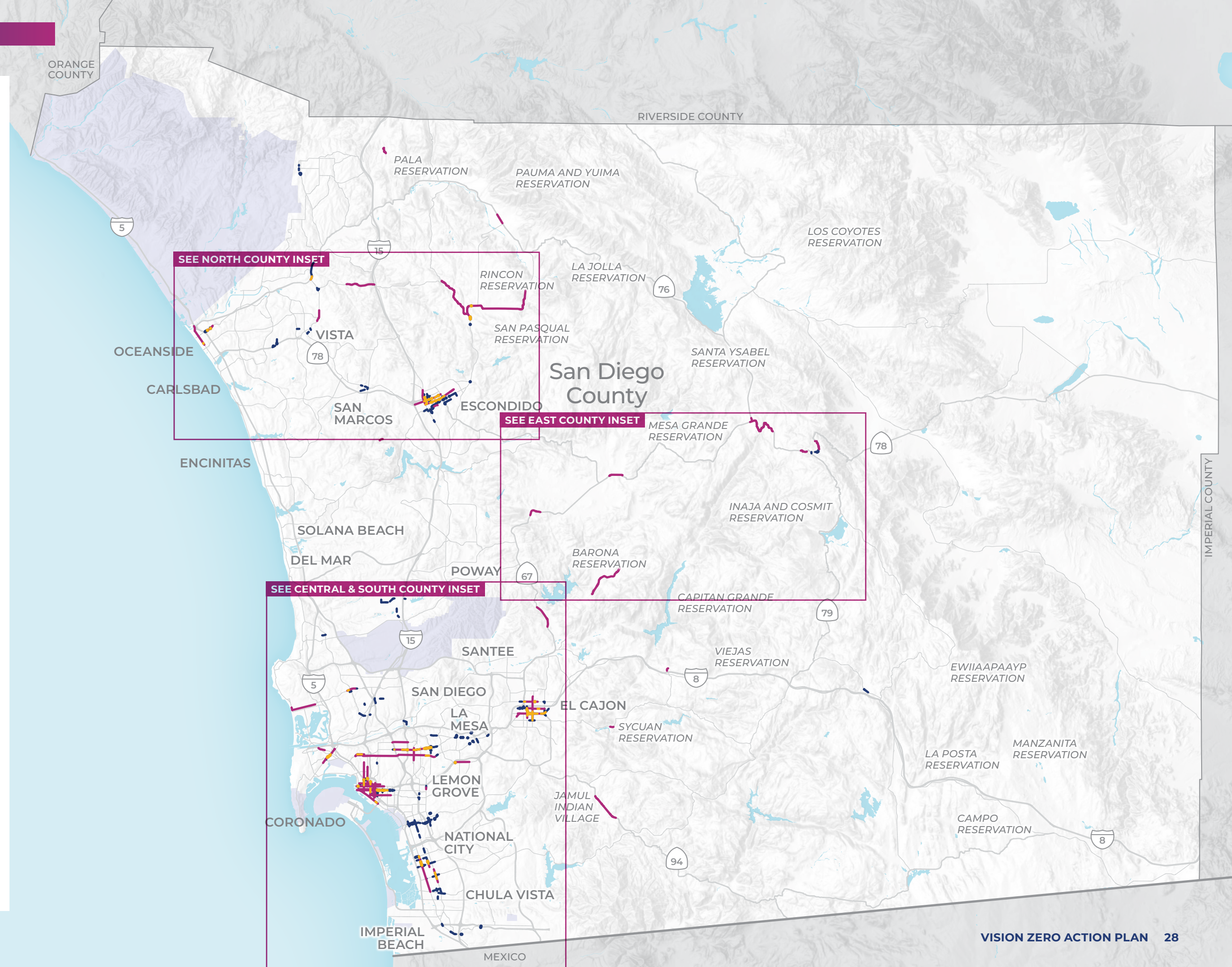
These locations cover more than 120 miles in both urban and rural areas. They are broken into two categories:

- Priority locations on the Safety Focus Network, where high concentrations of fatal and serious injury crashes have happened
- Priority locations on the Systemic Safety Network, which include road segments and intersections, where common risk factors for fatal and serious injury crashes are found

Identifying top locations in this way gives SANDAG, local governments, and regional partners a way to address locations where fatal and serious injury crashes have occurred while working to prevent similar crashes before they happen. The inset maps on the next page show the priority locations in closer detail.

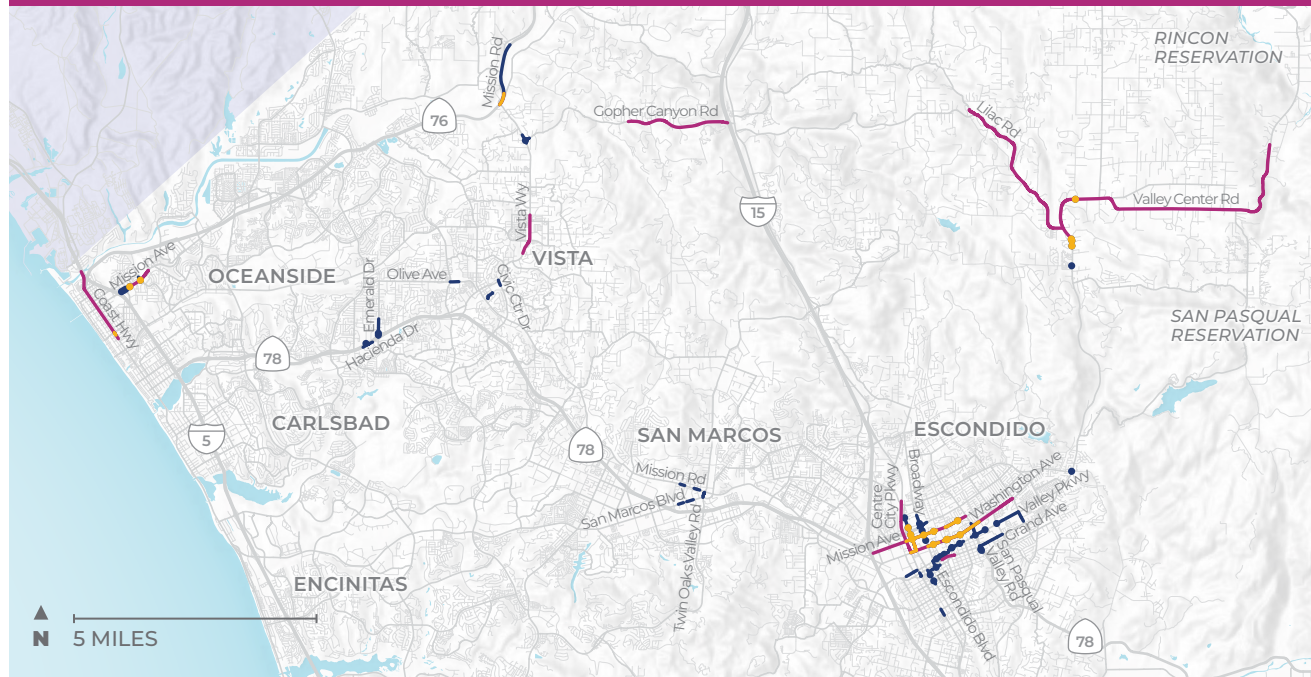
- Safety Focus Network priority locations**
- Systemic Safety Network priority locations**
Road segments (lines) and intersections (dots)
- Overlapping priority locations**
Road segments (lines) and intersections (dots) where both networks overlap

▲ N
10 MILES

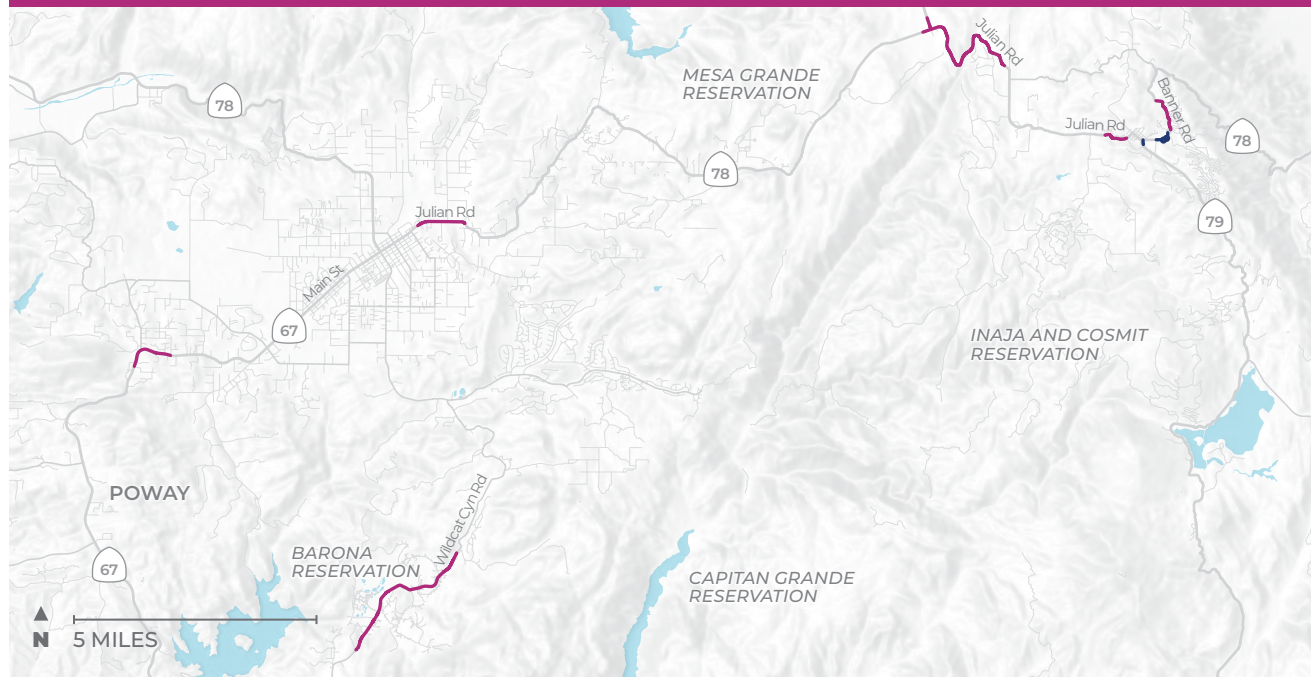


Source: SANDAG Traffic Safety Dashboard (2018-2022).

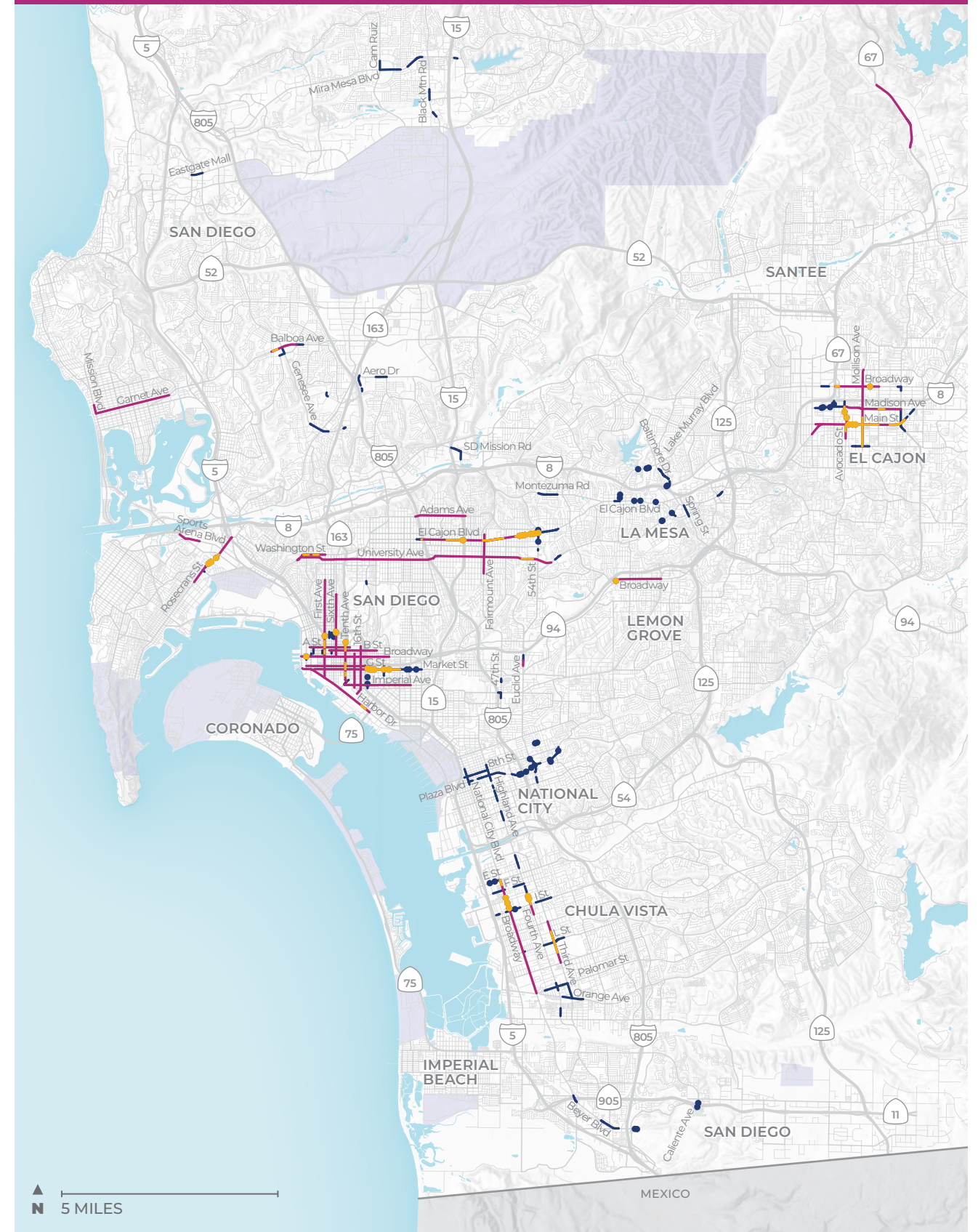
NORTH COUNTY PRIORITY LOCATIONS



EAST COUNTY PRIORITY LOCATIONS



CENTRAL & SOUTH COUNTY PRIORITY LOCATIONS



- Safety Focus Network priority locations**
- Systemic Safety Network priority locations**
Road segments (lines) and intersections (dots)
- Overlapping priority locations**
Road segments (lines) and intersections (dots) where both networks overlap



CHAPTER 4

How We Get to Zero

Details the role of SANDAG in implementing safety solutions as the regional planning agency and how progress toward Vision Zero will be evaluated.

Shifting institutional culture and safety priorities can help reduce serious crashes.

Thirty-nine local and regional safety policies, plans, and projects were assessed to understand current safety efforts across the region, successes to build upon, and challenges to address in this Vision Zero Action Plan. The items below are opportunities identified through this assessment to better align regional and local safety practices with the Safe System Approach.



Leadership commitment

Make safety a top priority for regional transportation decisions.



Staff resource allocation

Develop a task force for sharing transportation safety knowledge.



Project funding and implementation

Align grant programs with regional safety goals.



Data collection and analysis

Address data availability issues and known gaps in regional safety data, share safety analysis best practices to build cohesion in the regional approach, and provide local governments with safety information to inform decision-making.



Safety education and encouragement

Expand existing public engagement and education initiatives related to transportation safety. These activities should be designed to “meet people where they are” both in-person and online.



The Safe System Approach in action

Integrate the Safe System Approach into all SANDAG planning initiatives, develop evaluation metrics to track trends in safety outcomes, and provide assistance to local governments to support implementation of proven safety solutions.

SANDAG has a roadmap for implementing Vision Zero.

Implementation Actions are strategies and initiatives that SANDAG can apply to continue supporting traffic safety in the region. It takes a multi-layered approach to reach zero fatal and serious injury crashes, which includes programmatic, policy, cultural, and institutional elements. These actions help SANDAG prioritize safety in agency functions, collaborate with local governments and partners, and ensure safety challenges are being addressed through multiple solutions.

Implementation Actions focus on the seven strategies shown below and on the facing page. For the full list of actions, see Technical Appendix C.

SANDAG commits to these strategies to support Vision Zero:



1. COORDINATE

SANDAG will bring together local governments, agency partners, federally recognized tribal governments, key stakeholders, and the public to align regional efforts and ensure a unified approach to advancing safety goals.



2. PLAN

SANDAG will integrate Vision Zero principles into all aspects of regional planning by incorporating safety into its planning efforts including the Regional Plan's goals, project evaluation, and development processes. Additionally, SANDAG will provide resources for local governments to implement safer speed limit setting practices, analyze slow streets, and prioritize safety in project planning and implementation.



3. FUND

SANDAG will prioritize funding in its grant programs for projects that address critical safety needs and are directed towards the most effective safety solutions and projects on the Safety Focus Network or Systemic Safety Network. This will be accomplished through updating regional funding scoring criteria, supporting local governments in securing state and federal funds, and preparing competitive grant applications for regionally significant projects.



4. EDUCATE

SANDAG commits to raising safety awareness through targeted educational programs and resources for diverse regional stakeholders. Efforts will include targeted education geared towards drivers and our most vulnerable road users, technical support, data, and training for stronger integration of safety principles in all SANDAG-led efforts, and community outreach to build momentum around Vision Zero implementation.



5. EVALUATE

SANDAG will evaluate the effectiveness of safety strategies by tracking regional progress towards zero fatal and serious injury crashes. This will be provided through regular public updates, presentations to local jurisdictions, and a comprehensive update of the Vision Zero Action Plan every 10 years.



6. IMPLEMENT

SANDAG will enhance safety in our capital projects and support local governments in improving their facilities. This will be done by offering data and tools for prioritizing and implementing improvements, supporting Roadway Safety Audits, analyzing construction projects for safety upgrades, providing technical assistance, and integrating Vision Zero principles into decision-making and project development.

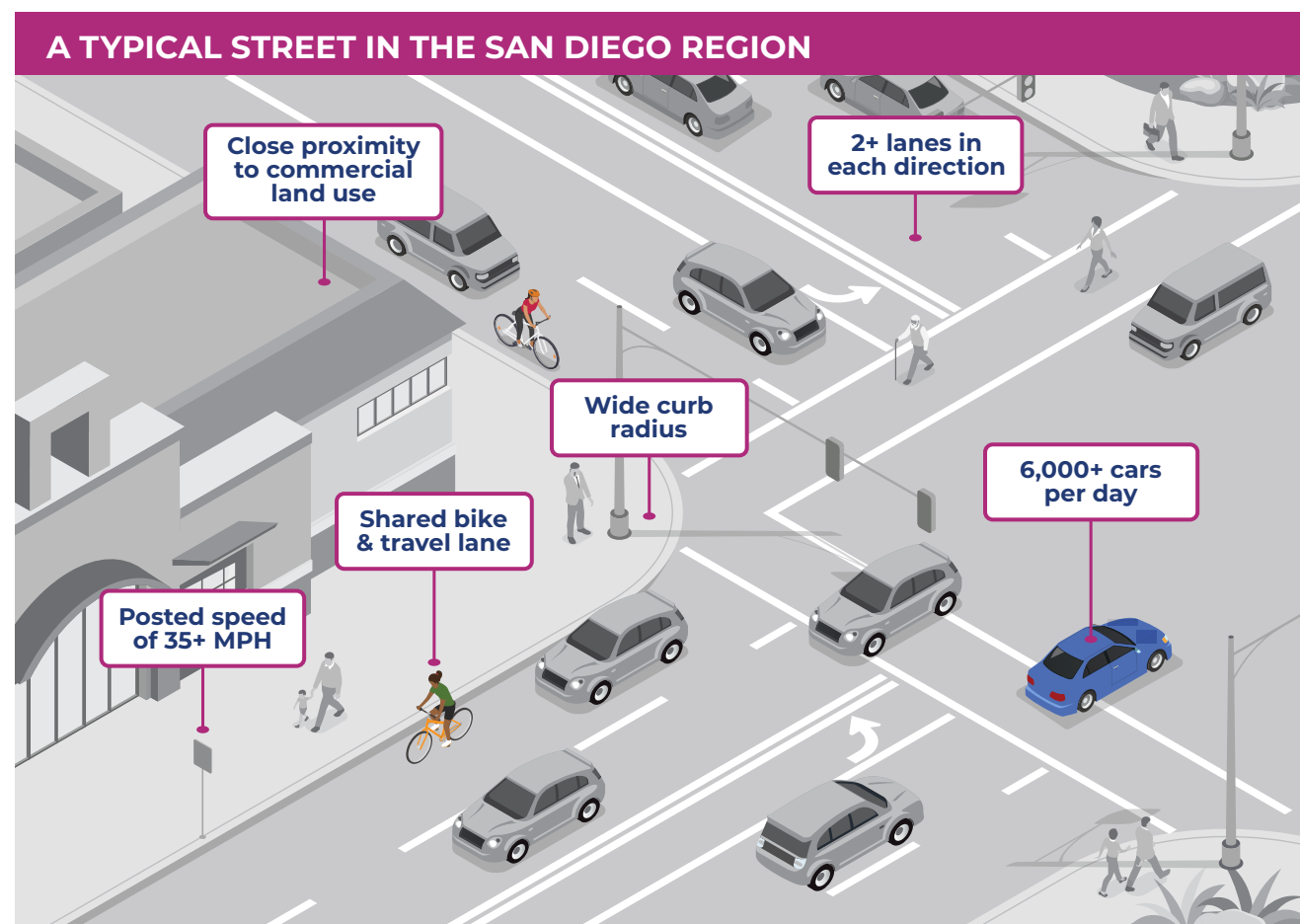


7. ADVOCATE

SANDAG will advocate for policies, projects, funding, and legislative actions that prioritize and enhance safety across the region.

Safety solutions reduce the likelihood and severity of crashes.

SANDAG will use the findings from the Vision Zero Action Plan to enhance safety across all SANDAG capital projects and provide technical assistance to local governments to support local safety implementation. Using the data analysis performed as part of the Vision Zero Action Plan and known best practices in infrastructure safety solutions, these solutions will prioritize areas with the greatest needs. The images below represent how safety solutions can be implemented to reduce fatal and serious injury crashes for all modes.



Many streets in our region were designed decades ago. At the time, road designers commonly planned for driver convenience and speed over other road users. We now understand that these types of roads create risk for everyone—particularly when they haven't been designed with walking, biking, and rolling in mind.



The data analysis performed for the Vision Zero Action Plan provides insights into the locations and nature of safety challenges across the region. The systemic implementation of proven road design features can target underlying crash causes, considering people driving, walking, biking, and rolling. For more information on safety solutions, see Appendix C.



Evaluation and monitoring are essential.

By tracking advancement toward the goal of zero and determining the effectiveness of implemented strategies, we can adjust as needed to maintain progress. SANDAG is committed to regular reporting on progress and has established a process for evaluation and monitoring. For more information, see Technical Appendix D.

SANDAG ANNUAL PROGRESS REPORTING



Fatal and serious injury crashes by mode



Fatal and serious injury crashes in Equity Areas



Investment in safety projects

Reaching Vision Zero takes everyone!

As a Metropolitan Planning Organization, SANDAG can advance Vision Zero goals by working at the regional level. To advance these goals at the local level, SANDAG needs the support and partnership of decision makers and leaders across local, state, federal, and tribal levels, including sectors such as public safety, education, transit, community advocacy, and healthcare. We must work together to move toward a future with zero traffic deaths and serious injuries on our roads.

SANDAG ROLES

PARTNER ROLES

- ✓ **Establishing innovative regional policies that prioritize safety**
- ✓ **Facilitating collaboration and bringing everyone to the table**
- ✓ **Providing technical support on safety analysis and implementation**

- ✓ **Developing a local Vision Zero goal aligned with the region's goal**
- ✓ **Including safety improvements in all transportation projects**
- ✓ **Leveraging the tools provided by SANDAG to prioritize and implement safety solutions**

Thank you to everyone who helped with this plan!

This project was funded in partnership with Caltrans, the City of Vista, and the La Jolla Band of Luiseño Indians as part of a Safe Streets and Roads for All Grant provided by the United States Department of Transportation.



TECHNICAL ADVISORY GROUP

- AARP
- Bike SD
- Caltrans
- City of Carlsbad
- City of San Diego
- City of Vista
- Families for Safe Streets San Diego
- La Jolla Band of Luiseño Indians
- La Mesa-Spring Valley Schools
- North County Transit District
- Rancho Santa Fe Fire Protection District
- San Diego County Bicycle Coalition
- San Diego County Childhood Obesity Initiative
- San Diego County Health & Human Services Agency
- San Diego County Sheriff's Office
- San Diego Metropolitan Transit System
- San Diego Quality of Life Coalition
- San Diego Regional Center
- San Diego State University
- Scripps Mercy Hospital Trauma Service
- South Bay Community Services
- University of California San Diego

LOCAL AGENCY PROJECT TEAM

- Caltrans District 11
- City of Carlsbad
- City of Chula Vista
- City of Coronado
- City of Del Mar
- City of El Cajon
- City of Encinitas
- City of Escondido
- City of Imperial Beach
- City of La Mesa
- City of Lemon Grove
- City of National City
- City of Oceanside
- City of Poway
- City of San Diego
- City of San Marcos
- City of Santee
- City of Solana Beach
- City of Vista
- Port of San Diego
- San Diego County

SANDAG COMMITTEES AND WORKING GROUPS

- Borders Committee
- Public Safety Committee
- Regional Planning Committee
- TransNet Independent Taxpayer Oversight Committee
- Transportation Committee
- Interagency Technical Working Group on Tribal Transportation Issues
- Mobility Working Group
- Regional Plan Social Equity
- San Diego Regional Military Working Group
- Social Services Transportation Advisory Council
- Sustainable Communities Working Group

COMMUNITY BASED ORGANIZATIONS

- Bayside Community Center
- City Heights Community Development Corporation
- El Cajon Collaborative
- Olivewood Gardens and Learning Center
- SBCS Corporation
- Urban Collaborative Project
- OpSam Health Inc.

CONSULTANT TEAM

- Fehr & Peers
- Safe Streets Research
- Here LA
- Byrne Communications

Under 23 U.S. Code § 407 and 23 U.S. Code § 148, safety data, reports, surveys, schedules, and lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

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