



## CHAPTER 1

# Countywide Introduction

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The *Napa Countywide Pedestrian Plan* is intended to guide and inform pedestrian infrastructure, policies, programs, and development standards to make walking in Napa County safe, comfortable, convenient and enjoyable for all pedestrians. It strives to improve accessibility for the disabled but does not intend to replace existing ADA Transition Plans.

The *Napa Countywide Pedestrian Plan* is being developed to complement existing planning documents for all Napa County jurisdictions, and ultimately be combined with the *Countywide Bicycle Plan* (NVT, January 2012) to create a *Countywide Active Transportation Plan* that will allow and position the County to effectively compete for project funding. This plan follows the 2015 Caltrans Active Transportation Program (ATP) Guidelines, which outline statewide requirements for what should be included in active transportation plans. The specific requirements from the 2015 ATP Guidelines are listed below in **Table 1** along with the relevant location in this plan.

**TABLE 1: 2015 CALTRANS ACTIVE TRANSPORTATION PROGRAM GUIDELINES - REQUIRED PLAN COMPONENTS**

Active Transportation Plan Requirement	Location in this Plan
The estimated number of existing bicycle trips and pedestrian trips in the plan area, both in absolute numbers and as a percentage of all trips, and the estimated increase in the number of bicycle trips and pedestrian trips resulting from implementation of the plan	Chapter 1, <i>Countywide Walking Trends</i>
The number and location of collisions, serious injuries, and fatalities suffered by bicyclists and pedestrians in the plan area, both in absolute numbers and as a percentage of all collisions and injuries, and a goal for collision, serious injury, and fatality reduction after implementation of the plan	Chapter 1, <i>Countywide Walking Trends</i>
A map and description of existing and proposed land use and settlement patterns which must include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, major employment centers, and other destinations.	Chapters 2-7*, <i>Pedestrian Setting</i>
A map and description of existing and proposed pedestrian facilities, including those at major transit hubs and those that serve public and private schools and, if appropriate, a description of how the five E's (Education, Encouragement, Enforcement, Engineering, and Evaluation) will be used to increase rates of walking to school. Major transit hubs must include, but are not limited to, rail and transit terminals, and ferry docks and landings.	Chapters 2-7*, <i>Priority Projects and Implementation Plan</i> Chapter 8, <i>Support Programs</i>
A description of proposed signage providing wayfinding along bicycle and pedestrian networks to designated destinations	Appendix D
A description of the policies and procedures for maintaining existing and proposed bicycle and pedestrian facilities, including, but not limited to, the maintenance of smooth pavement, ADA level surfaces, freedom from encroaching vegetation, maintenance of traffic control devices including striping and other pavement markings, and lighting.	Chapters 2-7*, <i>Priority Projects and Implementation Plan</i>
A description of bicycle and pedestrian safety, education, and encouragement programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the law impacting bicycle and pedestrian safety, and the resulting effect on collisions involving bicyclists and pedestrians.	Chapters 2-7*, <i>Pedestrian Setting</i>
A description of the extent of community involvement in development of the plan, including disadvantaged and underserved communities	Chapters 2-7*, <i>Public and Stakeholder Input</i>
A description of how the active transportation plan has been coordinated with neighboring jurisdictions, including school districts within the plan area, and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, general plans and a Sustainable Community Strategy in a Regional Transportation Plan.	Chapter 8, <i>Plan Consistency</i>
A description of the projects and programs proposed in the plan and a listing of their priorities for implementation, including the methodology for project prioritization and a proposed timeline for implementation.	Chapters 2-7*, <i>Priority Projects and Implementation Plan</i>
A description of past expenditures for bicycle and pedestrian facilities and programs, and future financial needs for projects and programs that improve safety and convenience for bicyclists and pedestrians in the plan area. Include anticipated revenue sources and potential grant funding for bicycle and pedestrian uses.	Chapters 2-7*, <i>Next Steps</i>
A description of steps necessary to implement the plan and the reporting process that will be used to keep the adopting agency and community informed of the progress being made in implementing the plan.	Chapter 8, <i>Performance Goals</i>
A resolution showing adoption of the plan by the city, county or district. If the active transportation plan was prepared by a county transportation commission, regional transportation planning agency, MPO, school district or transit district, the plan should indicate the support via resolution of the city(s) or county(s) in which the proposed facilities would be located	Chapters 2-7*, <i>Appendix E</i>

\*Chapters 2-7 are individual jurisdiction plans; this information can be found in each jurisdiction plan under the noted section.

## Plan Oversight, Guidance, and Public Involvement

Several groups were involved in guiding the development of the Plan. Those groups and their role in the planning process are listed below:

- Napa Valley Transportation Authority (NVTa) – lead agency
- NVTa Active Transportation Advisory Committee (ATAC) / NVTa Technical Advisory Committee (TAC) - provide guidance and recommendations at key milestones to discuss project progress and topics of countywide significance such as plan vision, prioritization criteria and overall consistency
- Individual Jurisdiction Focus Groups – steering committees consisting of local staff and stakeholders to discuss existing conditions and practices; identify key issues and opportunities; provide input on priority study areas; develop improvement project concepts for focus areas; determine prioritization and implementation planning for project lists; and propose key program and policy recommendations
- Public/Stakeholders – provide input on the locations of key issues and opportunities in each jurisdiction, the vision and goals of the plan, at workshops and via online mapping; participate as key stakeholders in walking audits and the review of improvement concepts for focus areas

## Countywide Vision and Goals

The countywide vision and goals for this plan are intended to guide pedestrian planning in the region. Input was received from the Jurisdiction Focus Groups and the community during the public workshops and incorporated into the following vision and goals.

### Vision Statement

To provide a pedestrian network that is well connected, safe, and enjoyable for Napa County residents and visitors of all levels of mobility. This plan aims to increase the number of pedestrian trips countywide and to set the groundwork for a shift in travel mode choice such that non-motorized options are widely available, accessible, and convenient. Through implementation of this plan and future updates, all Napa County residents, regardless of age or income level, should have easy walking access to their community and the services and amenities that it offers.

### Goals and Policies

The following goals and policies support the overall vision for the plan:

*Goal 1: Provide a connected network of pedestrian sidewalks, trails, and pathways in the County and its jurisdictions that are safe and accessible to a variety of users and that foster community interactions*

Policy 1A: Protect the character and context of the County and its jurisdictions

Policy 1B: Prioritize safe routes to schools, safe routes to transit, and safe routes for seniors within the County

Policy 1C: Acknowledge the central role that the Vine Trail plays in active transportation infrastructure and prioritize connections between the trail and key destinations

Policy 1D: Work to reduce the rate of pedestrian collisions

Policy 1E: Connect key pedestrian desire lines via accessible sidewalks and marked crosswalks, focusing on downtown areas, transit stops, schools, senior housing and destinations, and tourist destinations and lodging

### *Goal 2: Encourage a multimodal transportation system*

Policy 2A: Adhere to the current design standards in this plan as well as local design standards and other national and state manuals when designing new or retrofitted streets and communities

Policy 2B: Investigate the use of performance measures such as multi-modal level of service or built environment factors to facilitate complete streets implementation

Policy 2C: Prioritize infrastructure projects that will increase the walk mode share, while also taking advantage of all available funding opportunities to construct pedestrian infrastructure, including private development with an appropriate nexus

Policy 2D: Investigate creative parking measures such as shared parking, parking maximums, and strategic parking locations to encourage a “park once” environment in commercial districts

Policy 2E: Review new development proposals to ensure pedestrian access and circulation is maintained or improved, including during construction phases

### *Goal 3: Obtain funding for pedestrian projects*

Policy 3A: Continue to allocate Capital Improvement Plan (CIP) funding to pedestrian projects

Policy 3B: Pursue grant funding related to pedestrian projects

Policy 3C: Identify new funding sources and partnership opportunities, such as those focusing on public health and sustainability

### *Goal 4: Encourage and educate residents about walking and enforce safe interactions between pedestrians and motorists*

Policy 4A: Increase public awareness of pedestrian facilities, amenities, and safety

Policy 4B: Pursue recognition such as Walk-Friendly Community status



Policy 4C: Implement ongoing pedestrian safety enforcement programs and campaigns

Policy 4D: Partner with local health agencies to encourage more activity among youth through the built environment to target childhood obesity

Policy 4E: Collaborate with local businesses to enhance wayfinding and streetscape amenities



Calistoga: Washington Street

## Countywide Walking Trends

Napa County is a scenic and historic Bay Area destination that thrives on year-round visitors and its grape vineyards. Located in the North Bay region with the majority of development along SR 29, Napa County is a predominantly rural community with regional access provided by the surrounding highway network. The County is bordered by Sonoma County to the west, Solano and Yolo Counties to the east, and Lake County to the north, as shown in Exhibit 1. The County includes the cities of American Canyon, Calistoga, Napa, and St. Helena; the Town of Yountville; and unincorporated areas.

With historic commercial districts and vital community assets such as open space and trails, the five incorporated jurisdictions accommodate pedestrians in a variety of ways. The various downtown areas offer corridors of shopping and dining destinations that are contributors to the pedestrian environment in the County, and many provide a system of sidewalks and plazas that make the downtown districts pleasant and interesting places to

walk. Residential neighborhoods in the County are typically pleasant places to walk, with some roadways having sidewalks and others having a more rural character.

The unincorporated areas of the County have a predominantly rural character and development is sporadic consisting mostly of residential areas, a few village centers and some institutional uses. Neighborhoods in the unincorporated County include Angwin, Berryessa Estates, Berryessa Highlands, Big Ranch Road, Coombsville, Deer Park, Lake Berryessa (Moskowite Corners, Pope Creek, and Spanish Flat), Silverado, and the South County Industrial Areas. These communities have limited pedestrian infrastructure; neighborhood streets typically do not have sidewalks, and few intersections currently have marked crosswalks.



**Angwin: Howell Mountain Road**





## County Mode Split and Travel Patterns

A common term used in describing demand for bicycle and pedestrian facilities is “mode split”. Mode split refers to the form of transportation a person chooses to take, such as walking, bicycling, public transit, or driving. **Table 2** presents the California Household Travel Survey (CHTS, 2012) data on the percentage mode split for all person-trips in Napa County.

**TABLE 2: NAPA COUNTY DAILY MODE SPLIT**

Mode	All Trips (2012) <sup>1</sup>
Auto	306,598 (88%)
Pedestrian	62,091 (9%)
Bicycle	1,234 (1%)
Transit	2,575 (1%)
Other <sup>2</sup>	2,394 (1%)

1. Percent mode share for all person-trips in Napa County from the California Household Travel Survey (2012).

2. Includes motorcycle and air travel.

Source: Fehr & Peers, 2015.

Walking is a common mode of transportation within the County’s developed communities. The incorporated regions of Napa County have history dating back to the 1800s, and their compact downtown business districts reflect this historic character, creating an inviting pedestrian environment. Neighborhoods located close to the downtown areas allow residents to easily travel on foot between the commercial and residential districts in the county’s incorporated regions. The unincorporated regions within Napa County, comprising the majority of its land area, are of a rural density and character. These regions offer fewer opportunities for pedestrian travel between destinations.

The Countywide Transportation Plan (CTP), Vision 2040, has a goal of shifting travel from single-occupancy vehicles to transit, walking, and bicycling, increasing mode share of all three by 10% by 2035. This plan proposes comfortable and accessible pedestrian improvements to attract new walking trips and increase the walking mode share to meet the goals of the CTP.

Understanding the mode of travel people choose and trip purpose can help jurisdictions develop effective and targeted programs to better serve residents and employees.

Trips of a distance less than one-half mile are typically considered viable for conversion to a walk trip, as it takes about 10 minutes to walk this distance. In Napa County, most commute trips are farther than this threshold, suggesting that a focus on non-commute trips (trips to school, for shopping, or for recreation, as well as visitor trips within commercial areas and hotel zones) will be important to support mode shift goals. Based on the 2010-2012 California Household Travel Survey, 17% of daily trips in the County were one-half mile or less in distance.

### Employees

Based on the California Household Travel Survey, about 70,300 workers are employed within Napa County. This total is comprised of 55,500 Napa County residents, and 14,800 workers who commute from outside Napa County. The average commute distance for residents of Napa County is 9.6 miles, and the typical commute distance for employees in Napa County is 10.4 miles. As shown in **Table 3**, the Napa County residents' commute mode share for walking is 4%, as compared to 9% walk mode share for all person trips.

TABLE 3: NAPA COUNTY RESIDENTS' JOURNEY TO WORK		
Mode	Employed Napa County Residents	
	Total Employees	Percent of Total
Drove Alone	49,355	76.0%
Carpool	7,591	11.7%
Public Transportation	630	1.0%
Walked	2,785	4.3%
Bicycle	551	0.8%
Taxicab, motorcycle, other	426	0.7%
Worked At Home	3,538	5.5%

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

### Visitors

Visit Napa Valley conducted a year-long visitor profile study in 2012 to gather data on lodging guests, day-trip visitors, and visiting friends and relatives (VFRs) staying overnight in private homes. The research found that an estimated 2.9 million visitors came to Napa Valley in 2012 with the largest percentage (66%) being day-trip visitors. As shown in **Table 4**, about 21% of the visitors that responded to the 2012 survey reported traveling within the Napa Valley area on foot during their stay. This suggests pedestrian improvements focused on tourist destinations and safety education messages targeted for tourists are important considerations in the County.



TABLE 4: VISITOR TRANSPORTATION PRIMARY MODE USED WITHIN NAPA VALLEY

Mode	Percent of All Napa Valley Visitors
Personal automobile	58.9%
Rental car	37.7%
Walk	20.9%
Limousine	4.8%
Bicycle	4.3%
Taxi	4.3%
Hotel Shuttle or courtesy vehicle	2.0%
Bus line	1.0%

Source: Visit Napa Valley, 2012 Napa Valley Visitor Profile

### Forecasted Pedestrian Demand

Based on the Metropolitan Transportation Commission (MTC) *Plan Bay Area*, the region plans to increase its bicycle, pedestrian, and transit mode shares by a total of 10% by 2040. This growth in alternative modes will be the result of bicycle, pedestrian, and transit infrastructure improvements and programs in the coming decades. NVTa forecasts that alternative mode shares will grow by this same percent by 2040, and that this growth will be equally split among the three modes, as a result of implementation of project and program recommendations in this plan, the Napa County Bicycle Plan, and planned transit improvements.

To capture work, tourism, recreational, and shopping trips within Napa County, this estimate solely evaluates trips with an origin and destination point within Napa County. Using a baseline of 2012 (from the 2010-2012 California Household Travel Survey), there are 54,885 daily walking trips in Napa County, 12.2% of all intra-county trips. This mode share is expected to increase to 15.5% in 2040 (**Table 5**).

TABLE 5: DAILY TRIPS WITH ORIGINS AND DESTINATIONS IN NAPA COUNTY

Year	2012		2040	
Population	136,644 <sup>1</sup>		163,609 <sup>2</sup>	
Mode	Daily Trips <sup>3</sup>	Mode Share	Daily Trips	Mode Share <sup>4</sup>
Drive Alone	216,713	48.0%	229,464	42.5%
Drive Shared	168,114	37.2%	178,005	32.9%
Transit	2,953	0.7%	21,551	4.0%
Walk	54,885	12.2%	83,731	15.5%
Bike	3,323	0.7%	21,993	4.1%
Other	5,376	1.2%	5,693	1.1%
Total	451,365	100%	540,437	100%

1. Source: 2008-2012 American Community Survey

2. Source: Vision 2040, Moving Napa Forward (2015)

3. Source: California Household Travel Survey (2010-2012)

4. Assumes a 3.3% increase in walk, bicycle, and transit mode shares. Drive alone, drive shared, and other trips are decreased by a total of 10%, each reduced proportional to 2012 mode share.

The population of Napa County is expected to increase by 27,000 people from 2012 to 2040. Based on an increase in both population and mode share, daily pedestrian trips in the County are forecast to grow to 83,731, a 53% increase.

## Collision Trends

Collision data was accessed from the California Highway Patrol Statewide Integrate Traffic Records System (SWITRS). This data represents all reported pedestrian-vehicle collisions occurring in Napa County during the ten-year period from January 2003 to December 2012. **Table 6** summarizes the collision data by year and severity of collision. Fourteen fatalities were reported during the ten-year period. Nearly all of the reported collisions (96 percent) resulted in some form of injury.

TABLE 6: NAPA COUNTY PEDESTRIAN-VEHICLE COLLISION SUMMARY (2003 – 2012)

Year	Pedestrian Injuries	Proportion of All County Injuries <sup>1</sup>	Pedestrian Fatalities	Proportion of All County Fatalities <sup>1</sup>	Total Pedestrian Collisions	Proportion of All County Collisions <sup>2</sup>
2003	37	2.6%	1	3.6%	1,466	2.6%
2004	32	2.3%	2	8.0%	1,398	2.4%
2005	25	1.9%	2	8.3%	1,312	2.1%
2006	34	2.6%	1	6.7%	1,340	2.6%
2007	24	2.2%	1	6.7%	1,100	2.3%
2008	34	3.1%	2	11.1%	1,118	3.2%
2009	40	4.2%	2	14.3%	948	4.4%
2010	28	3.2%	2	16.7%	894	3.4%
2011	25	2.8%	1	12.5%	893	2.9%
2012	23	2.4%	0	0.0%	949	2.4%
Total	302	2.7%	14	8.4%	11,418	2.8%

Source: SWITRS, TIMS

<sup>1</sup> “All county injuries” and “all county fatalities” describe pedestrian injury and fatal collisions, respectively, as a percentage of all reported injury and fatal traffic collisions, respectively and regardless of mode, in Napa County during the study period.

<sup>2</sup> Traffic collision total does not include collisions that did not result in injuries (e.g. “property damage only” collisions).

Minor collisions that involve pedestrians, whether with vehicles or bicycles, are generally underreported <sup>1</sup>. Additionally, collisions that occur on off-street paths and trails are not included in the SWITRS data.

### Demographics

Children and seniors are two of the most vulnerable populations in the context of pedestrian-involved collisions. As shown in Figure 1 and Figure 2 below, pedestrian-involved collisions including children are the most common within the County and in American Canyon. Yountville has the highest percentage of collisions involving seniors. Targeting safe routes to school and for seniors, respectively, may be of particular importance in these jurisdictions.

<sup>1</sup> Sciortino, S., Vassar, M., Radetsky, M. and M. Knudson, “San Francisco Pedestrian Injury Surveillance: Mapping, Underreporting, and Injury Severity in Police and Hospital Records,” *Accident Analysis and Prevention*, Volume 37, Issue 6, November 2005, Pages 1102-1113



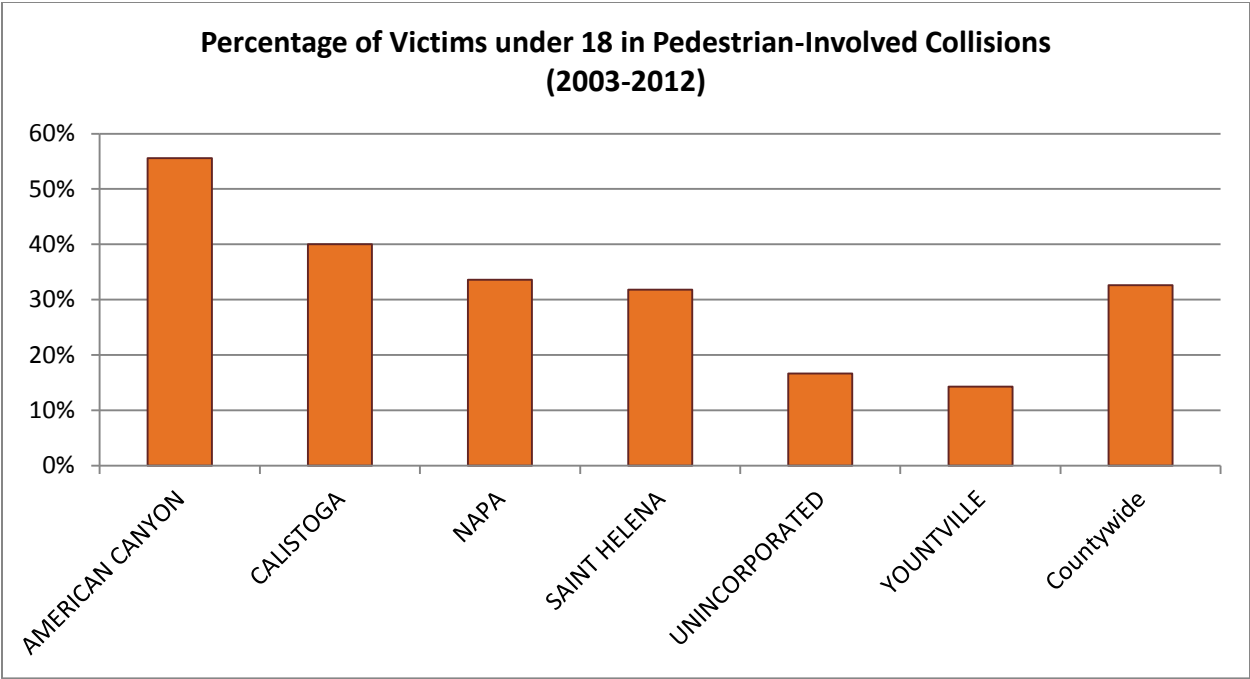


Figure 1 Countywide Child-Involved Pedestrian Collisions

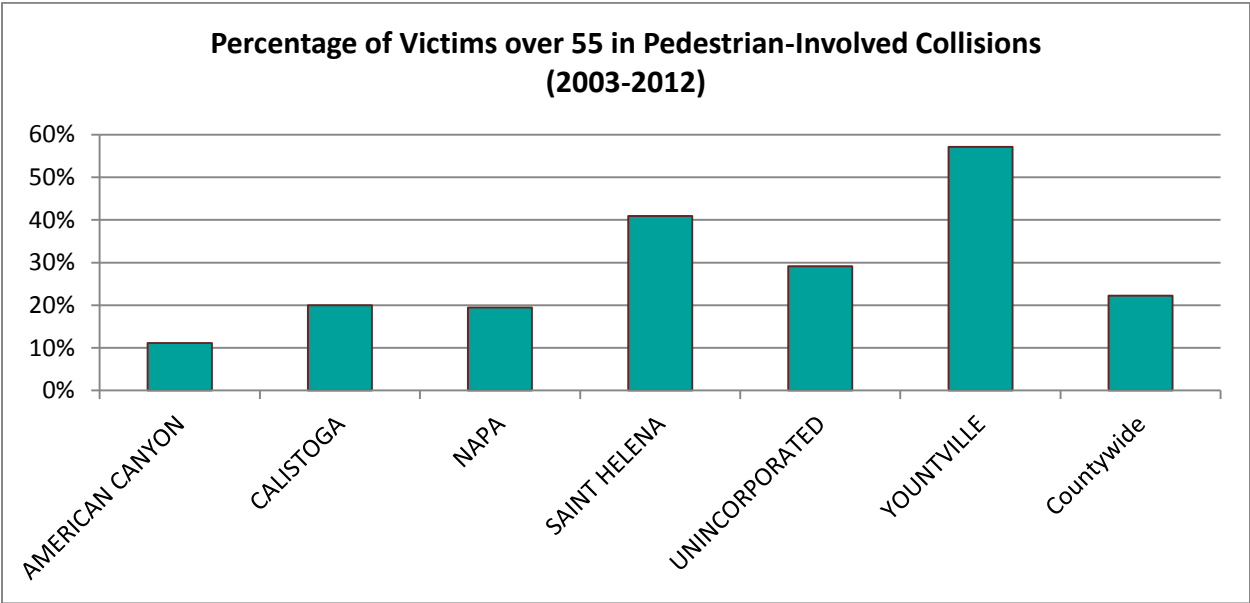


Figure 2 Countywide Senior-Involved Pedestrian Collisions

### Daily and Seasonal Trends

Collisions in the County peak Thursday through Saturday, at the same time that tourism levels are high, as shown in Figure 3. Similarly, collisions are higher in the Fall, during Crush season. The holiday season and perhaps also rainier/darker days in December and January contribute to the trend, as shown in Figure 4.

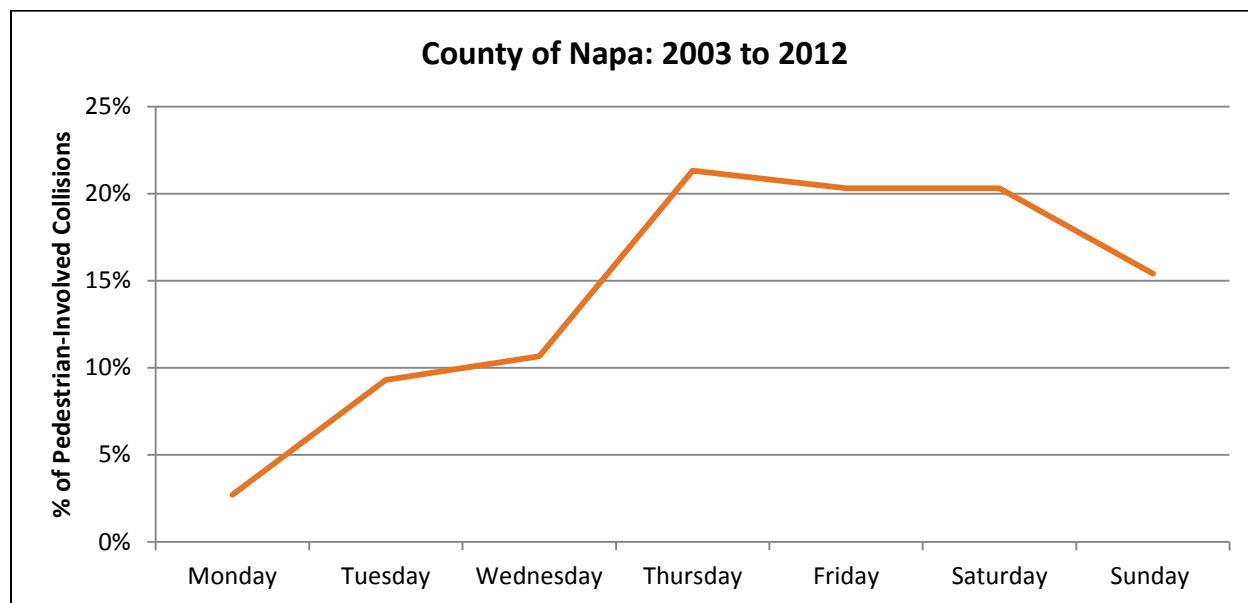


Figure 3 Daily Trends for Pedestrian-Involved Collisions

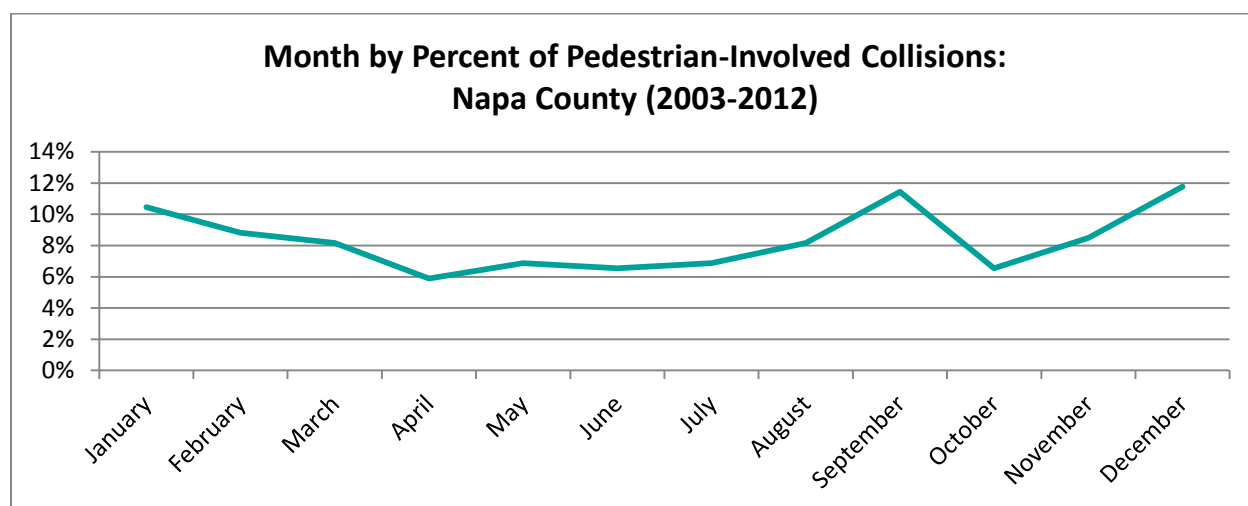


Figure 4 Seasonal Trends for Pedestrian-Involved Collisions

### Primary Collision Factors

**Table 7** shows the most common Primary Collision Factors (PCFs) for pedestrian-involved collisions in Napa County.

TABLE 7: NAPA COUNTY PEDESTRIAN-INVOLVED COLLISION SUMMARY PRIMARY COLLISION FACTORS (2003-2012)			
Primary Collision Factor	Number of Collisions		
	Injury	Fatality	Total
Pedestrian Right of Way (Driver not yielding)	105	0	105
Pedestrian Violation	69	5	74
Other	68	3	71
Unknown	35	2	37
Unsafe Speed <sup>1</sup>	25	4	29

Source: SWITRS

1. Refers to unsafe speeds given roadway conditions. This could refer to traveling above the posted speed limit or traveling too fast given the weather conditions (but still at or below the posted speed limit).

As shown in Table 7, the most common Primary Collision Factor (PCF) was drivers not yielding the right-of-way to pedestrians followed by pedestrians crossing illegally (such as crossing against a signal or midblock between signals). Illegal crossings and unsafe vehicle speeds were the leading causes of pedestrian fatalities based on the collision reports over the ten-year period.

The Pedestrian Action variable in the SWITRS dataset describes what the pedestrian was doing immediately before the collision occurred. **Table 8** shows the most common Pedestrian Actions for pedestrian-involved collisions in Napa County.

TABLE 8: NAPA COUNTY PEDESTRIAN-INVOLVED COLLISION SUMMARY PEDESTRIAN ACTIONS (2003-2012)			
Primary Actions	Number of Collisions		
	Injury	Fatality	Total
Crossing in Crosswalk at Intersection	133	3	136
Crossing Not in Crosswalk	82	5	87
Walking In Road, Including Shoulder	58	5	63
Walking, Not in Road	14	1	15
Crossing in Crosswalk, Not at Intersection	10	0	10
Not Stated	4	0	4

Source: SWITRS

As shown in Table 8, the most common pedestrian actions were “Crossing in Crosswalk at Intersection” and “Crossing Not in Crosswalk”. This data emphasizes the importance of enhancing existing marked crosswalks and



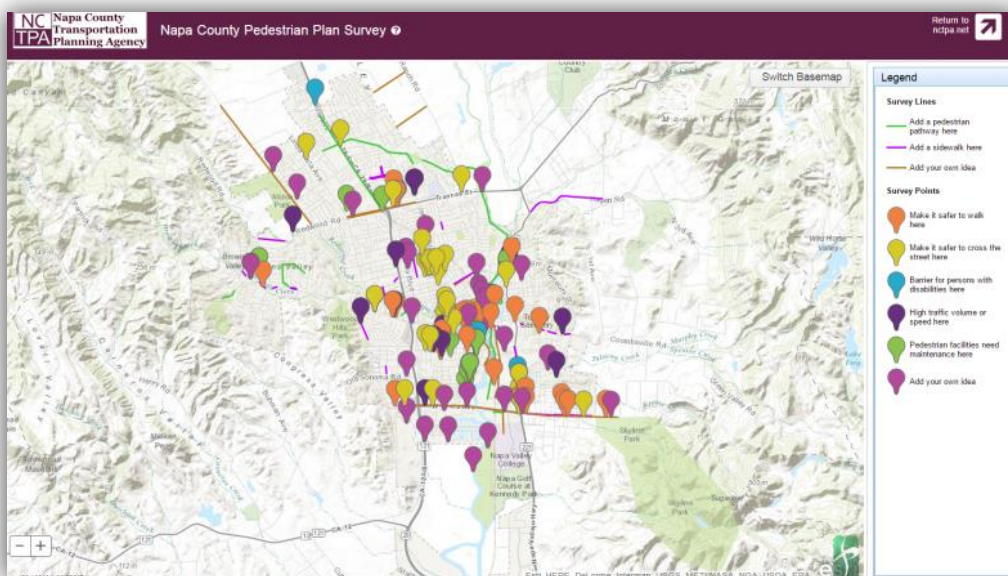
improving access and safety at key desire lines, or the shortest or most easily navigated path of travel between an origin and destination. Education and enforcement regarding pedestrian right-of-way may also be indicated.

## Community Input

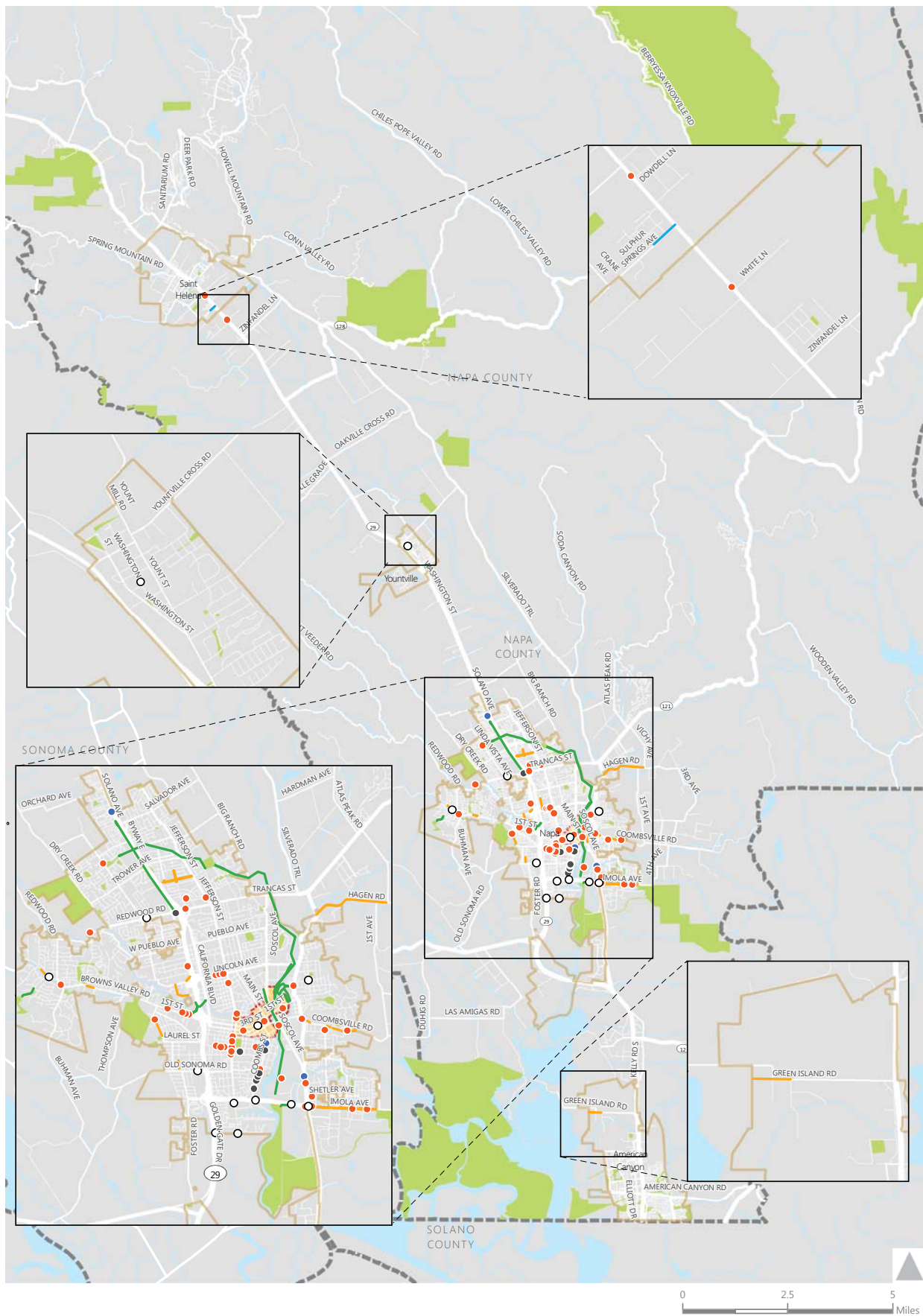
Ongoing public outreach and participation was an integral element in developing the Countywide Pedestrian Plan. Public workshops were held throughout the County in Winter 2015 and were open to all members of the public countywide. For information on format of the public workshops and specific input received in each jurisdiction, refer to Chapters 2 through 7. Napa County residents, employees, and visitors who wanted to provide input but were unable or did not wish to attend the public workshops had the option of submitting their comments online through an interactive mapping tool.

Users placed pins on the maps to highlight desired improvements using pre-set comments or creating their own comment. Preset comments included:

- Make it safer to walk here
- Make it safer to cross the street here
- Barrier for persons with disabilities here
- High traffic volume or speed here
- Pedestrian facilities need maintenance here
- Add a sidewalk here
- Add a pedestrian pathway here



Results from the 70 comments submitted countywide are shown below in Exhibit 2.



### Individual Jurisdictions

The following chapters provide individual Pedestrian Plans by jurisdiction. Each chapter focuses on one geographic area within the County, moving from north to south. The location-based chapters are ordered as follows:

- Chapter 2: Calistoga
- Chapter 3: St. Helena
- Chapter 4: Yountville
- Chapter 5: Napa
- Chapter 6: American Canyon
- Chapter 7: Unincorporated

The chapters all contain the same format with information framed specifically for that jurisdiction. Content includes pedestrian setting, countywide public and stakeholder outreach, key opportunity areas within the jurisdiction, priority projects and implementation, and a discussion on funding needs and sources for the jurisdiction plan. These chapters are meant to act as standalone plans to be used in conjunction with key recommendations in the Countywide Implementation Chapter of the countywide plan (Chapter 8), which highlights key countywide support programs and performance goals.