

NCTPA Countywide Bicycle Plan



Prepared for



Napa County Transportation & Planning Agency



City of American Canyon



City of St. Helena



City of Calistoga



Town of Yountville



City of Napa



County of Napa

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Executive Summary

This Napa Countywide Bicycle Plan presents a cooperatively-developed 25-year vision for building a complete bicycling system for our community. It also presents a carefully chosen set of specific goals, objectives, and policies to guide the ongoing evolution of that system.

Napa County, with its varied terrain, beautiful scenery, and mild weather is ideal for both practical and recreational cycling. Cities in the County are relatively flat and compact, characteristics that are optimal for intra-city commute and utilitarian trips. Currently, inter-city travel on the valley floor via bicycle can be challenging because of the distance between the cities, limited connections, and roads with high-speed traffic. Outside of the cities and valley floor, the County's mountains, valleys, and scenery provide a "world class" experience that is a physically challenging and attractive for recreational cyclists.

This Plan has been developed at a time when there has been a strong surge of interest in bicycling in Napa County, as well as in the Bay Area Region, the nation and the world. New programs, systems and technologies have been emerging month by month, spurred on by an intention to reduce greenhouse gas emissions, to promote more active, healthy transportation options, to reduce traffic congestion, and to provide connections between our communities. The Napa Vine Trail Coalition, dedicated to creating a Class I Multi-use Path the full length of Napa Valley, has emerged as a popular community organization, made up of 27 of the county's most influential non-profit and government groups. The Napa Bicycle Coalition, recently re-named "Napa Bike," has energized the cycling community to become an even more active participant in the development of cycling resources in the county. The local "Safe Routes to School" program has been expanding rapidly, now serving schools throughout Napa County. The Napa County Transportation and Planning Agency (NCTPA) has adopted a long range strategic goal of having 10 percent of all trips made by bicycle in Napa County. This new Countywide Bicycle Plan is one way that NCTPA looks to accomplish this goal, in close partnership with the governments, non-profit organizations and citizens of our community.

This Plan is made up of two major elements:

1. A specific set of existing and proposed Class I, II and III bikeways, presented on a set of maps and a linked set of data tables that describe the routes, including their beginning and end points.
2. A set of supportive policies and programs designed to make maximum safe use of existing routes, and to promote turning "proposed" routes into reality.

This Plan is presented in two parts:

1. The Countywide Overview, which describes elements that are common to all six Napa jurisdictions. The Overview covers:
 - Vision and Goals
 - Background and Partners
 - Objectives and Policies
 - Existing Conditions
 - The Recommended Bicycle System
 - Implementation
2. Six jurisdiction-specific planning documents, one each for the Cities of American Canyon, Napa, St. Helena and Calistoga, one for the Town of Yountville and one for Napa County.

The Plan has been developed over the past year with active participation of several key groups: the staff of each City, Town and County; the local bicycle committees, made up of citizens appointed by the local governments; the general cycling community, which has been invited to all planning meetings; and the public at large, which was invited to two "bicycle summits" held at key points in the development of the Plan.

A Bicycling Vision and Goals for Napa County

Vision

There will be a comprehensive, interconnected bicycle system throughout Napa County, including connections to the rest of the Bay Area region. There will also be development patterns and programs that will support access to this system and provide people with safe, convenient and enjoyable. Bicycling is common for everyday trips and recreation, contributing to the quality of life in Napa and the health, safety and welfare of its residents, workers and visitors. Napa is known as a bicycle friendly community, achieving the highest level of certification from the League of American Bicyclists, with a “world class” bicycling system.

Goals

Principal Goal – To develop and maintain a safe and comprehensive countywide bicycle transportation and recreation system that provides access, opportunities for healthy physical activity, and reduced traffic congestion and energy use. Policies, programs and projects work together to provide safe, efficient and enjoyable opportunities for bicyclists of all types, ages, and abilities to access public transportation, school, work, recreation areas, shopping and other activity centers, and residential neighborhoods, and to connect Napa jurisdictions to each other and the region.

Goal from the NCTPA Strategic Plan, “Napa’s Transportation Future” – Increase the percent of countywide trips made by bicycle to 10 percent.

Background and Partners

Relationship to Local Plans and Other Relevant Land Use, Transportation, Air Quality, and Energy Planning Efforts

Implementation of the NCTPA Countywide Bicycle Plan will require coordination, consistency, and cooperation amongst numerous jurisdictions and agencies with varied interests that implement policy and maintain regulatory authority over land-use and transportation decisions within and immediately adjacent to Napa County. Local bicycle plans in American Canyon, Calistoga, Napa, St. Helena, Yountville, and the County of Napa supplement this overview document and comprise the Napa Countywide Bicycle Plan. Additionally, there are a number of federal, state, regional, county, and local agencies that have developed plans, programs, directives, policies, and regulations related to funding, planning, designing, operating, maintaining, and using transportation systems and bicycle facilities. These agencies and their plans, policies, and supporting information have been evaluated for coordination, consistency, and conformance with this Plan as identified by Caltrans and stipulated in the Streets and Highways Code Section 891.2. Relevant documents, policies, and supporting information are summarized and provided in Appendix A.

Bicycle Plan Development and Public Participation

The Bicycle Plan was developed over an 18-month period in 2010/11. The Plan was prepared by a consulting team working closely with NCTPA staff, a Project Steering Committee, local agency staff, Bicycle Advisory Committees or other responsible groups from the County and Napa’s cities, stakeholders, and the public and interested citizens. The 2011 Napa Countywide Bicycle Plan builds upon the efforts of the 2003 Plan and integrates new projects, partnerships, concepts, and programs.

Public participation was an important component in the development of the Countywide Bicycle Plan. The NCTPA and plan participants solicited public input on existing conditions for bicyclists, potential improvement projects and programs, and site-specific issues such as safety concerns, access, connectivity, bicycle parking, and other items needed to improve conditions for bicyclists.

Implementing Partners



Implementation of the Countywide Bicycle System and encouragement of its use is a responsibility shared by all government agencies and jurisdictions in the Plan Area. It relies not only upon the development of good plans, but commitment at each level of government to support bicycle projects and programs. Whereas each agency has a different level of responsibility for building capital facilities, the implementation of education and encouragement programs is a responsibility shared fairly equally among all agencies.

- Cities and County
- Napa County Transportation Planning Agency
- Metropolitan Transportation Commission
- California Department of Transportation (Caltrans)
- Regional Trail Agencies
- Transit Agencies
- Private Developers
- Local Advisory Committees
- Napa County Health and Human Services Agency
- Napa County Office of Education, School Districts, and Schools

Objectives and Policies

In addition to the countywide policies indicated below, each jurisdiction may choose to identify additional local policies. These additional policies are shown in the jurisdiction-specific plans that accompany this countywide overview. (Full text of all policies, including responsible agencies, is contained in the body of the Plan – pages 9-14)

Objective 1.0: The Countywide Bicycle Network

Establish a comprehensive, safe, connected countywide bicycle transportation and recreation system to support increases in bicycle trips made throughout the County to 10 percent of all trips by 2035.

Policies

- 1.1 Develop and maintain a local and countywide bicycle transportation and recreation network that connects Napa's neighborhoods and communities . . .
- 1.2 Develop and maintain contiguous north-south and east-west Class I pathways . . .
- 1.3 . . . ensure that all transportation projects on designated bicycle routes include, enhance or maintain bicycle transportation facilities.
- 1.4 . . . cooperatively with all responsible departments and agencies . . . to close existing gaps in facilities and ensure the network is funded, designed, constructed, and maintained.
- 1.5 Consider the needs of all types of bicyclists
- 1.6 Establish and/or maintain local and countywide bicycle advisory committees

Objective 2.0: Design

Utilize accepted design standards and "best practices" to facilitate completion of a connected bicycle system that is safe, convenient and enjoyable to use.

Policies

- 2.1 (use standard official guidelines) as well as evolving “best practices”
- 2.2 . . . assure that all approaches to signalized intersections include bicycle detection devices . . .
- 2.3 Provide consistent enhanced crossing features at uncontrolled intersections with Class I trails.
- 2.4 Where standard Class II bike lanes are infeasible under current conditions, consider innovative approaches to safely accommodate bicycles . . .
- 2.5 Install way-finding signage, markers, and stencils on off-street paths, on-street bikeways, local Class III routes, and State Routes . . .
- 2.6 Improve safety and access for bicyclists at all at-grade railroad crossings . . .

Objective 3.0: Multimodal Integration

Develop and enhance opportunities for bicyclists to easily access public transit and other transportation resources.

Policies

- 3.1 Require transit providers to provide and maintain convenient and secure bike parking facilities . . .
- 3.2 Require local and regional transit agencies to accommodate bicycles on all transit vehicles . . .
- 3.3 Plan for additional bicycle storage capacity on transit vehicles . . .
- 3.4 Consider a “Safe Routes to Transit” program that prioritizes bicycle and pedestrian access to transit stops and centers . . .
- 3.5 Encourage the development of “staging areas” as a component of trail development and other bikeway projects . . .
- 3.6 Develop strategies and work with private landowners/businesses to provide bicycle parking at strategic locations . . .

Objective 4.0: Comprehensive Support Facilities

Ensure development of comprehensive support facilities for bicycling such as short- and long-term bicycle parking, end of trip amenities, bicycle staging areas, repair stations, and other resources such as bicycle maps, guide information, and on-line tools.

Policies

- 4.1 Require adequate . . . bicycle parking for non-residential uses as required in local standards.
- 4.2 Provide adequate short-term bicycle parking and long-term bicycle storage for transportation centers . . .
- 4.3 Work with businesses and private property owners to provide bicycle parking at existing employment, retail, and commercial sites . . .
- 4.4 Encourage employers to provide secure indoor and/or covered bicycle parking for their employees . . .
- 4.5 Encourage major employers to provide shower and locker facilities for workers . . .
- 4.6 Encourage local school district to provide well located, secure bicycle parking at schools. [NCTPA, cities, towns, County]
- 4.7 Design Class I Trails to incorporate high-visibility crossing treatments, pedestrian scale lighting, street furniture, drinking fountains, interpretive elements, and other amenities . . .

Objective 5.0: Safety and Security

Create a countywide bicycle system that is perceived to be safe for bicyclists of all types and age groups, and work to reduce collisions involving bicyclists by 50 percent by the year 2035. (Use 2008 collision data as the baseline for analysis and perform periodic progress evaluations at 5-year intervals to benchmark progress.)

Policies

- 5.1 Coordinate the delivery of bicycle Safety Education Programs to schools . . .
- 5.2 Focus on improving safety at intersections . . .
- 5.3 Focus on improving safety at railroad crossings . . .
- 5.4 Safety improvements in the vicinity of schools, major public transit hubs, civic buildings, shopping centers, and other community destinations shall be given a high priority for implementation.
- 5.5 Improve ongoing collection and analysis of collision data . . .
- 5.6 Promote targeted enforcement of violations that focus on primary collision factors . . .

Objective 6.0: Land Use

Support and strengthen local land use policies for compact, mixed use development in appropriate areas, and for designing and constructing bicycle facilities as part of new development projects.

Policies

- 6.1 Condition discretionary projects to provide needed bicycle improvements . . .
- 6.2 In accordance with CEQA Guidelines, projects that could result in the loss of existing bicycle facilities or jeopardize future facilities included in this Plan must be mitigated.
- 6.3 Encourage school districts to participate in providing safe and continuous bicycle and pedestrian connections from surrounding neighborhoods . . .

Objective 7.0: Education and Promotion

Develop programs and public outreach materials to promote safety and the positive benefits of bicycling.

Policies

- 7.1 Develop and implement a multimedia countywide bicycle and pedestrian safety and education campaign . . .
- 7.2 Expand the delivery of Safe Routes to Schools curriculum to all elementary and middle schools annually . . .
- 7.3 Educate law enforcement personnel, agency staff, elected officials, and school officials about the benefits of non-motorized transportation, and the safety needs of bicyclists and pedestrians.
- 7.4 Develop and maintain a public bikeway map and user guide . . .
- 7.5 Distribute bicycle and pedestrian safety, educational, and promotional materials . . .
- 7.6 Encourage events that introduce the public to bicycling and walking . . .
- 7.7 Encourage major employment centers and employers to facilitate commuting by bicycle . . .

Objective 8.0: Planning

Continue to update and integrate bicycle-related transportation projects into land use and recreation plans and roadway improvement projects.

Policies

- 8.1 The countywide and/or local Bicycle Advisory Committee (BAC) shall be responsible for advising staff and decision makers on the ongoing planning and coordination of the countywide bicycle transportation system.
- 8.2 Update and adopt the Bicycle Plan in accordance with the California Bicycle Transportation Act, and to coordinate with Regional Transportation Plan updates.
- 8.3 Participating jurisdictions shall update their general plans to incorporate the key contents of this Bicycle Plan.

- 8.4 Consider local and the Countywide BAC as a resource to review roadway improvement projects,
- 8.5 Proactively seek new opportunities for acquisition of . . . rights-of-way . . . for the development of new Class I multi-use pathways . . .
- 8.6 . . . maintain on-street bikeways where off street pathways or alternative routes are proposed. Existing bikeways should not be altered or eliminated without consulting local bicycle advisory committees.
- 8.7 . . . assign staff to assume bicycle coordination duties to oversee implementation of the Countywide Bicycle Plan and coordinate activities between affected departments . . .

Objective 9.0: Maintenance

Maintain and/or improve the quality, operation, and integrity of bicycle infrastructure.

Policies

- 9.1 Maintain geometry, pavement surface condition, debris removal, markings, and signage . . . to the same standards and condition as the adjacent motor vehicle lanes.
- 9.2 Develop or retain a maintenance reporting system with a central point of contact to report, track, and respond to routine bicycle maintenance issues . . .
- 9.3 Require that road construction projects minimize their impacts on bicyclists through the proper placement of construction signs and equipment, and by providing adequate detours . . .
- 9.4 Consider bicycle safety in the routine maintenance of local roads and seek to, at a minimum . . .
 - Trim vegetation . . .
 - Clear debris . . .

Objective 10.0: Funding

Work to maximize the amount of funding to implement bicycle projects and programs throughout the county.

Policies

- 10.1 Seek varied sources of funding, . . .
- 10.2 Encourage multi-jurisdictional funding applications . . .
- 10.3 Promote the availability of adequate regional, state and federal funding sources . . .

Existing Conditions

Issues, Opportunities, and Constraints

There are a variety of challenges associated with the planning and development of bicycle facilities throughout Napa County. General challenges are listed below and include:

- | | |
|---|--|
| • Limited Local Funds | • Bikeway Continuity |
| • Limited Right-of-Way | • Maintenance |
| • Public Support and Perception | • Bicyclists come in all Sizes, Ages, Skill Levels and Degrees of Confidence |
| • Physical Barriers | • Real and Perceived Safety Concerns |
| • Accommodating Bicyclists on Rural Highways, Arterials, and Roadways | • Lack of Respect between Motorists and Bicyclists |
| • Railroad Tracks | • SR 29 Divides Napa's Communities |
| • Narrow Bridges | • Limited North-South and East-West Connections |
| • Traffic Signal Detection | • Distance Between Communities |
| • Construction Zones | • Visitors and Tourism |
| • Plan and Policy Support | |
| • Routine Consideration | |

Existing Bicycle Programs

There are a variety of existing entities and programs throughout Napa County that work to support and promote bicycling. Existing activities are aimed at improving the safety and convenience of getting around by bicycle and boosting ridership levels. Some of these existing programs have been in place for years, while others such as the County Office of Education Safe Route to Schools Program are relatively new. In some cases, the programs are city or county funded; in others, they are non-profit or volunteer run. Many of the existing programs are delivered on a by-request basis, rather than annually or at regular intervals. Further, there is little coordination amongst existing programs or entities, which tends to limit the delivery and impact of the efforts. Existing entities that provide support programs and/or current activities include:

- Napa County Bicycle Coalition – Napa Bike
- Napa Valley Vine Trail Coalition
- Napa County Office of Education
- Napa Valley Car Free
- Napa County Health and Human Services Agency Activities
- Street Smarts Traffic Safety Campaign
- Eagle Cycling Club
- Focused Law Enforcement Activities
- Bicycle Fairs, Races, and Community Events
- Bike to Work Day/Month Activities
- Bicycle Tours
- Bicycle Maps

Existing Bikeway Network

Primary Bikeway Network

A new element of this planning effort has been the designation of a countywide Primary Bikeway Network – a continuous countywide network of on- and off-street bikeways that extends between and through communities. The Primary Bikeway Network consists of a selection of existing and proposed Class I, Class II, and Class III bikeways that provide inter-city and inter-county routes along with connections to other transportation modes, major destinations, jobs, neighborhoods, recreation, and local bicycle networks. The network typically includes a north-south and east-west route through each community. The intention of the network is to focus and collaborate on a set of basic routes that will provide access to major destinations and activity areas.

Bikeways Inventory (Maps, Database, Description)

The Countywide Bikeway Network consists of Class I multi-use paths, Class II bike lanes, and Class III bike routes and bicycle boulevards. A comprehensive inventory of existing bikeways is provided in tabular format by jurisdiction within the local agency plans. Existing bikeways are shown on the bikeway maps, Figures I through II.

Safety Plan

Bicycle Collisions and Safety Analysis

This section addresses safety conditions for bicyclists and includes a review of the California Office of Traffic Safety's (OTS) collision rankings, the Statewide Integrated Traffic Records System, Seasonal Trends in Napa County, an understanding of the limitations of bicycle collision reporting, an analysis of bicycle collisions throughout the County for the most recent 10 years for which collision data was available at the time of the analysis, identification of the top ten collision locations throughout the County by intersection and segment, and a review of urban and rural bicycle crash types.

Safety, Education, Encouragement, and Enforcement Programs

The Countywide Bikeway Network has been planned to provide safe, convenient access for all types of bicyclists to destinations throughout Plan Area. Like all other modes of transportation, the system and its network of facilities must be used appropriately to maximize the safety of all users, bicyclists, pedestrians, and motorists alike. To help minimize safety risks, it is imperative that bicyclists and motorists follow basic traffic laws. For bicyclists, this includes activities such as riding in the correct direction, stopping at stop signs and traffic signals when the light is red, riding predictably, and taking proper measures to be visible day and night; and for motorists yielding to turning bicyclists, passing with care, and not driving or parking in designated bicycle lanes, to name a few behaviors for both.

Recommended Bicycle System

Proposed Bikeway System

The proposed bikeway system consists of an interconnected network of Class I pathways, Class II bike lanes, and Class III bike routes to complete both the local and primary countywide bikeway networks, along with various safety enhancements, bicycle support facilities, and programs designed to improve safety and encourage bicycling.

The local and primary bikeway networks have been planned to link residents, visitors, and bicyclists of all ages and types between residential areas and community destinations including schools, parks, shopping, civic buildings, employment centers, and regional trails and bikeways.

While the projects in this Plan have received a preliminary feasibility evaluation, engineering and environmental studies will be required prior to project implementation to determine project specific issues such as right-of-way impacts, traffic operations, parking impacts, and/or environmental issues.

Programs

The bikeway system must be comprised of more than just bikeways to realize increases in the number of people who choose to bicycle, and to achieve the community benefits associated with an increase in bicycle trips and a reduction in vehicle miles traveled. Therefore, in addition to the construction of bicycle facilities and supporting infrastructure, it is critical that steps be taken to mainstream bicycling as a viable transportation option. To raise the awareness level of the rights and responsibilities of bicyclists and motorists and to forge a higher level of understanding between those on our roads and paths, a variety of education, encouragement, and enforcement activities are recommended.

- Education and Awareness
- Countywide Traffic Safety Campaign
- Share the Road Campaign
- Bicycle Ambassadors
- Bike Share Programs
- Local Agency Bicycle Fleets
- Education and Encouragement Activities
- Signing Program
- Countywide Bicycle Parking Program
- Maintenance Monitoring and Reporting System

Implementation

This section identifies the activities and actions that are necessary to implement the physical improvements, facilities, and programs contained in this Plan, along with the estimated costs for the proposed improvements, maintenance requirements, and funding and financing strategies.

Successful implementation of the projects and programs contained in the Bicycle Plan will require ongoing cooperation within and amongst the NCTPA, local agencies, and various stakeholders including other public agencies and bicyclists. The planning horizon for the projects identified in this plan is the year 2035.

Implementation of the projects in this plan will occur incrementally in a variety of ways. Many projects will be incorporated into local agency's Capital Improvement Program (CIP) processes and will be implemented as the CIP projects get funded. Others can happen as part of regular maintenance and operations practices and road resurfacing projects. Development and/or redevelopment in some areas will present a significant opportunity to implement some of the recommendations of this Plan.

Amending the Countywide Bicycle Plan and Maps between Updates

NCTPA will update the map of existing and proposed bikeways each year in January important changes may be made more frequently if required. The NCTPA Bicycle Advisory Committee (BAC) meets monthly on the fourth Monday of each month and will review submitted requests for changes.

Project Costs

Construction costs for bicycle infrastructure are presented in Table i. The costs below are for planning level estimates. They are unit costs for construction and do not include contingencies, design, environmental analysis, administrative costs, right-of-way acquisition, or inflation factors.

Table i
Construction Cost Assumptions for Bikeway Improvements

| Capital Project | Unit | Cost |
|--|-------------|-------------------|
| Class I: Multi Use Trail | | |
| Construct Multi-Use Pathway | Mile | \$550,000 |
| Rehabilitation | Mile | \$125,000 |
| Class II: Bike Lanes | | |
| Install Signs, Striping, & Stencils | Mile | \$30,000 |
| Reconfigure Roadway Striping, add Bike Lanes | Mile | \$75,000-\$90,000 |
| Class III: Bike Route | | |
| Install Signing (Up to 10 signs per mile) | Mile | \$2,500 |
| Bicycle Boulevard | | |
| (Signing and Stencils Only) | Mile | \$4,500 |
| (Traffic Calming Treatments) | Each | \$2,000-\$60,000 |

Program Costs

This plan includes a variety of collaborative programmatic improvements and actions that will help achieve the vision of increased bicycling throughout Napa County and bicycle safety improvements for each community. The programs and actions are important to help realize Plan vision and safety enhancements and should be implemented as soon as time and funding resources are available. Costs for individual programs and actions are highly variable and dependent upon the scope and scale of actions. Table 5 identifies the primary programmatic improvements, which are defined in greater detail in earlier sections, includes a range of estimated costs, a potential lead agency, likely partner agencies, and potential funding sources.

Funding Resources

This section provides an overview of funding mechanisms available to implement the bicycle projects and programs contained in this plan. Due to its dynamic nature, transportation financing is complex.

Implementation of bicycle facilities, improvements, and programs is made possible by a wide variety of funding sources including Federal, State, Regional, and Local Governmental sources, private sector development and investment, and community, special interest and philanthropic organizations.

Federal, State, Regional, and Local Governmental Sources

Transportation funds are divided into myriad funding programs. In general, federal funds are used for capital projects. State funds are used for new capital projects too, but also cover maintenance costs. Regional and local funds are the most flexible, and may be used for capital project, maintenance, and operational costs, and programmatic improvements.

The primary implementers of infrastructure projects are city and county public works departments. Project selection is typically based on planning processes involving public participation. Additionally, schools and school districts can be project implementers.

Private Sector Development and Investment

Private sector development and investment play an important role in funding non-motorized infrastructure. Many newer housing and retail developments throughout Napa County have been planned, or required, to include sidewalks, pathways, and bicycle facilities. Private development is expanding its focus on “smart growth” and balanced transportation options. This inherently builds in orientation to the bicycle and pedestrian modes. Sometimes developers also fund such amenities as bicycle racks, bicycle storage, benches, lockers and shower facilities. Additionally, in many locations improvements such as closure of gaps in sidewalks or road widenings are made only after a private land use change is approved. Improvements or right-of-way dedication can be made conditions of approval, allowing upgrades for bicyclists and pedestrians.

Community, Special Interest and Philanthropic Organizations

Other non-governmental sources of funding include the contributions of community-based organizations, such as the Napa County Bicycle Coalition and the Napa Vie Trail Coalition, in carrying out programs that support bicycle usage.

Plan Maintenance and Revision

This Plan is a complex living document and will be continuously revised in the years to come. Each of the six jurisdictions in our community has staff members (in the public works and/or planning departments) who work together with the NCTPA to bring the elements of the plan to life. Most communities also have local citizen committees dedicated to the implementation, upkeep and revision of this plan. Other community organizations, such as the Napa Valley Vine Trail Coalition and NapaBike also participate in cooperatively overseeing the implementation of this plan. Throughout the year, these groups will review recommendations from the community for revisions to the plan. Based on this input, the NCTPA will revise the set of existing and proposed routes each year in January and we will revise the entire plan every five years. Special amendments may also be made at any time