



WESTERN RIVERSIDE ACTIVE TRANSPORTATION PLAN

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Table of Contents

Executive Summary	1
Introduction	5
What is the Active Transportation Plan?	5
Goals, Objectives & Strategies	7
Aspects of Active Transportation	12
Existing Conditions	15
Setting	15
Policy Context	18
Current Active Transportation Efforts	20
Regional Active Transportation Network	24
Overview	24
Stakeholder Involvement	30
Relevant Active Transportation Projects	33
Health & Active Transportation	37
Implementation	44
Conclusion and Next Steps	53
References	54
Project Sheets	59
Technical Appendices	140

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EXECUTIVE SUMMARY

The Western Riverside Council of Governments (WRCOG) strives to support all residents and visitors of WRCOG whether they choose to walk, bike, take transit, or drive. This Active Transportation Plan (ATP) focuses on enhancing the non-motorized infrastructure throughout the region, in hopes of developing a robust network for people who choose or need to walk and/or bike. Improvements to the active transportation network will ultimately benefit all users of the transportation system by providing more transportation choices. This plan serves as a resource for WRCOG member jurisdictions and stakeholders to help identify important active transportation facilities they would like to see in their community and provides guidance on how each individual project can be achieved.

The region's decision makers and representatives have provided input to this plan. A year-long outreach effort was conducted to develop a regional active transportation network; one that is supported by facilities that both span across the region and also offer local

connections to the many communities in the WRCOG area. The result is a network of 24 regional routes, many of which cross multiple jurisdictions and provide access to regional destinations. Forty-four local routes with regional significance, which were identified by local Planning and Public Works Directors, link to the regional routes to facilitate mobility and access for all cities and neighborhoods. Figure 1 shows the proposed regional network across western Riverside.

Chapter 2 of the document will provide an introduction into the project. The following chapter of the Active Transportation Plan provides an overview of the existing conditions in the region, with a focus on non-motorized modes of transportation. The ATP then provides an overview of the proposed active transportation regional network, with background information on the development process and its relation to other WRCOG projects happening in tandem with this plan. Each individual regional active transportation facility has its own detailed summary, which

provides statistics and data that will aid in the funding and implementation process. Implementation and funding strategies that are relevant to the entire region are also provided at the end of the document.

Doing outreach across Western Riverside County made one thing clear: jurisdictions are ready and willing to get to work to improve active transportation infrastructure region wide. In hopes of capitalizing on the interest and collaboration of the ATP, this plan has identified a handful of "near-term strategies", summarized below, that will keep the conversation going and help move communities towards designing, funding, and implementing active transportation projects.

Open Streets Community Festivals

Southern California has many successful examples of Open Streets events to emulate in Riverside. These include events such as Ciclavia and SCAG Go Human campaigns. WRCOG is willing to

advertise and help facilitate these types of temporary, tactical urbanism-driven events throughout the region. The idea is to be impactful, and have stakeholders and community members better understand the concept of active transportation. These events allow people of all ages and background to engage with non-motorized facilities in a controlled environment. It can get jurisdictions excited enough to implement change. Another benefit of these events is that it continues the momentum of the ATP. If staff changes occur in decision making positions, an Open Streets Event can help put focus back on the projects established as part of this effort.

Champion Building

It is important for decision makers and community members to be able to speak knowledgeably about active transportation so that the conversation continues for identifying the best projects for implementation. Western Riverside County is willing to invest in training programs that focus on different aspects of active transportation.

This training could be done at WRCOG headquarters, or in a video format. Training topics could include: basics of Complete Streets, impacts of lacking active transportation infrastructure, and active transportation decision making. The trainings would be tailored to different audiences, including high level trainings for Directors/Leaders, and more detailed trainings for line staff. Advocates and community members could also take part in some of the trainings that are offered. By building a group of people more conversant in active transportation, the Western Riverside County will have more support in moving toward project implementation when the opportunities arise.

Holistic Safety Improvements

The safety of bicyclists and pedestrians is one of the most importance aspects of active transportation planning for the Western Riverside County. Near-term safety improvements can be done by targeting two aspects: policy and education. Policy based safety improve-

ments include focusing more time and money to efforts such as Safe Routes to School or Vision Zero. By applying to the state-funded Systemic Safety Analysis Report Program, safety issues could be better identified and a list of systemic low-cost countermeasures could be developed. Education could be enhanced to focus on stakeholder outreach to involve key stakeholders in active transportation related activities or field visits that help change motivate communities for change. Field trips to challenging facilities, or areas without any active transportation infrastructure in place, would help stakeholders better understand the current conditions and challenges faced by users. It would also allow improvements to be better tied into other maintenance or construction efforts, if the decision makers were aware of critical areas of need.

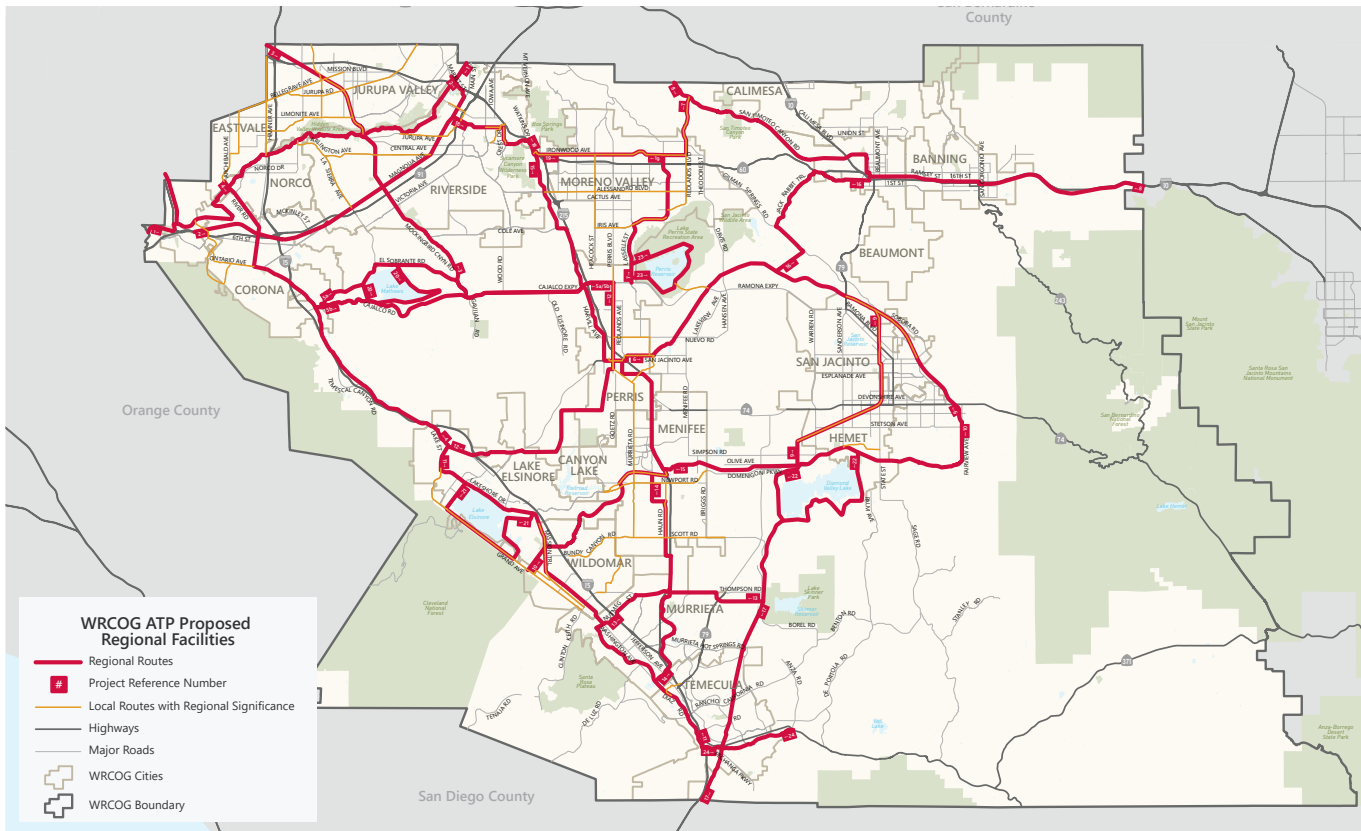


Figure 1. Proposed Active Transportation Network Map

Identifying New Funding Opportunities

One of the greatest barriers to implementation is funding for active transportation projects. This plan will provide an overview of many of the common grants and funding sources that are available to jurisdictions in Western Riverside County. It is also important to come up with a list of ideas for unique ways to collect funds. There are funds that may not obviously relate to active transportation, such as climate adaptation funding, but could be pursued by emphasizing the link between non-motorized modes and their minimal impacts on the environment. Other unique ways to fund projects could include crowd funding, or requiring a local match to implement projects. There are examples across the nation, such as in Denver and Newport Beach, where business and residents contributed to the construction of important community projects. The flip side of obtaining more funds is making construction or maintenance more affordable. By reducing the cost of infrastructure, through the identification of

innovative design and construction techniques, the region will be able to stretch its money further. Jurisdictions can share best practices throughout Western Riverside County when they find cost-effective ways to implement change. This has been done, and may continue to be done, through WRCOG's committees. Lastly, WRCOG is committed to reaching out to cities that need funding assistance. Staff is ready and willing to help with applications processes and to identify ways to implement and construct projects around the region.

Immediate Action Items

From these above strategies, there are a handful of recommended actions that should be implemented as soon as possible. Listed below in order of priority, these are actions the Western Riverside County can take on to help build momentum and encourage the implementation of facilities identified in the Active Transportation Plan:

1. Plan for a kick-off Open Streets Event: Have Western Riverside County sponsor an Open Streets event that simultaneously markets the Active Transportation Plan and its regional projects
2. Begin identifying training courses: To assist in Champion Building, identify the subject matter for training courses that are most valuable for jurisdictions
3. Develop formal Safe Routes to School Program: Providing a comprehensive approach to make school routes safer for children to walk and bike to school.
4. Advertise TUMF funding: Encourage that active transportation projects are built as part of the infrastructure using TUMF funding.
5. Influence the built environment to support multi-modal transportation:
6. Develop bicycle parking guidelines as a model for the region that addresses parking for commercial, residential, and office uses
7. Develop region-wide wayfinding signage themes and standards

The implementation of the facilities proposed in the ATP could result in:

- Over 500 miles of new active transportation infrastructure
- 56% of the total population served by new regional facilities (live within 1/2-mile from a proposed route)
- Seven connections to Metrolink stations in Riverside County
- Improved Level of Traffic Stress and safety
- Serve 155 public service locations (including libraries, malls, museums and hospitals) within ¼-mile of the proposed network
- Serves 50% of all households with no vehicle available in the WRCOG area
- Serves 109 schools within ¼-mile of the proposed network

This Active Transportation Plan is organized into five chapters. The Introduction is an overview of the Plan's development process. The Existing Conditions chapter reviews the physical, context, policy environment and concurrent active transportation efforts in Western Riverside County. The Regional Active Transportation Network chapter outlines the proposed projects, and includes summary sheets for each project. The Implementation chapter outlines the approach and considerations for active transportation projects, including funding and level of effort required. Finally, the Conclusion and Next Steps chapter summarizes the goals of the plan, and key steps in its implementation.

The report also contains five technical appendices, which include the following:

- An introduction and overview of Complete Streets
- A guide for Complete Streets design around freeway facilities

- An overview of Level of Traffic Stress (LTS) bicycle rider classifications
- A review of effective strategies that have been utilized in the implementation of active transportation plans
- The complete set of outreach materials used throughout the development of the Western Riverside Active Transportation Plan

INTRODUCTION

What is the Active Transportation Plan?

The Western Riverside Council of Governments (the Western Riverside County) Active Transportation Plan (ATP) identifies facilities to enhance and increase active transportation options in the region. Active transportation refers to non-motorized and non-pollutant modes of transportation, and for the purpose of this plan active transportation focuses primarily on people walking and biking. The ATP builds on the Western Riverside County Non-Motorized Transportation Plan (NMTP) published in June 2010, by

significantly updating active transportation network improvement projects, implementation strategies, and funding opportunities found in that plan. The NMTP was helpful in identifying the gaps in the regional active transportation network, and few of the proposed projects were implemented. The goal and purpose of the ATP is to provide guidance to WRCOG and its member agencies in identifying projects, planning for them, and being able to successfully implement them. Improving the connectivity and safety of the active

transportation network throughout the WRCOG region will encourage more bicycling and walking. WRCOG worked closely with all its member agencies and other stakeholders to develop this ATP. The success of the ATP will rely on member agencies continuing to move the proposed projects forward and implementing components of the regional network, while utilizing WRCOG as a facilitator and advisor along the way.

Why Develop An Active Transportation Plan?

There are state, regional, and local initiatives that support the development of an Active Transportation Plan.

At the state level, SB 734 clearly states that localities must, “more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions.” This provides legislative intent to move towards a



Raised Crosswalk

more multi-modal transportation future. It also acknowledges that transportation impacts are going to be measured differently in the coming years. This emphasis on improving public health through active transportation is precisely what the ATP is hoping to help achieve.

The Western Riverside Active Transportation Plan was also developed to reflect the overarching vision of California's Active Transportation Program and of the Western Riverside sub-region. Ideas and intentions were reviewed from the Non-Motorized Transportation Plan (2010), the Southern California Association of Governments' (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy and its Active Transportation Appendix. The ATP was formulated to align with and support state and federal vehicle miles traveled (VMT) reduction efforts, the WRCOG Sustainability Framework, as well as GHG reduction objectives outlined in Riverside County's Climate Action Plan.

The WRCOG Active Transportation Plan goals were crafted to reflect the overarching vision of California's Active Transportation Program and of the Western Riverside sub-region. Goals were reviewed from the Non-Motorized Transportation Plan (2010), the Southern California Association of Governments' (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy and its Active Transportation Appendix.

Goals, Objectives & Strategies

ATP Goals for WRCOG

In order to guide the development of a regional network for WRCOG goals, objectives and strategies were established at the onset of the project.

Goals were also formulated to align with state and federal vehicle miles traveled (VMT) reduction efforts, the WRCOG Sustainability Framework, as well as GHG reduction objectives outlined in Riverside County's Climate Action Plan.

The five goals to guide active transportation planning in Western Riverside are:

1. Establish a "regional network of bicycle and pedestrian facilities through prioritization of local projects" to maximize regional mobility as stated in the Sustainability Framework.
2. Enhance safety, remove barriers to access, and correct unsafe conditions in areas of traffic and bicycle/pedestrian activity.

3. Provide active transportation modes as affordable options to reduce criteria pollutants, greenhouse gas emissions, and VMT.

4. Address public health through design and infrastructure that encourages residents to use active transportation as a way to integrate physical activity into their daily lives and improve future air quality.

5. Foster healthy, equitable, and economically vibrant communities

where all residents have greater transportation choices and access to key destinations, such as jobs, medical facilities, schools, and recreation through cohesive land use and transportation decisions.

Though these goals were developed to specifically relate to active transportation, many of the goals are multi-modal in nature and other co-benefits for all users of the various transportation systems.



Pedestrians in Pasadena, CA



Bicycle racks installed at building entrance

Objectives

The objectives were crafted to identify the specific ways in which the scope of the ATP supports the overarching vision outlined by the goals above. Compared to the goals, which are aspirational in nature and may be affected by other regional efforts or other trends outside WRCOG's control, the objectives are more specific to the ATP and are actions that WRCOG can take related to the implementation of the plan.

The seven objectives of the ATP are as follows:

1. Work with partners to create a regional active transportation network, through the coordination of transportation funding and infrastructure improvements among member cities and regional entities.
2. Identify and develop supporting programs and policies related to active transportation focused on education/encouragement, enforcement, equity, economics, and evaluation.
3. Provide guidance for setting regional active transportation policies and develop guidelines to encourage future investments.
4. Develop a funding strategy, increase dedicated funding for bicycle and pedestrian infrastructure, and explore opportunities to expedite implementation.
5. Promote healthy and active living with increased physical activity for residents of all ages in the region
6. Improve connectivity to important local and regional destinations.
7. Create a safer environment by significantly decreasing bicycle and pedestrian fatalities and injuries.

Strategies

The following strategies, organized by subject matter, can help the Western Riverside region and individual member agencies achieve the desired goals and objectives listed above.

Safety

- Address the actual and perceived safety/security concerns that limit biking and walking from being considered as viable mode choices through targeted educational efforts.
- Locate routes along high visibility corridors that contain a mix of commercial, civic/institutional (schools, hospitals), recreational, and community facilities and away from blighted structures or sites. This strategy, called "context-sensitive design", directly serves the needs of bicyclists and pedestrians and can enhance public safety for all through the related "eyes on the street" concept.



Cyclists riding in a buffered bike lane (Credit: Adam Coppola Photo)

- Enforce proper and safe driving, bicycling, and walking practices and habits.
- Build bicycle and pedestrian infrastructure that is removed, separated, or buffered from automobiles.
- Provide adequate and consistent lighting along active transportation facilities.
- Install bicycle “fix-it” stations equipped with an emergency communication system on off-street, long-distance pathways.
- Update the infrastructure capital improvement project list to prioritize projects that would proactively address areas with substantial pedestrian or bicyclist-involved collision history.
- Conduct targeted enforcement efforts, with citations and educational materials that focus on safe

and lawful behavior for all road users. Enforcement can be targeted at areas such as schools, public facilities, and locations with demonstrated collision history.

- Monitor, record, and regularly review bicyclist and pedestrian-involved collisions.
- Where bike theft occurs regularly (i.e., schools, downtown areas), consider additional law enforcement presence or a standard reporting and documenting process for bicycle theft.

Accessibility

- Prioritize corridors with existing or planned bicycle/pedestrian facilities.
- Provide bicycle detection at intersections and pedestrian activated push-buttons.
- Install bicycle parking throughout downtown retail areas (individual cities).

- Install bicycle parking in the public right-of-way, such as in converted car parking spaces, serving major destinations. Develop bicycle parking guidelines as a model for the region that addresses parking for commercial, residential, and office uses
- Adopt a bicycle amenities ordinance that requires or provides incentives for developers of new commercial buildings to install showers and clothing lockers for bicycle commuters.
- Develop region wide active transportation wayfinding signage (including distances and travel times).

Maintenance and Funding

- Pursue active transportation and multi-modal funding to implement the projects in this plan. Sources for funding include, but are not limited to, State and Federal Safe Routes to School grants, California



Crosswalk pushbutton for pedestrian warning device

Bicycle Transportation Account, Caltrans Transportation Planning Grants, SCAG RTIP Call for Projects, and ATP Call for Projects.

- Set goals for pursuing funding (e.g., submitting at least two non-motorized grant-funding applications per year).
- Improve pavement conditions and give priority to designated bike routes and corridors with high bicycle ridership.
- Keep roads and bike lanes clear of debris (prioritize street sweeping on routes with curbside bike lanes).
- Identify employees who will serve as a bicycle and pedestrian coordinator and manage non-motorized transportation projects and ongoing route maintenance.
- Coordinate street repaving, facility upgrades, and restriping with bicycle plan implementation and prioritize projects that include bicycle infrastructure.

Assign a funding source to keep sidewalks maintained.

Education/Community Involvement

- Promote increased driver awareness and respect for bicyclists and pedestrians (also under safety).
- Pursue Office of Traffic Safety grants for outreach campaigns.
- Consider expanding the ATP into a website/blog with permanent bicycle and pedestrian information hosted within the City's web domain, similar to the successful examples in Los Angeles, such as the Department of Transportation Bicycle Services website (<http://www.bicyclela.org>) and LADOT Bike Blog (<http://bike.lacity.org>).
- Conduct targeted outreach of proposed bicycle and pedestrian related improvements and events to educate local residents and employees, and garner greater interest and support. Target outreach at:

- » Schools and universities (as part of the Safe Routes to School efforts)
- » Cycling groups/shops
- » Merchant associations
- » Downtown Business Association
- » Public events and festivals
- Establish a standing Bicycle and Pedestrian Advisory committee such as the Inland Empire Biking Alliance that meet regularly with City staff to discuss walking and bicycling issues. The role of the committee includes identifying key problems, crafting public outreach campaigns, promoting bicycle and pedestrian programs, and serving as an interface between the City and community members/advocacy organizations.
- Establish Bike-Friendly Business Districts (BFBDD). The program encourages merchants and their customers to replace cars with bicycles. The City works with local business owners in certain retail



Family bicycling on a dedicated bicycle/pedestrian over-crossing

districts to offer incentives including discounts for bicyclists, free bike valet, free bike tune-ups, bicycle parking, and special stickers. This creates an incentive to travel by bicycle and benefits merchants, who often see an increase in customers.

- Conduct active transportation demonstrations through tactical urbanism, informing the community of what types of facilities could-be made permanent.

Encouragement/Evaluation

- Establish a car-free festival similar to the popular events thorough Southern California. Open streets events have proven to be an effective strategy to encourage active living.
- Conduct walk/bicycle audits as part of outreach strategies for new development projects or as a comprehensive Safe Routes to School (SRTS) program. A walk/bicycle audit leads stakeholders on a set course to discuss bicyclist/pedes-

trian safety concerns and strategies to improve safety.

- Partner with schools and the Inland Empire Bicycle Alliance to conduct annual bicycle and pedestrian counts, to implement an annual monitoring program that conducts bicycle and pedestrian counts once a year, or require that all traffic study counts include bicycles and pedestrians to estimate bicycling levels and changes in bicycling levels over time.
- Develop metrics to measure the impact of walking and bicycling on public health, resident and merchant perceptions, environmental impact, amount of cycling, and safety (note: it may not be possible to measure the impact of bicycling alone).

Equity

- Improve the ability of traditionally under-served communities to travel safely and conveniently via walking or biking.
- Involve the community in the planning process, with a foundation of transparency, inclusiveness, respectfulness, and trustworthiness.
- Develop active transportation routes that connect residents to key destinations including school, work, and retail.
- Help provide alternatives to the personal automobile that allow for local and regional mobility.

Aspects of Active Transportation

Benefits

Active transportation results in many societal benefits. The table below summarizes literature that links and quantifies those benefits. Rails to Trails (2010) has estimated the total value of fuel savings and health and environ-

mental benefits resulting from active transportation to be \$239.3 million in 2009 and predicts those benefits will increase to between \$412.6 and \$725.4 million by 2030 as the adoption of active transportation infrastructure grows.

Social Benefit	Literature Review
Physical Fitness and Health	- Higher neighborhood walkability was associated with decreased prevalence of overweight, obesity, and diabetes between 2001 and 2012 in Ontario, Canada (Creatore, et al. 2016). - The prevention of premature deaths due to active transportation amounts to a value of \$235 billion per year (in \$2009) (Rails to Trails, 2010).
Environmental	In 2009, an estimated 849 gallons of fuel were saved due to active transportation, and as a result 14 million tons of carbon dioxide was not emitted into the environment (worth \$147 million in environmental harm) (Rails to Trails, 2010).
Congestion	17 billion vehicle miles were avoided due to bicycling and walking for trips less than 1 mile; 10 billion vehicle miles were avoided due to bicycling and walking for trips between 1 and 3 miles (Rails to Trails, 2010) - Bikeshare stations reduce traffic by 4 percent or more compared with added trips that would otherwise occur (Hamilton and Wichman, 2016).
Safety	- The World Health Organization (2008) found total crash costs decrease due to increased active transportation because active transport minimizes risks to other road users and total per capita mileage decreases as active transport increases. - Places with high rates of walking and bicycling are associated with low per capita traffic fatality rates (Fiestberaad, 2008; ABW, 2010) “Safety in numbers” effect (WHO, 2014) - Pedestrian risk for collisions decreases as walking in an area increases (Geyer et al. 2005).
Financial	As a result of low maintenance costs and no fuel requirements, biking is one of the most affordable transportation modes (Granville et al., 2001). There are no costs to walking. Comparatively, the cost of owning and operating a vehicle that is driven 10,000 miles or more a year is over \$7,000 (McGrath).

Table 1. Benefits of Active Transportation

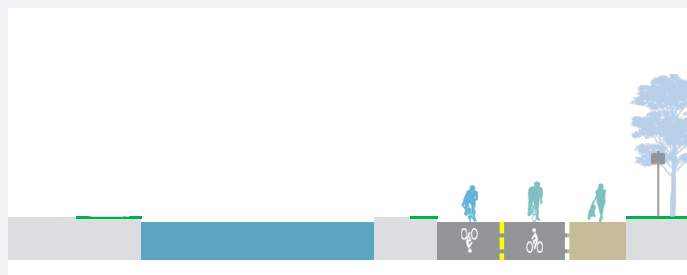
Types of Active Transportation Facilities

There are many different bicycle/pedestrian facilities and techniques that can be implemented to improve the active transportation network. Bicycle

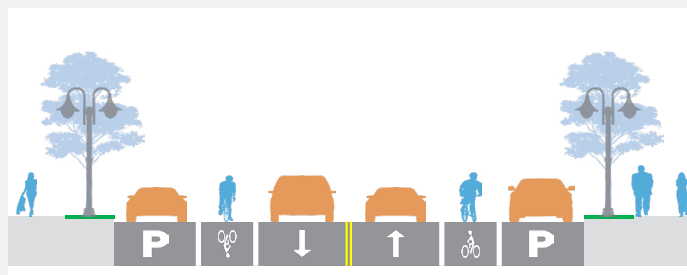
and pedestrian infrastructure enhancements can decrease modal conflict, increase safety through traffic calming, and improve travel time reliability for all modes. There are a mix of bicycle and pedestrian infrastructure solutions, with varying costs and complexi-

ties, dependent on the problem being addressed.

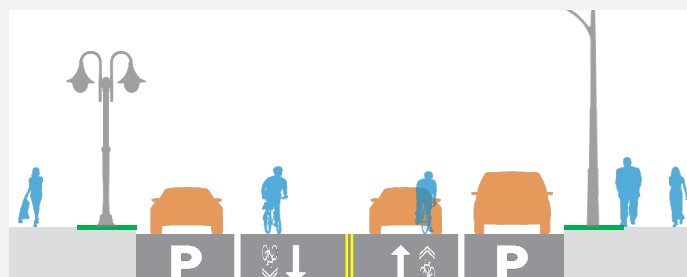
The following are common bicycle infrastructure options and their classifications:



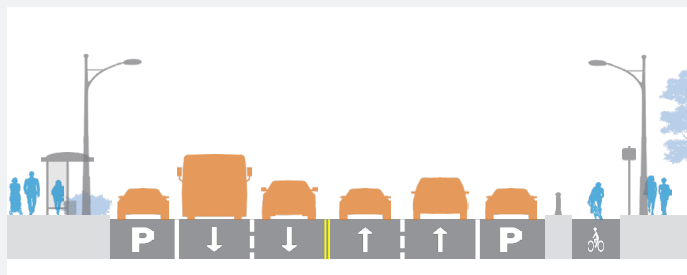
Bike Paths (Class I) are paved rights-of-way completely separated from streets. Bike paths are often located along waterfronts, creeks, railroad rights-of-way or freeways with a limited number of cross streets and driveways. These paths are typically shared with pedestrians and often called shared use paths.



Bike Lanes (Class II) are on-street facilities designated for bicyclists using stripes and stencils. Bike lanes may include buffer striping to provide greater separation between bicyclists and parked or moving vehicles. Bike lanes are the preferred treatment for all arterial and collector streets on the bikeway network, and not typically installed on low-volume, low-speed residential streets.



Bike Routes (Class III) are streets designated for bicycle travel and shared with motor vehicles. While the only required treatment is signage, streets are designated as bike routes because they are suitable for sharing with motor vehicles and provide better connectivity than other streets. These streets may be designed to promote shared use with lower posted speed limits (preferably 25 mph), shared lane bicycle markings ("sharrows"), and signage. Bike Boulevards, a type of Class III facility, are bike routes on residential streets that prioritize through trips for bicyclists. Traffic calming is included as needed to discourage drivers from using the boulevard as a through route.



Separated Bikeways (Class IV), also known as Cycle Tracks, provide space that is exclusively for bicyclists and separated from motor vehicle travel lanes, parking lanes, and sidewalks. Parked cars, curbs, bollards, or planter boxes provide physical separation between bicyclists and moving cars. Where on-street parking is allowed, it is placed between the bikeway and the travel lanes (rather than between the bikeway and the sidewalk, as is typical for Class 2 bike lanes).

Pedestrian infrastructure is not organized in a similar class structure. Pedestrian infrastructure can vary from low cost to substantial investments. Infrastructure improvements can include signage, striping, physical construction, and streetscape compo-

nents. A handful of typical pedestrian-friendly facility types or improvements are listed below:



Street Crossings these improvements serve several functions, including making pedestrians more visible, reducing vehicle speeds, and increasing safety. Street crossing elements can include:

- Marked crosswalks – paint, flashing lights, advanced yield marks and signs
- Signalized crosswalks – appropriate and accessible push button and signal placement; countdown signals
- Adding medians or islands to wide or complex crossings
- Bulb-outs or extensions of curbs or sidewalks



Signs and Signals – tools that improve safety and encourage drivers to reduce speeds. Signs and signal elements can include:

- In-street pedestrian signs – placed on median or centerline to inform drivers to yield to pedestrians
- Pedestrian signals and beacons – treatments that enhance the visibility of people walking and biking
- Pedestrian crossing signs – visual cues to look for pedestrians
- Wayfinding – provide directions
- Walk signals – dedicated crossing time for pedestrians at signalized intersections



Sidewalks serves as a space designated for pedestrians and also provides amenities such as trees, benches, and lighting

The Manual on Uniform Traffic Control Devices (MUTCD) is a good resource that outlines mandatory pedestrian crossing signs, barricades, gates, and other markings. In addition to the regulated crossing and intersection designs, there are additional MUTCD guidance and noteworthy practices that further promote pedestrian safety. The National Association of City Transportation Officials (NACTO) and the American Association of State Highway and Transportation Officials (AASHTO) also provide useful guidance and resources on street designs, and how to best incorporate successful bicycle and pedestrian infrastructure amongst the other modes.

EXISTING CONDITIONS

Setting

The Western Riverside Council of Governments (WRCOG) serves as the Council of Government for Western Riverside County, which includes 18 incorporated cities and unincorporated County areas, covering an area of approximately 2,100 square miles (Figure X). The sub-region's population is over 1.7 million people and is projected to grow to approximately 2.4 million residents by the year 2035.

The 18 cities in the WRCOG sub-region include those with established, older cores as well as newly developed communities. The older, central-city areas have traditional street patterns with smaller, well-connected blocks that lend themselves well to walking and bicycling. Most of the newer areas have street patterns with residential cul-de-sacs that depend on multi-lane arterials where people go outside their neighborhoods. Most of the bicycle and pedestrian circulation in those relatively newer areas will depend on these arterial streets and highways, as well as off-road corridors like waterways, rail lines, utility easements, and public

land.

To better serve all modes and users, agencies and stakeholders may need to rethink how the transportation network is designed and built. By developing and implementing the Western Riverside County Active Transportation Plan, the region can increase the number of non-motorized trips, resulting in a decrease in vehicle trips, greenhouse gas emissions, and an increase in safety and health conditions for the community.



On-Street Parklet, Example of infrastructure that can emphasize livability for all users.

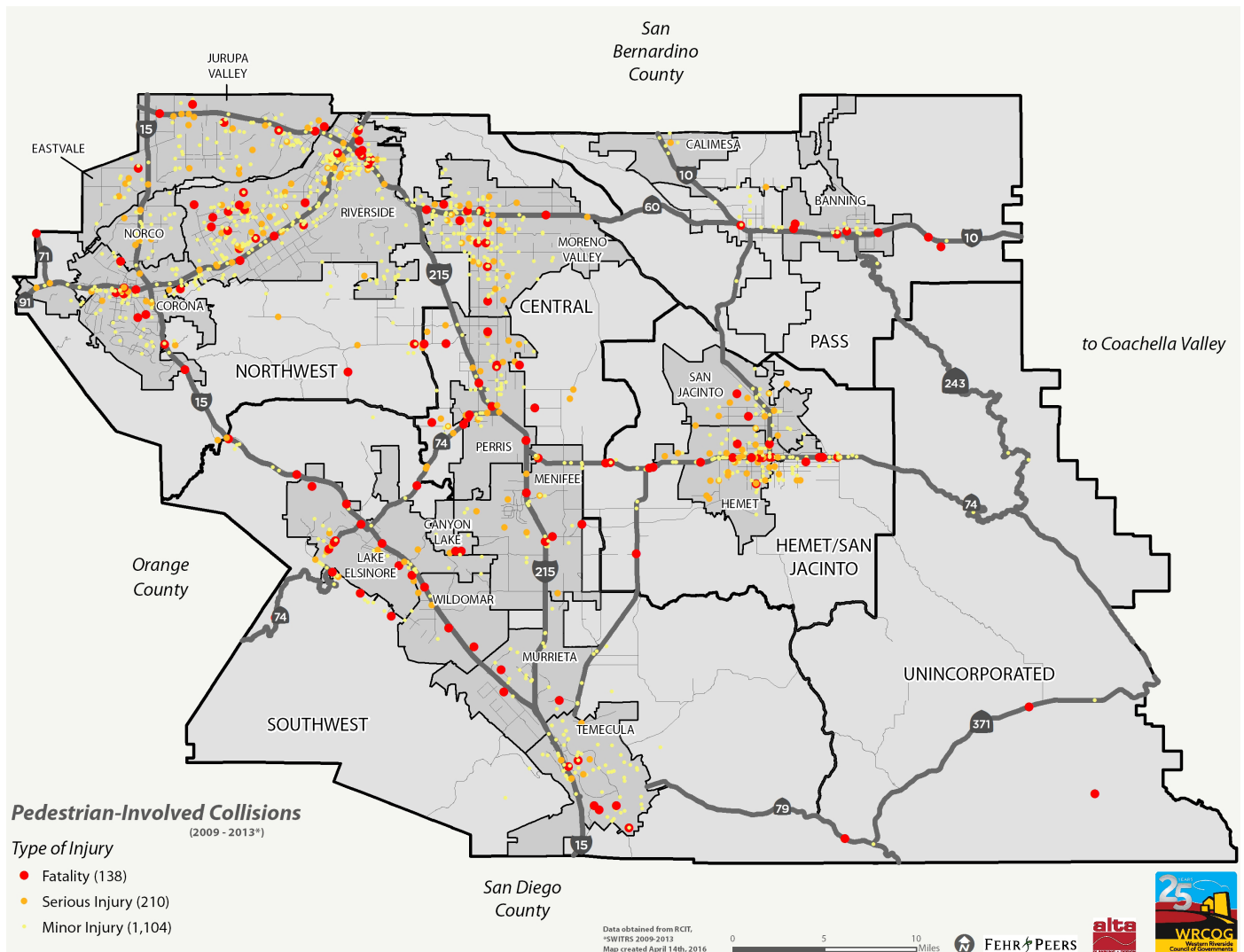


Figure 2. Pedestrian-Involved Collisions (2009-2013)

Collisions

The analysis of reported bicycle and pedestrian related collisions can reveal patterns and potential sources of safety issues, both design and behavior-related. These findings can provide WRCOG with a basis for infrastructure and program improvements to enhance bicycle and pedestrian safety. From 2009 to 2013 there were 1,452 collisions involving a pedestrian and 1,365 collisions involving a bicyclist in Western Riverside County.

Pedestrian and bicycle-involved collisions were concentrated in the north-west portion of the county, most notably in the cities of Riverside and Moreno Valley. The city of Hemet and unincorporated areas of Western Riverside also experienced a higher number of collisions compared to other parts of the subregion.

Health

As part of the WRCOG Health Indicator CAP Assessment, various health indicator data points for WRCOG and sur-

rounding regions were collected to establish a baseline for health and to identify future health targets.

Obesity

The WRCOG subregion obesity rate was 26.2% in 2011-2012, which was lower than the national level (33.9%) but higher than the California average (21.1%). Canyon Lake and Riverside show significantly higher adult obesity rates compared to other jurisdictions. Because these communities have activity levels on par with other

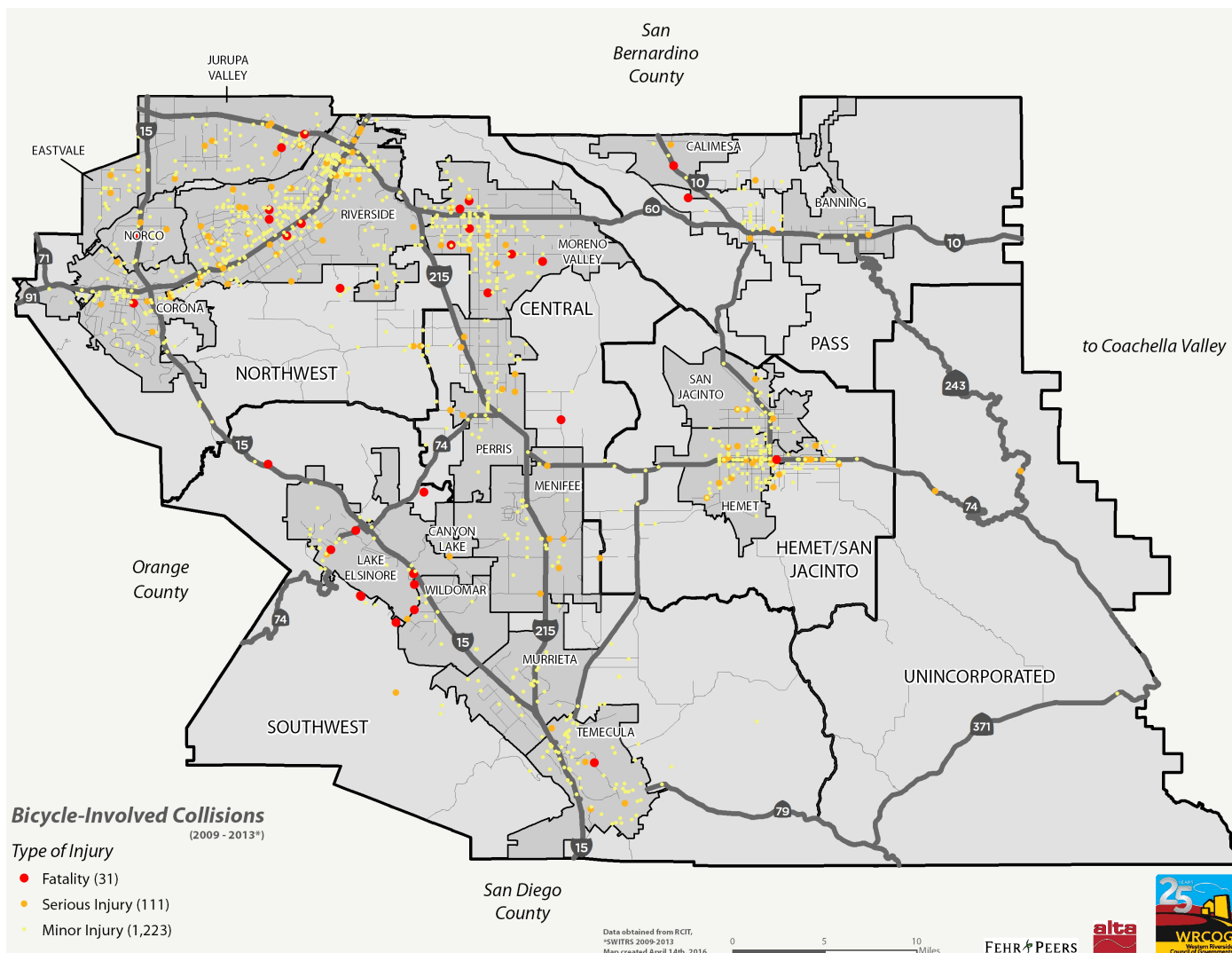


Figure 3. Bicycle-Involved Collisions (2009-2013)

WRCOG communities, above average obesity rates are most likely driven by other factors such as median income, education level, access to healthy foods, and access to healthcare. While it is still important for active transportation systems to be developed to increase physical activity throughout the WRCOG region, it is also important for these networks to provide increased connectivity and access to employment centers, schools, and grocery stores to improve health.

Asthma

While genetics is a contributing factor to the development of asthma, built environment factors related to poor air quality from air pollution and proximity to pollution sources like freeways, freight networks, and heavy industrial areas can cause asthma to develop, particularly in the very young (under age 2) and the elderly. Approximately 13.2% of WRCOG residents suffer from asthma, which is comparable to the state rate of 14.1% and surrounding counties (Los Angeles County, 12.7%,

San Bernardino County 15.9%, Orange County 10.8%).

Increasing non-motorized transportation options can lead to greater access to health-improving community resources like healthy food, parks and open space, healthcare, and employment.

Policy Context

The legislative and regulatory framework in place in a community is a vital determinant on how supportive and accommodating a region's active transportation network is for its residents. This section summarizes the goals of key documents throughout Western Riverside County that informed the recommendations provided in the Western Riverside County Active Transportation Plan.

Within Western Riverside County, each jurisdiction approaches active trans-

portation planning differently. Most jurisdictions in Western Riverside County have established bikeway and/or trails plans or circulation elements that reflect current active transportation facilities.

Although the local plan may be coordinated with neighboring jurisdictions, the emphasis is usually based upon local circulation. Planning, design, construction, maintenance, and security of the local system is the purview of the local jurisdictions.

The circulation and mobility elements of each city's General Plan commonly state an effort to facilitate and encourage active transportation that meets existing and future demands of residents and businesses as well as growth of the city. Many of the cities strive to provide regionally connected bicycle, pedestrian, and trail systems, and to reduce the transportation system's impacts on air quality and traffic congestion. Several of the cities discuss coordination and alignment with adjacent jurisdictions and existing plans.

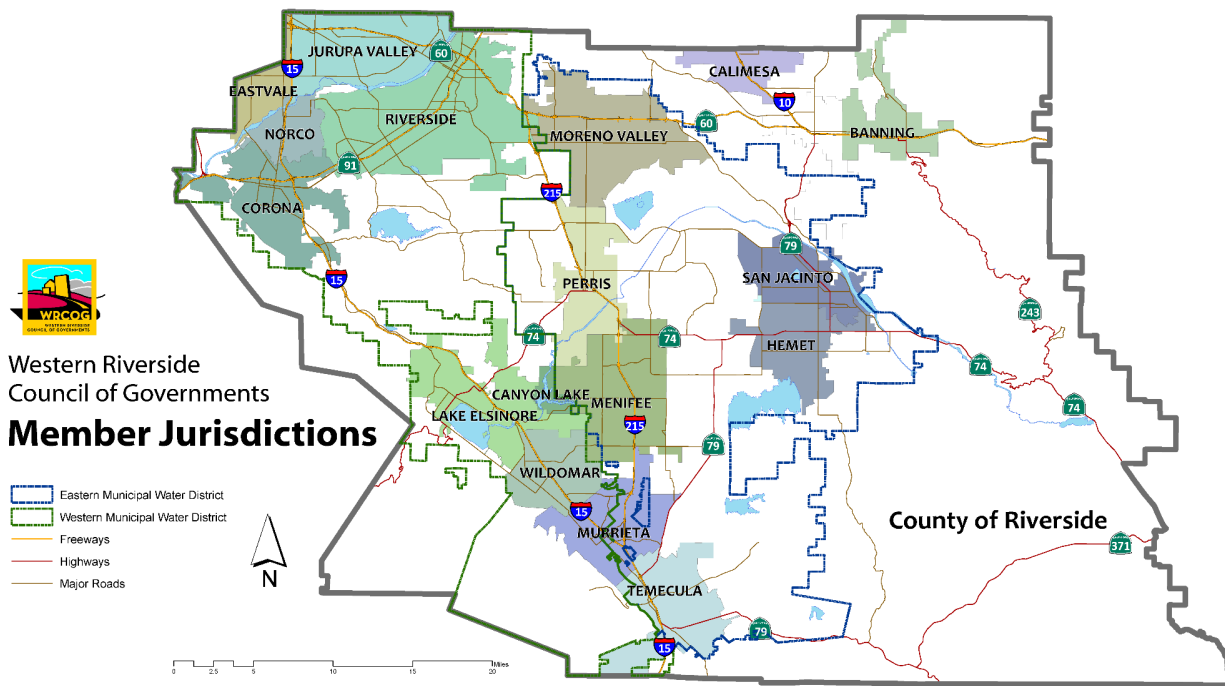
Common goals and policies within local Circulation Elements include:

Safety

Providing infrastructure and streetscape facilities that support the safety of pedestrians and bicyclists and coordinate with vehicle movements. (Examples include: Beaumont, Corona, Moreno Valley, Murrieta)



Pedestrian crossing & landscaping



Notes: Areas in white are unincorporated Riverside County. Eastern Municipal Water District, Western Municipal Water District, and the Morongo Band of Mission Indians are also members of WRCOG. The Riverside County Superintendent of Schools is an ex-officio member.

Figure 4. WRCOG Member Jurisdictions

Safe Routes to School

Implementation of Safe Routes to Schools programs and collaboration with school districts, community groups, and law enforcement to encourage children to walk and bicycle to school safely. (Examples include: Banning, Calimesa, Eastvale, Hemet, Moreno Valley, Murrieta)

Transit-Oriented Development

Incorporate design features into public transportation systems such as benches, lighting, shade, shelters, bicycle racks, and lockers at transit stops to facilitate seamless multi-modal transportation. (Examples include: Hemet, Murrieta, City of Riverside, Riverside County)

Complete Streets

Incorporate complete streets principles through a multi-modal transportation network that balances the needs of people of all ages and abilities walking, biking, driving, and using transit. (Examples include: Eastvale, Hemet)

Flexibility in Level of Service and Street Design

Alternative levels of service may be allowed to the extent that it would support transit-oriented development and walkable communities. (Examples include: Calimesa, Eastvale, Perris, Riverside County)

Encouraging Walking/Bicycling as the Primary Transportation Choice

Encourage new developments to provide pedestrian and bicycle accommodations such as walkways between and through developments, connected paths and routes, enhanced paving, landscaping, bicycle parking at retail and office developments. Also, encourage employers to support alternative forms of transportation by providing appropriate facilities such as parking for vanpools, bicycle parking, and passenger loading areas. (Examples include: Corona, Hemet, Menifee, Moreno Valley, Temecula)

This Plan analyzes and elaborates on the existing and planned infrastructure and circulation goals outlined in General Plans. In addition, it identifies and prioritizes non-motorized improvements that will enhance connectivity at the regional scale, which is likely to enhance non-motorized circulation at the local level.

Current Active Transportation Efforts

Citywide, county, and regional plans form the foundation for understanding the existing conditions in Western Riverside and contribute greatly to the development of the Western Riverside County Active Transportation Plan. Table X lists the local plans and policies that were reviewed and used as a guide to help inform the recommendations presented in this Active Transportation Plan. A detailed summary of the plans reviewed is available in the Western Riverside Active Transportation Plan Existing Conditions Report.

Of the 21 plans and policies reviewed, the following five regional plans proved to be the most influential in shaping the Western Riverside County Active Transportation Plan and recommended network.

Western Riverside Council of Governments (WRCOG) Non-Motorized Transportation Plan (NMTP)

The Western Riverside Council of Governments (WRCOG) Non-Motorized Transportation Plan (NMTP) provides a regional backbone network of bicycle and pedestrian facilities to provide enhanced transportation mobility. The NMTP specifically identifies non-motorized transportation modes as viable travel alternatives, and includes a strategy for meeting the mobility needs of residents, workers, and visitors. This Active Transportation Plan continuous with the regional non-motorized network identified in the WRCOG NMTP.

The NMTP identifies 28 distinct regional bicycle and pedestrian-friendly routes spanning 440 miles throughout Western Riverside County. The proposed system provides multi-jurisdiction connections between WRCOG's member agencies. The resulting network includes existing and potential on-street (Class II, Class III and Class

IV) and off-road (Class I) routes intended for near-term through long-range implementation. The routes provide access to Metrolink stations, transit centers, and key activity areas throughout the region. The backbone network provides connectivity between cities, the unincorporated Riverside County area, and adjacent counties.

Safe Routes to School

Safe Routes to School aims to create safe, convenient, and fun opportunities for children to bicycle and walk to and from schools. Several communities in the Western Riverside region have already implemented Safe Routes to School programs where practitioners run education and encouragement programs with families and schools and push for strong municipal and district policies to support safe walking and bicycling. These active communities are listed in Table X below. At the regional and state level, Safe Routes to School practitioners work to find new funding and ensure proper spending of existing funding for Safe Routes to

WRCOG Member Jurisdiction	Description
Eastvale	The Eastvale City Council and Corona-Norco Unified School District collaborated to develop Walk to School Site Maps, which provide a visual depiction of a ½ mile, ¾ mile, and 1-mile radius around each school to demonstrate how children could walk or bicycle to school in 20 minutes or less. The goal was to address traffic concerns around the City's schools during the morning drop off and afternoon pick up hours.
Lake Elsinore	The Riverside County Department of Public Health was awarded about \$1.25 million through the federal Safe Routes to School program to serve the cities and schools in Wildomar, Lake Elsinore, Menifee, and a school in Romoland. Funding was also approved to create or expand SRTS programs in Riverside and other cities in the county. The program began in the 2012-2013 school year.
Menifee	The Riverside County Department of Public Health was awarded about \$1.25 million through the federal Safe Routes to School program to serve the cities and schools in Wildomar, Lake Elsinore, Menifee, and a school in Romoland. Funding was also approved to create or expand SRTS programs in Riverside and other cities in the county. The program began in the 2012-2013 school year.
Moreno Valley	The Moreno Valley Safe Routes to School Program includes walking school buses, parent and community volunteers posted along walking paths, and volunteer crossing guards. The City also provides suggested route maps online for all elementary schools.
Riverside (City)	Riverside County Department of Public Health Injury Prevention Services received Safe Routes to School ATP Cycle 1 funds to provide pedestrian and bicycle education and encouragement activities at schools in the city of Riverside. The program selected elementary schools with the highest injury and fatality rates among youth. Many of these schools are considered low-income, with 75 percent of the student population eligible for free and reduced meals.
Wildomar	The Riverside County Department of Public Health was awarded about \$1.25 million through the federal Safe Routes to School program to serve the cities and schools in Wildomar, Lake Elsinore, Menifee, and a school in Romoland. Funding was also approved to create or expand SRTS programs in Riverside and other cities in the county. The program began in the 2012-2013 school year.

Table 2. Safe Routes to School Programs

School. At the federal level, the National Partnership and its allies maintain a steady voice for policy and funding support in Washington and provide a source of expert help, ideas, and resources for leaders at all levels.

One main focus of Safe Routes to School programs is engineering recommendations to improve active transportation infrastructure within a designated radius surrounding schools. The engineering recommendations of the following jurisdictions helped inform the Western Riverside County

Active Transportation Plan of gaps in the non-motorized network surrounding schools (Table X). Safe Routes to School programs and Active Transportation Plans are mutually beneficial as they can inform each other of non-motorized needs, funding, and possible treatments or facilities near schools. In turn, both types of plans can enhance local as well as regional non-motorized circulation and access to schools.

Transportation Uniform Mitigation Fee (TUMF)

When the TUMF program was developed, six zones were created. The zones help organize sub-regional planning currently devoted to regional impact fee programming and ensures that new development pays its fair share for the increased traffic that it creates. TUMF Zones were used as geographic zones to help organize the recommended network of the Active Transportation Plan and offer a smaller scale analysis of relevant datasets,

Jurisdiction	Document Name	Year
Banning	Circulation Element Streetscape Landscape Guidelines	2006 2006
Calimesa	Transportation and Mobility	2014
Corona	Circulation Element Bicycle Master Plan	2004 2001
Eastvale	Circulation and Infrastructure Elements	2012
Hemet	Circulation Element	2012
Jurupa Valley	Circulation Element	2003
Lake Elsinore	Circulation and Parks and Recreation Elements	2011
Menifee	Circulation Element	2010
Moreno Valley	Circulation Element Bicycle Master Plan	2006 2014
Murrieta	Circulation Element	2011
Perris	Circulation Element	2008
Riverside (City)	Circulation and Community Mobility Element Bicycle Master Plan Bicycle Master Plan Update: Addendum	2007 2007 2012
San Jacinto	Circulation Element	2006
Temecula	Circulation Element Trails and Bikeway Master Plan	2005 2016
Riverside (County)	Circulation Element	2003

Table 3. Existing Local Plans and Policies

such as collision data. The analysis of reported bicycle and pedestrian related collisions can reveal patterns and potential sources of safety issues, both design and behavior-related. These findings can provide WRCOG with a basis for infrastructure and program improvements to enhance bicycle and pedestrian safety while leveraging the TUMF program as a potential funding source.

Sustainability Framework

WRCOG's Sustainability Framework is the first step in establishing, implementing, and refining a sub-regional sustainability plan. This framework provides a vision, establishes goals, defines and prioritizes short-term actions, and defines initial benchmarks and targets by which WRCOG can measure these efforts. The Framework serves four broad objectives:

- Provide a starting point for dialogue about sustainability and its importance to the region, and articulate a framework for the development of a sub-regional sustainability plan.
- Provide a vision for a sustainable Western Riverside County and establish goals to inform and guide regional collaboration and local action until the sub-regional sustainability plan is prepared.
- Define and prioritize short-term actions that WRCOG can pursue in the interim to begin realizing the Framework's vision and goals for sustainability.
- Define initial indicators, benchmarks, and targets by which WRCOG can measure the effectiveness of efforts to create a more sustainable sub-region.

The Sustainability Framework establishes a work plan by which WRCOG can seek funding and implement new projects and programs that support the vision, without having to wait until the sub-regional sustainability plan is fully prepared, vetted, and adopted. The network developed for the Western Riverside County Active Transportation Plan could potentially leverage the Sustainability Framework to seek future funding for the implementation of recommended bicycle and pedestrian facilities.

RTA First/Last Mile

The Riverside Transit Agency First Mile-Last Mile Mobility Study was launched to identify ways to improve access to and from bus stops throughout the region. Public transportation rarely stops at the passenger's origin or destination, and transit users have to rely on other modes to get to their desired locations. These trips, whether it is walking, biking, or ride-sharing, are referred to as "first and last mile" journeys.

The goal of the RTA study is to identify challenges and offer solutions to passengers who have to travel to and from their bus stops. By improving these "first mile-last mile" trips, RTA hopes to increase both transit ridership and the livability of the region. The study takes note of the barriers that currently exist and provide solutions in removing the barriers. These could include unsafe pedestrian crossings, lack of walkways, and ADA accessibility issues. Some of the solutions that can be implemented include, new bicycle

infrastructure, improved lighting, shade, and seating, and improved way-finding to transit stations.

The active transportation facilities identified in the proposed ATP network should help to overcome some of the barriers that currently exist in the region. The Western Riverside County ATP and RTA First Mile-Last Mile report are important tools for encouraging investment in improving active transportation infrastructure.

REGIONAL ACTIVE TRANSPORTATION NETWORK

Overview

The WRCOG region is currently undergoing an extended period of population growth, and as a result, rapid development and infrastructure expansion. This provides an opportunity for decision makers, stakeholders, and residents to work together to make investments in the active transportation network. By building a robust bicycle and pedestrian network, residents and visitors of Western Riverside County will have more choices in where and how to get to their desired destinations.

WRCOG and the project team worked closely with member agencies to develop a regional active transportation facility list and map that would provide a comprehensive network for bicyclists and pedestrians. The team looked at important regional destinations, opportunities and constraints existing in the region, and involved stakeholders, decision makers, and the community throughout to help develop the final recommendations. The result is a proposal for 24 regional active transportation facilities, supported by 44 local

routes. Details on the development of this network can be found below.

Each of the 24 regional facilities are supported by a comprehensive summary of the proposed route, found in the supplemental attachment to the Plan. These summaries include information on the facility type, length, design and also statistics on existing conditions such as collisions along and near the route, demographics, and percent disadvantaged population that has access to the facility. The summaries also provide information on estimated construction costs, strategies for implementation, and funding opportunities. The project team and Western Riverside County anticipate that these regional facility summaries will be a critical part of important project implementation steps such as, educating stakeholders on the project, getting support from residents, and most importantly, applying for funding.

The 24 identified facilities provide an active transportation network that is geographically diverse. With the sup-

port of the 44 local routes with regional significance, the network expands to provide access to an even greater amount of the region. The following table provides an overview of the 24 regional projects (in light blue rows) and the 44 local routes (in white rows) that will help to support the network. Included is the total length of each facility as well as the jurisdiction that recommended the local project.

#	Route Name	Length (miles)	Recommended by
1	Santa Ana River	26.8	
	Harrison Road Diet	4.5	Eastvale
	Hamner Bikeway	5.4	Eastvale
2	SR-91 Corridor Via Magnolia Ave	19.7	
	Butterfield Overland Trail	6.1	Corona
	Jurupa / Olivewood	3.4	Riverside
	Vine / Mission Inn	1.6	Riverside
	La Sierra	3.2	Riverside
3	Cajalco – San Bernardino County Line	18.9	
	Van Buren Boulevard	3.9	Jurupa Valley
	Arlington Ave	7.9	Riverside
	Bellegrave Ave	6.2	Eastvale
	Jurupa Road Corridor	8.2	Jurupa Valley
	Holmes Ave/Limonite Ave	5.1	Jurupa Valley
	San Sevaire Trail	4.2	Jurupa Valley
4	I-15 Corridor via Temescal Canyon	20.8	
	Ontario Ave	2.9	Corona
	Butterfield Overland Trail	7.2	Lake Elsinore
5a	East Corona – Lake Perris via El Sobrante	19.0	
5b	East Corona – Lake Perris (Alternative) via Cajalco Rd	17.7	
6	Bautista Creek – Perris	25.8	
	Juan Bautista De Anza Historic Trail (on San Jacinto River Levee)	5.4	San Jacinto
	4th Street/San Jacinto Ave	2.2	Perris
	Perris Valley Channel Multi-Purpose Trail (Phase 2)	3.5	Perris
	Bernasconi Rd	2.0	Moreno Valley
7	San Timoteo Canyon Road – Ramona Expressway	13.3	
	Alessandro Boulevard	7.8	Moreno Valley
	Iris Avenue	4.1	Moreno Valley
	JFK Drive	1.2	Moreno Valley
	Redlands Blvd	5.8	Moreno Valley
8	San Bernardino County – Interstate 10 Pass Area	29.3	
9	San Jacinto River Park – Diamond Valley Lake	11.6	
	Hemet Valley Bikeway Connect	10.3	Hemet
	Salt Creek Trail - B	2.2	Riverside County
10	Bautista Creek – Mission Trail	31.2	
	Salt Creek Trail - A	4.2	Riverside County
	Newport Rd	6.1	Menifee

Table 4a. Project Overview

#	Route Name	Length (miles)	Recommended by
	Murrieta	8.5	Menifee
11	Lake Elsinore – Murrieta Creek	24.9	
	Murrieta Creek Regional Trail	5.6	Wildomar
	Santa Gertrudis Interconnect	1.4	Temecula
	Butterfield Overland Trail	7.2	Lake Elsinore
	Murrieta Creek Trail/Union	3.6	Lake Elsinore
12	Aberhill Ranch – Ramona Expressway	18.0	
	Perris Blvd	5.6	Perris
	Nuevo Rd	2.0	Perris
13	Jefferson Avenue – Lake Skinner	9.9	
14	I-215 South Corridor	14.1	
	Scott-Haun-Newport	3.0	Menifee
	Scott	6.1	Menifee
	Newport Rd	6.1	Menifee
	Bundy Canyon Active Transportation Corridor	3.0	Wildomar
	Sunset Regional Trail	4.2	Wildomar
15	I-215 Central Corridor	21.4	
16	Gilman Springs Road – Beaumont	11.4	
17	Lake Skinner – San Diego County	11.6	
18	Riverside Hunter Park – Downtown Menifee	6.4	
	MLK Bike Path	1.3	Riverside
	Canyon Crest	0.9	Riverside
	Perris Downtown to South Metrolink Station Connectivity	2.2	Perris
	Perris Valley Channel Multi-Purpose Trail (Phase 2)	3.5	Perris
	Murrieta Rd	1.4	Perris
	Gage Canal	1.1	Riverside
19	East Riverside – Moreno Beach Drive	7.0	
	Ironwood Avenue / Box Springs Road	8.6	Moreno Valley
	Heacock St	4.0	Moreno Valley
20	Lake Mathews Loop	8.7	
21	Lake Elsinore Loop	10.7	
	Wildomar Trail	4.7	Wildomar
	Butterfield Overland Trail	7.2	Lake Elsinore
22	Diamond Valley Lake Lakeview Trail	13.1	
23	Perris Reservoir Loop	9.0	
24	Murrieta Creek – Temecula Creek	5.4	

Table 4b. Project Overview

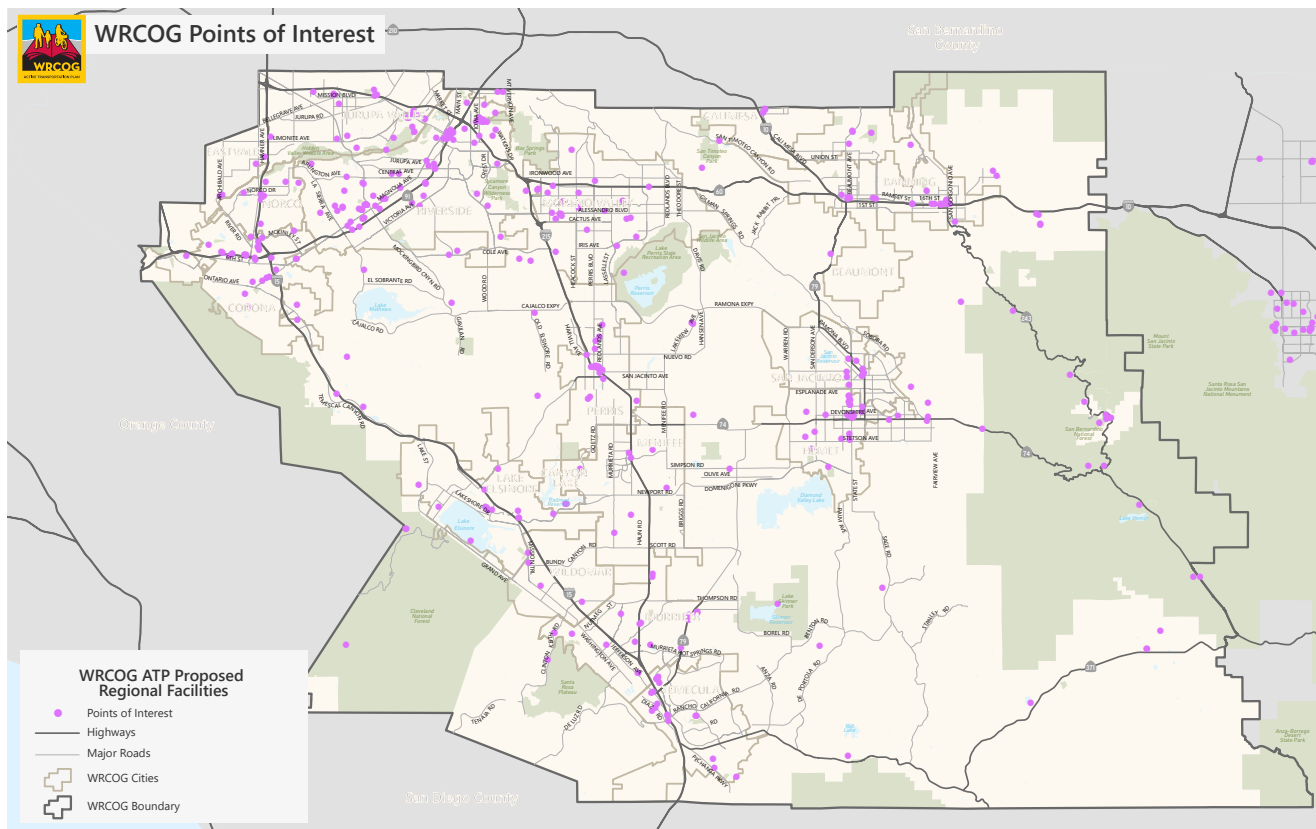


Figure 5. WRCOG Points of Interest

Destinations

Western Riverside has a lot to offer both residents and visitors. Many of the jurisdictions within WRCOG contain employment centers. Others have nationally regarded universities and museums. There are thousands of acres of parkland ready for exploration. Through the implementation of a regional active transportation network, bicyclists and pedestrians will have more opportunities to reach these destinations. The network has been planned to link to many residential, retail, cultural, and employment destinations. The facilities that are proposed keep people of all ages and abilities in mind, with the intent of bringing everyone to their desired destination safely and enjoyably.

Figure 5 on this page shows many of the places of interest that are within WRCOG. These places of interest include civic centers, commercial clusters, parks, schools, religious institutions, and other activity centers. The proposed active transportation net-

work was developed with a targeted effort to establish realistic connections to as many of these places of interest as possible. The second map, Figure 6, shows how careful consideration was taken to provide linkages via the proposed active transportation facilities to these places of interest, while also connecting residential and employment centers.

Opportunities/Constraints on the Transportation Network/System

Riverside County is one of the largest counties in the country. With such a large area, there are many opportunities and constraints for developing an active transportation network.

The following are some of the opportunities that Western Riverside County has in implementing a robust bicycle and pedestrian infrastructure.

Rail Lines

There are numerous rail lines travers-

ing Western Riverside County. These lines provide a continuous path of travel, with grades that accommodate casual bicyclists and even pedestrians. Most are grade separated and removed from cross-traffic. These projects are challenging because they require approval and coordination from the entities operating the rights-of-way can have high costs to retrofit.

Waterways and Utility Easements

Western Riverside has several large waterways that connect to multiple jurisdictions. These waterways are generally and present opportunities for regional facilities due to their uninterrupted nature. Many of the proposed facilities in the regional network take advantage of Western Riverside County's many existing easements which connect residential areas to open space and recreational areas in the County.

New Construction/Infrastructure

Western Riverside County has been rapidly growing in population and

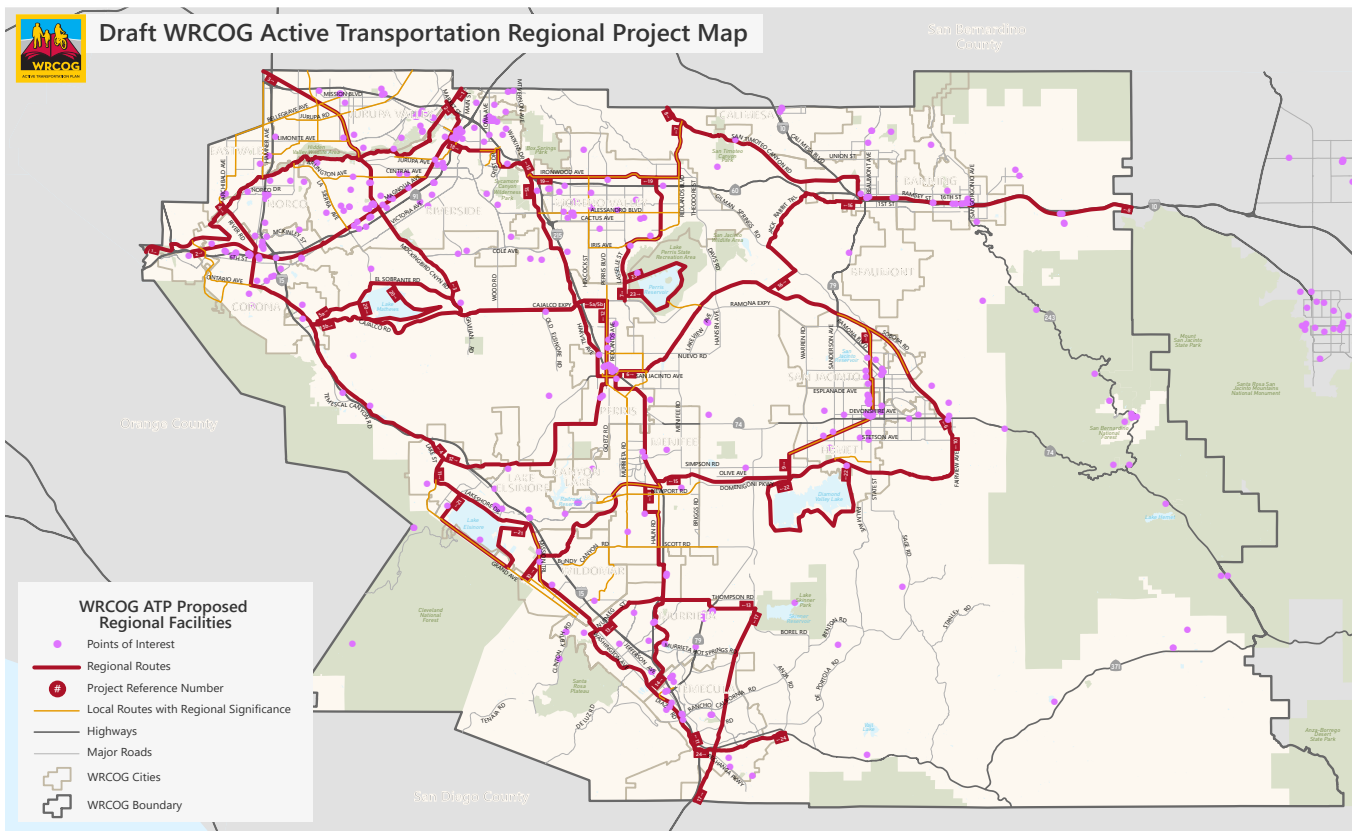


Figure 6. WRCOG Proposed Transportation Network Linkages

employment in the last decade, but there is still lots of open and undeveloped land. This provides opportunities for implementing active transportation facilities in areas where there are few barriers to construction. This can include planning to build in tandem with proposed developments, so that active transportation facilities are included from the very beginning.

Underutilized Streets/Arterials

Many of the existing automobile oriented facilities were constructed with wide right-of-ways. Current lane configurations are not taking advantage of the full potential of the roadway. With a re-striping effort on some of the wider roadways, on-street bicycle facilities could be accommodated.

The following constraints present challenges to planning and designing an active transportation network that is successful and well utilized.

High Speed and High Volume Facilities

Much of the transportation infrastructure in Western Riverside County was built to get high numbers of vehicles to their destinations as quickly as possible. With the distances between many destinations spread wide apart, many of the roadways have high speed limits. The amount of vehicles on certain roads, coupled with the speed they are all traveling may deter active transportation users due to safety or comfort concerns.

Difficult Terrain

Western Riverside is a mountainous region. Many of the jurisdictions are separated by steep and difficult to navigate terrain. To connect to some areas, the facilities will have grades and slopes that are too extreme for casual bicyclists and pedestrians.

Train/Utility Coordination

Proposing active transportation infrastructure along train right-of-ways and utility easements requires coordination with multiple stakeholders. Facilities utilizing these routes will be sub-

ject to many federal, state, and local regulations.

Figure 5 provides some examples of the opportunities and constraints found when developing the active transportation network. Many of the proposed routes take advantage of the opportunities available in Western Riverside County, and some have to deal with the difficulties that arise due to the constraints of the region.

User Types

The ATP provides a framework for a robust active transportation network as well as suggestions on the best way to move toward implementation. A goal of this network is to increase the number of non-motorized trips that take place every day. It is important to understand how WRCOG residents and visitors currently travel and what transportation mode they choose, so benchmarks can be made for evaluating future impacts.

The Southern California Association of

Governments (SCAG) develops an update to the regional transportation model every several years. In their validation of the model, they use the most up-to-date travel information available and publish it in their model summary report. The SCAG Regional Travel Demand Model and 2008 Model Validation report was published in 2012. This report presents a better picture of the percentage of people in Riverside County who travel in a non-motorized mode. This is broken down further in detail on the trip type that people use non-motorized modes the most. Statistics can also be found on percentage of non-motorized mode users by income and number of cars.

As Table 5 shows, school related trips see the highest amount of non-motorized mode usage. This is likely due to active transportation infrastructure linking schools and neighborhoods, through programs such as Safe Routes to School, and a result of many school-age children not being able to drive or having access to a vehicle. Percentage of trips to work via a non-motorized mode is the lowest trip type. Few employees choose to bike or walk to work. The ATP has been developed with all these trip types in mind. Facilities have been proposed that link to schools and universities, with the knowledge that the populations around these land uses utilize them. Routes have also been proposed through downtown commercial business districts, to provide employees more choices on how to get to work. For the other trip types, such as recreational or routine trips, the network also links to parks, governmental facilities, and retail destinations. By providing more choices and destinations via a more comfortable and safer active transportation facility, the hope is that the percent of people using non-motorized modes for all trip types will see an increase.

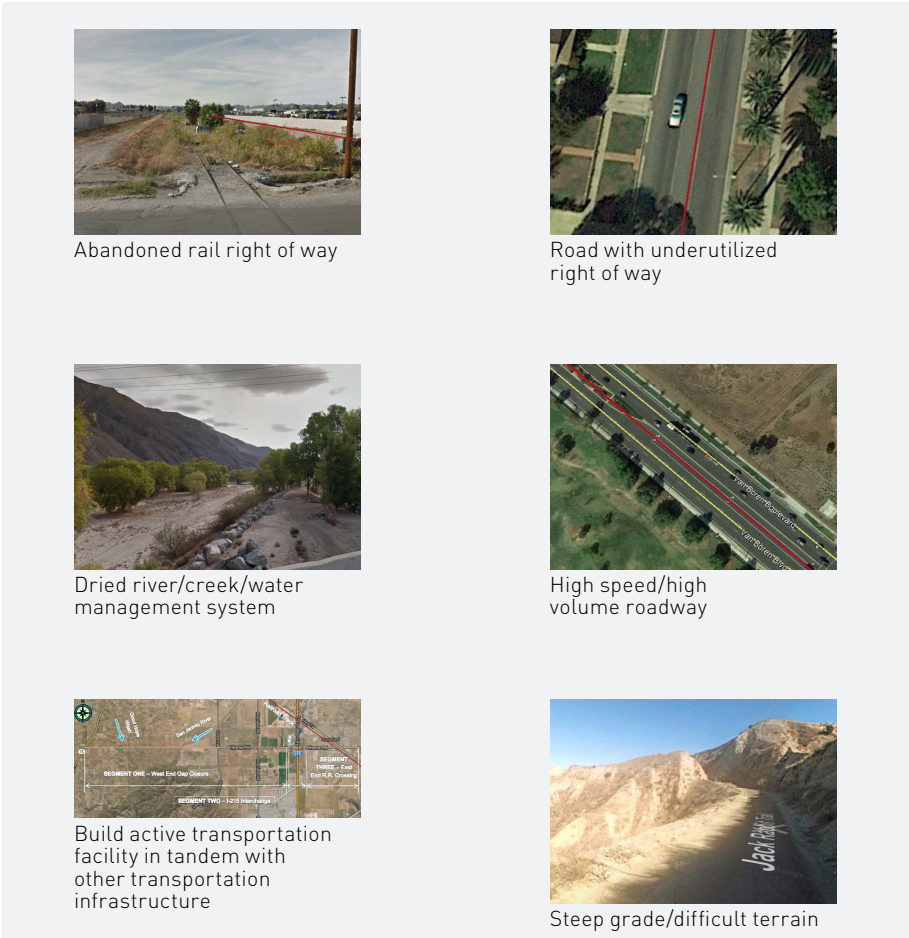


Figure 7. Opportunities and constraints

Trip Type	% Non-Motorized Person Trips
Home-Based Work	2.92%
Home-Based Non-Work	11.45%
Non-Home-Based	7.32%
Home-Based School	22.64%
All Trip Purposes	10.00%

Table 5. Non-Motorized Trip Share

Stakeholder Involvement

Survey

The Project Team developed one community survey and one City staff survey that would help inform the development of the Western Riverside County Active Transportation Plan.

The community survey had 13 questions and was available in English and Spanish. Western Riverside County residents submitted 168 surveys. The community survey revealed several trends regarding bicycle and walking activities, as well as preferences amongst residents in the sub-region.

Currently, 66% of respondents walk or bike more than once a week for exercise solely, however, survey respondents indicated a significant interest in walking or biking to retail destinations (52%) in the future. When asked specifically about off-street facilities, respondents were overwhelmingly interested in walking and biking along the Santa Ana River Trail (78%), and listed more paved paths and trails as a top priority for future active transportation invest-

ment (70%). The survey also revealed current barriers to active transportation mobility. Respondents listed safety concerns (61%) and high speed or heavy car traffic (50%) as the biggest factors that currently prevent them from walking and biking more.

The City staff survey had 18 questions and sought to better understand the active transportation goals of the various jurisdictions in the Western Riverside sub-region. Staff submitted a total of 24 surveys. The staff survey revealed that the preferred priority across jurisdictions, as it pertains to active transportation, was to create safer travel accommodations for pedestrians and cyclists (92%).

The information collected from the two surveys indicates that residents and agency staff would find substantial benefits from facilities that limit vehicle interaction with pedestrians and cyclists and is well-connected to shopping centers and other recreational facilities.

Survey questions and tabulated results are shown in Appendix X.

Stakeholder Working Groups

In addition to the survey for the public and agency staff, presentations and discussions with key stakeholder working groups comprised a major component of this project's outreach. The project team regularly provided updates and obtained input from the following groups while developing the Western Riverside County ATP.

Public Works Committee (PWC) - technical advisory body to the Technical Advisory Committee and Executive Committee for the TUMF Program and all public works-related issues that come before WRCOG. The PWC is comprised of Public Works directors and city/county engineers from WRCOG's member agencies and meets monthly.

Planning Directors Committee (PDC) - advises the Technical Advisory Committee and Executive Committee on issues related to planning that come



Outreach with the Metropolitan Water District and Eastern Metropolitan Water District

before WRCOG. The PDC is comprised of planning directors and community development directors and meets monthly

Technical Advisory Committee (TAC):

Reviews information and provides recommendations to the Executive Committee for consideration. The TAC is comprised of executive managers from each of WRCOG's member agencies and the March Joint Powers Authority, and meets monthly

Riverside Active Transportation Network (ATN):

A group comprised of city, county, public health, safe routes to school, community based organizations, and consultant staff that meets quarterly to discuss and review plans, projects, and events relating to active transportation in Riverside County

Presentations were given to these groups throughout the project. A kick-off meeting provided a description of

the project and its purpose. Initial meetings with the committees were held to develop project goals and objectives. Later meetings were spent going over existing conditions and the proposed regional network. These presentations and meetings gave the project team an opportunity to receive feedback from a variety of interested stakeholders in the region. They also helped to facilitate excitement and interest in the active transportation facilities being proposed in this plan.

Agency Staff Outreach

In addition to presenting to the various WRCOG committees throughout the project, a targeted outreach effort was enacted to interface with all member jurisdictions in WRCOG. The project team worked with WRCOG officials to identify the needs and opportunities for walking and biking in the region. WRCOG member agencies were then asked to review a list and map of proposed regional projects, some of which were adaptations of facilities proposed in the 2010 NMTP.

The member agencies were also asked to provide a list of local projects that were regionally significant to their jurisdictions. Many jurisdictions have bicycle and pedestrians plans in place, and this process helped avoid duplication of local plans and allowed the regional network to reflect the inclusion of local projects with regional significance. The goal was to develop a network of local routes that provided connections to key regional active transportation facilities. By including the local projects with regional significance in the ATP, those projects are included in both local and regional plans, which can be leveraged for funding opportunities.

A matrix was developed by the project team to help jurisdictions identify projects that were appropriate to include as part of the regional network. Each jurisdiction was given the opportunity to name facilities that would have regional significance for their municipality and include their proposed facil-

ity types and locations. The criteria for identifying local projects for regional significance included questions such as:

- Does this route traverse multiple jurisdictions (regional facility network)? If so, how many?
- Does it provides access to or across barriers like freeways and waterways (over/underpass, trails, inclusion of local streets that provide viable alternatives)?
- Does it provide access to regional transportation facilities (first/last mile network to high-use/high-frequency transit options)?
- Is any funding in place, such as a local match program?
- Is there a construction horizon (short, medium, or long-term)?
- Are there similar facilities in the area that serve a similar purpose?
- Any key destinations along the route?

The project team collected information from all participating jurisdictions. This information was vetted and used to inform the regional network that can be seen on page 36, Figure 6. In many instances, the project team and individual jurisdictions worked closely to develop the final list of local projects that had regional significance. Ultimately, individual cities have discretion and flexibility to pursue these projects or undertake additional study and analysis that will allow implementation of bicycle/pedestrian facilitates that best meet local needs.

Relevant Active Transportation Projects

WRCOG is investing resources into developing plans that focus on improving conditions for all modes of transportation, particularly those that are not single occupancy vehicles. Multiple plans are now available for jurisdictions to use as guides for making improvements to their infrastructure for non-motorized commute and recreational travel. Each plan stands strongly on its own, but are stronger when used together. WRCOG had the project teams of the following documents coordinate, so that each plan compliments and builds on the recommendations of the other.

Regional Network/NMTP

The ATP builds on the regional network first proposed by the NMTP. The ATP focuses on a comprehensive regional network that links active transportation facilities to important destinations. The goal is to provide more mobility options to residents and visitors of Western Riverside. It is also a goal to make destinations more accessible via biking and walking so that those

two modes are more viable options for more people. Consideration was taken in developing the network to link to transit hubs, stations, and stops, to allow for efficient and safe multi-modal trips. Recreational destinations were also taken into consideration, to allow trail users the ability to access those facilities without requiring a car. The regional non-motorized network can be seen in Figure 9.

Transit Access

The First & Last Mile Mobility Plan is an effort to increase transit ridership through developing strategies that address first and last mile barriers to transit use. The plan identified various strategies to improve First and Last Mile access and develops recommendations and templates for the different station typologies that were identified in Western Riverside. The ATP supports the principles and ideas of the First and Last Mile plan. Linking non-motorized facilities from residen-



Active transportation can augment transit access.

tial, employment, and retail centers to transit stations provides benefits to all roadway users. Developing attractive and safe connections between origins and destinations to transit will facilitate use of the Riverside Transit Agency system.

Trails Access

The Riverside County Comprehensive Trails Plan provides policies and standards to encourage and promote new trails and recommend improvements to existing trails in Riverside County. Factors taken into consideration include circulation, accessibility and connectivity, and property rights. The Trails Plan incorporates information from the existing 21 regional area plan trail systems, to inform existing conditions and planning context within the plan area, with an inventory of existing and mapped trails, preferred trail alignments including needs, and the identification of “gaps” and “missing” segments required to improve connectivity. The Trails Plan analyzes potential new trails and connectors where

important linkages are made between the regional trail system and local trails and destinations.

Regional planning for trail network connectivity is a major goal for accom-

plishing the overall success of Riverside County’s system of trails. The County envisions the strategic implementation of projects that connect smaller communities, enabling stakeholders to create partnerships where trails seamlessly transition from com-

Backbone	Miles
ARZC Railroad	38.4
Bradshaw	129.5
California Riding & Hiking Trail	89.0
Colorado River	37.5
CV Link	50.0
Juan Bautista de Anza	84.9
Pacific Crest	82.2
Salt Creek	37.8
Salton Sea	32.4
Santa Ana River	25.7
Butterfield/Southern Emigrant	66.8
Total	690.5

Table 6. Proposed Backbone Trail Network Mileage

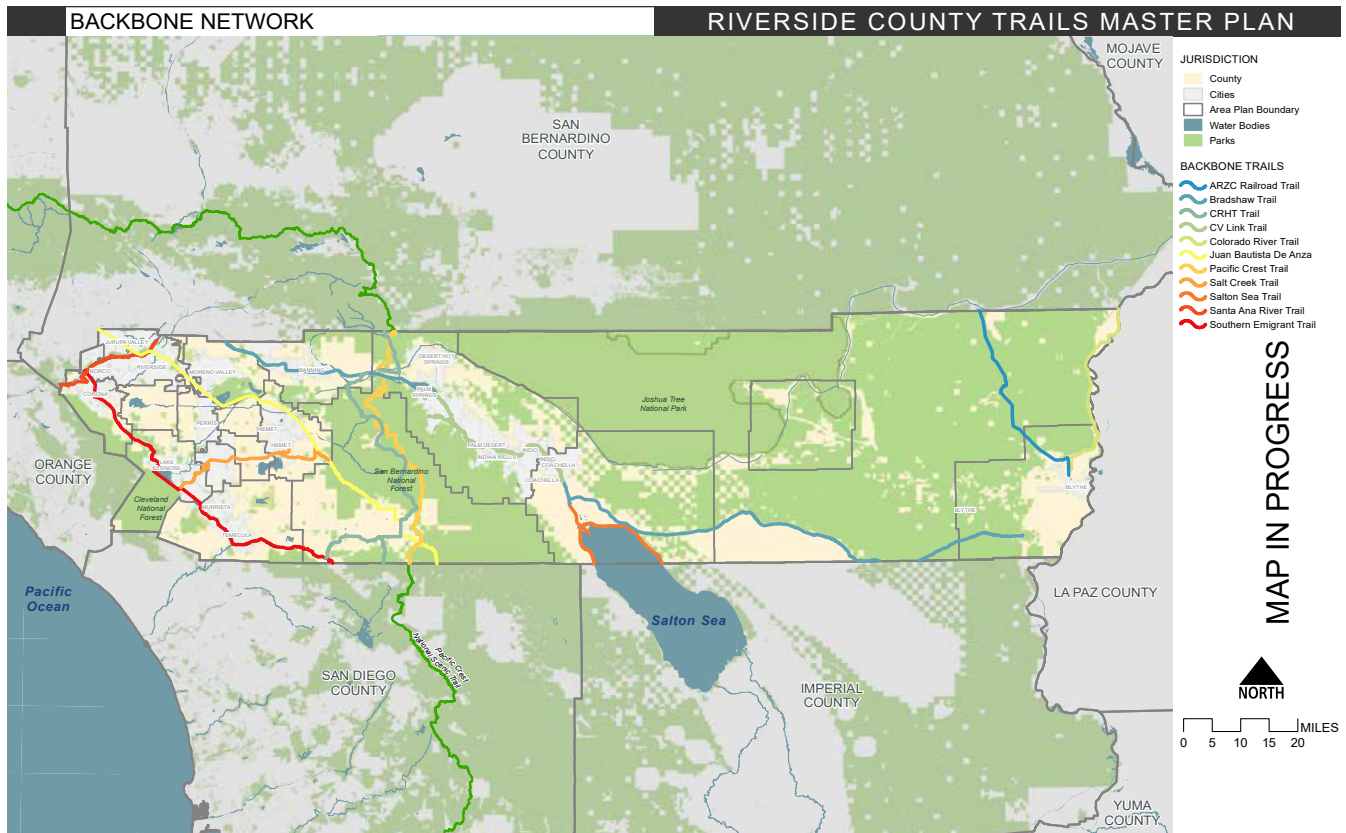


Figure 8. Proposed Backbone Trail Network

munity to regionally maintained systems. The County trail system also is geared towards integration of multiple types of trails for users of all abilities.

The Trails Plan emphasizes trails previously classified as regional and/or historic, those existing as part of a previous plan or currently on-the-ground, those with long-distance connectivity, and those providing connections to smaller-scale trail networks. It also links or overlaps with proposed facilities in the ATP.

Additional criteria used to evaluate backbone trails include:

- Population adjacency
- Connection to destinations
- Connection to other jurisdictions
- Available right-of-way
- Adjacent and underlying land owners

- Ability of the trail to close gaps in the regional network
- Historic/cultural relevance of the trail

Table 6 and Figure 8 present the Backbone Trail Network.

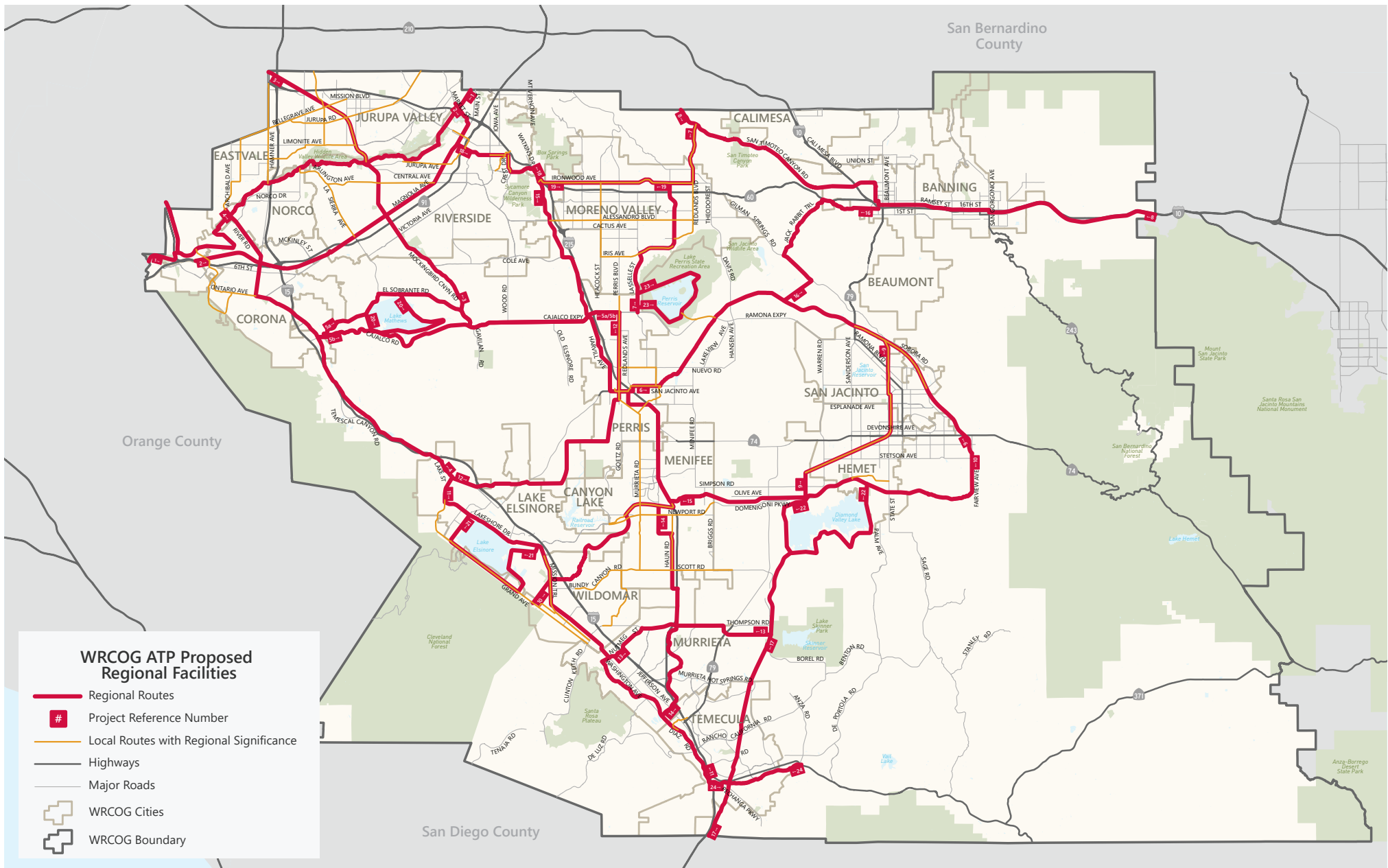


Figure 9. Regional Active Transportation Routes

Health & Active Transportation

Active transportation is not just a mode of transportation or a lifestyle choice; it also offers substantial and notable health benefits. Promoting walking and bicycling will help contribute to the reduction of several common and serious diseases, and therefore it is important to create supportive environmental and infrastructural conditions in terms of infrastructure that permit a substantial increase in trips by walking and biking (Dora & Phillips, 2001).

Many studies have found that the health impacts of the physical activity resulting from bicycling and walking contribute to numerous health benefits which outweigh any detrimental effects that may occur including traffic incidents and air pollution exposure. The authors conclude that:

“The net health benefits of AT [active transportation] are substantial, irrespective of geographical context. Projected health gains by increases in physical activity levels exceed detrimental effects of traffic incidents and air pollution exposure. Thus, we

encourage the promotion of AT, as associated health risks are minor.”

Unfamiliarity with the significant health effects of biking and walking may make communities apprehensive when prioritizing funds for active transportation planning.

The following are some of active transportation planning’s most impactful health benefits:

- Provides opportunities for physical activity, significantly reducing the risk of death and illness due to chronic conditions.
- Enables healthy, active lifestyles with less reliance on automobile-based commuting.
- Makes communities more livable through proximity to desirable destinations, reduced traffic speeds, safer streets, and reduced risk of traffic accidents.
- May positively impact pollution by offering people alternatives to

automobile use, especially for smaller distances.

Health Impacts Of Bicycling

Bicycling has many health benefits, some of which are significant enough for everyone to consider. Commuting by bicycle is associated with a significantly lower risk on a wide range of health issues including cancer and mortality.

These significant health benefits of biking become apparent to those who regularly bike, especially for commuting. According to the British Medical Journal “commuters who cycled to work had a 41% lower risk of dying from all causes than people who drove or took public transport. They also had a 46% lower risk of developing and a 52% lower risk of dying from cardiovascular disease, and a 45% lower risk of developing and a 40% lower risk of dying from cancer”. In addition to these health statistics, the Harvard Health Letter addresses some additional health benefits of biking:

- It’s easy on the joints. When you sit

on a bike, you put your weight on a pair of bones in the pelvis called the ischial tuberosities; unlike walking, where you put your weight on your legs.

- Pushing pedals provides an aerobic workout. This is great for your heart, brain, and blood vessels. Aerobic exercise also triggers the release of endorphins, the body's feel-good chemicals.
- Cycling builds muscle. In the power phase of pedaling (the downstroke), you use the gluteus muscles in the buttocks, the quadriceps in the thighs, and the gastrocnemius and soleus muscles in the calves. In the recovery phase (backstroke, up-stroke, and over-stroke), you use the hamstrings in the back of the thighs and the flexor muscles in the front of the hips. Abdominal muscles are used to balance and stay upright, and you use your arm and shoulder muscles to hold the handlebars and steer.

- It helps with everyday activities. Benefits from the bicycle carry over to balance, walking, standing, endurance, and other physical activity.
- Pedaling builds bone. The act of pushing pedals increases bone density by utilizing muscles that are attached to bones.

Such substantial health benefits of bicycling and bicycle commuting create incentives for communities throughout the country to promote and justify bicycle transportation policies, active transportation plans, adjust land use, and apply complete street approaches to benefit the health of the community overall.

About 60% of the population is interested in riding a bicycle but concerned and worried about personal safety. This indicates a need for a robust active transportation plan that considers bicycle safety so that potential riders can overcome their fears of riding and benefit from the positive health impacts.

Health Impacts Of Walking

Similar to biking, but less pronounced, are the impacts of walking on health. Walking to work brings many health benefits and studies show that commuters who have the opportunity to walk are healthier and less obese overall. Specifically, a study on men comparing suburbanites to urbanites found 45% of suburban men were overweight and 23% were obese while only 37% of the urbanites were overweight and 13% obese. Considering all other factors, walking verses driving was the explanation for the difference. The study recommends 35-45 minutes of walking every day.

Spending time walking every day helps people with cardiovascular problems, thinking skills, obesity, blood pressure, diabetes, cancer, and boosts memory. Walkable environments, whether outdoors or in pedestrian districts with destinations, provide communities with the opportunities to improve the overall health of the community

Decreasing Collisions And Injuries

Active transportation planning can reduce both bicycle and pedestrian collisions by improving the safety conditions on the streets and reducing overall community injuries. About 60% of deaths and injuries on the road affect motor vehicle drivers. Pedestrians account for around 25–30% of deaths and 13% of injuries, and cyclists for 5–6% of deaths and 7–8% of injuries. The severity of injuries is higher for pedestrians than vehicle drivers however and even higher for bicyclists. Often the term “vulnerable road users” is used for bicyclists and pedestrians.

By creating or retrofitting urban environments that reduce the need for individual vehicle trips, reduce vehicle speeds, and improve infrastructure for pedestrians, bicycling, and transit, streets can become safer and collisions may be reduced.

Health Impacts Of Active Transportation Planning In Riverside County

Riverside County Health Concerns

In Riverside County, as part of the WRCOG Health Indicator CAP Assessment, various health indicator data points were collected and used as a basis for understanding current health conditions in the WRCOG region. Five health issues were identified and studied:

- Adult physical activity
- Adult obesity
- Asthma
- Heart disease mortality rate
- Diabetes mortality
- Overall health issues in disadvantaged communities

All health issues point to the importance of active transportation planning in improving the health of a community.

Adult Physical Activity and Active Transportation Planning

As indicated earlier, regular exercise can reduce the risk of obesity, cardiovascular diseases, Type 2 diabetes, and some cancers. Additionally, regular physical activity, and especially bicycling, helps strengthen bones and muscles, and can improve mental health and mood, both of which can lead to a longer life and reduce mortality. A study of more than 250,000 individuals in Britain, indicates the health benefits of commuting by bicycle. In the study, the health indicators for bicycling were more diverse and showed more improvement than walking, and as expected, even more improvement compared to individuals who did not exercise. Physical activity benefits are even more pronounced in elderly populations.

Therefore, improved active transportation systems, especially ones that promote bicycling, can contribute to significantly increasing the health of a community in diverse aspects of health.

Adult Obesity and Active Transportation Planning

The obesity rate in the WRCOG sub-region was higher than the California average (26.2% in 2011-2012, compared to 21.1% for California). Canyon Lake and Riverside show significantly higher adult obesity rates --above 30%--compared to other jurisdictions.

Since regular exercise can reduce the risk of obesity, improved active transportation systems, especially ones that promote bicycling, can contribute to significantly increasing the health of a community.

Asthma and Active Transportation Planning

Although WRCOG cities overall do not significantly differ in asthma rates from California or the surrounding counties,

it is well-known that proximity to highways contributes to asthma and therefore neighborhoods adjacent to highways are bound to exhibit higher rates. Asthma can cause repeated episodes of wheezing, chest tightness, shortness of breath, and coughing. Freeways, freight networks, and heavy industrial areas are pollution sources that result in poor air quality and high amount of air particulates.

Transportation planning in correlation with land use planning can have an impact on the distribution of pollution sources and households while active transportation planning via complete street planning can impact vehicle speed and potentially the number of vehicles on the streets.

Heart Disease Mortality Rate and Active Transportation Planning

Commuting by bicycle has shown that cycling was associated with a statistically significant lower risk of all causes of mortality compared with non-active commuting. Some social determinants of health are contributing to high rates

of heart disease. Income for example, is shown to be one of the strongest correlators to health. Hemet, Calimesa, San Jacinto and Banning have the lowest median household incomes of the WRCOG cities.

This suggests that active transportation planning may have a strong potential to improve health by connecting low income neighborhoods with employment centers and schools, or by reducing the amount of income spent on transportation, which allows families and individuals to spend more money on healthy activities such as active recreation, education, health food, or healthcare.

Diabetes Mortality and Active Transportation Planning

As noted with heart disease rates, cities with high diabetes mortality have lower median household incomes. Banning and Calimesa have significantly higher mortality rates from diabetes than other cities in the region. Because diabetes is often correlated with heart disease, these cities also

Walk and Roll Palm Springs

Leaderboard

Rank	Neighborhood	Calories
1	Baristo	352
2	Sonora Sunrise	229
3	Sunrise Park	190
4	Midtown	176
5	Movie Colony East	159
6	Vistarte	75
7	The Movie Colony	69
8	Old Las Palmas	48
9	Warm Springs	0

CO2

Calories

What does this data mean?

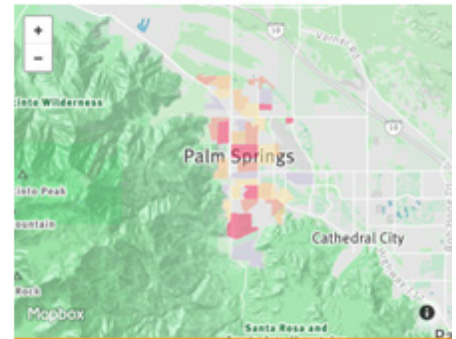
When a user clicks "I Will Use This Route," the Walk and Roll: Palm Springs site records the trip's starting neighborhood, calculated CO2 savings, and calories. No other user information is collected.

Walk and Roll Palm Springs Mobile Website App (Source: <https://blinktag.com/projects/walk-and-roll-palm-springs/>)

Walk and Roll Palm Springs

Neighborhoods

Tap any neighborhood for more information.



About the Organized Neighborhoods of Palm Springs (ONE-PS)

The Organized Neighborhoods of Palm Springs (ONE-PS) is a network of Palm Springs neighborhoods that gives voice to the issues and concerns of our community. We collectively seek practical solutions, and promote two-way communication between City residents and City officials on matters and events of broad civic and social interest.

Read more about ONE-PS on the [City of Palm Spring's website](#).

have the highest heart disease rates. As noted with heart disease rates, cities with high diabetes mortality have lower median household incomes.

This suggests that active transportation planning and implementation may have a strong potential to improve health by connecting low income neighborhoods with employment centers and schools, or by reducing the amount of income spent on transportation, which allows for more money to be spent on health-promoting activities like education, health food, and healthcare.

Disadvantaged Communities and Active Transportation Planning

The WRCOG Health Indicator CAP Assessment identified the disadvantaged communities in the Riverside County area since, in general, disadvantaged communities exhibit lower health conditions.

As noted earlier, active transportation planning and implementation may have a strong potential to improve health by connecting low income neighborhoods with employment centers and schools, or by reducing the amount of income spent on transportation. Proximity and easy access to such destinations allows for more money to be spent on health-promoting activities such as education, health food, and healthcare.

Health Related Active Transportation Programs

The health benefits of active transportation modes are proven and have the potential to make a positive impact on the well-being of Western Riverside County. Programs that help to get more commuters, families, and visitors walking and biking can result in improved health into the future. To encourage more active transportation and an improved health environment, the Western Riverside County and its jurisdictions can implement and advertise the following health focused programs:

- **Implementing Maps and Signage at Key Locations:** Installing public maps and signage near active transportation facilities, trails, and transit stations would help inform residents and visitors of the active transportation network available to them. Including information on estimated travel time, length of the facilities, and the potential health benefits such as calories burned would be helpful in having interested users become more knowledgeable about the options they have available to them.
- **Mobile Website App for Active Transportation:** Allows residents and visitors to easily search on their phones for destinations collected by the city's visitor bureau, and provides routing directions by foot, bike, or transit (as seen in Walk and Roll: Palm Springs). The app also tracks health statistics such as calories burned and pounds of CO2 saved, and allows for neighborhoods to



Outdoor exercise equipment [Source: <http://www.douglas.co.us/wp-content/uploads/2016/05/Newsroom-5.20.16-Fitness-HHRP.jpg>]

“compete” against each other to try and have the healthiest rating.

- **Prepare Healthy and Safe Community Elements:** Provides policy direction for improving health and safety for WRCOG residents. Uses existing health conditions already identified in other reports to develop implementable goals, objectives, and policies.
- **Bike Commuter Benefits:** Any employer, if they chose to do so, may provide a reimbursement of up to \$20 per month for reasonable expenses incurred by the employee in conjunction with their commute to work by bike. The money can be used toward a bicycle, bicycle maintenance, repairs, and/or storage.
- **Friendly Health Related Competitions:** Employers, community organizations, and other groups could compete in health related challenges. The challenges could include trying to achieve the highest number of bicycle miles, num-

ber of steps, calories burned, pounds shed, etc. These competitions could happen every month (coinciding with national events such as Bike Month/Walk to Work Day) or once a year.

- **Group Bicycle Rides/Walking Groups:** Coordinating groups of different types people who may be interested in biking or walking may help to encourage those who are interested in being active but are not willing to do it alone. These groups could be organized to appeal to different interests and to accommodate varying levels of experience/confidence. Groups could plan to do weekly or monthly events and at varying times and geographies to incorporate larger populations. Some interested group types may include: families, seniors, mothers with infants, etc.
- **Requiring Active/Healthy Facilities With New Development:** When a new development is proposed, it should be required to incorporate a healthy facility as

part of the plans. These supportive facilities could include playgrounds for children, or workout equipment to give residents access to fitness equipment without the barrier of needing to pay for a gym membership.

- **Adding Exercise Equipment to Open Space:** Retrofitting park space to include fitness equipment would increase access to these facilities. This could even include removing underutilized parking spaces to create a health focused parklet. Exercise equipment next to active transportation facilities, especially trails, could help with increasing usage.
- **Improved Trail Facilities:** At the perimeter of multi-use trails, facilities such as restrooms, water fountains, and information about the trail such as route length/options, and destination would help to encourage use.

- **Shuttles to Trails:** Shuttles from key destinations throughout WRCOG could connect bike riders or walkers to regional trail facilities. These shuttles could operate at specific times during the week (such as weekends) or during specific times of the year (such as spring and summer) when peak trail usage is determined. The shuttle ride could provide opportunity to provide a captive audience with educational materials. A guide or video could present on hiking/biking safety, healthy living, and positive impacts of regular exercise. This could be done in collaboration with the National Park Service.
- **Active Transportation Injury Tracking:** Partnering with hospitals in the region to monitor and track active transportation injuries could help in making future safety improvements. If an injury type or location where injuries occur show a pattern, improvements could be made to the active

transportation facility to try and mitigate the issue.

- **Encourage School District to Provide Active Transportation Facilities:** Many schools participate in programs that help get children to school safely, but it is important to plan for active transportation trip types at the school itself. This includes providing enough bicycle parking for students and educating students that active transportation routes are available options to them.
- **Active Transportation Benefit Districts:** These districts, often implemented in downtown/commercial areas, provide incentives for people to use active transportation to get to their destinations. Incentives can include discounts and deals at restaurants or shops if people walked or biked there. These districts can also hold Art Walks, sidewalk sales, or other types of events which encourage local businesses to display their goods on the street so that people

walking/biking by can slow down and take a look.

- **Bike Traffic School:** This program can be taught to people interested in learning more about safe and legal bicycle riding and offered to individuals who are given citations for bicycle related traffic violations. It could be required for those who have lost their drivers licenses due to infractions and may need to use bicycles for mobility in the near future.

Implementation

Implementation Strategies and Funding Sources

The following are key steps in the implementation process of active transportation plans:

1. Draft an action plan for each objective set by the active transportation plan. Caltrans (2017) identifies safety, mobility, preservation, and social equity as four major goals in active transportation planning and the goals developed for this effort have also been presented.
2. Create a methodology for measuring the success of the action plans. Caltrans (2017) identifies as important in each action to first define the actions, define the partners for each action, and define the time frame for each action:
3. Identify the resources needed to address high-priority needed investments in order to start a conversation on funding. Such investments refer to infrastructure, education and training, planning, staff, and data collection.

The following issues are important in addressing the challenges of active transportation plan implementation:

- Identify the users
- Establish political support, respond to public demand, and provide on-going promotion & education
- Identify the benefits and associated costs by utilizing a Benefits Cost Analysis (described in more detail below)
- Identify the challenges
- Tailor the approach to smaller communities and identify context sensitive solutions
- Describe the elements and develop an understanding of key roadway characteristics
- Collect data and evaluate progress for metrics such as usage, safety, and impacts to health and the economy

The challenges of implementing active transportation plans are often related to physical constraints or a lack of consensus about the trade-offs associated with project recommendations. It is important to tailor the plans to the community, and engage with members of the public and stakeholders. Creating an active transportation steering and advisory committee seemed very helpful in the case of Wellington County, ON. In Fresno, CA, public input through workshops and online comments helped improve the city's proposed active transportation plan.

An Implementation Plan helps clarify how the local transportation system is managed, funded, prioritized, and sets a course for future decision-making. Therefore, clarifying the goals of a transportation plan to the citizens and offering reasonable explanation for decision making may be important factors to consider in order to involve and get the approval of the public in critical and innovative decisions. In active transportation plans such as biking and pedestrian plans, the importance to the

overall health of the community is a paramount factor to communicate.

Partnerships among public agencies at all levels of government and support from the private sector are paramount in active transportation plan implementation (Caltrans, 2017). A variety of options exist to further plan, design, and construct bicycle transportation projects, including funding from federal, state, regional, local, and private sources. Information is provided below on potential funding sources to support agency efforts to implement bicycle improvements.

The following table lists pertinent information about potential funding sources available to WRCOG and local agencies to implement the projects presented in this plan. This is not meant to be an exhaustive list and details for each fund may change over time. Jurisdictions should contact each fund administrator for questions. The table is organized by state/federal programs and programs that have local or regional sources.

Federal/State Sources	
California Active Transportation Program	
Most Recent Program Schedule	• Call for projects April 2016 • Applications due June 2016 • Projects completed by July 2021
Local Match	Encouraged, not required
Minimum-Maximum	\$250,000 – NA
Eligible Project Examples	Infrastructure and non-infrastructure projects or combination of both: Bike facilities such as bike lanes or paths, pedestrian infrastructure such as sidewalks or crossing improvements, and non-infrastructure projects like Safe Routes to School programs
California Recreational Trails Program	
Program Schedule	OGALS will not conduct a RTP non-motorized application cycle until 2018 at the earliest
Local Match	At least 12%
Minimum-Maximum	NA-NA
Eligible Project Examples	Any recreational trails and trails-related projects including land acquisition
Land and Water Conservation Fund	
Most Recent Program Schedule	• Call for Projects October 2017 • Applications due February 2018 Sometimes competitive cycles combine fiscal years for more funding availability
Local Match	Requires proof that applicant can cover full amount, but most can be reimbursed if action/project type is considered an “eligible project”
Minimum-Maximum	NA – \$3,000,000
Eligible Project Examples	• Acquisition projects or development projects (combination projects are not eligible). Acquisition Projects can include: Acquisition to create a new park, acquisition to expand or provide a buffer for an existing park, acquisition to provide a wildlife corridor, acquisition to provide a recreational/active transportation trail corridor that connects neighborhoods to workplaces, schools, homes, and other recreational opportunities. Acquisition must result in a new recreational opportunity for the public within three years after the completion of the acquisition. • Development Projects must be used to increase outdoor recreational opportunities. Examples can include: athletic fields and courts, community gardens, non-motorized neighborhood and regional recreational trails, open space and natural areas, outdoor gyms, outdoor performing arts venues, picnic areas, play grounds tot lots, skate parks, and outdoor swimming pools and aquatic features.
California Sustainable Communities Program (Sustainable Transportation Infrastructure)	
Program Schedule	Two-year cycle • Release of a proposed fund estimate in July of odd-numbered years, followed by California Transportation Commission (CTC) adoption of the fund estimate in August (odd years) • Once the fund estimate is adopted, Caltrans and the regional planning agencies prepare transportation improvement plans for submittal by December 15th (odd years) • Caltrans prepare the Interregional Transportation Improvement Plan (ITIP) and regional agencies prepare Regional Transportation Improvement Plans (RTIPs) • Public hearings are held in January (even years) • The STIP is adopted by the CTC by April (even years)
Local Match	Not required
Minimum-Maximum	\$1,000,000-\$20,000,000
Eligible Project Examples	Bridge replacement, bike lanes, passing lanes, transit station improvements, highway widening, interchange reconfiguration, and landscaping

Table 7a. Potential Federal & State Funding Sources for Western Riverside County

California Solutions for Congested Corridors Program (subsection to SB1)	
Most Recent Program Schedule	• Program guidelines adopted December 2017 • Applications due February 2018
Local Match	Encouraged, not required
Minimum-Maximum	NA-NA
Eligible Project Examples	Projects that are part of a comprehensive corridor plan designed to reduce congestion in highly traveled corridors by providing more transportation choices such as bike lanes, trails, sidewalks, crossing improvements, and bridge retrofitting/replacement
State Community Development Block Grant Entitlement Program	
Most Recent Program Schedule	Notice of funding availability released annually in January
Local Match	10%
Minimum-Maximum	NA-\$1,500,000
Eligible Project Examples	Public improvements, studies and plans for housing, public works, and community facilities that meet CDBG national objectives and provide principal benefit to low-income persons.
Federal Lands Access Program	
Most Recent Program Schedule	Call for projects – TBD 2018
Local Match	11.47%
Minimum-Maximum	NA-NA
Eligible Project Examples	Transportation facilities that provide access to, are adjacent to, or are located within Federal lands. The Access Program supplements State and local resources for public roads, transit systems, and other transportation facilities that provide seamless access to high-use Federal recreation sites or Federal economic generators within federally-owned lands
Local/Regional Funding Sources	
BEYOND Framework Fund Program	
Most Recent Program Schedule	• Call for projects February 2017 • Projects completed by November 2018
Local Match	Not required
Minimum-Maximum	NA - \$7,500
Eligible Project Examples	Park expansion, trails, water testing, speed feedback signs, zoning updates, grant funding match for other grant programs
County of Riverside Community Improvement Designation (CID) Fund	
Most Recent Program Schedule	Depends on County District. Funds are released annually. Best to apply early in fiscal year
Local Match	Not required
Minimum-Maximum	Depends on other applicants within each County District. No maximum, but funds are limited
Eligible Project Examples	Projects that support programs to increase health, law enforcement, public safety, education, and disadvantaged community members

Table 7b. Potential Federal & State Funding Sources for Western Riverside County (continued)

The following table presents a more detailed look at each of the funding sources from the table above. To use this table, identify whether the project is a local or regional project. The 'Stakeholders' column identifies the potential stakeholders that WRCOG should coordinate with during the application process. The 'Materials Needed' column lists some of the required pieces to the application, in addition to the standard scope of work and project description typically required as part of a grant application; this may change over time. The 'Timeline' column presents a general timeline for each application, with the understanding that most pieces of the application can be developed after the call for projects is announced. The 'Example Project' column shares the name of a relevant application recently awarded funds. Very little information is available on projects that have been awarded County of Riverside Improvement Designation (CID) funds.

Fund	Stakeholders	Materials Needed	Timeline	Level of Effort	Example Project
Caltrans Active Transportation Program – Local and Regional	- Caltrans Local Assistance - Public Works/ Planning/ Transportation Departments - County Health Department - City Council - Local partners for letters of support	30% design - Local match - Photos of site - Letters of support - Cost estimate	- Cycle 4 Call for Projects March 2018 - Applications due May 2018 - Projects completed by 2022 - Determine local match by March 2018 - Acquire up to 10 letters of support by May 2018	High	Moreno Valley - Juan Bautista De Anza Trail Gap Closure
California Recreational Trails Program – Local and Regional	- Office of Grants and Local Services - Public Works/ Transportation/ Parks Departments - City Council	12% local match 30% design or Reconnaissance notes - Topographic and location maps - Name of design standards used for design - Cost estimate - Photos of site - Acquisition schedule, parcel map, willing seller letters, and/or land tenure documentation - CEQA documentation - Authorizing Resolution - Regulatory permits	- Determine how many projects to apply for - Applications due first week of October 2018	High	San Diego Canyonlands - City Heights Canyon Loop Trails Project
Land and Water Conservation Fund – Local and Regional	- Public Works/ Transportation/ Parks Departments - City Council	- Boundary map - Cost estimate - CEQA compliance	- Determine which segments require land acquisition or development by January 2018 - Applications due February 5, 2018	Medium	Eureka – Parcel 4 Park and Trail System

Table 8a. Applying for Funding Sources

Fund	Stakeholders	Materials Needed	Timeline	Level of Effort	Example Project
California Sustainable Communities Program (Sustainable Transportation Infrastructure) – Local and Regional	- Public Works/ Planning Departments - City Council	- Inclusion in the Regional Transportation Improvement Plan - GHG quantification	- Two-year cycle - Release of a proposed fund estimate in July of odd-numbered years, followed by CTC adoption of the fund estimate in August (odd years) - Caltrans and the regional planning agencies prepare transportation improvement plans for submittal by December 15th (odd years) - Regional agencies prepare Regional Transportation Improvement Plans - Public hearings are held in January (even years) - The STIP is adopted by the CTC by April (even years)	Medium	Los Angeles - Sun Valley Senior Veterans Apartments & Sheldon Street Pedestrian Improvements
California Solutions for Congested Corridors Program – Local and Regional	Public Works/ Transportation Departments	- Comprehensive Corridor Plan - Map of project location - Cost estimate - Documentation of public engagement	- Program guidelines adopted December 2017 - Applications due February 2018	High	Example Comprehensive Corridor Plan: San Diego - North Coast Corridor I-5 Improvements and Parallel Rail Corridor
BEYOND Framework Fund Program – Local	- WRCOG - Public Works/ Transportation Departments - City Council	- Concept proposal - If concept proposal is approved, full Project Application	- Call for projects February 2017 - Applications due April 2017 - Project completed by November 2018	Low	Jurupa Valley - Pedestrian and Bicycle Mobility Improvements
County of Riverside Community Improvement Designation (CID) Fund – Local	- County District Supervisor - Public Works/ Transportation Departments - City Council	Budget	- New round of funds become available every fiscal year - Can apply at any time	Low	Boys and Girls Club of Indio

Table 8b. Applying for Funding Sources

Cost Tool

The project team has developed an Excel-based spreadsheet to help WRCOG estimate the cost of various components of bicycle and pedestrian infrastructure. Users of the cost tool input project details, which are then combined with standardized cost assumptions for facility type, mileage, number and type of intersection, and design elements to calculate estimated costs. The tool was utilized to develop cost estimates for the proposed regional facilities.

The tool is organized into three tabs in Excel:

Cost Calculator

This is the primary area of user input. This is where users should enter basic information such as project description, segment information, mileage, number and type of intersections, and design elements. Cost per segment and per project is calculated on-the-fly in this tab as inputs are entered and adjusted.

Report

This is the primary output of the tool. The Report Tab automatically saves all information entered on the Cost Calculator and reflects all data stored in the database. This can be used as a comprehensive project list for active transportation plans. Each project and segment is listed as a row.

Cost Assumptions

This allows for direct input of assumptions of soft costs, unit costs, and design parameters for each of the design elements and is used to calculate project costs. This is organized into four areas: (1) Assumptions & Soft Costs, (2) Unit Costs, (3) Composite Unit Costs, and (4) Corridor Unit Costs.

The tool is robust and contains many of the primary infrastructure elements of pedestrian and bicycle facilities. It is a simple and quick way to get a cost estimate of a proposed design or project idea. This is envisioned to be a tool for planners and engineers to use for help in discussions with decision makers and stakeholders, as well as in the development stages for a project. Providing an itemized cost estimate of

all the elements of a proposed active transportation project is also helpful in the funding application process.

Benefits – Costs Analysis for Biking and Walking

A benefit-cost analysis (BCA) measures the dollar value of the benefits and costs to all the members of society. The benefits, for example, are the dollar value of what all the people in society would be willing to pay to have the project built. If people would be willing to pay more than the project actually costs, then the project has positive net benefits (benefits minus costs). A BCA provides support to project benefits which can include:

- Reduction of public safety issues
- Reduction of environmental concerns, such as pollution, emissions, greenhouse gases
- Reducing travel / commuting time
- Minimizing maintenance and operational costs
- New revenue streams and opportunities for additional capitalization

- Maximizing public use and interest
- Fueling the local economy through economic development
- Adding jobs in the area
- New infrastructure and parkland

In 2014, Caltrans developed a first-generation benefit/cost model for infrastructure and non-infrastructure active transportation projects in order to improve information available to

decision makers at the state and MPO level. Applicants must use the benefit/cost model for active transportation projects funded by Caltrans when responding to this criterion.

- Active transportation projects fall under one of two categories, non-infrastructure and infrastructure projects with varying benefits that are measured for each.
- Non-infrastructure benefits: fac-

tors involved in converting people to become active transportation users such as age, promotional effort, duration, and perception

- Infrastructure benefits: bicycle and pedestrian infrastructure, such as new facilities.

It is important to gather the necessary data before using the benefit/cost tool. Data that can be entered in the tool includes the following:

Infrastructure Benefit/Cost Tool	
Data for Bike Projects	
Existing	• Number of daily bike trips • Commuter bike trips • Recreational bike trips • Average Annual Daily Traffic (AADT) of nearest adjacent road to proposed project • Number of fatal crashes for last 5 years • Number of injury crashes for last 5 years • Number of property-damage only crashes for last 5 years • Safety countermeasures
Anticipated after 1 year of project completion	• Number of daily trips • Daily trips for commuters and recreational users
Data for Pedestrian Projects	
Existing	• Number of daily walk trips; OR • Total number of step counts without project • Number of fatal crashes for last 5 years • Number of injury crashes for last 5 years • Number of property-damage only crashes for last 5 years • Safety countermeasures
Anticipated after 1 year of project completion	• Number of daily walk trips; OR • Anticipated total number of step counts
Data for Safe Routes to School Infrastructure Projects	
Existing	• Number of students enrolled • Number of students living on route proposed • Percentage of students that currently walk or bike to school • Number of fatal crashes for last 5 years • Number of injury crashes for last 5 years • Number of property-damage only crashes for last 5 years • Safety countermeasures
Anticipated after 1 year of project completion	• Percentage of students that will walk or bike to school

Table 9. Infrastructure Benefit/Cost Tool - data requirements

Project Prioritization

As projects move from planning to implementation it is important to have a methodology in place for prioritizing the projects. Each of the projects can be compared against established criteria, to see which of the active transportation routes are most beneficial to the region and which have the least barriers to construction.

While developing prioritization criteria is helpful in identifying projects most eligible for implementation, it is important to be flexible. If there are projects that have been identified that are low on the prioritization list but can be easily implemented, it is encouraged that these facilities are built. Projects should not sit on the shelf due to the fact that they might not be at the top of the list based on the following criteria.

The identified regional routes (and the local routes with regional significance) can be ranked by the criteria below to determine the most eligible projects for implementation. The detailed individual regional project sheets, provided as a supplement to this report, contain much of this information, mak-

ing the prioritization process easier. The criteria recommended for prioritizing projects are:

- **Funding** – if a proposed facility has a funding source identified or funding is readily available for construction, it should get “points”
- **Collision History** – if a proposed facility is along a corridor with high collisions, it should get “points”
- **Proximity to Destinations** – if a proposed facility connects residents to jobs/retail/education/recreational destinations, it should get “points”
- **Feasibility** – if a proposed facility can be feasibility constructed with limited disruption to existing conditions, it should get “points”
- **Multi-Jurisdictional Coordination** – if a proposed facility is backed by several jurisdictions and will connect different municipalities, it should get “points”

- **Local Support** – if a proposed facility has community support, it should get “points”

The facilities with the highest points based on the above criteria should be prioritized for implementation and construction with support and assistance coming from Western Riverside County.

CONCLUSION AND NEXT STEPS

The Western Riverside County Active Transportation Plan has been developed as a tool for implementing successful non-motorized projects throughout the region. The comprehensive network has been planned with the help of COG leaders, jurisdiction outreach, consultant collaboration, and resident feedback. The resulting active transportation routes better link residents and visitors to regional destinations, transit facilities, and recreational opportunities. They have been planned to accommodate a wide user population, with facilities that are appropriate for a range of ages and abilities.

The 24 regional facilities proposed in this plan are supported by detailed summary sheets. These standalone materials have been developed to help move projects towards implementation. The information provided is targeted towards funding applications that would shift projects from planning to construction and operation. They are also tools for helping educate stakeholders, decision makers, and residents on the details of each facility. It is up to individual jurisdictions to move these projects forward, but WRCOG has committed to providing assistance

as needed along the way.

The Western Riverside County is committed to help encourage the implementation of the regional facilities and plans to build momentum throughout the region by taking immediate action on the following:

1. Plan for a kick-off Open Streets Event: Have Western Riverside County sponsor an Open Streets event that simultaneously markets the Active Transportation Plan and its regional projects
2. Begin identifying training courses: To assist in Champion Building, identify the subject matter for training courses that are most valuable for jurisdictions
3. Develop formal Safe Routes to School Program: Providing a comprehensive approach to make school routes safer for children to walk and bike to school.
4. Advertise TUMF funding: Encourage that active transportation projects are built as part of the infrastructure using TUMF funding.
5. Influence the built environment to support multi-modal transportation:

- » Develop bicycle parking guidelines as a model for the region that addresses parking for commercial, residential, and office uses
- » Develop region wide active transportation wayfinding signage themes and standards

Active transportation facilities identified in this plan help to move toward the five goals established at the beginning of the document. They create a “regional backbone network” that will improve mobility when implemented. The proposed bicycle and pedestrian infrastructure is designed to enhance safety or correct unsafe conditions. Increased non-motorized mode share resulting from new facilities would have beneficial impacts on the environment, through reduced pollutants and GHG emissions. Increased bicycle ridership and walking would also have positive effects on public health in the region. Lastly, providing more transportation choices creates a more equitable community, in which access to key destinations, jobs, schools, and recreation areas, is available via a non-motorized mode to more of the population than previously was.

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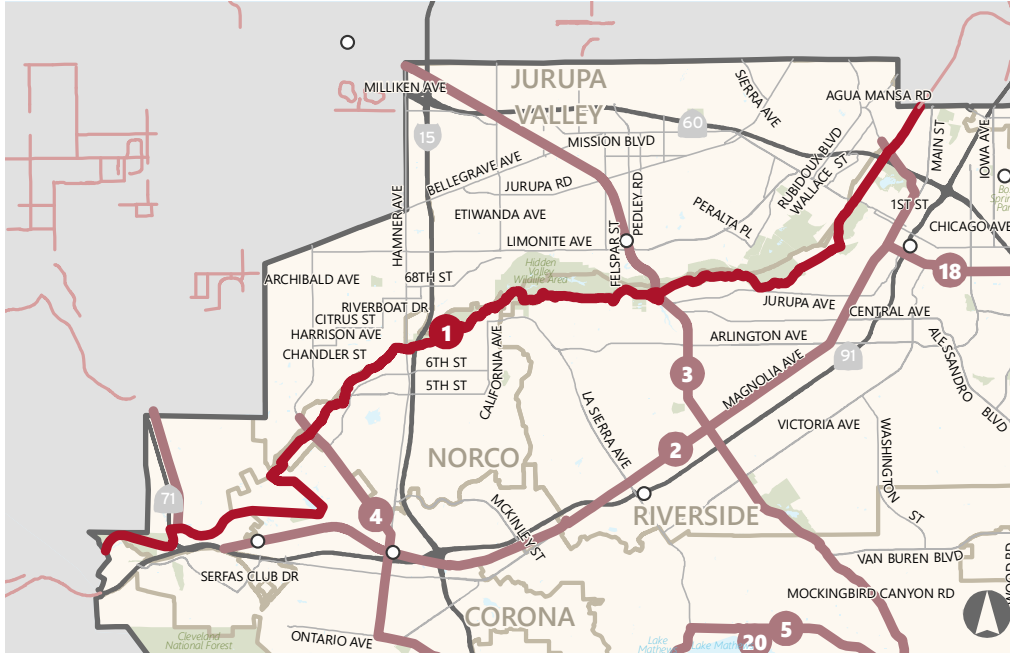
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PROJECT SHEETS

The following project sheets show the project overview, context, and details for each of the proposed regional projects in the WRCOG Active Transportation Plan. Each project sheet includes the following sections:

- Project Overview and Scope
- Project Map
- Key Connections
- Sample Project Cross Section
- Health Environment
- Local Demographic Summary
- Collision History
- Project Implementation Benefits and Challenges
- Disadvantaged Community Indicator Maps
- Construction Cost Estimates
- Feasibility Considerations

Project Map



Project Overview + Scope

The Santa Ana River Trail is an east-west regional facility connecting Riverside to Orange County. From the Riverside-Orange County border, the Santa Ana River Trail extends to Huntington Beach. This potential facility could provide nearly 11 miles of paved trail with unpaved shoulder for equestrian access and almost a mile of paved trails, Class III facilities, and advisory bike lanes. It also provides approximately 0.2 miles of separated bikeway and over half a mile of standard bike lanes. If completed, this project will help alleviate local mobility barriers and provide a bicycle facility within a ½ mi radius of many parks, trails, transit stops, and schools.

Key Connections

Major Destinations

- Riverside County Flood Control
- Fairmont Park Golf Course
- New Joy Baptist Church
- Riverside Airport, Green River Golf Club

Regional Transportation Facilities

- Corona Municipal Airport
- RTA Bus Line 29

Trails

- Lake Evans
- Martha Mclean Anza Narrows Park
- Mt. Rubidoux

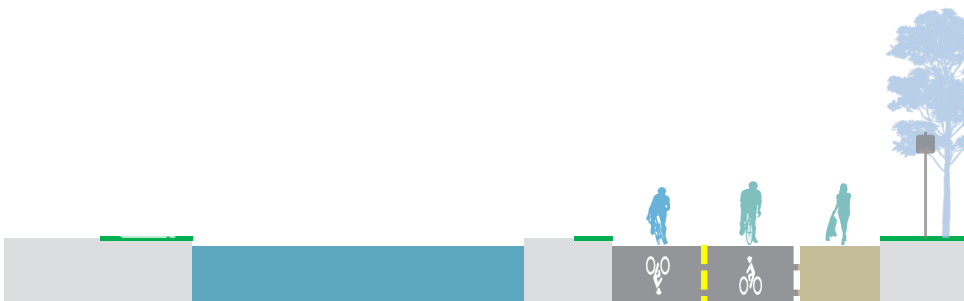
Schools

- Riverview Elementary School
- Patricia Beatty Elementary School

Parks

- Hidden Valley Nature Center
- Carlson Park
- Ryan Bonaminio Park
- Clearwater Sports Fields
- Butterfield Park
- Stagecoach Park

Project Cross Section

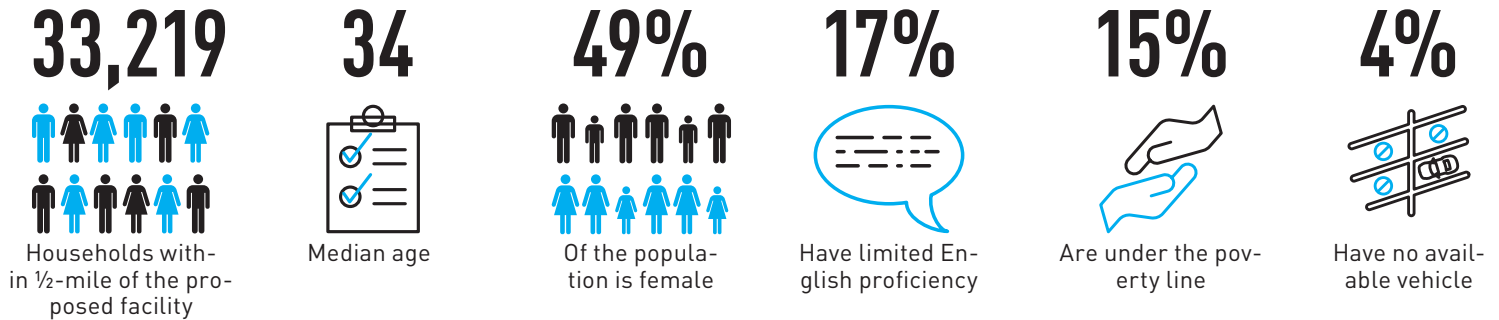


Health Environment

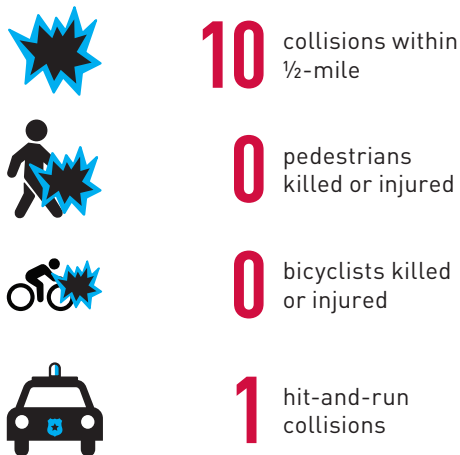
Health: Potential to increase bicycle commuting levels between Riverside and adjacent jurisdictions, reduce traffic congestion, and increase recreation opportunities.

Safety: Special consideration at intersection crossings and approaches improves traffic safety

Local Demographics (within ½-mile)



Collision History



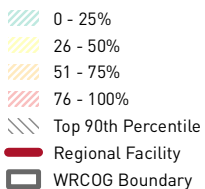
Source: TIMS, 2009-2013

Benefits to Implementation

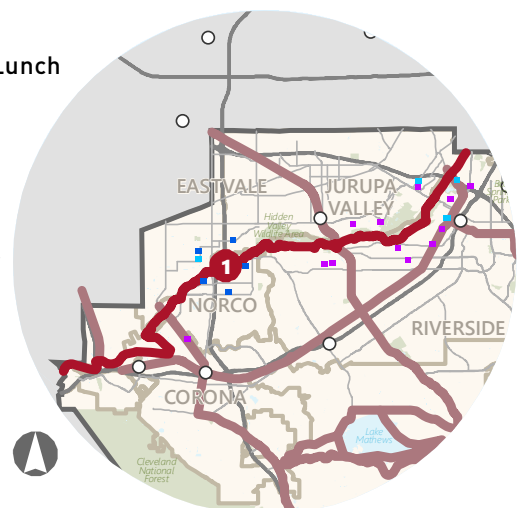
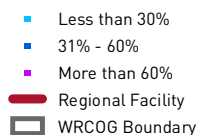
- Minimizes vehicular conflict by providing a segment of off-street path
- Increased non-motorized accessibility to popular recreational facilities such as Lake Evans, Martha Mclean Anza Narrows Park, and Mt. Rubidoux
- Provides WRCOG residents with a long non-motorized facility that extends beyond the Riverside region

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





NORCO - RIVERSIDE - CORONA - JURUPA VALLEY

1 | SANTA ANA RIVER

Estimated Costs

Total Estimated Cost		\$16,482,700
Class I Shared Use Path	10.7 miles	\$13,943,100
Class III Signage & Markings	0.7 miles	\$76,900
Class IV Separated Bikeway	0.2 miles	\$2,179,700
Class II Bike Lanes	0.6 miles	\$134,700
Advisory Bike Lanes	0.7 miles	\$148,300

Challenges to Implementation

- May require coordination with adjacent property owners
- May require CEQA
- Requires coordination between the Cities of Corona, Eastvale, Jurupa Valley, and Riverside
- Requires coordination with Caltrans for SR 71, I-15 undercrossing, and SR 60
- Trail segments require additional attention at four roadway crossings:
 - » Hammer Avenue
 - » Mission Boulevard
 - » Van Buren Boulevard
 - » Market Street

Feasibility Considerations

- A shared use path has been proposed along the Santa Ana River from the western county boundary to the eastern county boundary as there is enough width to accommodate the Class I bike path.
- The width of the segment from the Riverside county line to the Southern Mine Access Road is approximately 14 feet. A nine foot shared use path with narrow, 2.5 feet shoulders could be accommodated along this segment.
- The width of the segment from the Southern Mine Access Road to the north end of the Santa Ana River Trail is 19 feet. A 13 foot shared use path with three foot shoulders could be accommodated.
- The segment parallel to the east side of SR-71 is mostly undeveloped open space. A 10 foot wide shared use path could be accommodated by paving and striping this right of way.
- The segment along Pomona Rincon Road is a 25 foot wide service road and will remain unchanged.
- The width of the segment from the western end of Pomona Rincon Road to Auto Center Drive is 36 feet. A 24 foot shared use path with six foot wide shoulders could be accommodated.
- The width of the segment from Auto Center Drive to Butterfield Drive is 17 feet. An 11 foot shared use path with 3 foot shoulders could be accommodated.
- The width of the segment from the Butterfield Drive gate to N Smith Avenue along Butterfield Drive is 40 feet wide with one travel lane in each direction and one 20 foot wide unpaved shoulder in the westbound direction. A 10 foot shared use path could be accommodated by reducing the shoulder width from 20 feet to 10 feet.
- The width of the segment from Butterfield Drive to W Rincon Street along N Smith Avenue is approximately 53 feet wide with a shoulder, one bike lane in each direction, a center turn lane, and one travel lane in each direction. A 15 foot two-way separated bikeway could be accommodated by restriping, eliminating the shoulder and one bike lane, and narrowing the travel lanes from 13 and 12 feet to 10 feet.
- Due to limited right of way, the segment width along Rincon Street will remain unchanged.
- The segment between Corydon Street and Stagecoach Drive could accommodate a 12 foot shared use path with five foot shoulders through paving and striping a portion of this right of way.

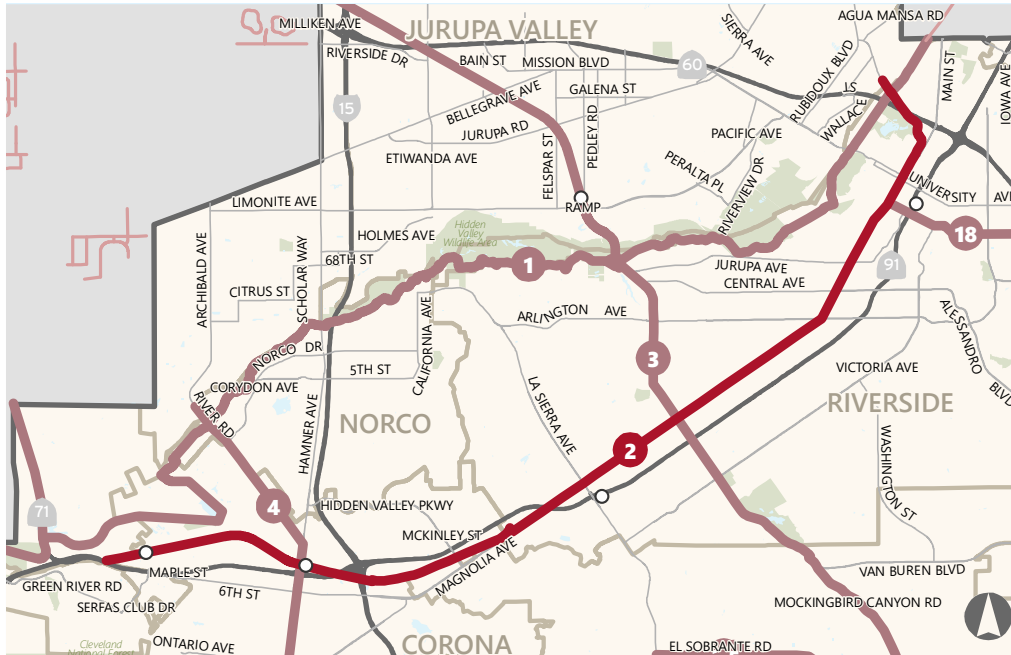
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Feasibility Considerations (continued)

- The width of the segment along Stagecoach Drive and Bluff Street from Roundup Road to Corral Street is 26 feet. Advisory bike lanes in each direction could be accommodated by reducing two travel lanes to one and restriping 6 foot advisory bike lanes in each direction.
- The width of the segment from Corral Street to River Road along Bluff Street is 34 feet. Six foot bike lanes in each direction could be accommodated by narrowing the existing 17 foot travel lanes to 10 feet.
- The width of the segment from River Road to west of Vine Street along Bluff Street is 20 feet and could accommodate advisory bike lanes by reducing travel lanes from two to one and painting two 5 foot advisory bike lanes.
- The width of the segment from Bluff Street to Shadow Canyon Circle could accommodate a 12 foot shared use path with five foot shoulders.
- The width of the segment from Old Hamner Avenue to 789 River Drive along the trail is approximately 15 feet. An 11 foot shared use path with two foot unpaved shoulders could be accommodated.
- The segment between 789 River Drive and Pedley Substation Road could accommodate a 12 foot shared use path with five foot shoulders.
- The segment from Pedley Substation Road to Badford Street will remain unchanged.
- The segment between the existing Santa Ana River Trail and Van Buren Boulevard could accommodate a 10 foot wide shared use path by paving and striping a portion of this right of way.
- The segment from Van Buren Boulevard to the Riverside County line along the existing Santa Ana River Trail will remain unchanged.

Project Map



Project Overview + Scope

The 91 Corridor via Magnolia Avenue route is an east-west regional facility connecting Corona and Riverside. This potential facility would provide 5 miles of off-street shared use path alongside the existing rail line, 12.6 miles of Class II buffered bicycle lanes along Magnolia Avenue and 2.1 miles of other bicycle facilities for a total of 19.7 miles. This project helps address local barriers such as limited active transportation infrastructure and provides an active transportation facility within one half mile of major transportation connections, several parks, schools, and retail destinations. The project also improves connectivity to surrounding jurisdictions.

Key Connections

Major Destinations

- Downtown Riverside
- Riverside Plaza
- Galleria at Tyler
- Kaiser Permanente Riverside Medical Center
- Corona Hills Plaza

Regional Transportation Facilities

- Corona Municipal Airport
- West Corona Metrolink
- North Main Corona Metrolink
- RTA Bus Lines 1, 12, 29

Trails

- None -

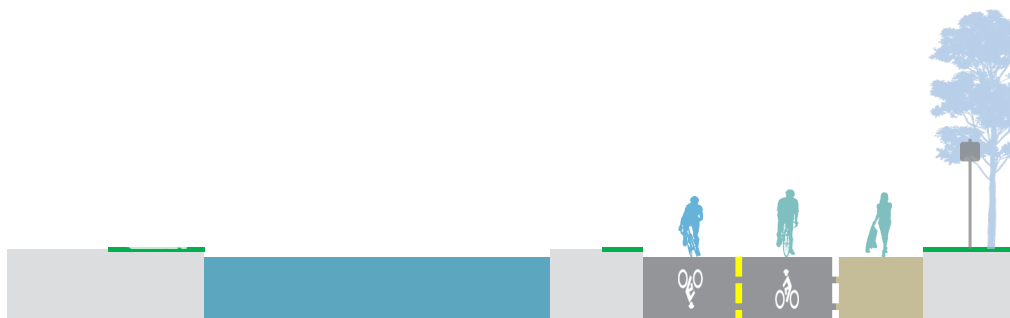
Schools

- California Baptist University
- Ramona High School
- Liberty Elementary School
- St. Thomas the Apostle Catholic School
- Chemawa Middle School
- Sherman Indian High School

Parks

- Fairmount Park
- Evans Park
- Butterfield Park

Sample Project Cross Section



Health Environment

Health: Improves biking conditions, potentially increases bicycle commuting, and/or physical activity.

Safety: Special consideration at intersection crossings and approaches improves Levels of Traffic Safety.

RIVERSIDE - CORONA - JURUPA VALLEY

2 | SR-91 CORRIDOR VIA MAGNOLIA AVE



Local Demographics (within ½-mile)

52,375



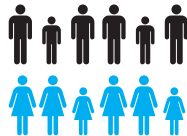
Households with-
in ½-mile of the pro-
posed facility

32



Median age

50%



Of the popula-
tion is female

17%



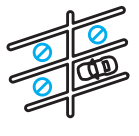
Have limited En-
glish proficiency

20%



Are under the pov-
erty line

7%



Have no avail-
able vehicle

Collision History



507

collisions within
½-mile



44

pedestrians
killed or injured



48

bicyclists killed
or injured



46

hit-and-run
collisions

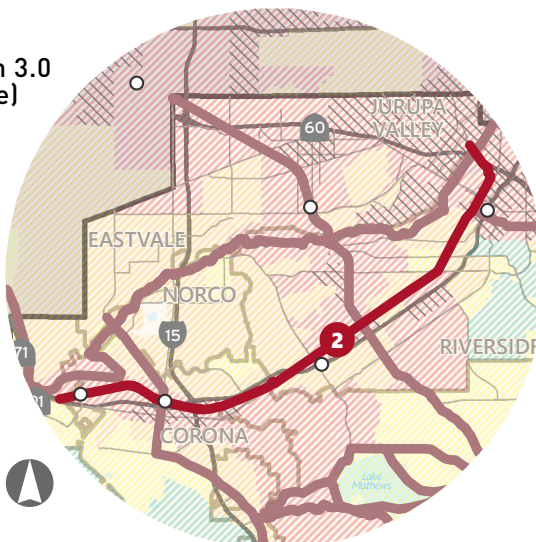
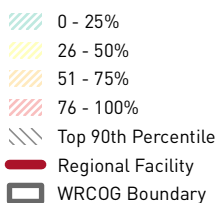
Source: TIMS, 2009-2013

Benefits to Implementation

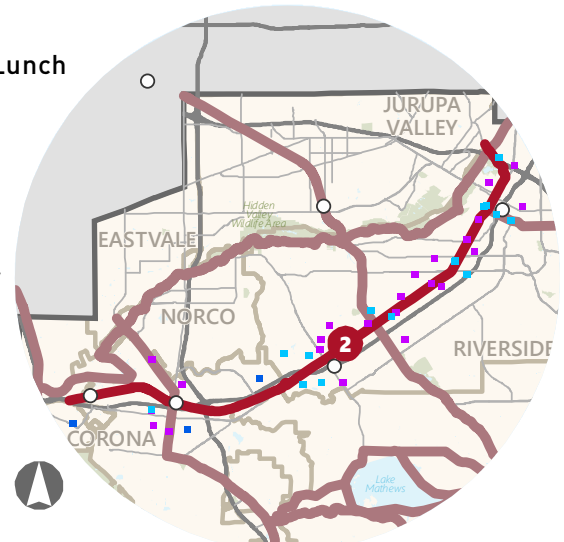
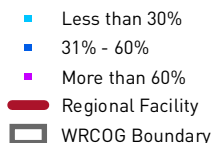
- Can help reduce congestion surrounding Corona Municipal Airport, by providing active transportation alternatives for employees and travelers.
- Decreases bicycle-vehicle conflict by providing 5 miles of off-street facility in Corona
- Improves non-motorized connectivity between Corona and Riverside
- Encourages transit riders to use non-motorized means of transportation for first-last mile barriers surrounding the Corona Transit Center and Magnolia Avenue transit stops and stations.

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





RIVERSIDE - CORONA - JURUPA VALLEY

2 | SR-91 CORRIDOR VIA MAGNOLIA AVE

Estimated Costs

Total Estimated Cost **\$9,744,700**

Class I Shared Use Path 5.0 miles **\$6,078,100**

Class II Buffered Bike Lane 12.6 miles **\$3,176,000**

Class II Bike Lane 2.1 miles **\$490,000**

Feasibility Considerations

- A shared use path has been proposed along the railroad right of way from SR-91 to Radio Road since there is sufficient width to accommodate the Class I bike route.
- The width of the segment from Radio Road to Teller Street along Sampson Avenue is approximately 42 feet with one travel lane in each direction and a center turn lane. Five foot bike lanes could be accommodated in each direction through restriping and narrowing the travel lanes and painted center turn lane to all be 10 to 11 feet wide.
- The width of the segment from Teller Street to Anselmo Drive along Sampson Avenue is approximately 56 feet with two travel lanes in each direction and a center turn lane. No active transportation facility is recommended for this segment unless a travel lane is removed and the segment restriped to accommodate a bike lane on both sides of the roadway.
- The width of the segment from Anselmo Drive to Benjamin Court along Sampson Avenue is approximately 48 feet with one travel lane in each direction and a center turn lane. 8 foot buffered bicycle lanes could be accommodated in each direction through restriping and narrowing the travel lanes and painted center turn lane to all be 10 to 11 feet wide.
- The width of the segment from Benjamin Court and Sampson Avenue to Buchanan Avenue is approximately 32 feet with one travel lane in each direction. 5 foot bike lanes could be accommodated in each direction through restriping and narrowing the travel lanes to all be 11 feet wide.
- The width of the segment from Buchanan Avenue and Magnolia Avenue to 14th Street and Market Street is approximately 114 feet with two to three travel lanes in each direction, one center median, and two bike lanes in each direction. The bike lanes could be upgraded to provide 9 foot buffered bike lanes in each direction through restriping and narrowing the travel lanes to be all 11 feet wide.
- The width of the segment from 14th Street to Ridge Road along Market Street is approximately 82 feet with a center median or center turn lane, parking, buffered bike lanes, and two travel lanes in both directions. The facility is appropriate as is.
- The width of the segment from Ridge Road to Rivera Street along Market Street is approximately 72' with a center median, two travel lanes, and bike lanes in both directions. 8 foot buffered bicycle lanes could be accommodated in each direction through restriping and narrowing the travel lanes and painted center turn lane to all be 11 feet wide.
- The width of the segment from Rivera Street to the Santa Ana River Trail along Market Street is approximately 36 feet with two travel lanes and two bikes lanes in each direction. 8 foot buffered bicycle lanes could be accommodated in each direction through restriping and narrowing the travel lanes to be 10 feet wide.

Challenges to Implementation

- Requires coordination with Caltrans for crossings with I-15, SR-60, and SR-91
- Requires coordination with Federal Transit/Freight coordinator
- Requires coordination with municipal water suppliers
- Requires coordination between Corona and Riverside city staff
- Trail segments require additional attention at five roadway crossings:
 - » Joy Street
 - » Railroad Street
 - » Sheridan Street
 - » Smith Avenue
 - » Cota Street
- Trail segments will require additional safety features such as lighting and wayfinding
- Trail segments may require coordination with adjacent property owners in case of security concerns

Project Map



Key Connections

Major Destinations

- Van Buren Plaza
- Van Buren Drive-In and Swap Meet
- Van Buren Golf Center
- Mockingbird Reservoir

Regional Transportation Facilities

- Riverside Municipal Airport
- East Ontario Metrolink
- Pedley Metrolink
- RTA Bus Line 27

Trails

- Santa Ana River Trail

Project Overview + Scope

The Cajalco – San Bernardino County Line route via Van Buren Boulevard is a north-south regional facility connecting Jurupa Valley, Riverside, and unincorporated Riverside County. This potential facility would provide 7.8 miles of off-street shared use path along the existing rail line, 7.4 miles of Class II buffered bike lanes along Van Buren Boulevard, and an additional 3.7 miles of bicycle facilities on Mockingbird Canyon for a total of 18.9 miles. This project helps address local barriers such as limited active transportation infrastructure and provides an active transportation facility within one half mile of several major parks, schools, and retail destinations. The project also improves connections to surrounding jurisdictions and San Bernardino County.

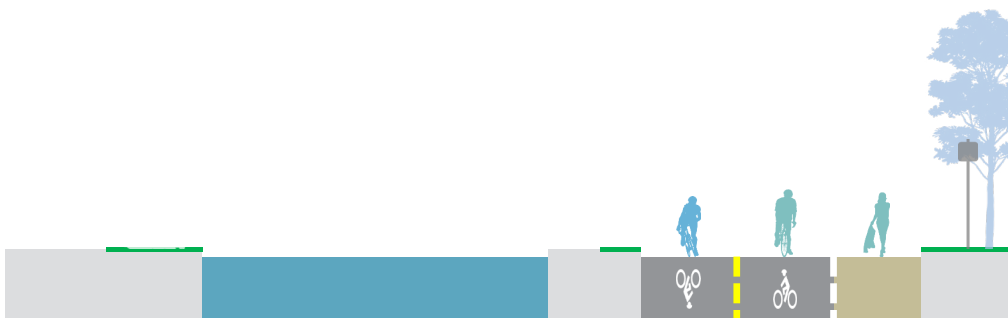
Schools

- Pedley Elementary School
- Bethel Christian Schools

Parks

- Santa Ana River
- Arlington Heights Sports Park
- California Citrus State Historic Park

Sample Project Cross Section

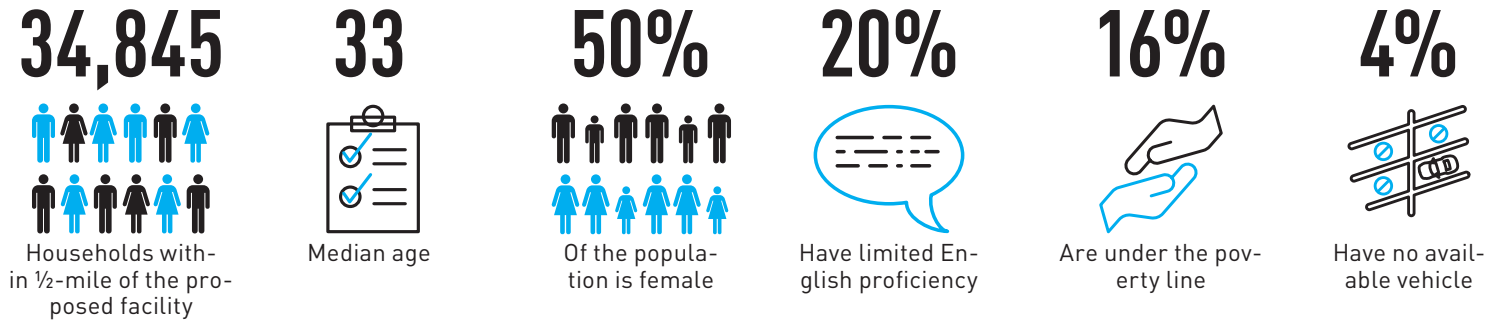


Health Environment

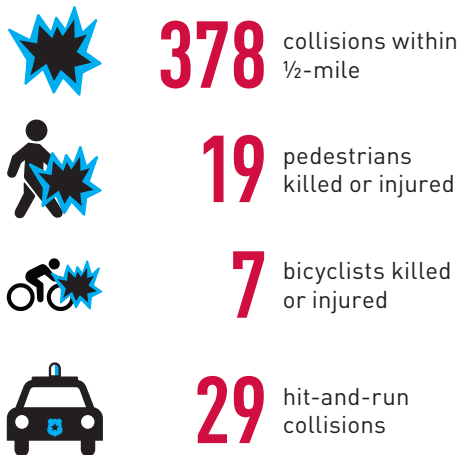
Health: Improves biking conditions, potentially increases bicycle commuting, and/or physical activity. Provides the option to a large segment of the population to connect to recreation and jobs via bicycle commuting and connects to Santa Ana River Trail.

Safety: Special consideration at intersection crossings and approaches improves traffic safety.

Local Demographics (within ½-mile)



Collision History



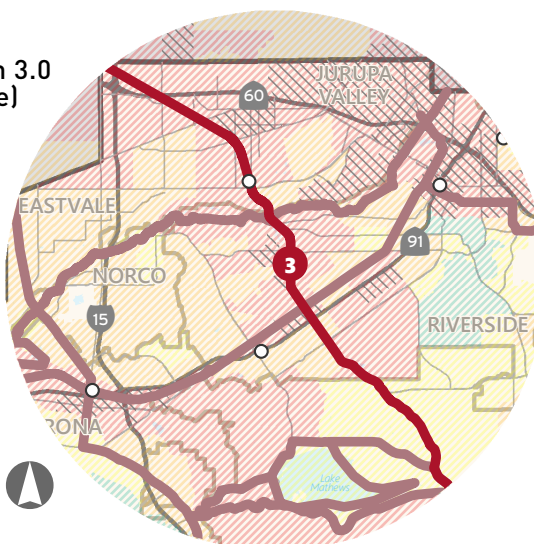
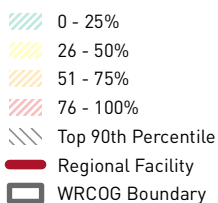
Source: TIMS, 2009-2013

Benefits to Implementation

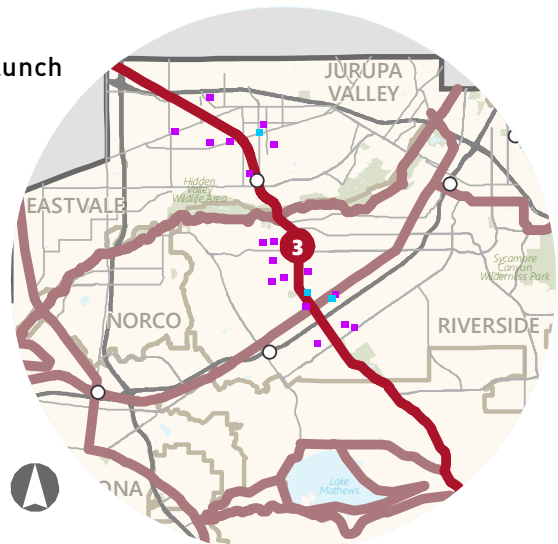
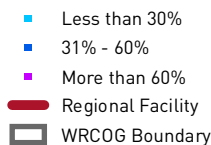
- Encourages increased physical activity by providing non-motorized travel route to residents of unincorporated Riverside County and other outdoor recreational facilities and destinations including but not limited to the Santa Ana River Trail, California Citrus State Historic Park, and other local parks
- May encourage future development and provide economic stimulation in unincorporated Riverside County
- May reduce peak-time traffic congestion surrounding Riverside Airport by providing active transportation alternative routes for employees and travelers
- May alleviate congestion and pollution surrounding Bethel Christian Schools by encouraging students and parents to bike to/from school. Can also help ensure students engage in an adequate amount of daily physical activity.

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





RIVERSIDE - EASTVALE - JURUPA VALLEY

3 | CAJALCO – SAN BERNARDINO COUNTY LINE

Estimated Costs

Total Estimated Cost	\$19,861,900
Class I Shared Use Path 7.8 miles	\$13,929,700
Class II Buffered Bike Lane 7.4 miles	\$1,943,200
Class II Bike Lane 3.7 miles	\$3,989,000

Feasibility Considerations

- A shared use path has been proposed along the railroad right of way from Milliken Avenue & Mission Boulevard to Clay Street & Van Buren Boulevard since there is sufficient width to accommodate the Class I bike path.
- The width of the segment from Clay Street to Jurupa Avenue along Van Buren Boulevard is approximately 84 feet with two travel lanes in each direction and a center median. An 8 foot shoulder is also present in both directions. 8 foot buffered bike lanes could be accommodated in each direction through paving the shoulder.
- The width of the segment from Jurupa Avenue to Wells Avenue along Van Buren Boulevard is approximately 104 feet with a bike lane and three travel lanes in each direction and a center median or turn lane. 8 foot buffered bicycle lanes could be accommodated in each direction through restriping and narrowing the travel lanes and painted center turn lane to all be 11 to 12 feet wide.
- The width of the segment from Wells Avenue to Garfield Street along Van Buren Boulevard is approximately 68 feet with two bike lanes and two travel lanes in each direction and a 7 foot center median. 8 foot buffered bicycle lanes could be accommodated in each direction through restriping and narrowing the travel lanes to all be 11 to 12 feet wide. In portions where there a center turn lane, that should be restriped to 11 feet as well to accommodate the bike lane.
- The width of the segment from Garfield Street to Indiana Avenue along Van Buren Boulevard is approximately 102 feet with two bike lanes and three travel lanes in each direction and a center median or turn lane. 8 foot buffered bicycle lanes could be accommodated in each direction through restriping and narrowing the travel lanes and painted center turn lane to all be 10 to 11 feet wide.
- The width of the segment from Indiana Avenue to Lincoln Avenue along Van Buren Boulevard is approximately 88 feet with two travel lanes in both directions and a center turn lane. 8 foot buffered bicycle lanes could be accommodated in each direction through restriping and narrowing the existing outer travel lanes from 23 feet to 15 feet.
- The width of the segment from Lincoln Avenue to the Gage Canal along Van Buren Boulevard is approximately 80 feet in width with two travel lanes and bike lanes in both directions, plus a center median. 8 foot buffered bicycle lanes could be accommodated in each direction through restriping and narrowing the existing travel lanes from 12-13 feet to 11 feet each.
- The width of the segment from the Gage Canal to Mockingbird Canyon Road along Van Buren Boulevard is approximately 60 feet in width with two travel lanes and shoulders in both directions. 8 foot buffered bicycle lanes could be accommodated in each direction through restriping and narrowing the existing travel lanes from 12-13 feet to 11 feet each and utilizing the shoulder.
- The width of the segment from Mockingbird Canyon Road and Van Buren Boulevard to Cajalco Road & El Sobranto Road is approximately 40 feet with one travel lane in each direction and an 8 foot shoulder. Eight-foot buffered bike lanes could be accommodated in each direction through paving the shoulder.

Challenges to Implementation

- Requires coordination with Caltrans for I-15, SR-60, and SR-91 crossings
- Requires coordination with Federal Transit/Freight coordinator
- Requires coordination with municipal water suppliers
- Requires coordination between Riverside and Mira Loma city staff
- Trail segments require additional attention at five roadway crossings:
 - » Etiwanda Avenue
 - » Bellgrave Avenue
 - » Rutile Street
 - » Jurupa Road
 - » Limonite Avenue
- Trail segments will require additional safety features such as lighting and way-finding
- Trail segments may require coordination with adjacent property owners in case of security concerns
- On-street segments may require reconfiguration of the intersection. These are along Van Buren Blvd at:
 - » Clay Street
 - » Jurupa Avenue
 - » Central Avenue
 - » Doolittle Avenue
 - » Arlington Avenue
 - » Cypress Avenue/
 - » Jackson Street
 - » Audrey Avenue
 - » Wells Avenue/Colorado Avenue
 - » California Avenue
 - » Magnolia Avenue

NORCO - CORONA - LAKE ELSINORE - EASTVALE

4 | I-15 CORRIDOR VIA TEMESCAL CANYON ROAD

Project Map



Project Overview + Scope

The I-15 Corridor via Temescal Canyon non-motorized route is a regional facility connecting Riverside City to Menifee. This route will provide residents with 2.4 miles of a paved Class I shared use path from Dawson Canyon Rd to El Hermano Rd, 7.8 miles of Class II bike lanes with green conflict zone markings and bicycle detection at 36 signalized intersections, nearly 4 miles of Class II buffered bike lanes with green conflict zone markings, around 2 miles of separated bikeway from Tom Barnes Street to Dos Lagos Drive, and 4.8 miles of Class III bike route. If constructed, this project will help alleviate mobility barriers and better connect communities along Interstate 15.

Key Connections

Major Destinations

Industrial employment centers on Sycamore Canyon

Regional Transportation Facilities

RTA 16, 208, 33, 30, 19, 27, 74, 40

Trails

- None -

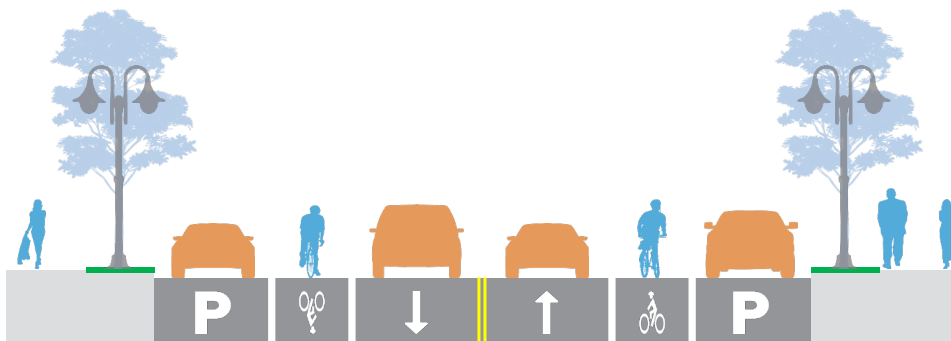
Schools

Arnold Heights School
Innovative Horizons Charter School
Praise Fellowship Christian School
CA Military Institute
Perris Union High School District

Parks

Riverside National Cemetery
Metz Park

Project Cross Section



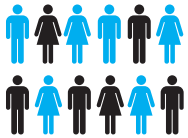
Health Environment

Health: Improves biking conditions, potentially increases bicycle commuting, and/or physical activity.

Safety: Special consideration at intersection crossings and intersection approaches with existing roads reduces potential for collisions and improves traffic safety.

Local Demographics (within ½-mile)

42,923



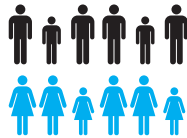
Households with-
in ½-mile of the pro-
posed facility

36



Median age

50%



Of the popula-
tion is female

12%



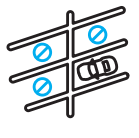
Have limited En-
glish proficiency

11%



Are under the pov-
erty line

3%



Have no avail-
able vehicle

Collision History



170

collisions within
½-mile



7

pedestrians
killed or injured



9

bicyclists killed
or injured



8

hit-and-run
collisions

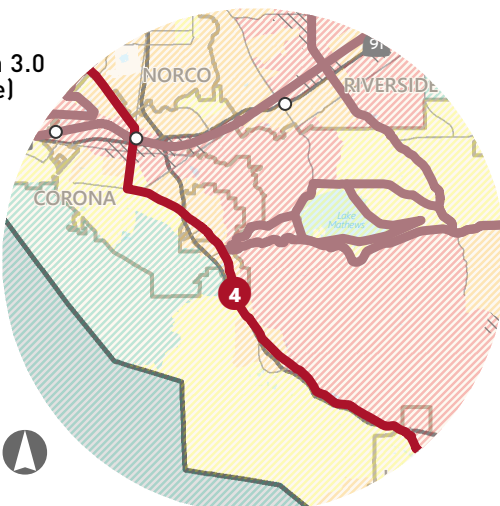
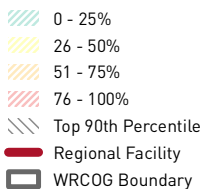
Source: TIMS, 2009-2013

Benefits to Implementation

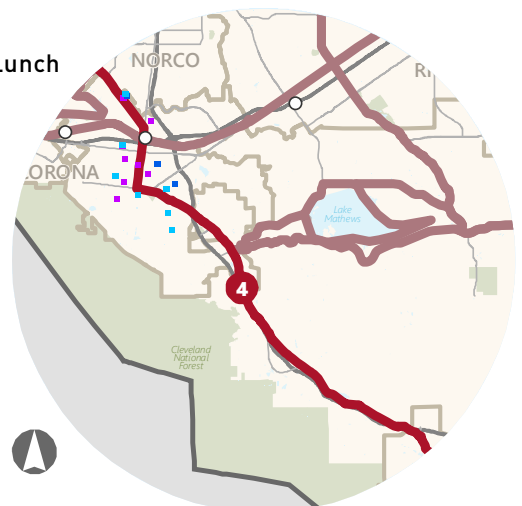
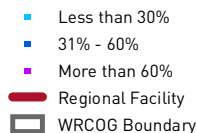
- Provides non-motorized connectivity to employment centers including Sycamore Canyon and can help reduce ADT and congested during peak traffic times
- Encourages residents to engage in daily physical activity, whether for recreation or commuting purposes, that can help reduce local risk of diabetes and have other positive health effects
- Helps mitigate first-last mile barriers by providing non-motorized connectivity to almost 10 bus lines

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





NORCO - CORONA - LAKE ELSINORE - EASTVALE

4 | I-15 CORRIDOR VIA TEMESCAL CANYON ROAD

Estimated Costs

Total Estimated Cost **\$28,983,000**

Class I Shared Use Path **2.4 miles** **\$2,868,900**

Class II Bike Lane **7.8 miles** **\$2,444,400**

Class II Buffered Bike Lane **3.8 miles** **\$694,500**

Class IV Separated Bikeway **1.6 miles** **\$18,441,900**

Class III Bike Route **4.8 miles** **\$4,533,3**

Feasibility Considerations

- The segment north of Bluff Street along River Road with bike lanes will remain unchanged.
- The width of the segment from Bluff Street to Corydon Avenue along River Road is 60 feet. A 9 foot buffered bike lane in each direction could be accommodated by restriping and narrowing lanes from 12-11 feet to 10-11 feet wide.
- The width of the segment from Corydon Avenue to N Lincoln Avenue along River Road is approximately 85 feet with a bike lane and two travel lanes in each direction, and a center median/turn lane. A 7 foot shoulder is also present in the southbound direction. A 12 foot wide buffered bike lane could be accommodated in the northbound direction by narrowing the travel lanes to be 10-11 feet wide. Additionally, the bike lane in the southbound direction can be widened to provide more space between parked cars and the bike lane by restriping and narrowing travel lanes to be 10-11 feet.
- The width of the segment from Lincoln Avenue to Cota Street along River Road is approximately 85 feet with bike lanes, two travel lanes, and 7 foot shoulders in each direction, and a center median/turn lane. Existing bike lanes could be widened to 6.5 feet by restriping and narrowing outer travel lanes to 11 feet and inner travel lanes to 10 feet.
- The width of the segment from Cota Street to Main Street along River Road is approximately 87 feet with bike lanes and two travel lanes in each direction and a center median. Where right of way allows, 8 foot buffered bike lanes could be accommodated by restriping and narrowing travel lanes to 10.5-11 feet.
- The segment width from 6th Street to 8th Street along Main Street is approximately 79 feet with two travel lanes in each direction and a center median/turn lanes. Where right of way allows, a 10.5 foot buffered bike could be accommodated by restriping and narrowing travel lanes to 10-11 feet.
- The width of the segment from 8th Street to Olive Street along Main Street is approximately 60 feet with two travel lanes in each direction and a 10 foot center turn lane. A 5 foot bike lane could be accommodated by restriping and narrowing travel lanes to 10 feet.
- The width of the segment from Olive Street to Mission Road along Main Street is approximately 47 feet with one travel lane in each direction and an 11 foot center turn lane. An 8 foot buffered bike lane could be accommodated by restriping and narrowing travel lanes from 18 feet to 10 feet wide.
- The width of the segment from Mission Road to Ontario Avenue along Main Street is approximately 75 feet with two travel lanes in each direction and an 18 foot center turn lane. A 7 foot wide bike lane could be accommodated by restriping and narrowing travel lanes to 10 feet and narrowing the center turn lane to 11 feet.

Challenges to Implementation

- Requires coordination with Caltrans for SR 91 and I-15 crossings
- Requires coordination between Corona and Lake Elsinore city staff
- Trail segments require additional attention at the Temescal Canyon Rd crossings
- Trail segments will require additional safety features such as lighting and wayfinding
- On-street segments may require reconfiguration of the following intersections in San Jacinto as part of a different project. These are at:

- | | |
|---|---|
| » River Road at 2nd Street | » Ontario Avenue at Magnolia Avenue |
| » Rover Road at Lincoln Avenue | » Ontario Avenue at Fullerton Avenue |
| » River Road at Cota Street | » Ontario Avenue at Rimpau Avenue |
| » Main Street at Rover Road | » Ontario Avenue at California Avenue |
| » Main Street at SR 91 on and off ramps | » I-15 on and off ramps at Ontario Avenue |
| » Main Street at 6th Street | » Temescal Canyon Road at Cajalco Road |
| » Main Street at Grand Boulevard | |
| » Main Street at Ontario Avenue | |

Continued on next page ↓



Feasibility Considerations (continued)

- The width of the segment from Main Street and Kellogg Avenue along Ontario Avenue is approximately 88 feet with three travel lanes in each direction and a 16 foot center median/turn lanes. A 5 foot bike lane could be accommodated by restriping and narrowing travel lane widths to 10-11 feet.
- The width of the segment of Ontario Avenue from Kellogg Avenue to Fullerton Avenue is 50 feet with two lanes in each direction. A five foot bike lane could be accommodated by restriping and narrowing all travel lanes to 10 feet.
- The width of the segment from Fullerton Avenue to State Street along Ontario Avenue is approximately 87 feet with three travel lanes in each direction and a 15 foot center median/turn lanes. A five foot bike lane in each direction could be accommodated by restriping and narrowing travel lanes to 10-11 feet.
- The width of the segment from State Street to Minnesota Road along Ontario Avenue is 55 feet with two travel lanes in the northbound direction, one travel lane in the southbound direction, and a 11 foot center turn lane. A 7 foot bike lane in each direction could be accommodated by restriping and narrowing all travel lanes to 10 feet.
- The width of the segment from Minnesota Road to Tom Barnes Street along Temescal Canyon Road varies between 25- 30 feet with one travel lane and shoulder in each direction. Where right-of-way allows, a 5 foot wide bike lane in each direction could be accommodated by eliminating the shoulders and restriping/narrowing travel lanes to 10 feet.
- The width of the segment from Tom Barnes Street to Dos Lagos Drive along Temescal Canyon Road is 96 feet with one bike lane and two travel lanes in each direction and a center median/turn lane. A 12.5 foot separated bike lane in each direction could be accommodated by restriping and reducing travel lane widths to 10-11 feet.
- The width of the segment from Dos Lagos Drive to Leroy Road along Temescal Canyon Road varies from 30-35 feet with one travel lane and shoulder in each direction. Where right-of-way allows, a 6.5 foot bike lane in each direction could be accommodated by eliminating the shoulders and restriping/narrowing travel lanes to 11 feet.
- The width of the segment from 2260 Temescal Canyon Road to Dawson Canyon Road along Temescal Canyon Road is approximately 30 feet with one travel lane and shoulder in each direction. A five foot bike lane in each direction could be accommodated by eliminating the shoulders and restriping/narrowing travel lanes to 10 feet.
- The segment from Dawson Canyon Road to El Hermano Road is primarily undeveloped open space and a 10 foot shared use path could be accommodated.
- The width of the segment of Temescal Canyon Road from El Hermano Road to Indian Truck Trail is 88 feet. An 11.5 foot buffered bike lane could be accommodated by narrowing travel lanes to be 10-11 feet wide.
- The width of the segment from Indian Truck Trail to the end of the facility is 22 feet with one travel lane in each direction. Due to limited right-of-way, a Class III bike route with appropriate signage and sharrow markings is proposed

Project Map



Key Connections

Major Destinations

Lake Mathews
Crossings at Corona

Regional Transportation Facilities

RTA Bus Lines 19, 41

Trails

- None -

Project Overview + Scope

The East Corona – Lake Perris route via El Cerrito Road is an east-west regional facility connecting El Cerrito, unincorporated Riverside County, and Perris. This potential facility would provide 3.4 miles of Class IV separated bikeways along the Cajalco Expressway, 7.3 miles of Class II buffered bike lanes, and an additional 10 miles of bicycle facilities for a total of 19 miles. The alternative route along Cajalco Road includes the same cycle track along the expressway and a Class IV two-way separated bikeway along the Cajalco Road for 9.5 miles. The alternative route is 17.7 miles long.

There currently are no active transportation facilities along either of the two routes. The implementation of either facility can help improve active transportation safety, access, and mobility. The routes would provide a bicycle facility within one half mile of a major regional park and retail destinations. Both projects also improve connections to surrounding jurisdictions.

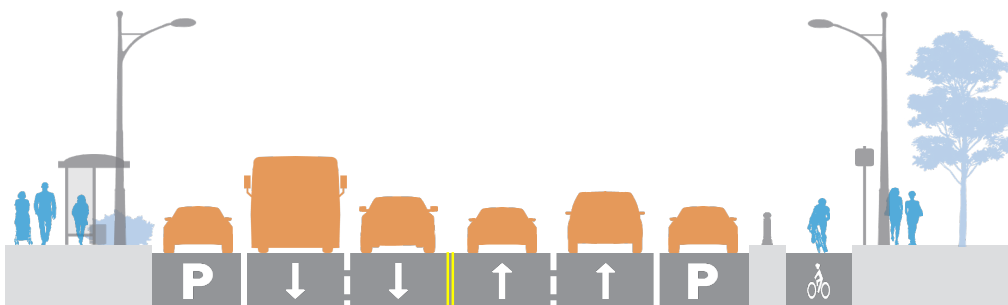
Schools

Lake Mathews Elementary School

Parks

Lake Mathews Ecological Reserve

Sample Project Cross Section

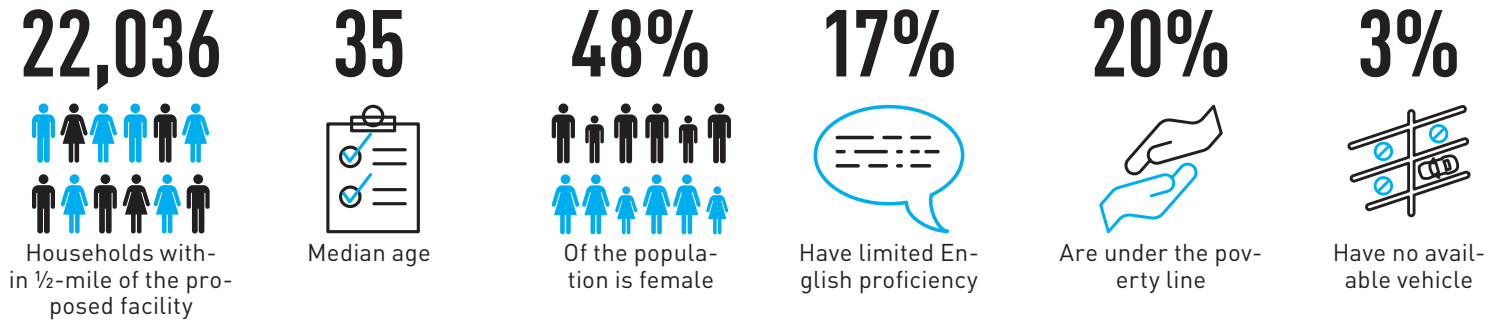


Health Environment

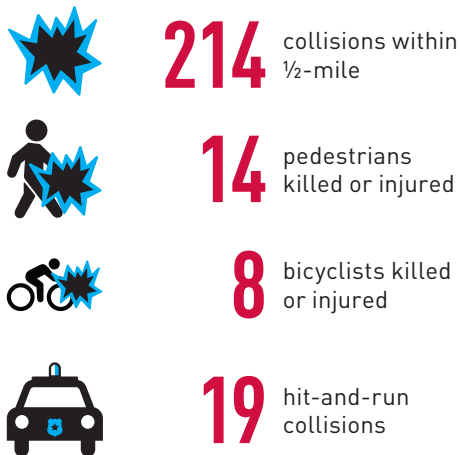
Health: Improves biking conditions, potentially increases bicycle commuting, and/or physical activity. Provides the option to a large segment of the population to connect to recreation and jobs via bicycle commuting and potentially improve health conditions via active transportation and recreation.

Safety: Special consideration for at intersection crossings and approaches improves traffic safety.

Local Demographics (within ½-mile)



Collision History



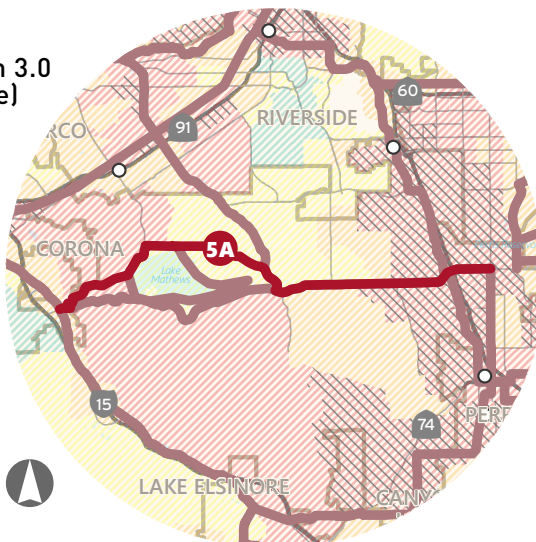
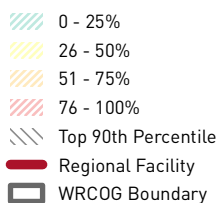
Source: TIMS, 2009-2013

Benefits to Implementation

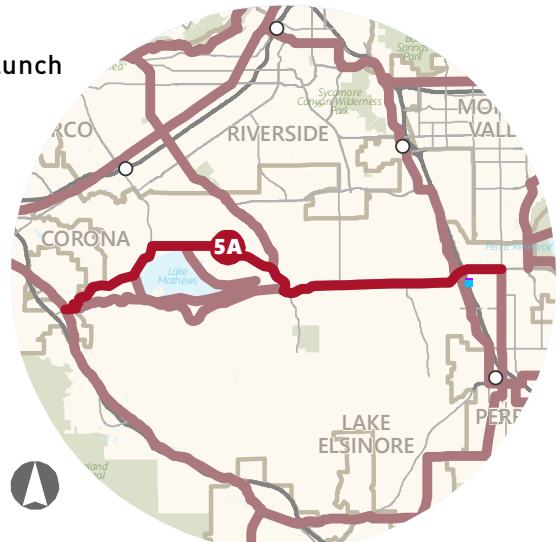
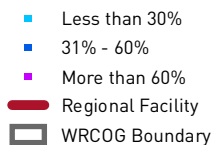
- A public recreational facility that can encourage residents to engage in more bicycling and walking, leading to lower health costs and increased health outcomes
- Provides non-motorized recreational access to Lake Mathews and nearby trails
- Provides bike access to The Crossings at Corona

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





CORONA - PERRIS

5A | EAST CORONA – LAKE PERRIS VIA EL SOBRANTE

Estimated Costs

Total Estimated Cost	\$15,926,300
Class IV Separated Bikeway 3.4 miles	\$1,690,800
Class II Buffered Bike Lane 7.3 miles	\$7,702,800
Class II Bike Lanes 6.5 miles	\$6,126,100
Class III Sharrowed Bike Route 3.5 miles	\$406,600

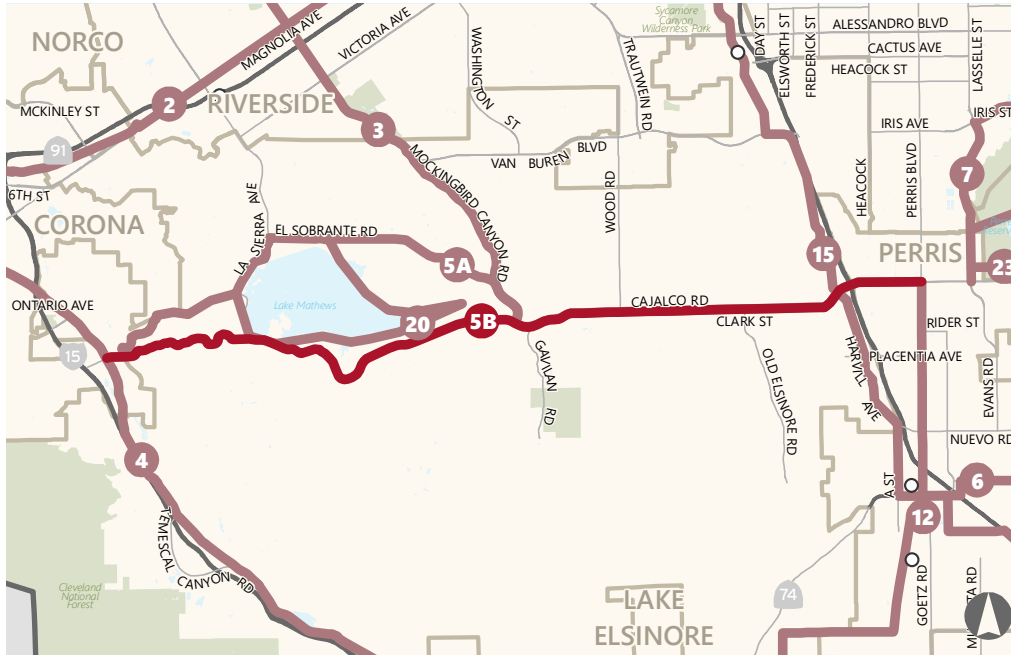
Feasibility Considerations

- The width of the segment from Temescal Canyon Road to Eagle Canyon Road to Cajalco Road is approximately 36 feet with one travel lane and a wide shoulder in each direction. 8 foot buffered bike lanes could be accommodated in each direction through paving the shoulder and restriping and narrowing the travel lanes to be 10 feet wide..
- The width of the segment from Eagle Canyon Road to La Sierra Avenue along Eagle Canyon and Tin Mine Road is approximately 26 feet, unpaved, with one travel lane in each direction. A shared bicycle route could be accommodated in both directions through paving the road.
- The width of the segment from Eagle Canyon Road to El Sobrante Road along La Sierra Avenue is approximately 32 feet with one travel lane and a wide shoulder in each direction. A bicycle lane could be accommodated in both directions through paving of the shoulder and restriping and narrowing the lanes to 11 feet.
- The width of the segment from La Sierra Avenue to Cajalco Road along El Sobrante Road is at least 32 feet with one travel lane and a 4 foot shoulder in each direction. A 5 foot bicycle lane could be accommodated in both directions through paving of the shoulder and restriping and narrowing the lanes to 11 feet.
- The width of the segment from El Sobrante Road to Harley John Road along Cajalco Avenue is approximately 32 feet with one travel lane and a wide shoulder in each direction. A bicycle lane could be accommodated in both directions through paving of the shoulder and restriping and narrowing the lanes to 11 feet.
- The width of the segment from Harley John Road to Gustin Road along Cajalco Road is approximately 46 feet with one travel lane and a wide shoulder in each direction, plus a 12 foot center turning lane. A bicycle lane could be accommodated in both directions through paving of the shoulder and restriping and narrowing the lanes to 12 feet.
- The width of the segment from Gustin Road and Cajalco Road to Seaton Avenue and Ramona Expressway is approximately 52 feet with one travel lane and a wide shoulder in both directions. Buffered bike lanes could be accommodated in each direction through paving the shoulder.
- The width of the segment from Seaton Avenue to N Perris Boulevard along Ramona Expressway is approximately 104 feet with three travel lanes in each direction, a center median, and a wide shoulder along one leg of the segment. Nine foot separated bikeways could be accommodated in each direction through paving the shoulder and restriping and narrowing the travel lanes to be 11 feet wide.

Challenges to Implementation

- Requires coordination with Caltrans for I-215 crossing
- Requires coordination with municipal water suppliers
- Requires coordination between Perris, Riverside, and Corona city staff
- Both facilities may require intersection re-configuration at:
 - » Cajalco Expressway at Harvill Avenue
 - » Ramona Expressway at Indian Avenue
 - » Ramona Expressway at I-215 on and off ramps
 - » Ramona Expressway at Perris Boulevard

Project Map



Project Overview + Scope

Cajalco Road includes the same cycle track along the expressway and a Class IV two-way bikeway along the mountainous Cajalco Road for 9.5 miles. The alternative route is 17.7 miles long. There currently are no active transportation facilities along either of the two routes. The implementation of either facility can help improve active transportation safety, access, and mobility. The routes would provide a bicycle facility within one half mile of a major regional park and retail destinations. Both projects also improve connections to surrounding jurisdictions.

Key Connections

Major Destinations

Crossings at Corona

Regional Transportation Facilities

RTA Bus Lines 19, 41

Trails

- None -

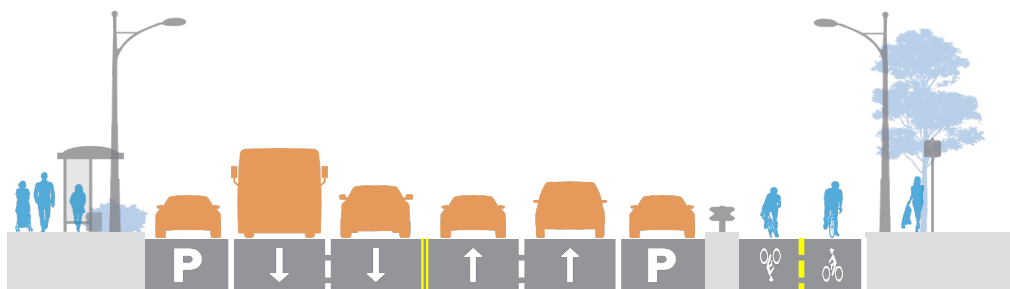
Schools

Lake Mathews Elementary School

Parks

Lake Mathews Ecological Reserve

Sample Project Cross Section



Health Environment

Health: Improves biking conditions, potentially increases bicycle commuting, and/or reduces traffic congestion. Provides the option to a large segment of the population to connect to recreation and jobs via bicycle commuting and potentially improve health conditions via active transportation and recreation.

Safety: Special consideration at intersection crossings and intersection approaches with existing roads at beginning and end of route reduces potential for collisions and increases traffic safety.

Local Demographics (within ½-mile)

22,036



Households with-
in ½-mile of the pro-
posed facility

35



Median age

48%



Of the popula-
tion is female

17%



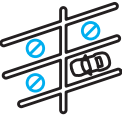
Have limited En-
glish proficiency

20%



Are under the pov-
erty line

3%



Have no avail-
able vehicle

Collision History

 **259** collisions within
½-mile

 **13** pedestrians
killed or injured

 **8** bicyclists killed
or injured

 **18** hit-and-run
collisions

Source: TIMS, 2009-2013

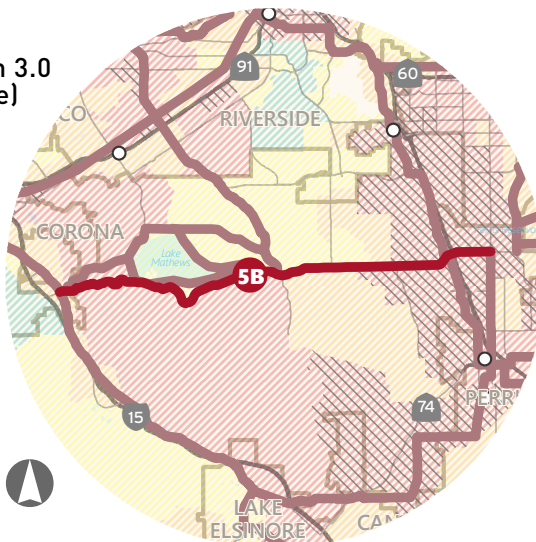
Benefits to Implementation

- A public recreational facility that can encourage residents to engage in more bicycling and walking, leading to lower health costs and increased health outcomes
- Provides non-motorized recreational access to Lake Mathews and nearby trails
- Provides bike access to The Crossings at Corona

Disadvantaged Communities

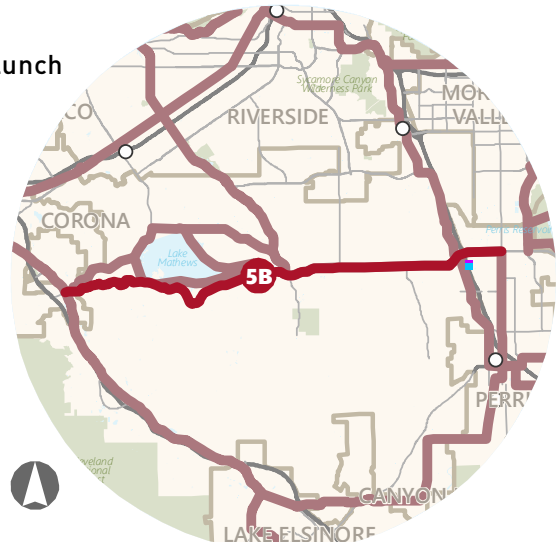
CalEnviroScreen 3.0 Score (Statewide)

- 0 - 25%
- 26 - 50%
- 51 - 75%
- 76 - 100%
- Top 90th Percentile
- Regional Facility
- WRCOG Boundary



Free/Reduced Lunch Participation (within 1 mile)

- Less than 30%
- 31% - 60%
- More than 60%
- Regional Facility
- WRCOG Boundary





CORONA - PERRIS

5B | EAST CORONA – LAKE PERRIS (VIA CAJALCO ROAD)

Estimated Costs

Total Estimated Cost	\$17,848,900
Class IV Two-Way Bikeway 9.5 miles	\$10,032,000
Class IV One-Way Bikeway 3.4 miles	\$1,690,800
Class III Bike Route 6.5 miles	\$6,126,100

Feasibility Considerations

- The width of the segment from Temescal Canyon Road to El Sobrante Road along Cajalco Road is approximately 32 feet with one travel lane and a wide shoulder in each direction. A two way cycle track (Class IV) could be accommodated on one side of Cajalco Road through paving of the shoulder and restriping and narrowing the lanes to 11 feet. Due to the mountainous terrain, there will be some short segments where a cycle track is infeasible and bicycles will have to share the road.
- The width of the segment from El Sobrante Road to Harley John Road along Cajalco Avenue is approximately 32 feet with one travel lane and a wide shoulder in each direction. A bicycle lane could be accommodated in both directions through paving of the shoulder and restriping and narrowing the lanes to 11 feet.
- The width of the segment from Harley John Road to Gustin Road along Cajalco Road is approximately 46 feet with one travel lane and a wide shoulder in each direction. A bicycle lane could be accommodated in both directions through paving of the shoulder and restriping and narrowing the lanes to 12 feet.
- The width of the segment from Gustin Road and Cajalco Road to Seaton Avenue and Ramona Expressway is approximately 52 feet with one travel lane and a wide shoulder in both directions. Protected bicycle lanes could be accommodated in each direction through paving the shoulder.
- The width of the segment from Seaton Avenue to N Perris Boulevard along Ramona Expressway is approximately 104 feet with three travel lanes in each direction, a center median, and a wide shoulder along one leg of the segment. Eight foot buffered bike lanes could be accommodated in each direction through paving the shoulder and restriping and narrowing the travel lanes to be 12 feet wide.

Challenges to Implementation

- Requires coordination with Caltrans for I-215 crossing
- Requires coordination with municipal water suppliers
- Requires coordination between Perris, Riverside, and Corona city staff
- Both facilities may require intersection re-configuration at:
 - » Cajalco Expressway at Harvill Avenue
 - » Ramona Expressway at Indian Avenue
 - » Ramona Expressway at I-215 on and off ramps
 - » Ramona Expressway at Perris Boulevard

Project Map



Key Connections

Major Destinations

Downtown Perris
Soboba Casino
Golden Era Golf Course
Skydive Baseball Park

Regional Transportation Facilities

Perris Metrolink
RTA Bus Lines 19, 27

Trails

Juan Bautista De Anza Trail

Project Overview + Scope

The Bautista Creek – Perris route via the San Jacinto River is an east-west regional facility connecting Hemet, San Jacinto, and Perris. This potential facility would provide 23.1 miles of off-street shared use path alongside the San Jacinto River and 2.7 miles of Class II buffered and standard bicycle lanes in Hemet and Perris for a total of 25.8 miles. This project helps address issues such as limited active transportation infrastructure and recreational opportunities in the area and helps to improve active transportation safety, access, and mobility. The proposed facility would provide an active transportation route that is within one half mile of major transportation connections, several parks, and a college. The project also improves connectivity to surrounding jurisdictions through linkages with local active transportation routes that are both existing and proposed.

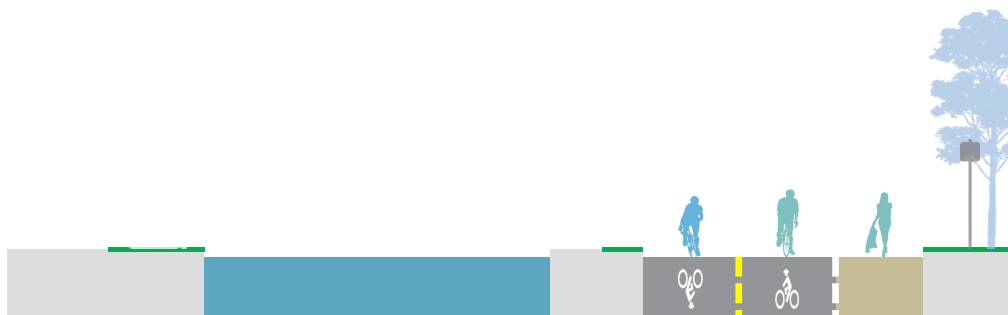
Schools

Mt. San Jacinto College

Parks

San Jacinto River Park
Bob Long Park

Sample Project Cross Section

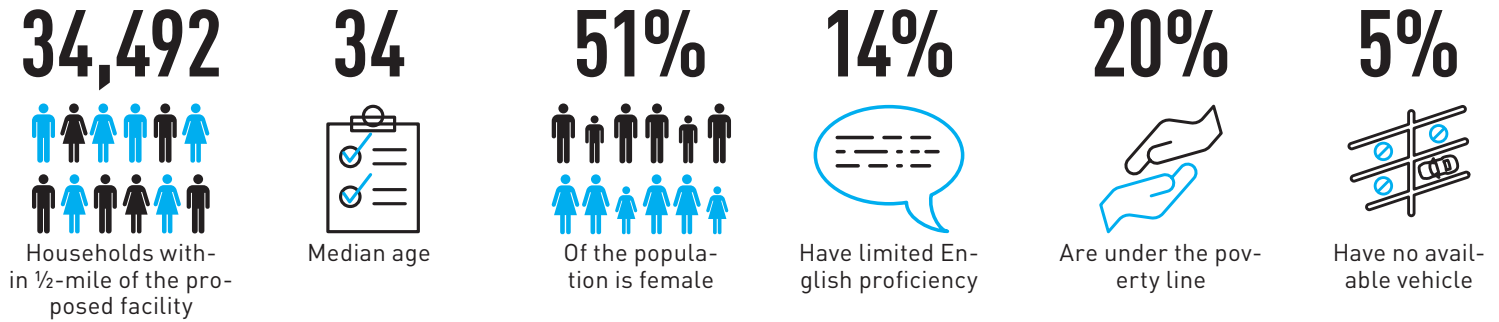


Health Environment

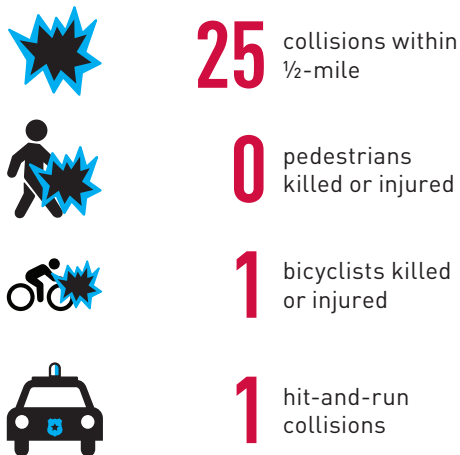
Health: Improves biking network connections, provides the option to a segment of the population to connect to recreation and jobs via bicycle commuting and potentially improves health conditions via active transportation and recreation.

Safety: Special consideration at intersection crossings and intersection approaches with existing roads improves traffic safety along the route.

Local Demographics (within ½-mile)



Collision History



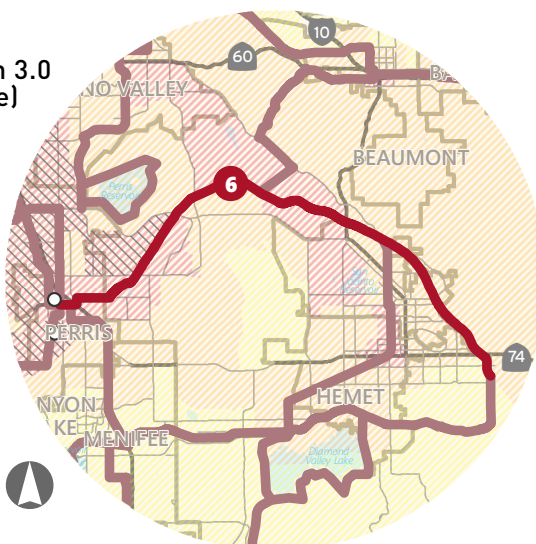
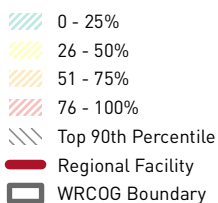
Source: TIMS, 2009-2013

Benefits to Implementation

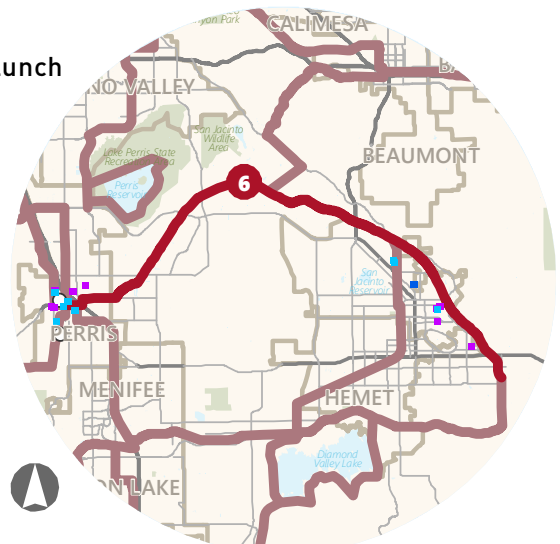
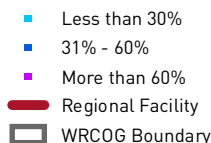
- Provides an active transportation route to nearby shopping center for residents that live along Ramona Expressway
- Increases bike and pedestrian access to San Jacinto River Park and other trails/outdoor recreation activities
- May spark economic and ecological revitalization along San Jacinto River trail
- Connects Valley Vista, San Jacinto, and Perris

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





SAN JACINTO - PERRIS - HEMET

6 | BAUTISTA CREEK – PERRIS

Estimated Costs

Total Estimated Cost **\$30,737,600**

Class I Shared Use Path **23.1 miles** **\$30,032,200**

Class II Buffered Bike Lane **2.0 miles** **\$601,900**

Class II Bike Lanes **0.7 miles** **\$103,500**

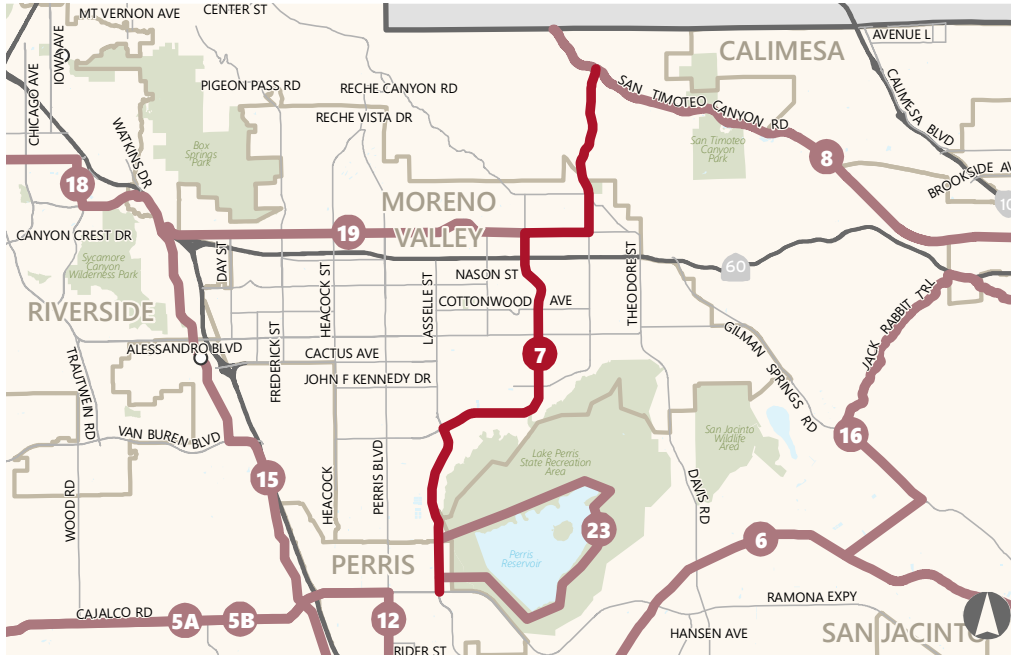
Feasibility Considerations

- The width of the segment from Perris Boulevard to Redlands Avenue along 4th Street is approximately 62 feet with two travel lanes in each direction and a center turn lane. 5 foot bike lanes could be accommodated in each direction through restriping and narrowing the travel lanes and painted center lane to be between 10-11 feet wide. The width of the segment from 4th Street to E San Jacinto Avenue is a 14 foot wide unpaved road running parallel to Redlands Avenue. A paved Class I bicycle path could be accommodated along this segment.
- The width of the segment from Redlands Avenue and Dunlap Drive along San Jacinto Avenue is approximately 24 feet with two travel lanes in both directions. An 8 foot unpaved shoulder is also present in both directions. Eight foot buffered bike lanes could be accommodated in each direction through paving the shoulder.
- The segment from Dunlap Drive and E San Jacinto Avenue to Ramona Expressway and Cedar Avenue is primarily rural and unpaved. A paved Class I bicycle path could be accommodated along the San Jacinto River and Bautista Creek.
- The width of the segment from Cedar Avenue to Highway 74 along Ramona Expressway is 84 feet with two travel lanes and a wide shoulder in each direction, plus a center turning lane. Eight foot buffered bike lanes could be accommodated in each direction through restriping and narrowing the travel lanes to be 12 feet wide. The center turning lane could remain as is.
- The segment from Ramona Expressway & Highway 74 to Fairview Avenue is primarily rural and unpaved. A paved Class I bicycle path could be accommodated along this segment.

Challenges to Implementation

- Requires coordination with Caltrans for I-215, SR-74, and SR-79 crossings
- Requires coordination between Hemet, Perris, Nuevo, and San Jacinto city staff
- Trail segments require additional attention at several roadway crossings, including:
 - » I-215
 - » San Jacinto Avenue
 - » Nuevo Road
 - » Ramona Expressway
 - » Davis Road
 - » Bridge Street
 - » SR-79
 - » State Street
 - » Main Street
 - » 7th Street/ Courtland Avenue
- Trail segments will require additional safety features such as lighting and way-finding
- On-street segments may require intersection reconfiguration as part of a different project at:
 - » Ramona Expressway at SR-74
 - » Perris Boulevard
 - at 4th St
 - » Redlands Avenue at 4th St

Project Map



Key Connections

Major Destinations

Kaiser Permanente Moreno
Valley Medical Center
Stoneridge Town Centre
Moreno Beach Plaza
Lasselle Sports Park

Regional Transportation Facilities

RTA Bus Lines 20, 31, 41

Trails

- None -

Project Overview + Scope

The San Timoteo Canyon Rd – Ramona Expy route is a north-south regional facility connecting Moreno Valley and Perris. This potential facility would provide 3.7 miles of Class IV one-way separated bikeways on both sides of Moreno Beach Drive and Iris Avenue. An additional 9.3 miles of Class II buffered and regular bike lanes would bring the total facility to 13.3 miles. While Moreno Beach Drive and Lasselle Street have some existing active transportation facilities, they could be improved by making a more connected and cohesive network that better addresses non-motorized safety, access, and mobility. This project would help to provide a non-motorized facility within one half mile of major transportation connections, several parks, schools, and retail destinations. The project also improves connectivity to surrounding jurisdictions through linkages with local active transportation routes that are both existing and proposed.

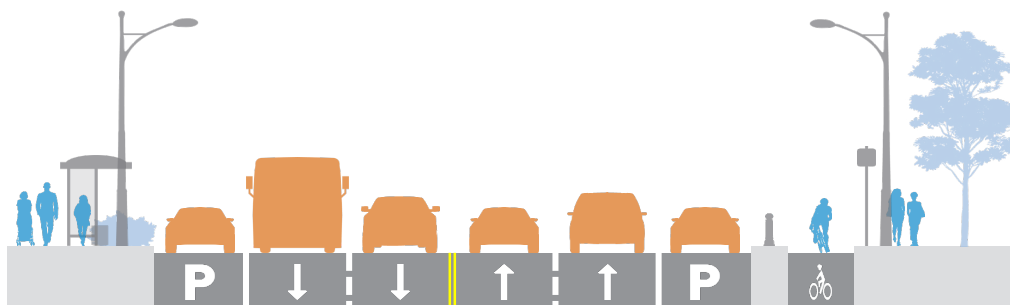
Schools

Moreno Valley College
Wilmot Elementary School
Rancho Verde High School

Parks

Lake Perris State Recreation Area
Vista Loma Park
El Portrero Park

Sample Project Cross Section



Health Environment

Health: Increases length of biking network, provides the option to a segment of the population to connect to recreation and jobs via bicycle commuting and potentially improves health conditions via active transportation and connections to recreation.

Safety: Special consideration at intersection crossings and intersection approaches with existing roads improves traffic safety along the route.

Local Demographics (within ½-mile)

23,807



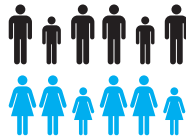
Households with-
in ½-mile of the pro-
posed facility

32



Median age

51%



Of the popula-
tion is female

14%



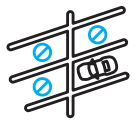
Have limited En-
glish proficiency

11%



Are under the pov-
erty line

2%



Have no avail-
able vehicle

Collision History



168

collisions within
½-mile



7

pedestrians
killed or injured



17

bicyclists killed
or injured



6

hit-and-run
collisions

Source: TIMS, 2009-2013

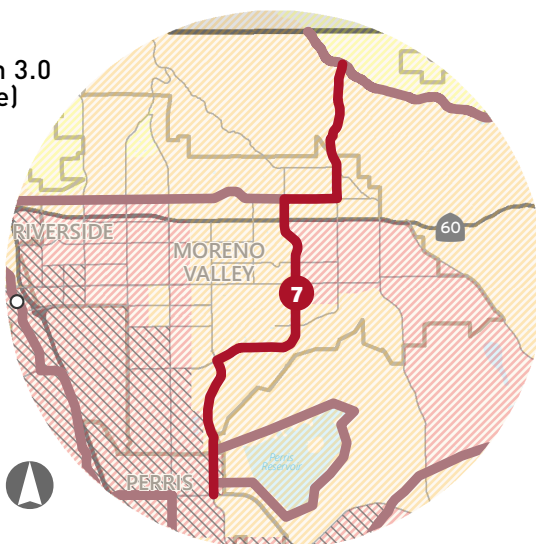
Benefits to Implementation

- May reduce congestion, pollution, and average daily trips in Moreno Valley, particularly surrounding Kaiser Permanente and Rancho Vista High School by providing an active transportation route for employees and students to use
- May alleviate congestion and pollution surrounding Rancho Vista High School by encouraging students, parents, and faculty to bike to school/work
- Provides bicycle access to multiple shopping centers in the region, which can help stimulate the local economy
- Promotes physical fitness among residents of Moreno Valley by providing a central, well-connected bike route

Disadvantaged Communities

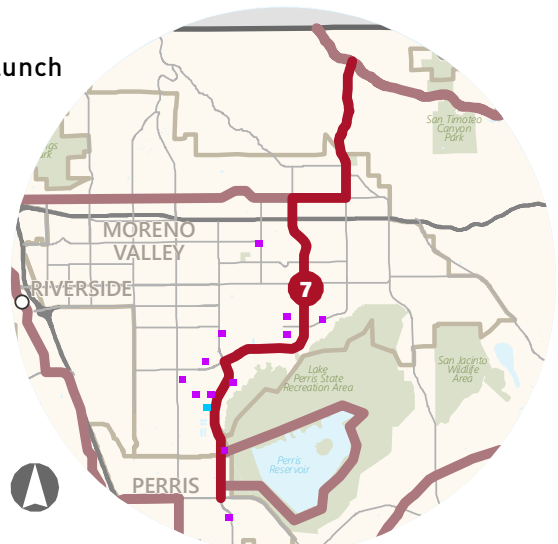
CalEnviroScreen 3.0 Score (Statewide)

- 0 - 25%
- 26 - 50%
- 51 - 75%
- 76 - 100%
- Top 90th Percentile
- Regional Facility
- WRCOG Boundary



Free/Reduced Lunch Participation (within 1 mile)

- Less than 30%
- 31% - 60%
- More than 60%
- Regional Facility
- WRCOG Boundary





PERRIS - MORENO VALLEY

7 | SAN TIMOTEO CANYON ROAD – RAMONA EXPRESSWAY

Estimated Costs

Total Estimated Cost **\$11,456,400**

Class IV Separated Bikeway 7.4 miles **\$3,953,500**

Class II Buffered Bike Lane 6.0 miles **\$7,015,000**

Class II Bike Lanes 3.0 miles **\$487,900**

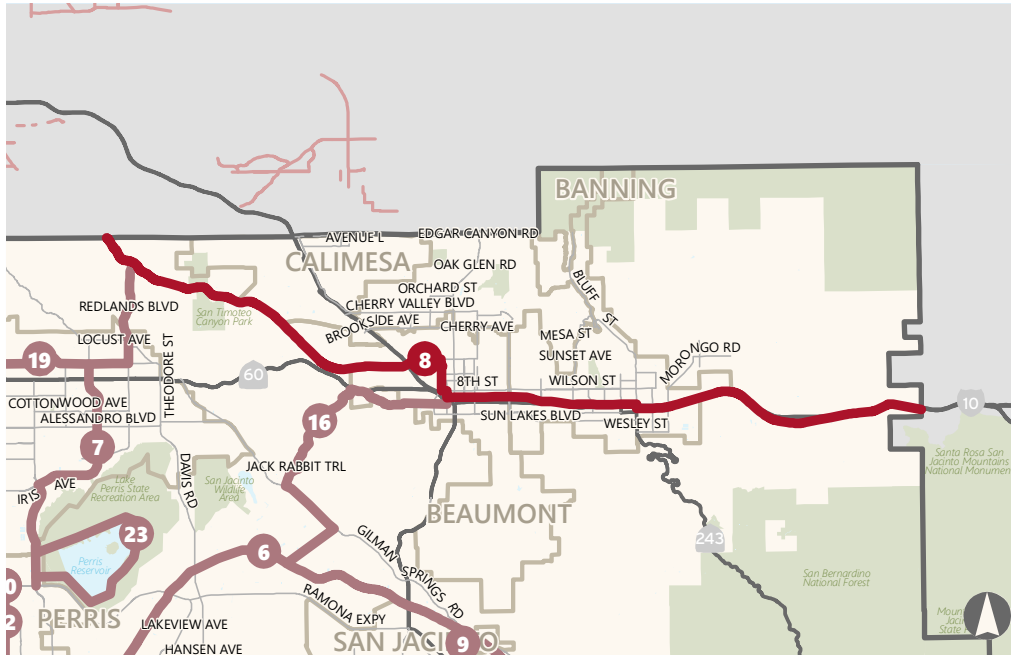
Feasibility Considerations

- The width of the segment from Ramona Expressway to Marabelle Gate along Evans Road is approximately 56 feet with two travel lanes and a shoulder in each direction. Eight foot buffered bike lanes could be accommodated in each direction through paving the shoulder and restriping and narrowing the travel lanes to 10 feet.
- The width of the segment from Evans Road & Marabelle Gate to Lasselle Street & Iris Avenue is 78 feet with two travel lanes in each direction and a center median. Eight foot buffered bike lanes could be accommodated in each direction through restriping and narrowing the travel lanes to 11 feet.
- The width of the segment from Lasselle Street & Iris Avenue to Moreno Beach Drive & Brodiaea Avenue is 106 feet with three travel lanes and a bike lane in each direction, plus a center median. Travel lanes could be restriped to 11 feet wide each to accommodate a Class IV separated bikeway on each side of the roadway.
- The primary width of the segment from Moreno Beach Drive & Brodiaea Avenue to Moreno Beach & Automall Drive is 40 feet with one travel lane and a wide shoulder in each direction. The shoulders are wide enough to accommodate eight foot buffered bike lanes with minimal restriping and narrowing of the 12 foot travel lanes needed.
- The width of the segment from Moreno Beach Drive and Auto Mall Drive to Moreno Beach Drive & Moreno Valley Freeway is 106 feet with three travel lanes and a bike lane in each direction, and a center median. The bike lanes are wide enough to accommodate a buffered bike lane without needing to restripe and narrow the travel lanes.
- The width of the segment from Moreno Valley Freeway to Ironwood Avenue along Moreno Beach Drive is approximately 36 feet with one travel lane and a wide shoulder in each direction. Eight foot buffered bike lanes could be accommodated in each direction through paving the shoulder and restriping and narrowing the travel lanes to 10 feet.
- The width of the segment from Moreno Beach Drive & Ironwood Avenue to Redlands Boulevard & Ironwood Avenue is 46 feet with one travel lane in each direction. 8 foot buffered bike lanes could be accommodated in each direction through and narrowing the travel lanes to 15 feet.
- The width of the segment from Redlands Boulevard & Ironwood Avenue to Redlands Boulevard & San Timoteo Road is approximately 32 feet with one travel lane and a shoulder in both directions. Five foot bike lanes could be accommodated in each direction through paving the shoulder.

Challenges to Implementation

- Requires coordination with Caltrans for the SR-60 crossing
- Requires coordination between Moreno Valley and Perris city staff
- May require intersection reconfiguration as part of a different project at:
 - » Krameria Avenue at Lasselle Street
 - » Lasselle Street at College Drive
 - » Lasselle Street at Iris Avenue
 - » Iris Avenue at Via Del Lago
 - » Moreno Beach Drive at John F
 - » Kennedy Drive
 - » Moreno Beach Drive at Cactus Avenue
 - » Moreno Beach Drive at Eucalyptus Avenue
 - » Moreno Beach Drive at SR-60 on and off ramps

Project Map



Project Overview + Scope

The San Bernardino County I-10 Pass Area via Timoteo Canyon Rd route is an east-west regional facility connecting Cabazon and Banning. This potential facility would provide approximately 9.6 miles of shared use path, 8 miles of Class III facilities, 6.5 miles of buffered bike lanes, 4.7 miles of Class II bike lanes, and 0.5 miles of separated bikeway. This project helps address local barriers such as limited non-motorized infrastructure and provides a non-motorized facility within one half mile of major transportation connections, several parks, schools, and retail destinations. The project also improves connectivity to surrounding jurisdictions.

Key Connections

Major Destinations

- Fisherman's Retreat
- Oak Valley Plaza
- Shopping Centers on E 6th St and W Ramsey St
- Beaumont Swap Meet
- Department of Motor Vehicles
- Cineplex Theatres
- San Geronio Memorial Hospital
- Banning Justice Center

Regional Transportation Facilities

- Banning Municipal Airport
- RTA Bus Lines 1, 2, 3, 4, 5, 6, 7, 11, and 25

Trails

- None -

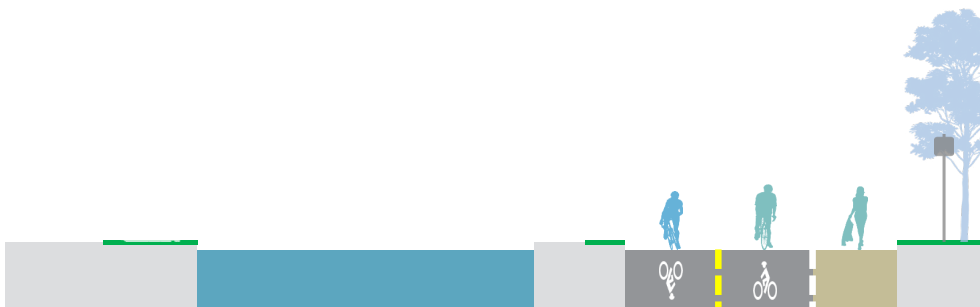
Schools

- Three Rings Ranch Elementary School
- Central Elementary School

Parks

- El Casco Lake
- Three Rings Ranch Community Park
- Beaumont-Cherry Valley Recreation Center
- Noble Creek Park
- Carpenter Hamilton Park

Project Cross Section

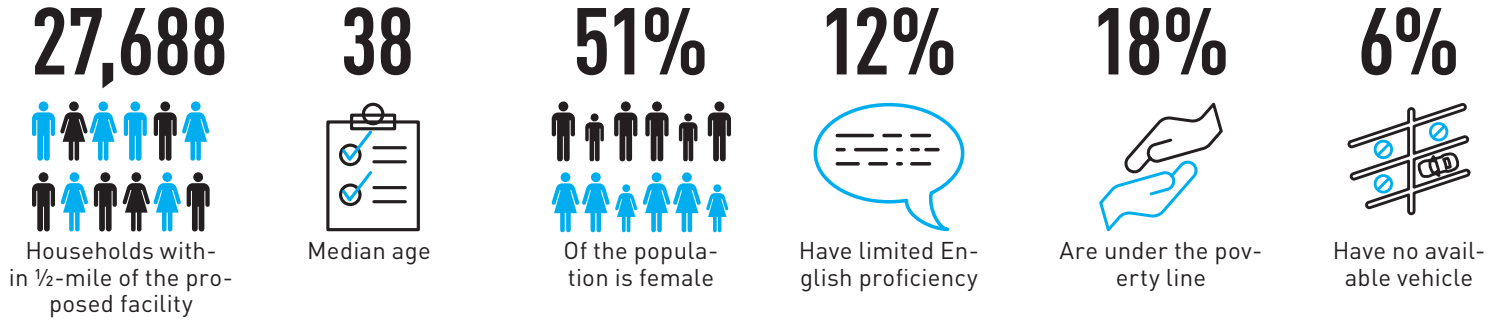


Health Environment

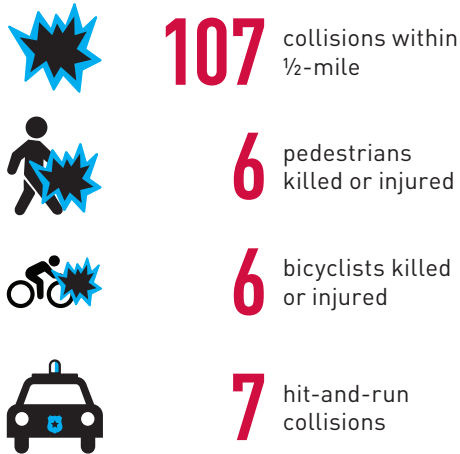
Health: Improves biking conditions, potentially increases bicycle commuting, and/or physical activity.

Safety: Special consideration at intersection crossings and intersection approaches improves traffic safety.

Local Demographics (within ½-mile)



Collision History



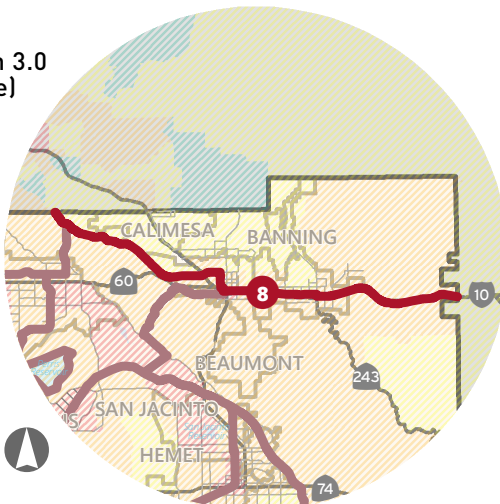
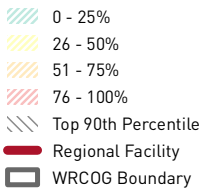
Source: TIMS, 2009-2013

Benefits to Implementation

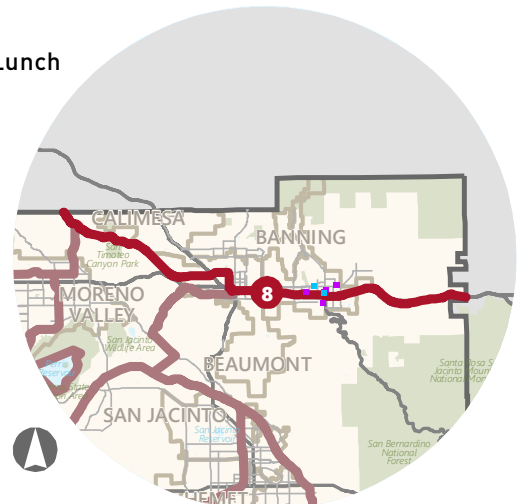
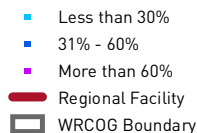
- Provides residents of Beaumont, Banning, and Cabazon with a non-motorized facility that connects to the greater Riverside region and beyond
- Decreases vehicle conflict with bicyclists and pedestrians by providing 9.5 miles of off-street facility
- Encourages transit riders to use non-motorized means of transportation for first-last mile barriers surrounding the E. 6th Street and W Ramsey Street transit stops and stations

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





BEAUMONT - BANNING

8 | SAN BERNARDINO – I-10 PASS

Estimated Costs

Total Estimated Cost	\$26,182,600
Class I Share Use Path 9.6 miles	\$11,706,400
Class II Buffered Bike Lanes 6.5 miles	\$7,010,800
Class II Bike Lanes 4.7 miles	\$874,400
Class III Sharrowed Bike Route 7.9 miles	\$855,100
Class IV Separated Bikeway 0.5 miles	\$5,735,900

Feasibility Considerations

- The width of the segment from the County boundary to Oak Valley Parkway along San Timoteo Canyon Road is 22 feet. Due to limited right of way, a Class III bike route can be accommodated with proper signage and sharrow markings.
- The width of the 5,762-foot long segment south from the Beaumont city boundary along Oak Valley Parkway is 38 feet. Eight foot buffered bike lanes can be accommodating by restriping and narrowing the travel lanes to be 11 feet.
- The width of the segment that starts 5,762 feet south of the Beaumont city boundary to Portreo Boulevard along Oak Valley Parkway is 73 feet with one bike lane and two travel lanes in each direction and a center median/turn lane. A eight foot buffered bike lane could be accommodated by narrowing all travel lanes to be 10-11 feet wide.
- The width of the segment from Portrero Boulevard to Desert Lawn Drive along Oak Valley Parkway is 98 feet with one bike lane in each direction, three travel lanes in the westbound direction, and two travel lanes in the eastbound direction. The existing right-of-way can accommodate 11-15 foot separated bike lanes.
- The width of the segment from Desert Lawn Drive to the eastern I-10 on-and off-ramps is 40 feet wide with one 20 foot travel lane in both directions. A nine foot buffered bike lane can be accommodated by restriping and narrowing travel lanes to 11 feet.
- The width of the segment from the eastern I-10 on- and off-ramps to Oak View Drive along Oak Valley Parkway is 70 feet with three travel lanes in the westbound direction and one travel lane and bike lane in the eastbound direction. There is also a 12 foot center median. An eight foot buffered bike lane could be accommodated by narrowing all travel lanes to be 10-11 feet wide.
- The width of the segment from Oak View Drive to Elm Avenue along Oak Valley Parkway is 63 feet with one bike lane and two travel lanes in each direction, and an 11 foot center turn lane. A 5.5 foot bike lane in each direction could be accommodated by restriping and narrowing lanes to 10 feet.
- The width of the segment from Oak Valley Parkway to 6th Street along Elm Avenue is 22 feet with a 11 foot travel lane in each direction. Due to limited right-of-way, a Class III facility with appropriate signage and sharrow markings could be accommodated.
- The width of the segment from California Avenue to Illinois Avenue along 6th Street is 62 feet with a bike lane and two travel lanes in each direction. A nine foot buffered bike lane with could be accommodated by narrowing all travel lanes to be 11 feet.

Challenges to Implementation

- Requires coordination with Caltrans for I-10 crossings
- Requires coordination with Federal Transit/Freight coordinator
- Requires coordination between Redlands, Beaumont, Banning, and Caba-zon city staff
- Trail segments require additional attention at the following roadway crossings:
 - » I-10 on and off ramps
 - » Hargrave Street
 - » Broadway
 - » Morongo Trail
- Trail segments will require additional safety features such as lighting and wayfinding
- On-street segments may require intersection reconfiguration as part of a different project at:
 - » California Avenue & 6th Street
 - » 6th Street & Beaumont Avenue
 - » 6th Street & Pennsylvania Avenue
 - » 6th Street/ Ramsey Street & Highland Springs Avenue
 - » Ramsey Street & Sunset Avenue
 - » Ramsey Street & 22nd Street

Continued on next page ↓



Feasibility Considerations (continued)

- The width of the segment from Illinois Avenue to Highland Springs along 6th Street is 88 feet with a bike lane and two travel lanes in each direction. There is also a 20 foot center median/turn lane. A 12 foot buffered bike lane in each direction could be accommodated by restriping and narrowing travel lanes to be 11 feet.
- The width of the segment from Highlands Springs Avenue to San Geronio Avenue along Ramsey Street is 66 feet wide with two travel lanes in each direction and a 13 foot center median/turn lane. A 5-½ foot bike lane in each direction could be accommodated by narrowing travel lanes to 10-11 feet .
- The segment adjacent to the railroad tracks that intersect San Geronio could accommodate a 14 foot shared use path.
- The segment adjacent to the railroad tracks, east of Cabazon, could accommodate a 10 foot shared use path.

Project Map



Project Overview + Scope

The San Jacinto River Park – Diamond Valley Lake route is a north-south regional facility connecting San Jacinto and Hemet. This potential facility would provide 9.5 miles of off-street shared use path along the abandoned rail line and 2.1 miles of Class II buffered bike lanes along North State Street for a total of 11.6 miles. This project helps address issues such as limited active transportation infrastructure and recreational opportunities in the area and helps to improve active transportation safety, access, and mobility. The proposed facility would provide an active transportation facility that is within one half mile of several parks, high schools, and retail destinations. The project also improves connectivity to surrounding jurisdictions through linkages with local active transportation routes that are both existing and proposed.

Key Connections

Major Destinations

- Downtown Hemet
- Hemet Museum
- Mt. San Jacinto College
- Estudillo Mansion
- Hemet Public Library

Regional Transportation Facilities

- RTA Bus Lines: 31,32,74
- Amtrak Throughway Connecting Service

Trails

- Juan Bautista De Anza Trail

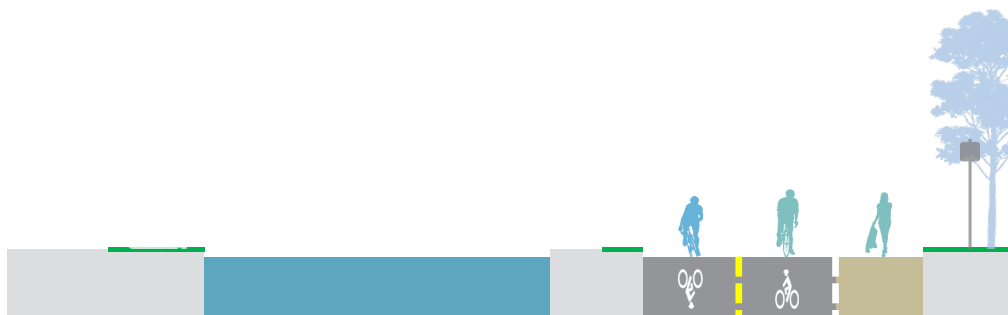
Schools

- Mt. San Jacinto College
- Mt. View High School
- De Anza Elementary School
- San Jacinto High School

Parks

- San Jacinto River Park
- Searl Youth Sports Park

Sample Project Cross Section

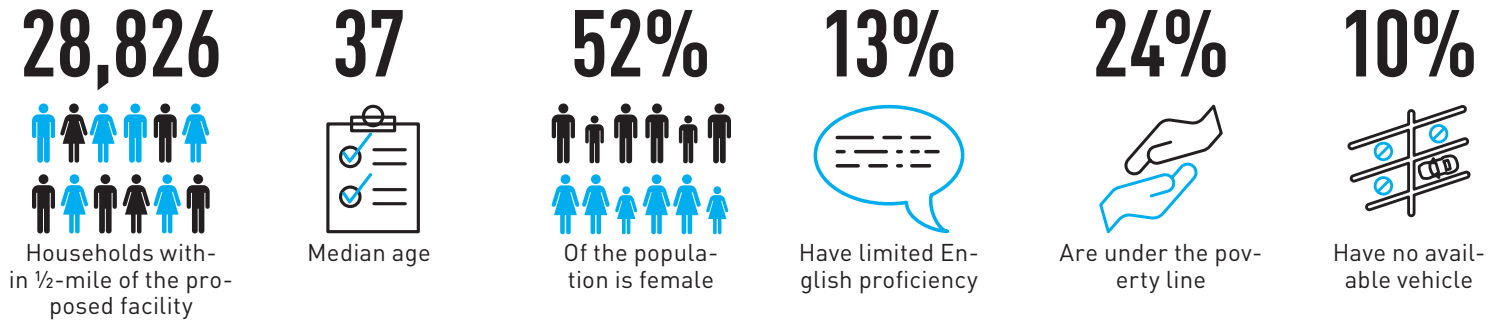


Health Environment

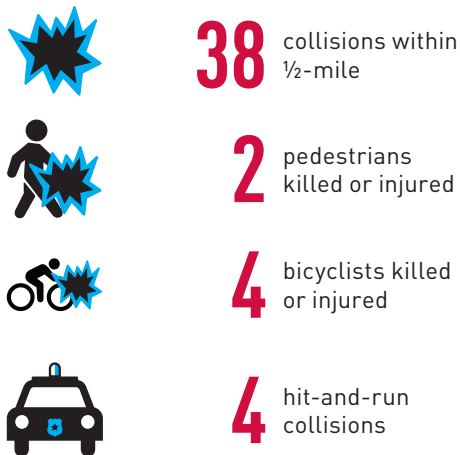
Health: Increases length of biking network, provides the option to a segment of the population to connect to recreation and jobs via bicycle commuting and potentially improves health conditions via active transportation and connections to recreation.

Safety: Special consideration at intersection crossings and intersection approaches with existing roads reduces potential for collisions and increases traffic safety.

Local Demographics (within ½-mile)



Collision History



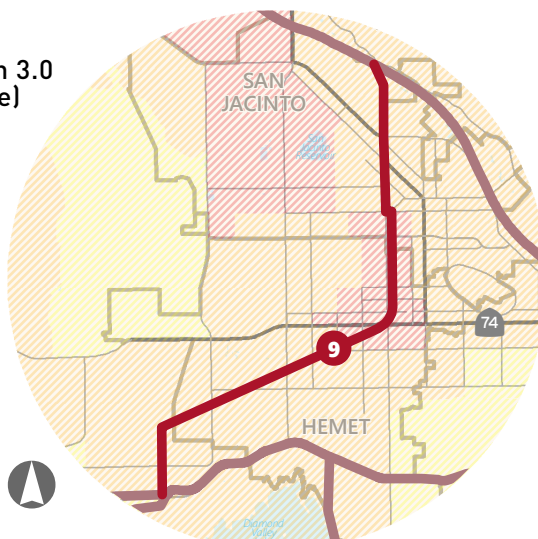
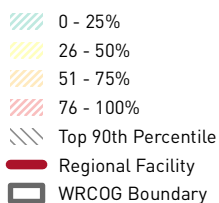
Source: TIMS, 2009-2013

Benefits to Implementation

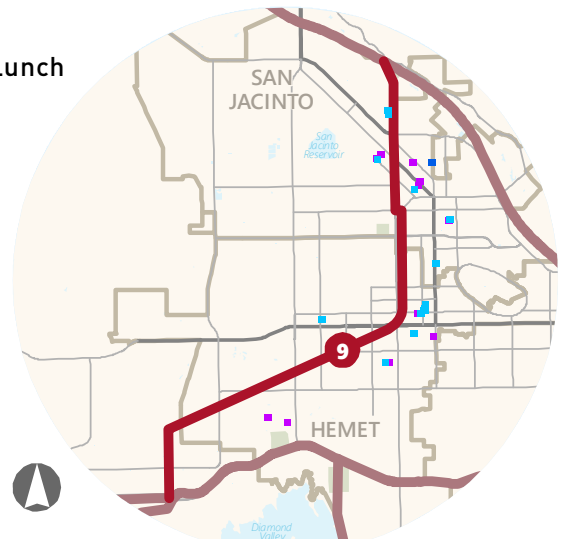
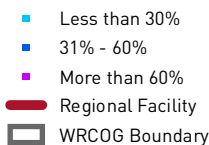
- Increased non-motorized accessibility to popular destinations such as Downtown Hemet and Mt. San Jacinto College
- Minimizes bike-vehicle conflict by providing a segment of off-street facilities
- Encourages active transportation commuting and recreational trips, benefiting health of the community via exercise and reduced vehicle emissions
- Cost of travel is reduced by switching from driving to biking or walking

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





SAN JACINTO - HEMET

9 | SAN JACINTO RIVER PARK – DIAMOND VALLEY LAKE

Estimated Costs

Total Estimated Cost **\$19,489,100**

Class I Shared Use Path 9.5 miles **\$18,921,900**

Class II Bike Lane 2.1 miles **\$567,200**

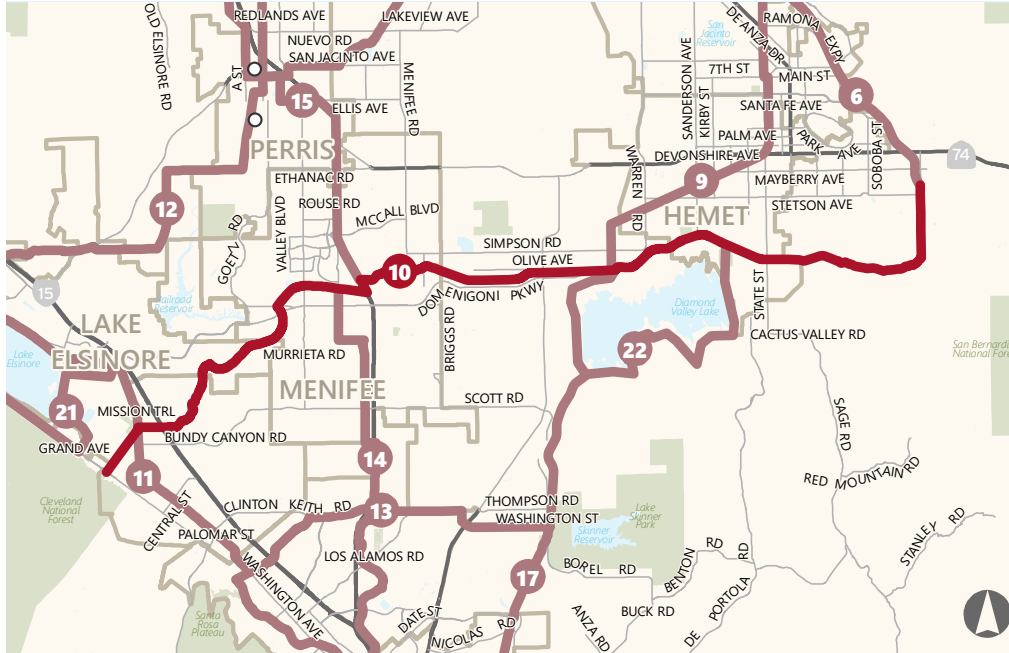
Feasibility Considerations

- There is currently existing right of way between Olive Avenue and Marvin Huff Road along California Avenue for a bike path which is unpaved. If paved, this right of way can operate as a Class I bike facility.
- There is currently existing rail right of way between California Avenue and W 7th Street along Marvin Huff Road. With the rail line no longer in operation, if paved, the right of way could operate as a Class I bike facility.
- The width of the segment from Marvin Huff Road to State Street along W 7th Street is approximately 50 feet with a travel lane and a paved shoulder in each direction. Eight foot buffered bike lanes could be accommodated in each direction through paving the shoulder and restriping and narrowing the travel lanes.
- The width of the segment from W 7th Street to W Community College Drive along State Street is approximately 74 feet with two travel lanes in each direction and a median or a center turn lane. Eight foot buffered bike lanes could be accommodated in each direction through paving the shoulder and restriping and narrowing the travel lanes to 11 feet.
- The width of the segment from W Community College Road to Quandt Ranch Road along State Street is approximately 62 feet with one travel lane and a shoulder in one direction and two travel lanes in the other direction. Eight foot buffered bike lanes could be accommodated in each direction by restriping and narrowing the travel lanes.
- The width of the segment from Quandt Ranch Road to Sodoba Road along State Street is 40 feet with one travel lane and a wide shoulder in each direction. Eight foot buffered bike lanes could be accommodated in each direction through paving the shoulder without narrowing or restriping the travel lanes.

Challenges to Implementation

- Requires coordination with Caltrans for SR-74 and SR-79 crossings
- May require coordination with Federal Transit/Freight coordinator
- Requires coordination with municipal water suppliers
- Requires coordination between Hemet, Winchester, Egan, and San Jacinto city staff
- Trail segments require additional attention at the following roadway crossings:
 - » Esplanade Avenue
 - » Menlo Avenue
 - » Oakland Avenue
 - » Devonshire Avenue
 - » State Street
 - » SR-74
 - » Gilbert Street
 - » Palm Avenue
 - » Acacia Avenue
 - » Lyon Avenue
 - » Kirby Street
 - » Sanderson Avenue
 - » Cawston Avenue
 - » Stetson Avenue
 - » Warren Road
- Trail segments will require additional safety features such as lighting and way-finding
- Trail segments may require coordination with adjacent property owners in case of security concerns
- On-street segments may require reconfiguration of three intersections in San Jacinto as part of a different project. These are along State Street at:
 - » Ramona Boulevard
 - » Ramona
 - » Expressway
 - » De Anza Drive

Project Map



Project Overview + Scope

The Bautista Creek – Mission Trail route via Salt Creek/Lost Rd/Lemon St is an east-west regional facility connecting Hemet, Menifee, and Lake Elsinore. This potential facility would provide approximately 16 miles of paved trail, 6 miles of buffered bike lanes, 4.5 miles of Class II bike lanes, and 5 miles of Class III facilities for a total of roughly 31 miles. This project helps address local barriers such as limited active transportation infrastructure and provides a non-motorized facility within one half mile of several major parks, schools, and recreational facilities. The project also improves connections to surrounding jurisdictions and San Bernardino County.

Key Connections

Major Destinations

St. Frances of Rome Church
Hemet Model Masters Airpark

Parks

Regency Heritage Park
Creskide Park
Canyon Hills Community Park
Aldergate Park
E.L. Pete Peterson Park
El Dorado Park
Hemet Youth Baseball Fields

Regional Transportation Facilities

Skylark Field
RTA Bus Lines, 7, 8, 40, and 74

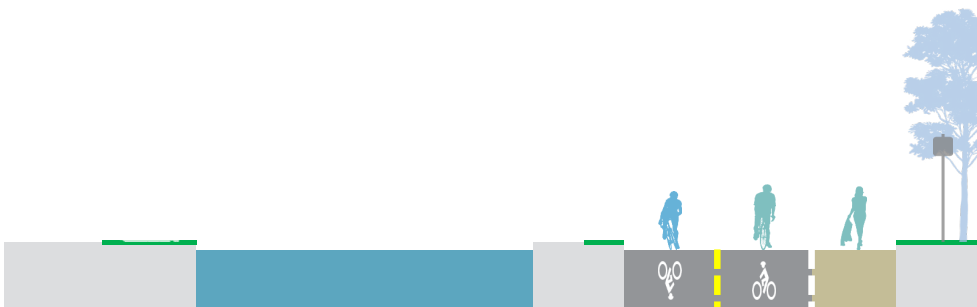
Trails

Polly Butte Mountain Trails

Schools

William Collier Elementary
Jean Hayman Elementary
Cottonwood Canyon Elementary
Canyon Lake Middle School
Herk Bouris Elementary
Freedom Crest Elementary

Project Cross Section

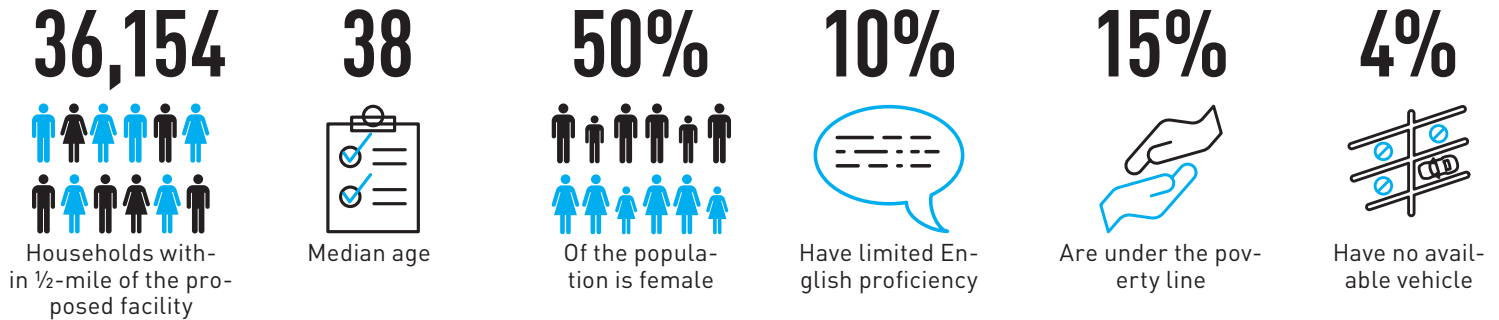


Health Environment

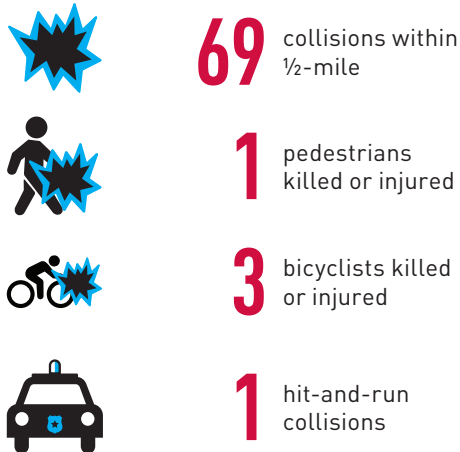
Health: Many connections to recreation opportunities. Increases length of biking network, provides the option to connect to recreation and jobs via bicycle commuting and potentially improves health conditions via active transportation and connections to recreation.

Safety: Special consideration at intersection crossings and intersection approaches with existing roads reduces potential for accidents and increases Level of Traffic Safety.

Local Demographics (within ½-mile)



Collision History



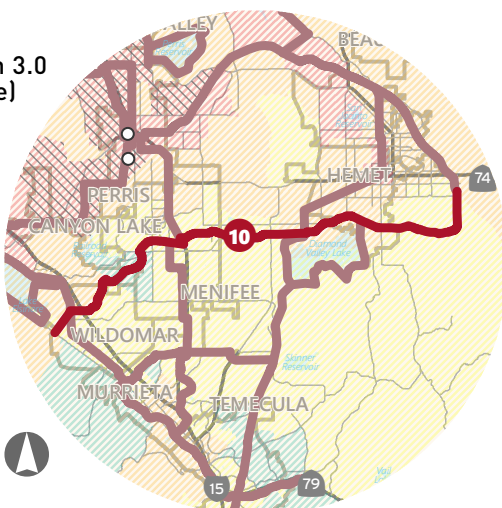
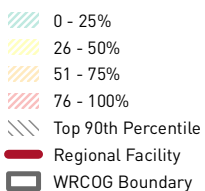
Source: TIMS, 2009-2013

Benefits to Implementation

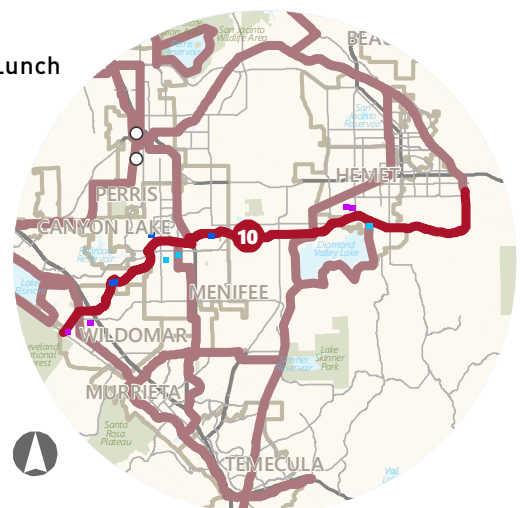
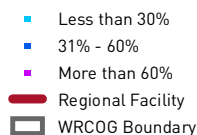
- Reduces bicycle and pedestrian interactions with motor vehicles by providing a separat-ed shared-use path
- Increases non-motorized accessibility to various parks throughout the region and Pol-ly Butte Mountain trails
- Reduces greenhouse gas emissions through reduced vehicle trips, particularly sur-rounding schools and parks/recreation sites

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





LAKE ELSINORE - WILDOMAR - MENIFEE - HEMET

10 | BAUTISTA CREEK – MISSION TRAIL

Estimated Costs

Total Estimated Cost	\$22,491,100
Paved Trail 15.7 miles	\$19,158,100
Class II Buffered Bike Lane 5.8 miles	\$1,905,500
Class II Bike Lane 4.6 miles	\$895,500
Class III Sharrowed Bike Route 4.6 miles	\$532,000

Feasibility Considerations

- The width of the segment from Grand Avenue to Union Street along Corydon Road is 30 feet, with one travel lane in each direction and a five foot median. A five foot bike lane in each direction could be accommodated by eliminating the median and narrowing travel lanes to 10 feet.
- The width of the segment from Union Street to Palomar Street along Corydon Road is approximately 52 feet with a center turn lane and varying travel lanes. A 5.5 foot bike lane in each direction could be accommodated by narrowing travel lanes to be 10 feet and the center turn lane to be 11 feet.
- The width of the segment of Corydon Road from Palomar Way to Plessner Way is approximately 50 feet. The center turn lane can be narrowed to 12 feet and the travel lanes to 11 feet to accommodate 8 foot bike lanes in each direction.
- The width of the segment from Plessner Way to 31951 Corydon Road is 25 feet with one travel lane in each direction and could accommodate a Class III bike facility by installing appropriate signage and sharrow markings.
- The width of the segment from 3195 Corydon Road to Mission Trail is approximately 47 feet with one travel lane in each direction and a 12 foot center turn lane. A 6.5 foot bike lane could be accommodated by restriping and narrowing travel lanes to 11 feet.
- The width of the segment from Corydon Street to Lemon Street along Mission Trail is approximately 65 feet at its most narrow point. A 7 foot bike lane in both directions could be accommodated by restriping and narrowing the travel lanes to 10-11 feet.
- The width of the segment from Mission Trail and approximately 500 feet east of Citrus Grove along Lemon Street varies between 30-40 feet. A 6.5 foot bike lane in each direction can be accommodated by narrowing travel lanes to 10-11 feet.
- The width of the segment from 500 feet east of Citrus Grove to Flowerhill Drive is 25 feet with one travel lane in each direction. Due to limited right-of-way, a Class III bike way could be accommodated by providing appropriate signage and sharrow markings.
- The width of the segment from Flowerhill Drive to Canyon Hills Road along Lost Road is 62 feet with bike lanes and one travel lane in each direction and a center turn lane. A 10 foot buffered bike lane in both directions could be accommodated by narrowing travel lanes to 11 feet.
- The width of the segment from Lost Road to Piedmont Drive along Canyon Hills Road will remain unchanged.
- The width of the segment from Piedmont Drive to Acanthus Drive along Canyon Hills Road is 42 feet with one travel lane in each direction and a painted median. A seven foot bike lane in each direction could be accommodated by restriping and narrowing travel lanes to 11 feet and narrowing the painted median to 6 feet.

Challenges to Implementation

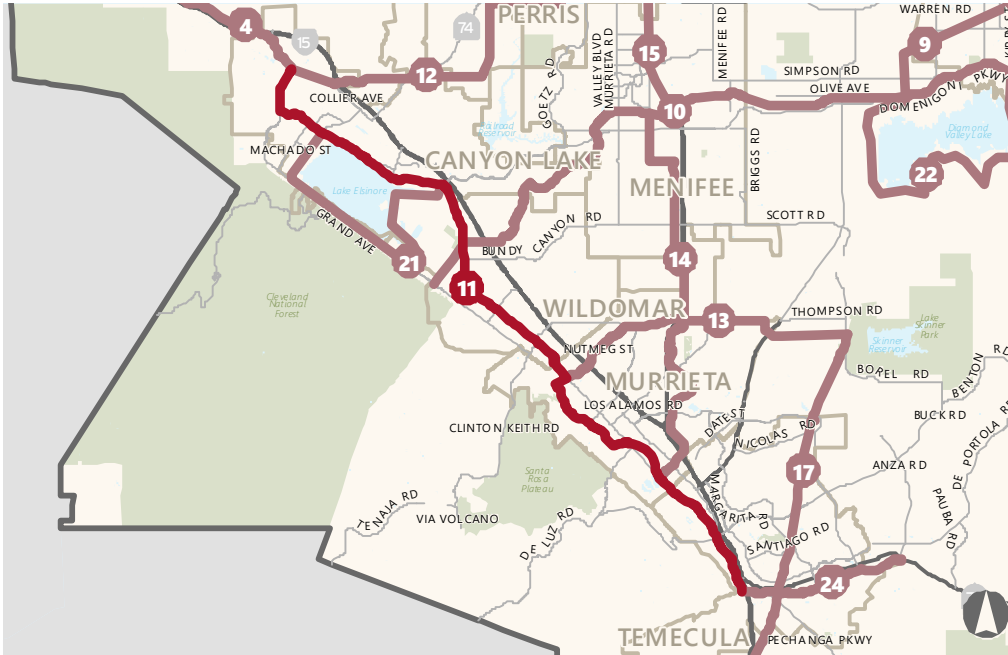
- Requires coordination with Caltrans for I-15, I-215, and SR 79 crossings
- Requires coordination with municipal water suppliers
- Requires coordination between Hemet, Winchester, Menifee, Lake Elsinore, and Wildomar city staff
- Trail segments require additional attention at five roadway crossings:
 - » Normandy Road » I-215
 - » Murrieta Road » Menifee Road
 - » Bradley Road
- Trail segments will require additional safety features such as lighting and wayfinding
- On-street segments may require intersection reconfiguration as part of a different project at:
 - » State Street at Domenigoni Parkway Road at Lost Road
 - » Canyon Hills » Mission Trail at Corydon Street
- May require CEQA analysis



Feasibility Considerations (continued)

- The segment from Canyon Hills Road to Wild View Road is primarily undeveloped open space. A 12 foot shared use bike path could be accommodated by paving and striping.
- The segment between Normandy and Antelope Road is primarily undeveloped open space. A 12 foot shared use bike path could be accommodated by paving and striping. An overcrossing or undercrossing is required to cross I-215.
- The width of the segment from I-215 to Aldergate Drive along Antelope Road is 44 feet with two travel lanes in the northbound direction and one travel lane in the southbound direction. Five foot bike lanes in each direction could be accommodated by restriping and narrowing travel lanes to 10- 11 feet.
- The width of the segment from Aldergate Drive to the new trail entrance along Antelope road is 25 feet. Due to limited right-of-way, a Class III facility with appropriate signage and sharrow pavement markings is proposed.
- The segment from Antelope Road to Warren Road is primary undeveloped open space. A 12 foot shared use bike path could be accommodated by paving and striping.
- The width of the segment from Warren Road to State Street along Domenigoni Parkway is 118 feet with a shoulder and two travel lanes in each direction and a painted center median. An 11 foot buffered bike lane in each direction could be accommodated by eliminating the shoulders and narrowing travel lanes to 11 feet.
- The width of the segment from State Street to Avery Canyon Road is 25 feet. Due to limited right-of-way, a Class III bike route with appropriate signage and sharrow pavement markings is proposed.
- The segment between Gibbel Road and Citrus View are fire access roads. A ten foot shared use bike path could be accommodated by paving and striping.
- The width of the segment from Citrus View Drive to the river is 50 feet with wide shoulders and one travel lane in each direction. Ten foot buffered bike lanes could be accommodated by restriping and narrowing shoulders.

Project Map



Project Overview + Scope

The Lake Elsinore – Murrieta Creek route is a north-south regional facility connecting Lake Elsinore, Wildomar, and Murrieta. This potential facility would provide 9.1 miles of paved trail, 0.6 miles of Class IV separated bikeway, 5.2 miles of Class II buffered bike lanes, 3.7 miles of Class III bike routes, and 4.8 miles of Class II bikes lanes in addition to an existing paved trail in Murrieta that is 1.5 miles long. The resulting facility would be 24.9 miles long. This route helps address local mobility barriers such as limited non-motorized infrastructure and recreational facilities. This route provides a bicycle facility within one half mile of retail destinations, schools, and parks. The project also improves connections to surrounding jurisdictions.

Key Connections

Major Destinations

- Retail center off Mission Trails
- Wildomar Chamber of Commerce
- Mission Trail Library
- Murrieta Springs Church

Parks

- Alberhill Ranch Community Park
- Lake Elsinore
- Swick and Matich Park
- City Park
- Lakepoint Park
- Spirit Park

Regional Transportation Facilities

- Skylark Field Airport
- RTS Bus Lines 7, 8

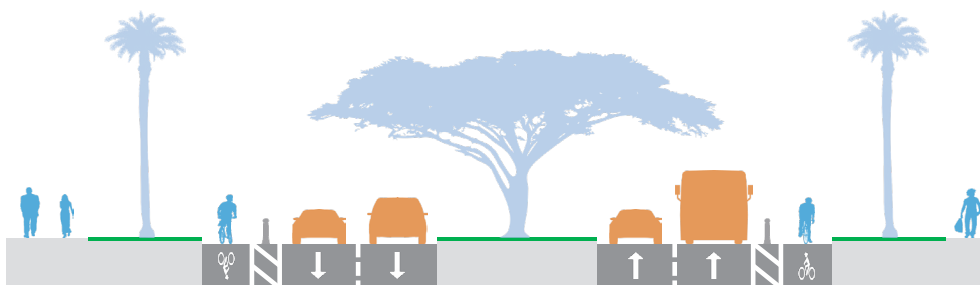
Trails

- None -

Schools

- Elsinore Middle School
- Faith Baptist Academy
- Elsinore High School
- Murrieta Springs Adventist
- Christian Academy

Project Cross Section

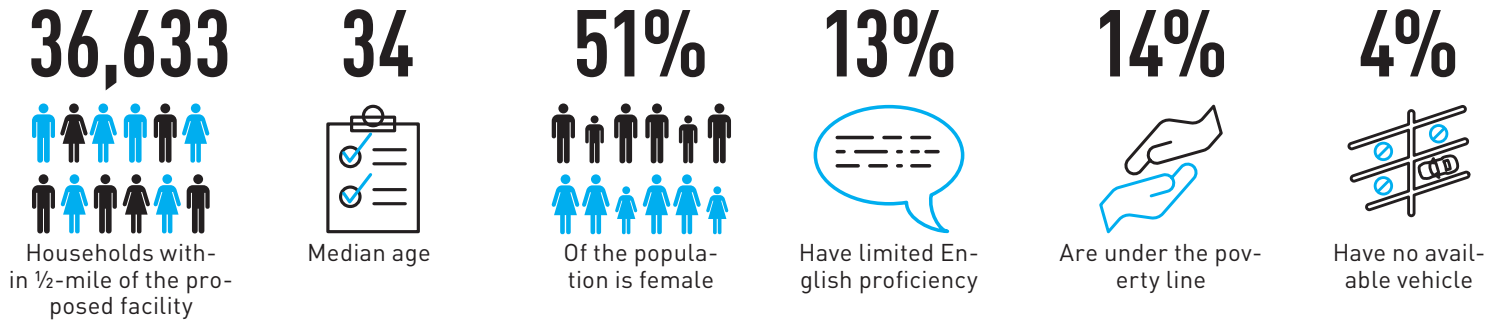


Health Environment

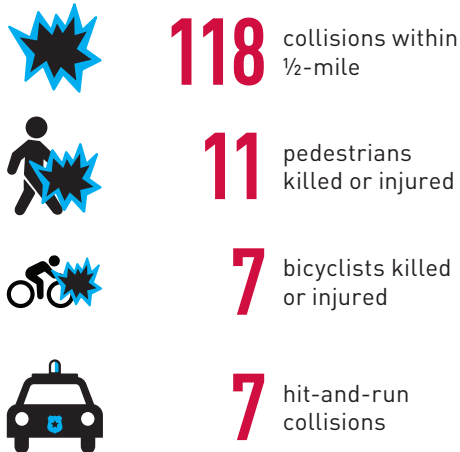
Health: Improves biking conditions, potentially increases bicycle commuting, and/or physical activity.

Safety: Special consideration at intersection crossings and approaches improves traffic safety.

Local Demographics (within ½-mile)



Collision History



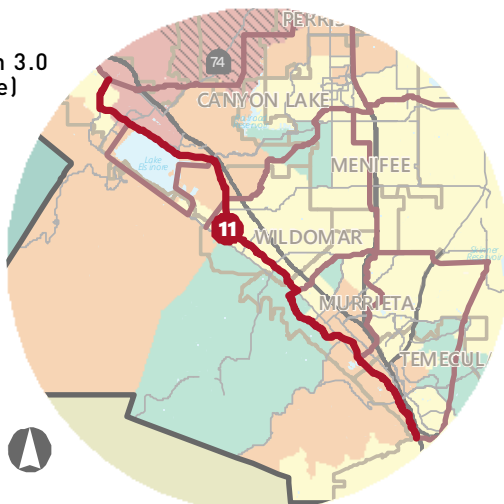
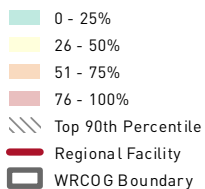
Source: TIMS, 2009-2013

Benefits to Implementation

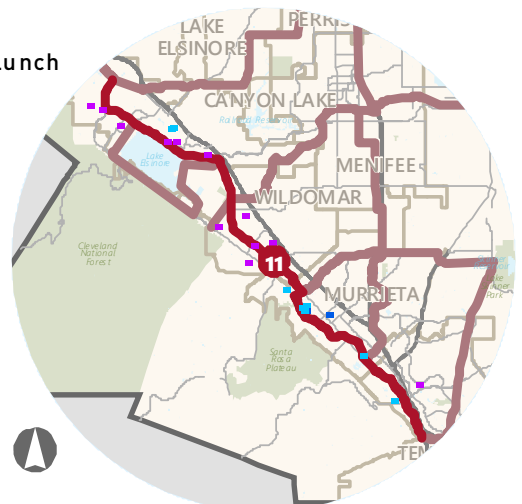
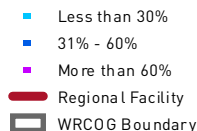
- Provides sub-regional access to recreational facilities like Lake Elsinore which may result in positive health benefits for users
- Separated path along the Murrieta Creek limits vehicular conflict with pedestrians and cyclists
- Provides non-motorized connection between Murrieta, Wildomar, and Lake Elsinore
- Well-connected to greater non-motorized network in Western Riverside County, allowing cyclists from all over the sub-region to access via non-motorized way of travel

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





MURRIETA - LAKE ELSINORE - WILDOMAR - TEMECULA

11 | LAKE ELSINORE – MURRIETA CREEK

Estimated Costs

Total Estimated Cost	\$19,453,700
Class I Shared Use Path 9.1 miles	\$11,865,900
Class II Buffered Bike Lane 5.1 miles	\$5,455,800
Class II Bike Lane 4.8 miles	\$1,213,800
Class III Bike Route 3.7 miles	\$397,200
Class IV Separated Bikeway 0.6 miles	\$491,000

Feasibility Considerations

- The width of the segment from Nichols Road to Mountain Street along Lake Street is approximately 45 feet with a shoulder and one travel lane in each direction and a center turn lane. A 6.5 foot buffered bike lane could be accommodated by restriping, removing the shoulders, and narrowing travel lanes to 11 feet. The roadway narrows north of the Lake Street and Mountain Street intersection to approximately 30 feet, at which point Class II bike lanes would be appropriate.
- The width of the segment from Mountain Street to W Lakeshore Drive along Lake Street fluctuates from 85 to 95 feet with a center median or turn lane and two travel lanes and a bike lane in each direction. A 13 foot protected bike lane in the eastbound direction and a 12 foot protected bike lane in the westbound direction, both with green conflict zone markings could be accommodated, but would likely fluctuate on this segment.
- The width of the segment from Lake Street to Illinois Street along Lakeshore Drive is 76 feet with a bike lane and two travel lanes in each direction and a painted center median. A ten foot buffered bike lane in each direction with green conflict zone markings could be accommodated by restriping and narrowing travel lanes to 10-11 feet.
- The width of the segment from Illinois Street to Mohr Street along Lakeshore Drive is 26 feet with one travel lane in each direction. Due to limited right of way, a Class III bike facility with appropriate signage and sharrow pavement markings is proposed.
- The width of the segment between Mohr Street and Lake Elsinore Seaport Boat Launch is 19 feet with one travel lane and one bike way. This one way segment will remain unchanged.
- The segment from Lake Elsinore Seaport Board Launch to S Spring Street is primarily undeveloped open space and can accommodate a paved 10 foot shared use bike path.
- The width of the segment from S Spring Street to Lake Park Street along Lakeshore Drive is 32 feet with a bike lane and one travel lane in each direction and will remain unchanged. The segment narrows down to 26 feet east of High Street, at which point pavement sharrow markings and appropriate signage for a Class III bike facility may be added.
- The width of the segment from Lake Park Street to Sedico Boulevard along Mission Trail is approximately 75 feet with a bike lane and two travel lanes in each direction and a center median or turn lane. A nine foot buffered bike lane in each direction with green conflict zone markings could be accommodated by restriping and narrowing the travel lanes to 11 feet.
- The width of the segment from Sedico Boulevard to Vine Street along Mission Trail is 60 feet with two travel lanes in each direction and a center turn lane. A five foot bike lane in each direction with green conflict zone markings could be accommodated if all travel lanes and center turn lanes were narrowed to 10 feet.

Challenges to Implementation

- Requires coordination with Caltrans for SR 74 crossing
- Requires coordination with municipal water suppliers
- Requires coordination between Lake Elsinore, Wildomar, and Murrieta city staff
- Trail segments will require additional safety features such as lighting and wayfinding
- Trail segments may require coordination with adjacent property owners in case of security concerns
- On-street segments may require intersection reconfiguration as part of a different project at:

» Palomar Street at Clinton Keith Road	» Lakeshore Drive at Diamond Drive
» Corydon Street at Mission Trail	» Lake Street at Lakeshore Drive

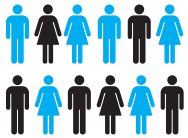


Feasibility Considerations (continued)

- The width of the segment from Vine Street to Lemon Street along Mission Trail is approximately 50 feet with two travel lanes in each direction. A five foot bike lane could be accommodated by narrowing all travel lanes to be 10 feet.
- The width of the segment from Lemon Street to Central Street along Mission Trail is 61 feet with two travel lanes in each direction and a 13 foot center turn lane. A five foot bike lane could be accommodated by restriping and narrowing travel lanes to 10-11 feet and the center turn lane to 10 feet.
- The width of the segment from Mission Trail to Central Street along Palomar Street is 26 feet. Due to limited right of way, a Class III bike facility with appropriate signage and sharrow markings is proposed.
- The width of the segment from Central Street to Refa Street along Palomar Street is 56 feet with one travel lane in each direction and a 14 foot center turn lane. A 10 foot buffered bike lane in each direction with green conflict zone markings could be accommodated by restriping and narrowing the travel lanes to 11 feet.
- The width of the segment from Central Street to Refa Street along Palomar Street is 56 feet with one travel lane in each direction and a 14 center turn lane. A 10 foot buffered bike lane with green conflict zone markings could be accommodated in each direction by restriping and narrowing the travel lanes to 11 feet.
- The width of the segment from Mission Trail to Central Street along Palomar Street is 25 feet. Due to limited right of way, a Class III bike facility with appropriate signage and sharrow markings is proposed.
- The width of the segment from Frederick Street to Meadow Ridge Lane along Palomar Street is 85 feet with two travel lanes in each direction and a center median or turn lane. A 10.5 foot buffered bike lane with green conflict zone markings in each direction could be accommodated by restriping and narrowing travel lanes to be 11 ft.
- The width of the segment from Meadow Ridge Lane to Robin Scott Road along Palomar Street is approximately 47 feet with one travel lane in each direction and a center median or turn lane. A six foot bike lane with green conflict zone markings
- The width of the segment from Robin Scott Road to 500 feet north of Laura Drive along Palomar/Washington Street is 24 feet. Due to limited right of way, a Class III bike facility with appropriate signage and sharrow markings is proposed.
- The width of the segment from 500 feet north of Laura Drive to Nutmeg Street/Calle del Oso Oro along Washington Avenue is 60 feet with two travel lanes in each direction and a center median or turn lane. A five foot bike lane with green conflict zone markings in each direction could be accommodated by narrowing travel lanes and the center turn lane to 10 feet, where present.
- The width of the segment from Washington Avenue to 430 feet west of Applewood Place along Calle del Oso Oro is 64 feet with two five foot bike lanes, two travel lanes in each direction, and a center space that is sometimes used for left turn lanes. The bike lanes can be upgraded to protected bike lanes by re-purposing the center space not used as turn lanes. The travel lane widths will be unchanged.
- The width of the segment of Calle del Oso Oro between 430 feet west of Applewood Place and 770 feet west of Applewood Place is 25 feet and will be unchanged.
- The segment between Calle del Oso Oro and Winchester Road is primarily undeveloped open space and can accommodate a paved 10 foot shared use bike path. The new trail may require at-grade crossings at B Street and Washington Avenue.
- The existing shared use bike path between Winchester Road and Rancho California Road will remain unchanged.
- The segment between Rancho California Road and Murrieta Creek/end of trail is primarily undeveloped open space and can accommodate a paved 10 foot shared use bike path. The new trail may require an at-grade crossing at Rancho California Road.

Local Demographics (within ½-mile)

30,382



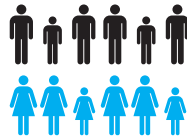
Households with-
in ½-mile of the pro-
posed facility

30



Median age

51%



Of the popula-
tion is female

19%



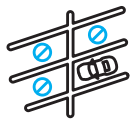
Have limited En-
glish proficiency

23%



Are under the pov-
erty line

4%



Have no avail-
able vehicle

Collision History



99

collisions within
½-mile



8

pedestrians
killed or injured



11

bicyclists killed
or injured



10

hit-and-run
collisions

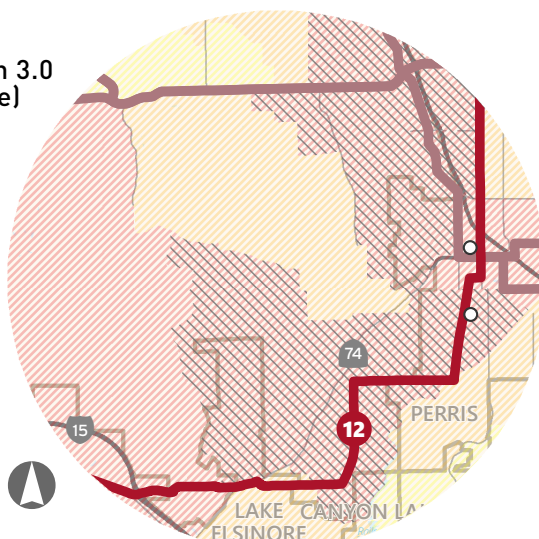
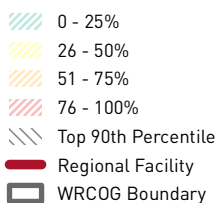
Source: TIMS, 2009-2013

Benefits to Implementation

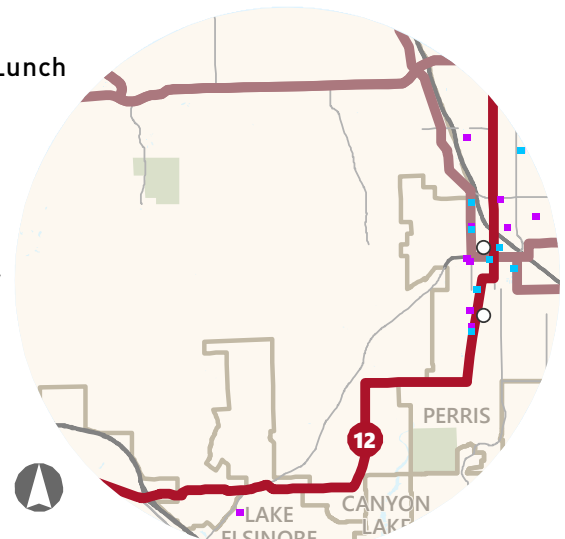
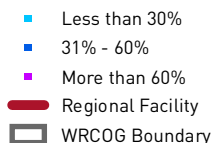
- Provides residents of Lake Elsinore, Wildomar, and Murrieta with an active transportation facility that connects to the greater WRCOG sub-region
- Decreases vehicle conflict with bicyclists and pedestrians by providing seven miles of off-street facility
- Encourages parents, students, and employees of schools to commute by bike, and reduce ADT, pollution, and congestion surrounding schools

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





LAKE ELSINORE - PERRIS

12 | ABERHILL RANCH – RAMONA EXPRESSWAY

Estimated Costs

Total Estimated Cost **\$17,650,600**

Class I Shared Use Path **10.35 miles** **\$13,455,900**

Class IV Separated Bikeway **0.4 miles** **\$1,214,600**

Class II Buffered Bike Lane **5.75 miles** **\$1,554,500**

Class III Sharrowed Route **1.5 miles** **\$1,425,600**

Feasibility Considerations

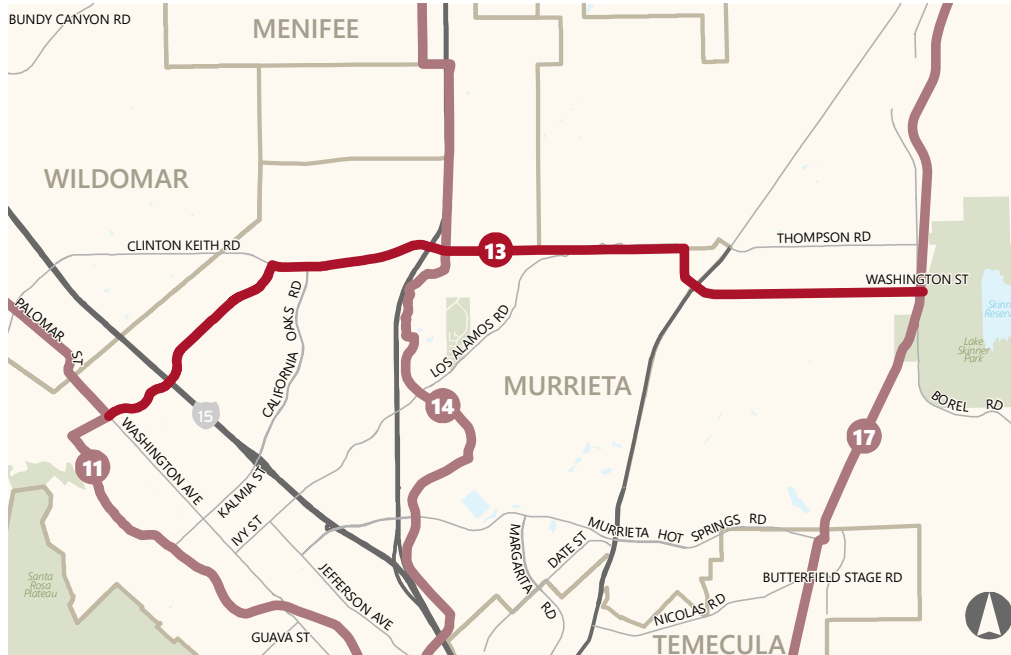
- The width of the segment from Ramona Expressway to Nuevo Road along Perris Boulevard is approximately 84 feet with 2 to 3 travel lanes in each direction and a center median of varying width. Ten foot buffered bike lanes could be accommodated throughout a majority of this segment in each direction by narrowing travel lanes to 12 feet each.
- The width of the segment from Nuevo Road to San Jacinto Avenue is approximately 68 feet with two travel lanes in each direction and a center median. A five foot shoulder is also present in both directions. Eight foot buffered bike lanes could be accommodated in each direction through narrowing travel lanes to 11 feet wide.
- The width of the segment from San Jacinto Avenue to 6th Street along Perris Boulevard is approximately 50 feet with one travel lane in each direction. Ten foot buffered bike lanes could be accommodated in each direction by restriping and narrowing the travel lanes.
- The width of the segment from 6th Street along Perris Boulevard and to Short Street along 11th Street is approximately 38 feet with one travel lane in each direction. Eight foot buffered bicycle lanes could be accommodated in each direction by restriping and narrowing the travel lanes and removing on-street parking in some locations.
- The width of the segment from 11th Street to Alpine Drive along the railroad tracks is approximately 100 feet with 43 feet of open space on either side of a 14-foot-wide railroad track. A 14 foot shared use path could be accommodated on one side of the railroad tracks. There is no roadway infrastructure between the end of A Street and the proposed Ethanac Road extension. A Class I shared-use path is proposed to connect A Street to the Ethanac Road extension at the San Jacinto River.
- Ethanac Road will be extended westward from its current location at Big Bear Street. A Class I shared-use facility is recommended on the northern portion of the Ethanac Road extension, given its design speed. There is ROW available for a 14 foot facility.
- The width of the segment along Riverside Street to SR-74 is approximately 70 feet in width with two travel lanes in each direction and a center turn lane. Seven foot buffered bike lanes could be accommodated in each direction by restriping and narrowing the existing travel lanes. A Class I shared use facility will be needed to close the gap between the end of Theda Street and Riverside Street.
- The width of the segment from Riverside Street to El Toro Road is approximately 82 feet. A 10 foot Class IV two-way separated bikeway could be accommodated on the western side of the road by removing the unnecessary two-way center turning lane or restriping the travel lanes to 10 feet each.
- The width of the segment from El Toro Road to I-15 along Nichols Road will be expanding as part of the proposed El Toro Ethanac Expressway Corridor to approximately 110 feet wide. If the shoulder and median are redesigned, eight foot Class II buffered bike lanes could be incorporated on either side of the street.
- The segment from I-5 to Lake Street is mostly undeveloped open space. A shared use path could be accommodated by paving and striping a portion of this right-of-way.

Challenges to Implementation

- Requires coordination with Caltrans for I-215 and I-15 crossings as well as the facility along SR-74
- Requires coordination with Federal Transit/Freight coordinator
- May require CEQA analysis
- Requires coordination between Lake Elsinore and Perris city staff
- Trail segments require additional attention at Greenwald Avenue and E 11th Street
- Trail segments will require additional safety features such as lighting and way-finding
- Trail segments may require coordination with adjacent property owners in case of security concerns
- On-street segments may require intersection reconfiguration as part of a different project at:

» Collier Avenue at Nichols Road	» Perris Boulevard at Nuevo Road
» SR-74 at Trellis Lane	» Perris Boulevard at Rider Street
» Perris Boulevard at 4th Street	» Perris Boulevard at Morgan Street
» Perris Boulevard at San Jacinto Avenue	» Perris Boulevard at Ramona Expressway

Project Map



Key Connections

Major Destinations

Plaza de Oro
French Valley Village Center

Regional Transportation Facilities

RTA Bus Line 23, 61

Trails

- None -

Project Overview + Scope

The Jefferson Ave – Lake Skinner route is an east-west regional facility connecting Murrieta and unincorporated Riverside County. This potential facility would provide 2.5 miles of off-street shared use path, 6.4 miles of Class II buffered bicycle lanes along Clinton Keith Road, and 1 miles of Class II bike facilities for a total of 9.9 miles. Portions of Nutmeg Street and Clinton Keith Road have existing active transportation facilities and improving the corridor by making it a more cohesive network could be an important step in bettering active transportation safety, access, and mobility in the area. This project would help to provide an active transportation facility within one half mile of major transportation connections, several parks, schools, and retail destinations. The project also improves connectivity to surrounding jurisdictions.

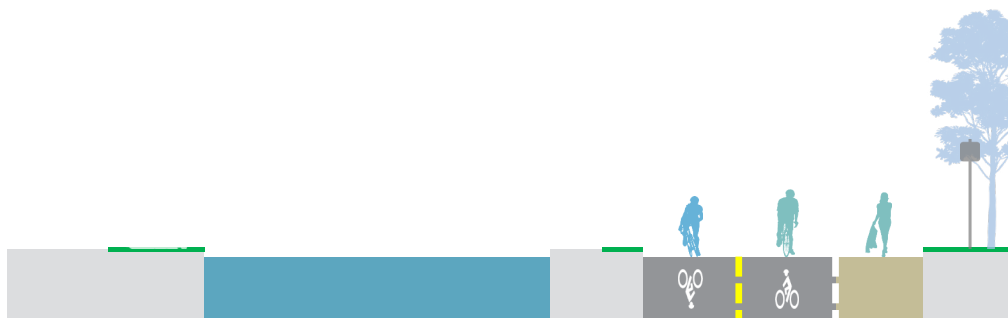
Schools

Antelope Hills Elementary School
Tovashal Elementary School
Vista Murrieta High School

Parks

Fieldview Park
Butterfield Park
Glen Arbor Park
Mountain Pride Park

Sample Project Cross Section



Health Environment

Health: Many connections to recreation opportunities and open space. Increases length of biking network, provides the option to many communities to connect to destinations such as the five schools along the route, recreation and jobs via bicycle commuting, and potentially improves health conditions via active transportation and connections to recreation.

Safety: Special consideration at intersection crossings and intersection approaches with existing roads reduces potential for collisions and increases traffic safety.

Local Demographics (within ½-mile)

29,296



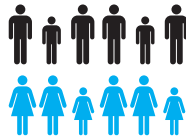
Households with-
in ½-mile of the pro-
posed facility

36



Median age

51%



Of the popula-
tion is female

6%



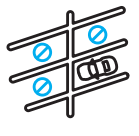
Have limited En-
glish proficiency

7%



Are under the pov-
erty line

2%



Have no avail-
able vehicle

Collision History



37

collisions within
½-mile



3

pedestrians
killed or injured



1

bicyclists killed
or injured



1

hit-and-run
collisions

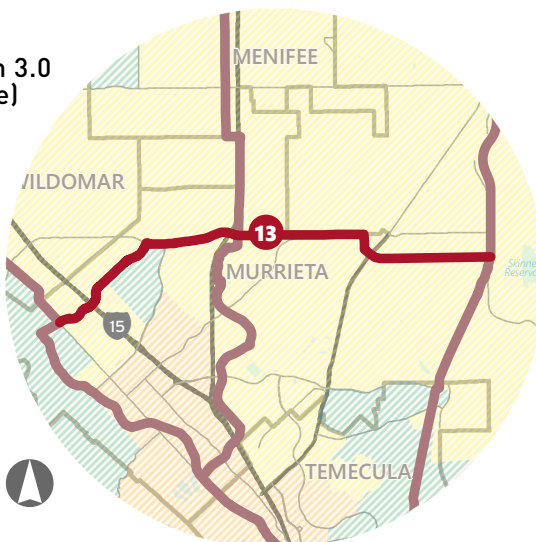
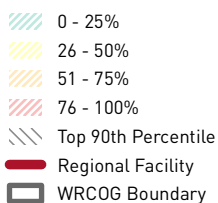
Source: TIMS, 2009-2013

Benefits to Implementation

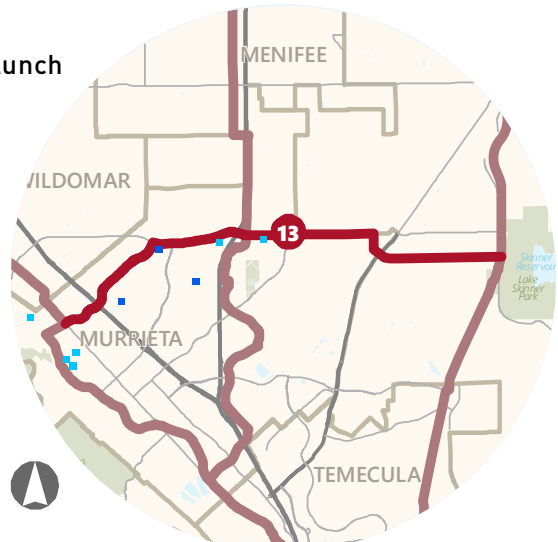
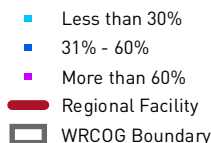
- Provides residents with an active transportation network that can be used for recreation-
al or commuting purposes
- Will increase recreational activity by providing an active transportation route to Lake
Skinner
- Positive health impacts associated with increased walking and biking
- Decreased congestion and pollution surrounding Murrieta Vista High school

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





Estimated Costs

Total Estimated Cost **\$4,572,400**

Class I Shared Use Path 2.5 miles **\$3,039,000**

Class II Buffered Bike Lane 6.4 miles **\$1,313,700**

Class II Bike Lane 1.0 miles **\$219,700**

Feasibility Considerations

- The width of the segment from Washington Avenue to Clinton Keith Road along Nutmeg Street is approximately 62 feet with two travel lanes and a bike lane in each direction and a center turn lane or center median. The existing right-of-way is not wide enough to upgrade the current bicycle facility.
- The width of the segment from Nutmeg Street to Whitewood Road along Clinton Keith Road is approximately 84 feet with two travel lanes and a bike lane in each direction and a center turn lane. Eight foot buffered bicycle lanes could be accommodated in each direction by restriping and narrowing the travel lanes and painted center turn lane.
- There is currently existing right of way between Clinton Keith Road & Whitewood Road to SR-79 & Benton Road. This right of way, if paved, can operate has a Class I bike facility.
- The width of the segment from SR-79 to Washington Street along Benton Road is 106 feet with three travel lanes in each direction and one center turn lane. Eight foot buffered bicycle lanes could be accommodated in each direction by restriping and narrowing the travel lanes and painted center turn lane.

Challenges to Implementation

- Requires coordination with Caltrans for I-15, I-215, and SR-79 crossings
- Requires coordination between Murrieta and Winchester city staff
- Trail segments will require additional safety features such as lighting and way-finding
- On-street segments may require intersection reconfiguration as part of a different project at:
 - » Nutmeg Street at Jefferson Avenue
 - » I-215 on- and off-ramps
 - » Nutmeg Street at Jackson Avenue
 - » Clinton Keith Road at Whitewood Road
 - » Nutmeg Street at Clinton Keith Road
 - » Benton Road at SR-79

Local Demographics (within ½-mile)

37,602



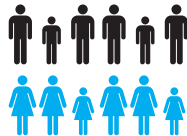
Households with-
in ½-mile of the pro-
posed facility

35



Median age

52%



Of the popula-
tion is female

8%



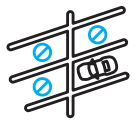
Have limited En-
glish proficiency

9%



Are under the pov-
erty line

4%



Have no avail-
able vehicle

Collision History



54

collisions within
½-mile



4

pedestrians
killed or injured



7

bicyclists killed
or injured



5

hit-and-run
collisions

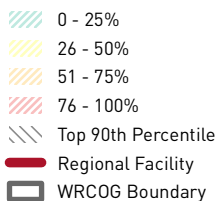
Source: TIMS, 2009-2013

Benefits to Implementation

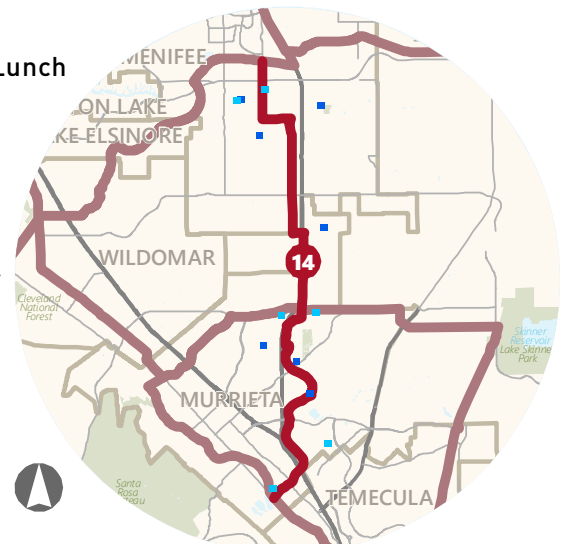
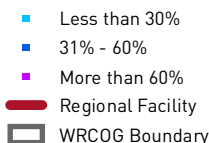
- Potential reduction of average daily trips and pollution surrounding Loma Linda University Medical Center, Rancho Springs Medical Center, and Azusa Pacific University and other schools/employment centers as employees and students will be able to commute by bike
- Increased bicycle access to multiple retail centers across the region
- Provide additional recreational facilities to residents of Perris, Menifee, and Murrieta

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





Estimated Costs

Total Estimated Cost **\$10,258,000**

Class I Shared Use Path 2.6 miles **\$3,380,200**

Class II Buffered Bike Lane 7.5 miles **\$6,071,000**

Class II Bike Lane 4 miles **\$806,800**

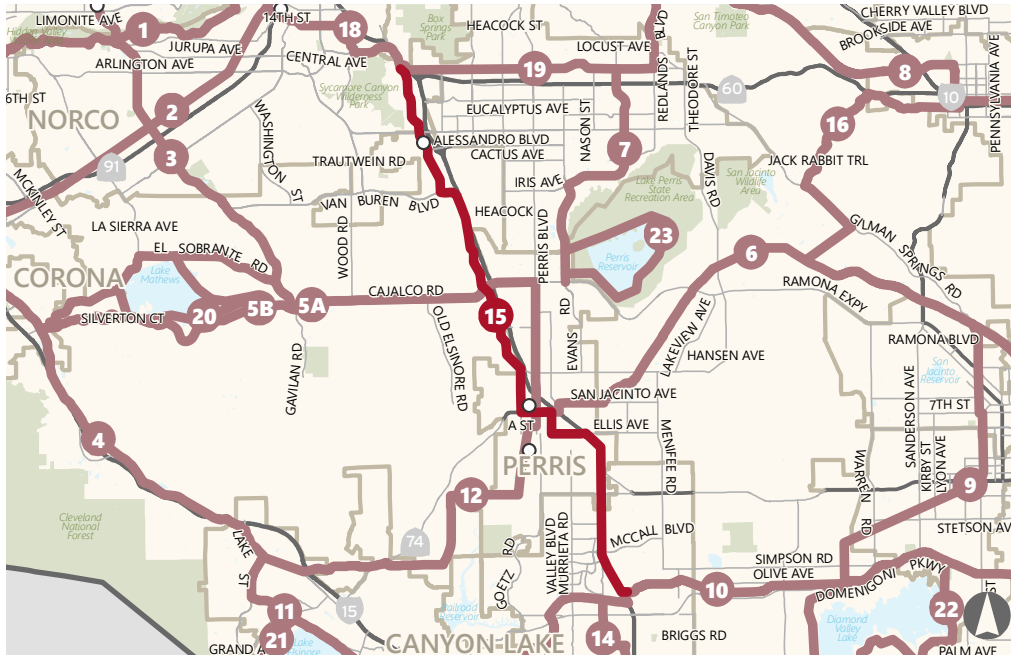
Feasibility Considerations

- There is currently existing right of way between Ynez Road and Murrieta Creek. This right of way, if paved, can operate as a Class I bike facility.
- The width of the segment from Ynez Road & Elm Street to Alta Murrieta Drive & Rockcrest Drive is 70 feet with two travel lanes and a bike lane in each direction and a center turn lane. Eight foot buffered bicycle lanes could be accommodated in each direction by restriping and narrowing the travel lanes to 10 feet.
- The width of the segment from Alta Murrieta Drive & Rockcrest Drive to Whitewood Road & Los Alamos Road is 62 feet with one travel lane and a bike lane each direction and a center turn lane. Eight foot buffered bicycle lanes could be accommodated in each direction through restriping and narrowing the travel lanes.
- The width of the segment from Los Alamos Road to Carmel Hill Court along Whitewood Road is 72 feet with two travel lanes in each direction and one center turn lane. Eight foot buffered bicycle lanes could be accommodated in each direction through restriping and narrowing the travel lanes and painted center turn lane to between 10 to 11 feet.
- There is currently existing right of way between Whitewood Road & Carmel Hill Court to Creighton Avenue & Clinton Keith Road. This right of way, if paved, can operate as a Class I bike facility.
- The width of the segment from Creighton Avenue & Clinton Keith Road to Bradley Road & Holland Road changes between 28 to 64 feet with one travel lane and a bike lane or shoulder in each direction. Eight foot buffered bicycle lanes could be accommodated in each direction where the roadway segment is 38 feet or wider. In narrower segments, bike lanes will be feasible.
- The width of the segment from Holland Road to Newport Road along Bradley Road is approximately 72 feet with two travel lanes in each direction and a center turn lane. Eight foot buffered bicycle lanes could be accommodated in each direction through restriping and narrowing the travel lanes to 11 feet.
- The width of the segment from Newport Road to Rio Vista Drive along Bradley Road is approximately 58 feet with one travel lane in each direction, a center turn lane, and a shoulder in one direction. Eight foot buffered bicycle lanes could be accommodated in each direction by restriping and narrowing the travel lanes and paving the shoulder.

Challenges to Implementation

- Requires coordination with Caltrans for I-15 and I-215 crossings
- Requires coordination between Menifee and Murrieta city staff
- Trail segments require additional attention at three roadway crossings:
 - » Jefferson Avenue
 - » Ynez Road
 - » I-15
- Trail segments will require additional safety features such as lighting and way-finding
- Trail segments may require coordination with adjacent property owners in case of security concerns
- On-street segments may require intersection reconfiguration as part of a different project at:
 - » Newport Road at Bradley Road
 - » Bradley Road at La Piedra Road
 - » Clinton Keith Road at Creighton Avenue
 - » Los Alamos Road
 - » Whitewood Road
 - » Alta Murrieta Drive at Whitewood Road
 - » Alta Murrieta Drive at Murrieta Hot Springs Road

Project Map



Project Overview + Scope

The 215 Central Corridor route is a north-south regional facility connecting Riverside, Perris, and Menifee. This potential facility would provide 7.4 miles of Class I Shared Use Path alongside the existing rail line, 13 miles of Class II facilities, including six miles of bicycle lanes and seven miles of buffered bicycle lanes along arterials such as Sycamore Canyon Boulevard/Meridian Parkway, and 1 mile of other bicycle facilities for a total of 19.4 miles. Some portions of the route have existing active transportation facilities, such as along Meridian Parkway, but a more robust and cohesive network would be an important step in improving active transportation safety, access, and mobility. This project would help to provide an active transportation facility within one half mile of major transportation connections, several parks, schools, and regional destinations. The project also improves connectivity to surrounding jurisdictions.

Key Connections

Major Destinations

- Kaiser Permanente Meridian Medical Offices
- Riverside National Cemetery
- March Field Air Museum
- March Air Reserve Base
- Big League Dreams Perris

Regional Transportation Facilities

- Moreno Valley/March Field Metrolink
- Perris Metrolink
- RTA Bus Lines 41, 208

Trails

- None -

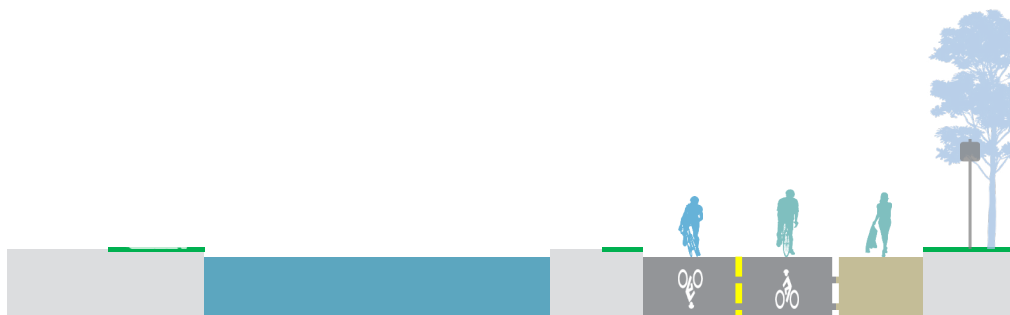
Schools

- Platt College Riverside
- Nan Sanders Elementary School
- California Military Institute

Parks

- Sycamore Canyon Park
- Metz Park

Sample Project Cross Section



Health Environment

Health: Connections to recreation opportunities and open space. Increases length of biking network, provides the option to many communities to connect to destinations such as schools along the route, recreation and jobs via bicycle commuting, and potentially improves health conditions via active transportation and connections to recreation.

Safety: Special consideration at intersection crossings and intersection approaches with existing roads reduces potential for collisions and increases traffic safety.

Local Demographics (within ½-mile)

36,111



Households with-
in ½-mile of the pro-
posed facility

38



Median age

49%



Of the popula-
tion is female

16%



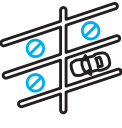
Have limited En-
glish proficiency

22%



Are under the pov-
erty line

6%



Have no avail-
able vehicle

Collision History

102 collisions within
½-mile

3 pedestrians
killed or injured

1 bicyclists killed
or injured

5 hit-and-run
collisions

Source: TIMS, 2009-2013

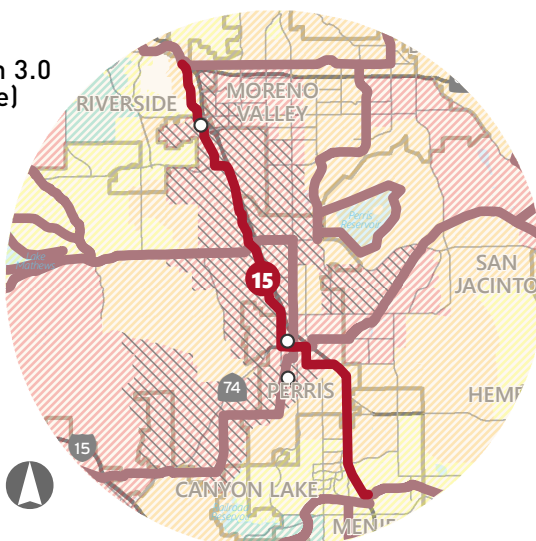
Benefits to Implementation

- Encourages transit riders to use non-motorized means of transportation for first-last mile barriers surrounding the Moreno Valley/March Field and Perris Metrolink stations
- Provides a central, regional route that can reduce ADT for Riverside, Perris, and Menifee
- May significantly reduce congestion and pollution surrounding large employers including but not limited to Kaiser Permanente and March Air Reserve Base by providing a non-motorized commute route for employees that is comparable to driving on the 215 during rush hour
- Provides residents with a recreational facility and increases non-motorized access to local parks
- Encourages residents and employees to engage in daily physical activity

Disadvantaged Communities

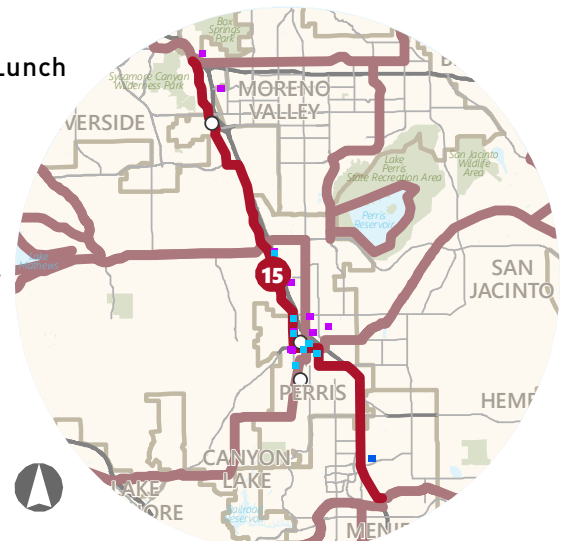
CalEnviroScreen 3.0 Score (Statewide)

- 0 - 25%
- 26 - 50%
- 51 - 75%
- 76 - 100%
- Top 90th Percentile
- Regional Facility
- WRCOG Boundary



Free/Reduced Lunch Participation (within 1 mile)

- Less than 30%
- 31% - 60%
- More than 60%
- Regional Facility
- WRCOG Boundary





RIVERSIDE - PERRIS - MENIFEE

15 | I-215 CENTRAL CORRIDOR

Estimated Costs

Total Estimated Cost **\$12,354,200**

Class I Shared Use Path 7.4 miles **\$8,995,500**

Class II Buffered Bike Lane 7 miles **\$1,282,000**

Class II Bike Lane 6 miles **\$1,102,500**

Class III Bike Route 1 mile **\$974,200**

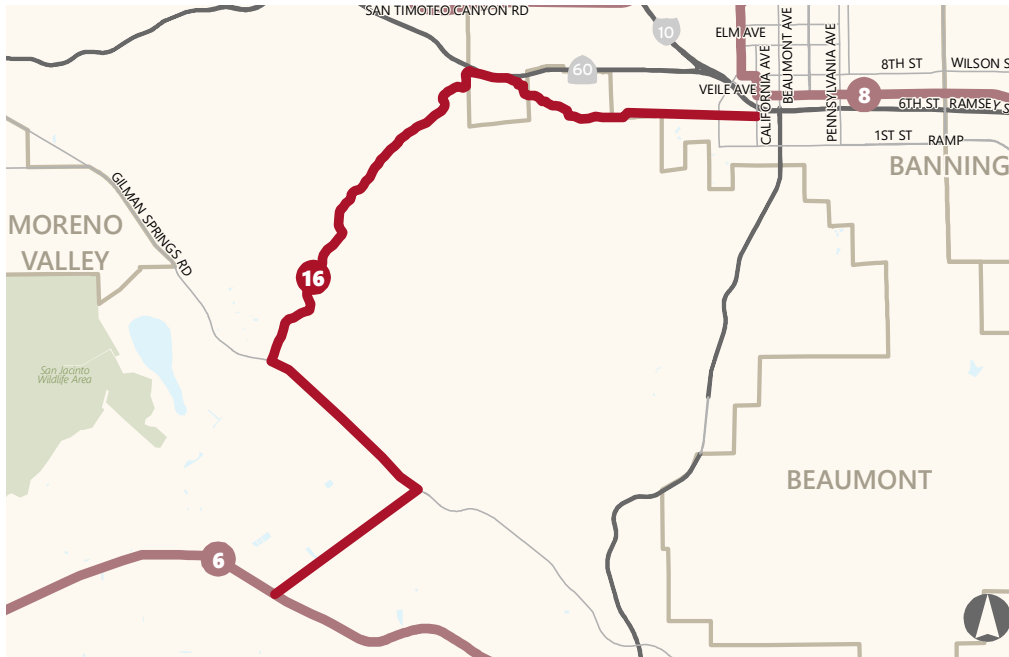
Feasibility Considerations

- The width of the segment from Fair Isle Drive to Alessandro Boulevard is approximately 84 feet with two travel lanes in each direction and a center median. Nine foot buffered bike lanes could be accommodated in each direction if travel lanes are narrowed and repainted to be 12 feet wide.
- The width of the segment from Alessandro Boulevard to Van Buren Boulevard along Meridian Parkway is approximately 74 feet with two travel lanes and a bike lane in each direction and a center turn lane. Eight foot buffered bike lanes could be accommodated in each direction through narrowing travel lanes to between 11 and 12 feet.
- The width of the segment along Van Buren Boulevard is approximately 134 feet with three to four travel lanes in each direction, a center median, and a buffered bike lane in the westbound direction. Ten foot buffered bike lanes could be accommodated in each direction through restriping the large westbound bicycle buffer and adjusting the travel lanes.
- The segment from Van Buren Boulevard to Harley Knox Boulevard is an unpaved path with railroad tracks along some portions. A shared use path could be accommodated by paving this right-of-way.
- The width of the segment from Harley Knox Road to Cajalco Road along Harvill Street is approximately 70 feet with two travel lanes in each direction and a center turn lane. Six foot bike lanes could be accommodated in each direction by narrowing travel lanes.
- The width of the segment from Cajalco Road to Nuevo Road along Harvill Avenue is approximately 60 feet with two travel lanes in each direction. Six foot bike lanes in each direction could be accommodated by narrowing all travel lanes to be 12 feet wide.
- The width of the segment from Nuevo Road to 4th Street along A Street is approximately 34 feet with one travel lane in each direction. Five foot bike lanes in each direction could be accommodated by narrowing travel lanes to be 12 feet wide.
- The width of the segment from A Street to Redlands Avenue along 4th Street is approximately 54 feet with two travel lanes in each direction and a center turn lane. A bike route could be accommodated in each direction by painting sharrows.
- The width of the segment from 4th Street to Ellis Avenue along Redlands Avenue is approximately 40 feet with one travel lane in each direction and occasional left-turn lanes at some locations. Five foot bike lanes in each direction could be accommodated by narrowing travel lanes to 10 feet wide.
- The segment from Redlands Avenue to Whisperwood Drive is an unpaved path. A shared use path could be accommodated by paving the right-of-way.

Challenges to Implementation

- Requires coordination with Caltrans for SR-74 and I-215 crossings and routes
- Requires coordination between Perris, Riverside, and Menifee city staff
- Requires coordination with Federal Transit/Freight coordinator
- Trail segments will require additional safety features such as lighting and way-finding
- On-street segments may require intersection reconfiguration as part of a different project at:
 - » I-215 on- and off-ramps at Van Buren Boulevard
 - » Eastridge Avenue at Sycamore Canyon Road
 - » Sycamore Canyon Road at Alessandro Boulevard
 - » Meridian Parkway
 - » Harvill Avenue at Cajalco Expressway
 - » 4th Street at Perris Boulevard
 - » Redlands Avenue at 4th Street

Project Map



Project Overview + Scope

The Gilman Springs Rd – Beaumont route is a north-south regional facility connecting Beaumont and unincorporated Riverside. This potential facility would provide 1.3 miles of off-street shared use path, 4.7 miles of Class IV separated two-way bike-way along Jack Rabbit Trail, and 5.4 miles of Class II buffered bike lanes on Gilman Springs Road for a total of 11.4 miles. This project helps address issues such as limited active transportation infrastructure and recreational opportunities in the area and helps to improve active transportation safety, access, and mobility. The proposed facility would provide an active transportation route that is within half a mile of regional transportation facilities, a school, and several parks. The project also improves connectivity to surrounding jurisdictions.

Key Connections

Major Destinations

Mystic Lake
Eden Hot Springs

Regional Transportation Facilities

RTA Bus Line 31

Trails

- None -

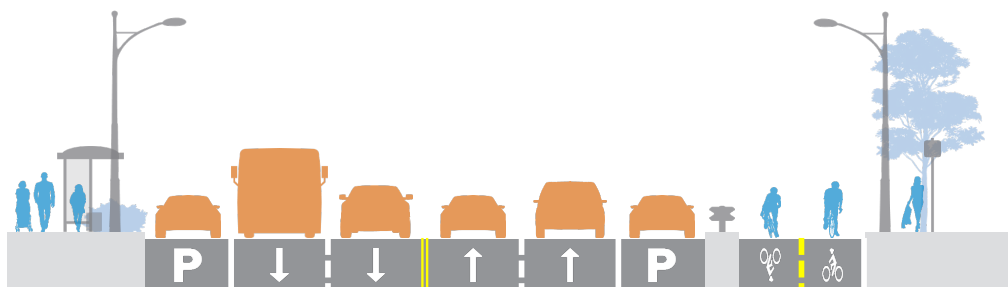
Schools

Mojave River Academy

Parks

Rangel Park

Sample Project Cross Section

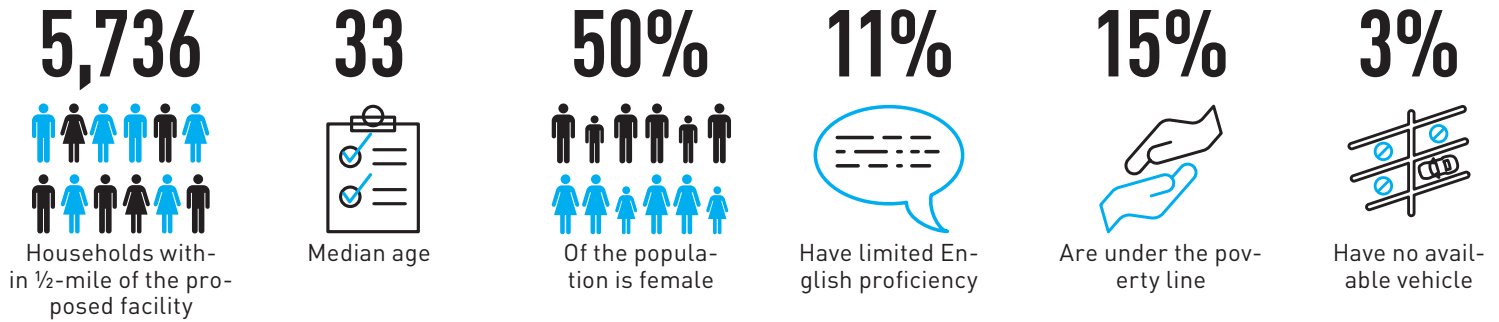


Health Environment

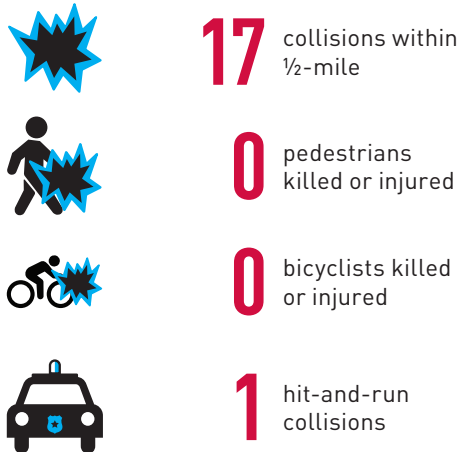
Health: Many connections to recreation opportunities and open space. Potentially improves health conditions via active transportation and connections to recreation.

Safety: Special consideration at intersection crossings and intersection approaches at the beginning and end of route with existing roads reduces potential for collisions and increases traffic safety.

Local Demographics (within ½-mile)



Collision History



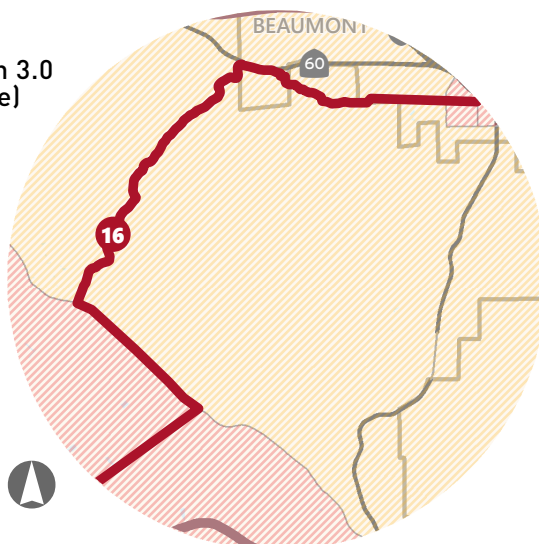
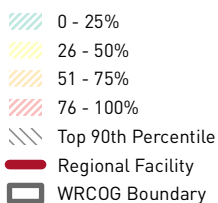
Source: TIMS, 2009-2013

Benefits to Implementation

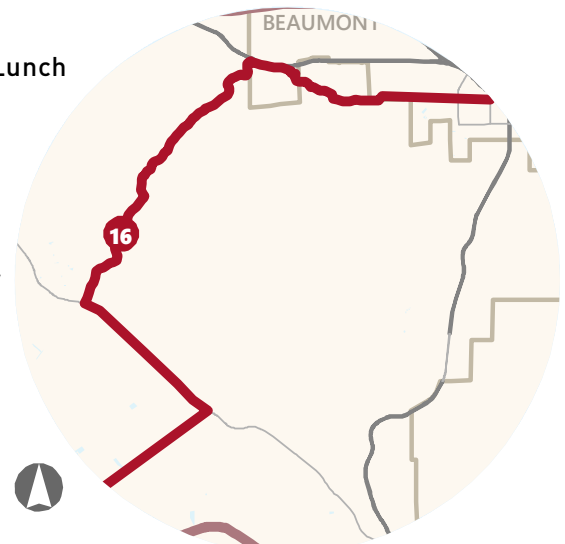
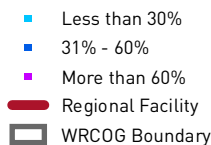
- Encourages residents to engage in physical activity, reducing the likelihood of diabetes and obesity
- Improves visibility on Jack Rabbit Trail
- Provides active transportation connections to other recreational facilities such as Mystic Lake and Eden Hot Springs

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





Estimated Costs

Total Estimated Cost **\$10,920,600**

Class I Shared Use Path 1.3 miles **\$1,690,100**

Class IV Separated Bikeway 4.7 miles **\$4,963,200**

Class II Buffered Bike Lane 5.4 miles **\$4,267,300**

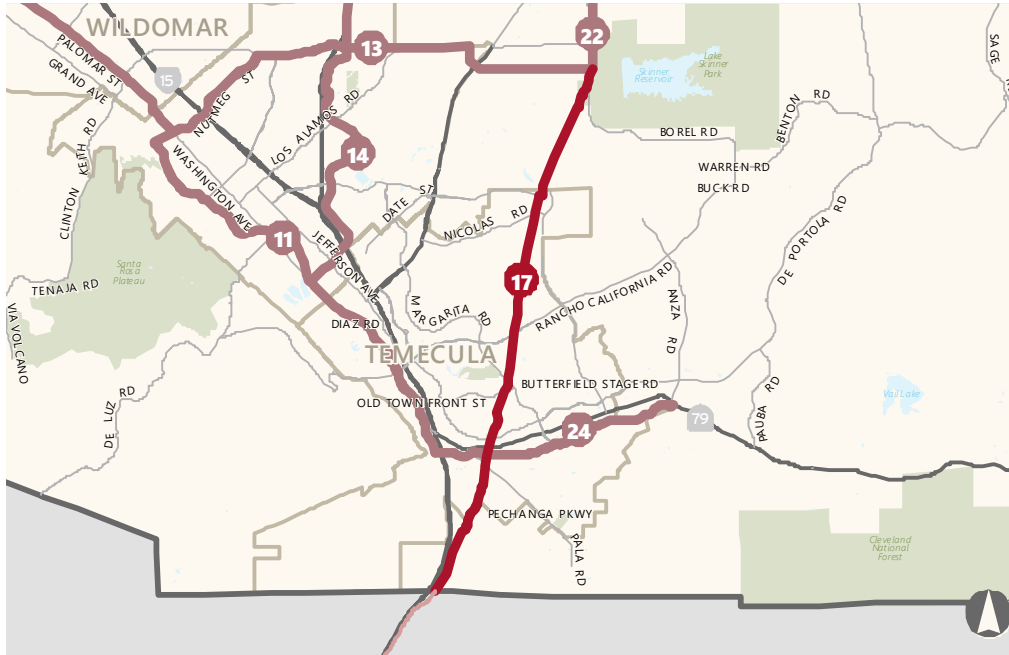
Challenges to Implementation

- May require CEQA analysis
- Requires coordination between Beaumont and Lakeview city staff
- Trail segments will require additional safety features such as lighting and way-finding

Feasibility Considerations

- The width of the segment from California Avenue to Velie Avenue along 4th Street is approximately 40 feet with one travel lane and a bike lane in each direction. Eight foot buffered bike lanes could be accommodated in each direction if travel lanes are narrowed to 12 feet each.
- The width of the segment from Velie Avenue to (past) Nicholas Road is approximately 74 feet with two travel lanes in each direction and a center turn lane. Eight foot buffered bike lanes could be accommodated in each direction through narrowing travel lanes to between 11 and 12 feet.
- The segment from (past) Nicholas Road to Frontage Road is mostly undeveloped, open space and unpaved paths along portions of the segment. A shared use path could be accommodated by paving and striping a portion of this right-of-way.
- The width of the segment along Jack Rabbit Trail from Frontage Road to Gilman Springs Road is approximately 24 to 30 feet wide. An eight foot two-way separated bikeway could be accommodated on one side of the road through paving the shoulder. Along certain portions of this segment, the mountainous terrain would cause the separated bikeway to be infeasible, and a buffered bike lane or sharrow would be more appropriate.
- The width of the segment from Jack Rabbit Trail to Bridge Street along Gilman Springs Road is varies with constrained areas at a width of 34 feet with one travel lane and an unpaved shoulder on each side. Paving the shoulders would accommodate an eight foot buffered bike lane on each side.
- The width of the segment from Gilman Springs Road to the San Jacinto River along Bridge Street is approximately 38 feet with one 11 foot travel lane and a mostly unpaved shoulder in each direction. Paving the shoulder would accommodate an eight foot buffered bike lane in each direction.

Project Map



Project Overview + Scope

The Lake Skinner – San Diego route is a north-south regional facility connecting unincorporated Riverside and Temecula. This potential facility would provide 10.1 miles of off-street shared use path alongside an existing easement line and 1.5 miles of Class IV two-way separated bikeway along Rainbow Canyon Road for a total of 11.6 miles. This project helps address issues such as limited active transportation infrastructure and recreational opportunities in the area and helps to improve active transportation safety, access, and mobility. The proposed facility would provide an active transportation route that is within one half mile of major transportation connections, several parks, schools, and retail destinations. The project also improves connectivity to surrounding jurisdictions and San Diego County.

Key Connections

Major Destinations

- Lake Skinner
- Temecula Berry Co
- Temecula Public Library
- Temecula Creek Village Shopping Center

Regional Transportation Facilities

- RTA Bus Line 24

Trails

- None -

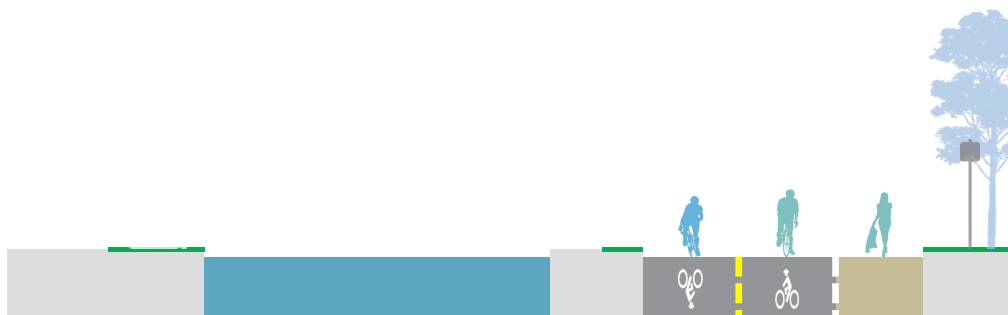
Schools

- Temecula Valley High School
- Bella Vista Middle School
- Alamos Elementary School
- Rancho Elementary School

Parks

- Ronald Reagan Sports Park
- Fairview Park
- Temeku Hills Park

Sample Project Cross Section

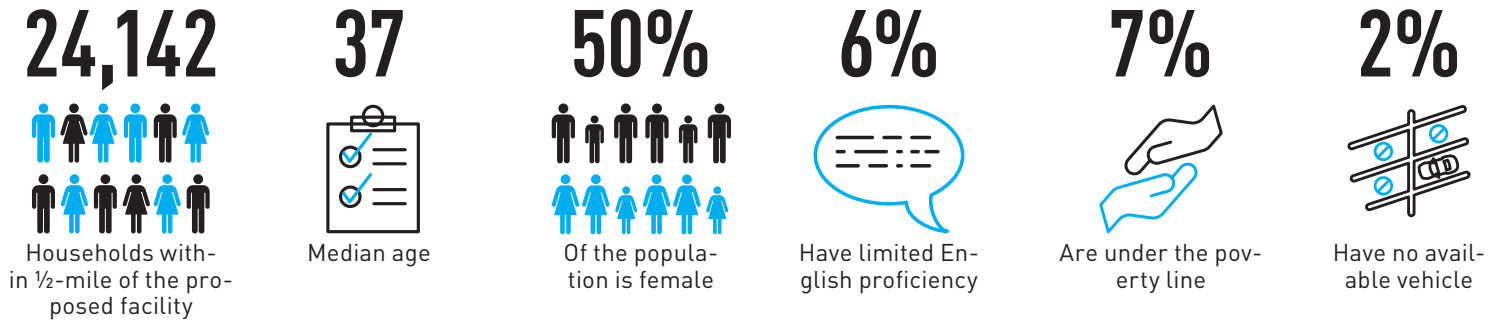


Health Environment

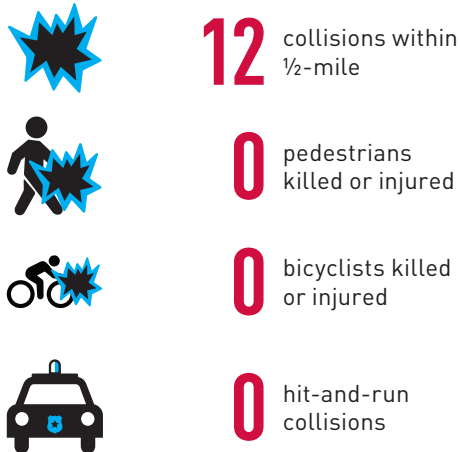
Health: Connections to recreation opportunities and open space. Increase length of biking network, provides connections between many communities, and potentially improves health conditions via active transportation and connections to recreation.

Safety: Special consideration at many intersection crossings and intersection approaches with existing roads reduces potential for collisions and increases traffic safety.

Local Demographics (within ½-mile)



Collision History



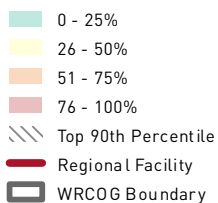
Source: TIMS, 2009-2013

Benefits to Implementation

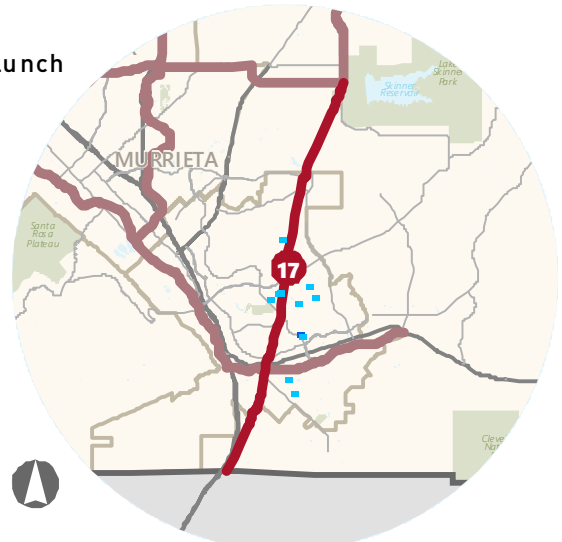
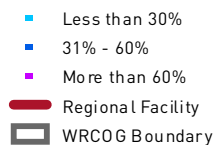
- Encourages residents to engage in physical activity by providing a non-motorized facility that can be used for recreational or commuting purposes
- Increases bicycle and pedestrian access to other recreational sites including but not limited to Lake Skinner, Ronald Reagan Sports Park, and local golf courses
- Improves non-motorized connectivity to San Diego County and Winchester City

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





Estimated Costs

Total Estimated Cost **\$14,715,000**

Class I Shared Use Path 10.1 miles **\$13,131,100**

Class IV Separated Bikeway 1.5 miles **\$1,584,000**

Feasibility Considerations

- The segment of the Lake Skinner path from Benton Road to Rainbow Valley Boulevard follows a former land easement and is approximately 14 feet wide. A shared use path up to 14 feet wide could be accommodated with paved and controlled street crossings. This segment may utilize existing on-street facilities on Meadows Parkway and Rancho California Road as there is an existing golf course for a small section where a path may not be feasible.
- The segment from Rainbow Valley Boulevard to Rainbow Canyon Road is approximately 34 feet wide with one travel lane and a shoulder in each direction. Restriping the travel lanes (without narrowing them) and paving the shoulder space on one side of the road could accommodate a two-way separated bikeway.

Challenges to Implementation

- Requires coordination with Caltrans for SR-79 crossing
- Requires coordination with municipal water suppliers
- Requires coordination with several golf course owners and managers
- Requires coordination between Temecula and Winchester city staff
- Trail segments require additional attention at 19 roadway crossings:
 - » Pechanga Parkway
 - » SR-79
 - » De Portola Road
 - » Jedidiah Smith Road
 - » Pescado Drive
 - » Santiago Road
 - » Margarita Road
 - » Pauba Road
 - » Rancho Vista Road
 - » Rancho California Road
 - » Royal Birkdale Drive
 - » Meadows Parkway
 - » Heitz Lane
 - » La Serena Way
 - » Cabern Court
 - » Calle Medusa
 - » Calle Katherine
 - » Cantrell Road
 - » Murrieta Hot Springs Road
- Trail segments will require additional safety features such as lighting and way-finding
- Trail segments may require coordination with adjacent property owners in case of security concerns

Project Map



Project Overview + Scope

The Riverside Downtown – Western Moreno Valley route is an east-west facility connecting Riverside and Moreno Valley. This potential facility would provide 1.1 mile of Class II buffered bike lanes on Central Avenue and 5.3 miles of Class II bike lanes for a total of 6.4 miles. While portions of this route already have existing active transportation infrastructure in place, improvements can be made to improve connectivity and cohesiveness, resulting in increased active transportation safety, access, and mobility. This project would help to provide an active transportation facility within one half mile of major transportation connections, several parks, universities & schools, and other important regional destinations. The project also improves connectivity to surrounding jurisdictions through linkages with local active transportation routes that are both existing and proposed.

Key Connections

Major Destinations

Downtown Riverside
Riverside Community Hospital
Canyon Crest Towne Centre

Regional Transportation Facilities

Riverside Downtown Metrolink
RTA Bus Lines 13, 16, 51

Trails

- None -

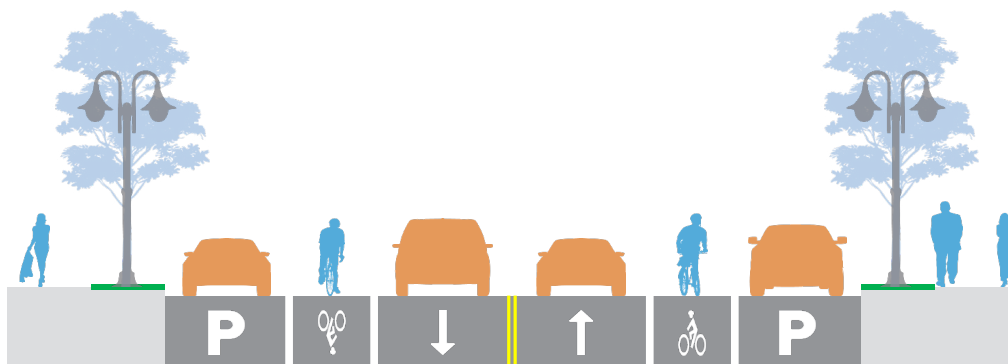
Schools

University of California Riverside
Riverside City College
Lincoln High School
Emerson Elementary School

Parks

Sycamore Canyon Wilderness Park
Bordwell Park
Dario Vasquez Park, Evans Park

Sample Project Cross Section

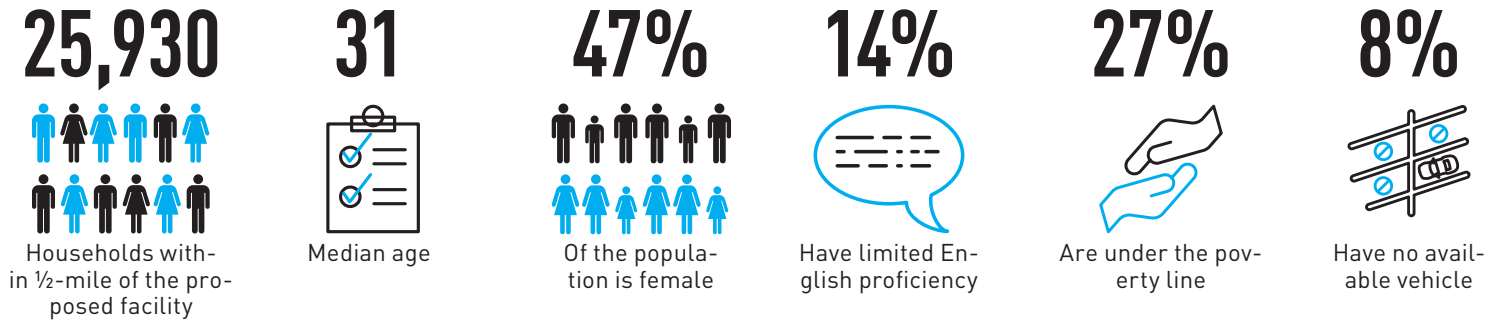


Health Environment

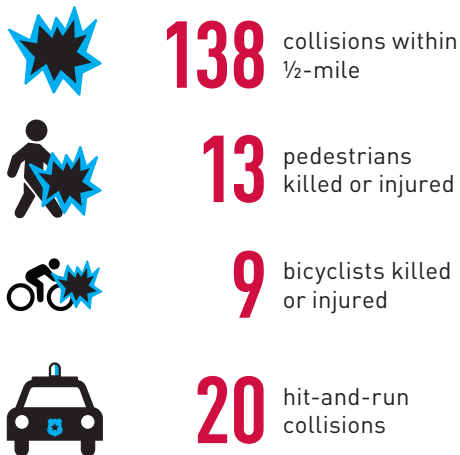
Health: Many connections to recreational opportunities and open space. Increases length of biking network, provides the option to many communities to connect to destinations such as schools along the route, recreation, retail, and jobs via bicycle commuting, and potentially improves health conditions via active transportation connections to recreation.

Safety: Special consideration at intersection crossings and intersection approaches with existing roads reduces potential for collisions and increases traffic safety.

Local Demographics (within ½-mile)



Collision History



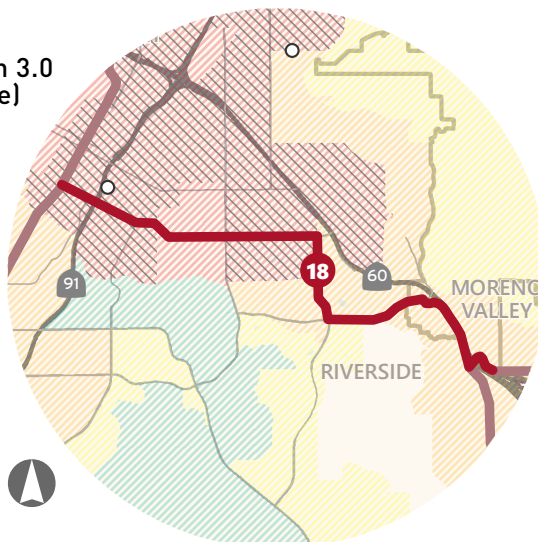
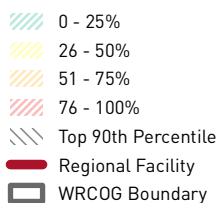
Source: TIMS, 2009-2013

Benefits to Implementation

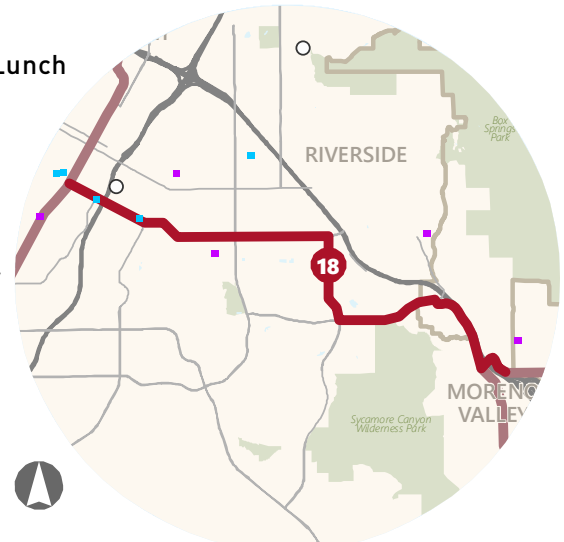
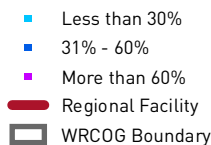
- Encourages transit riders to use active transportation for first-last mile barriers surrounding the Downtown Riverside Metrolink station and other transit stops
- May reduce congestion in Downtown Riverside, and areas around Riverside Community Hospital, Canyon Crest Towne Center, and University of Riverside by providing active transportation alternatives for employees, visitors, and students
- Provides residents with over six miles of recreational bike facilities, encouraging physical activity and bettering health outcomes for local residents

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





Estimated Costs

Total Estimated Cost **\$2,320,100**

Class II Buffered Bike Lane 1.1 miles **\$283,000**

Class II Bike Lane 5.3 miles **\$2,037,100**

Challenges to Implementation

- Requires coordination with Caltrans for SR-91 and I-215 crossings
- On-street segments may require intersection as part of a different project at:
 - » 14th Street at Lime Street Drive
 - » Canyon Crest Drive at Central Avenue
 - » SR-91 on- and off-ramps
 - » Martin Luther King Jr Boulevard at Chicago Avenue
 - » Sycamore Canyon Boulevard at Fair Isle Drive
 - » Martin Luther King Jr Boulevard at Canyon Crest
 - » I-215 on- and off-ramps

Feasibility Considerations

- The width of the segment from Market Street to Bermuda Avenue along 14th Street is approximately 60 feet with two travel lanes in each direction and a center turning lane. Four-foot bike lanes could be accommodated in each direction through the restriping and narrowing of the four travel lanes to 10.5 feet wide each and the center turning lane to 10 feet. Narrower portions of this segment may not be able to accommodate a bike lane on both sides of the roadway.
- The width of the segment from Bermuda Avenue to Chicago Avenue along Martin Luther King Boulevard is approximately 84 feet with three travel lanes in each direction and a center turning lane. Four-foot bike lanes could be accommodated in each direction through the restriping and narrowing of the travel lanes and the center turning lane to between 10 and 11 feet wide each.
- The segment of Chicago Avenue to Central Avenue, via Martin Luther King Boulevard and Canyon Crest Drive already contain well designed Class II bike lanes. No additional improvements are recommended except for increased visibility of bike facilities at the intersections, using strategies such as green paint.
- The segment of Canyon Crest Drive to Sycamore Canyon Boulevard, via Central Avenue already contains buffered bike lanes. No additional improvements are recommended.
- The width of the segment from Central Avenue to College Boulevard along Sycamore Canyon Boulevard is approximately 35 feet with one travel lane in each direction and wide shoulders. Six-foot bike lanes could be accommodated in each direction through the restriping and narrowing of the travel lanes to 11.5 feet each.
- The width of the segment from College Boulevard to Fair Isle Drive along Sycamore Canyon Boulevard is approximately 54 feet with two travel lanes in the southbound direction, one northbound travel lane, and a center turning lane. Five-foot bike lanes could be accommodated in each direction through the restriping and narrowing of all lanes to 11 feet wide. Portions of this segment already have Class II bike lanes implemented, which are sufficiently designed.
- The segment of Sycamore Canyon Boulevard to Morton Road, via Box Springs Road already contains Class II bike lanes. No additional improvements are recommended except for the bike lanes to continue all the way to the intersection of Box Springs Road and Morton Road.

Project Map



Key Connections

Major Destinations

Canyon Springs Plaza
Ironwood Plaza

Regional Transportation Facilities

RTA Bus Line 11, 16, 18

Trails

- None -

Project Overview + Scope

The Eastern Riverside – Moreno Beach route via Ironwood Avenue is an east-west facility connecting Riverside and Moreno Valley. This potential facility would provide 1.8 miles of Class IV separated one-way bikeways (on both sides of Ironwood Avenue between Lassen Street and Moreno Beach Drive) and 5.2 miles of bike lanes for a total of 7 miles. Ironwood Avenue is currently an important arterial for auto users and improving the corridor by better connecting the existing active transportation infrastructure and making a more cohesive network would be an important step in improving active transportation safety, access, and mobility. This project would help to provide an active transportation facility within one half mile of major transportation connections, several parks, schools, and retail destinations. The project also improves connectivity to surrounding jurisdictions through linkages with existing and proposed local active transportation routes.

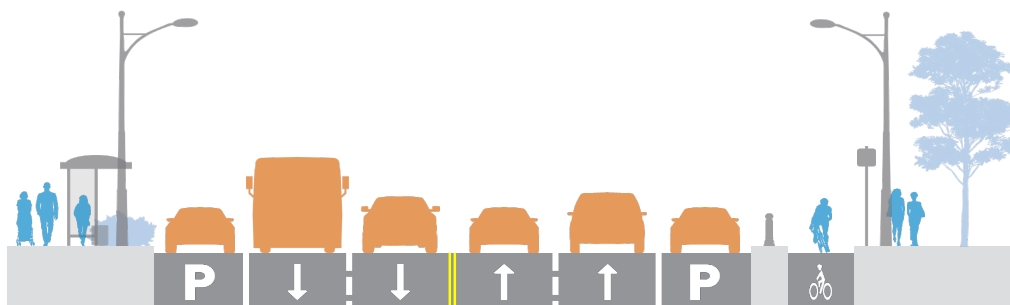
Schools

Box Springs Elementary School
Cloverdale Elementary School
Palm Middle School

Parks

Box Springs Mountain Reserve Park

Sample Project Cross Section



Health Environment

Health: Many connections to recreational opportunities and open space. Increases length of biking network, provides communities with the option to connect to destinations along the route, such as schools, recreation, retail, and jobs via bicycle commuting, and can improve health conditions via active transportation and connections to recreation.

Safety: Special consideration at intersection crossings and intersection approaches with existing roads reduces potential for collisions and increased traffic safety.

Local Demographics (within ½-mile)

17,411



Households with-
in ½-mile of the pro-
posed facility

33



Median age

50%



Of the popula-
tion is female

15%



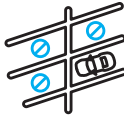
Have limited En-
glish proficiency

19%



Are under the pov-
erty line

3%



Have no avail-
able vehicle

Collision History

137 collisions within
½-mile



12 pedestrians
killed or injured



7 bicyclists killed
or injured



9 hit-and-run
collisions



Source: TIMS, 2009-2013

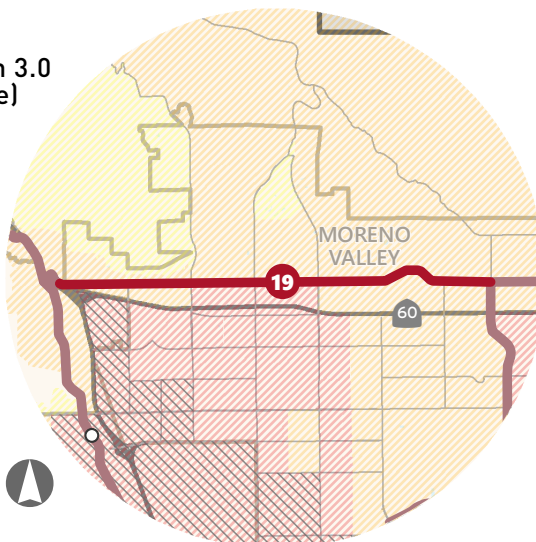
Benefits to Implementation

- Encourages transit riders to use non-motorized means of transportation for first-last mile barriers particularly along the Ironwood Avenue corridor
- Enhances cyclist experience by providing 3.6 miles of protected facilities with Soft-Hit Posts and bicycle detection at intersections
- Provides residents with a facility that can be used recreationally or for commuting, that connects to other active transportation facilities

Disadvantaged Communities

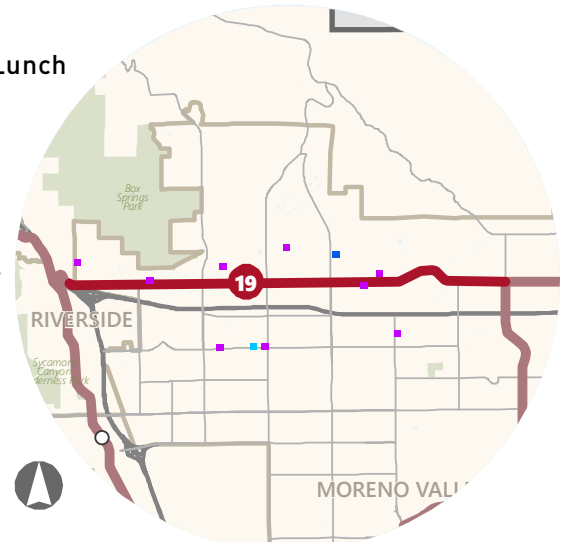
CalEnviroScreen 3.0 Score (Statewide)

- 0 - 25%
- 26 - 50%
- 51 - 75%
- 76 - 100%
- Top 90th Percentile
- Regional Facility
- WRCOG Boundary



Free/Reduced Lunch Participation (within 1 mile)

- Less than 30%
- 31% - 60%
- More than 60%
- Regional Facility
- WRCOG Boundary





Estimated Costs

Total Estimated Cost **\$3,319,900**

Class IV Separated Bikeway 3.6 miles **\$2,176,700**

Class II Bike Lane 5.2 miles **\$1,143,200**

Challenges to Implementation

- On-street segments may require intersection reconfiguration as part of a different project on Ironwood Avenue at Pigeon Pass Road, Heacock Avenue, and Perris Boulevard

Feasibility Considerations

- The width of the segment from Morton Road to Lasselle Street along Ironwood Avenue is approximately 63 feet with two travel lanes in each direction, a center-turning lane, and intermittent bike lanes. Five foot buffered bike lanes could be accommodated consistently in each direction through the restriping and narrowing of the four travel lanes to 10.5 feet and the center turning lane to 11 feet wide. In instances where the segment widens (or removes a travel lane), eight foot buffered bike lanes can be accommodated.
- The width of the segment from Lasselle Street to Moreno Beach Drive along Riverside Drive is approximately 24 feet with one lane in each direction. This does not include the unpaved shoulders, which are part of the roadway's right-of-way. Nine foot separated bikeways could be accommodated in each direction with the construction of paved shoulders to the full extent of the roadway right-of-way (up to 40 feet wide with the travel lanes and new shoulders). The restriping and narrowing of the two travel lanes to 11 feet each would also be necessary to accommodate the bikeways.

Project Map



Project Overview + Scope

The Lake Mathews facility is a circular route around Lake Mathews reservoir. This potential facility would provide 7.8 miles of off-street shared use path around the reservoir and an additional 0.9 miles of Class II buffered bike lanes along La Sierra Avenue for a total of 8.7 miles. This project helps address a lack of recreational opportunities in the region, and provides a safe and scenic active transportation facility for bicyclists and pedestrians of all ages.

Key Connections

Major Destinations

Lake Mathews

Regional Transportation Facilities

- None -

Trails

- None -

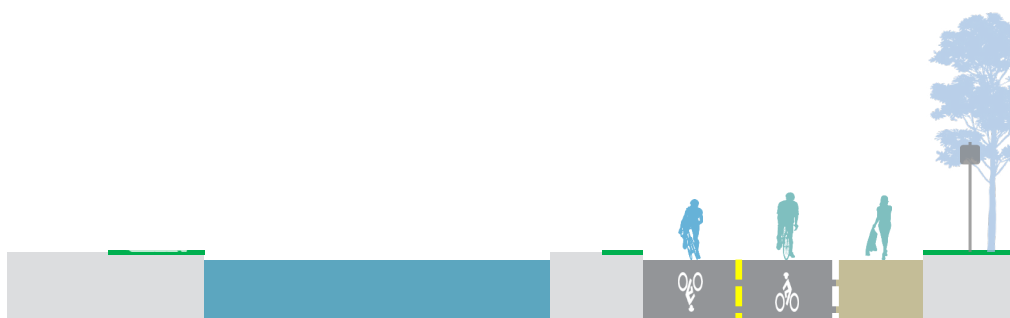
Schools

- None -

Parks

- None -

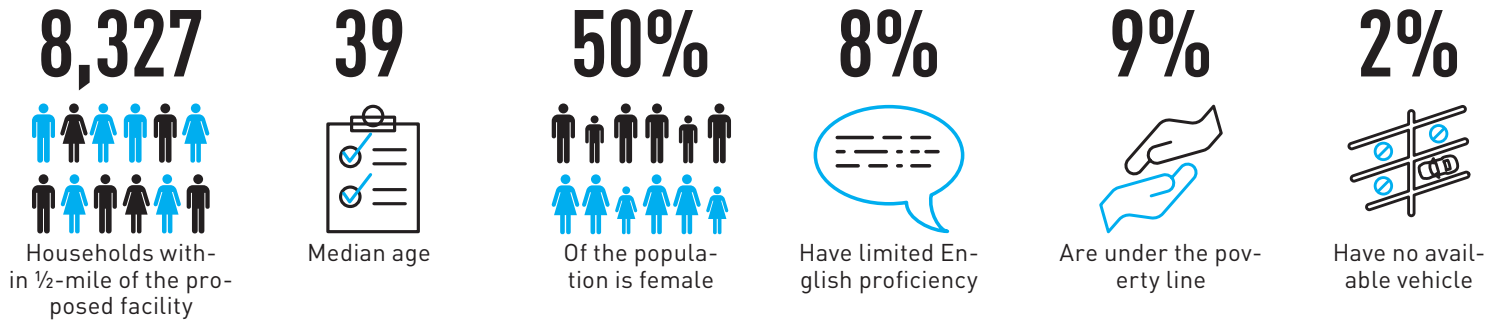
Sample Project Cross Section



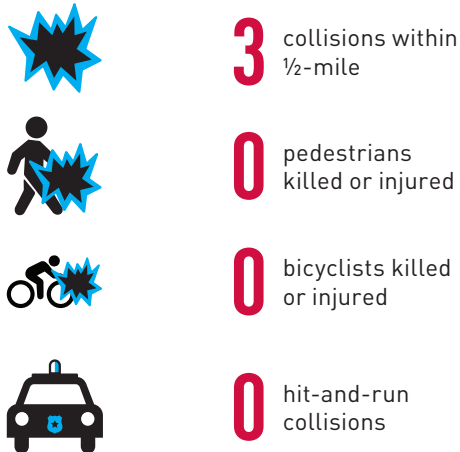
Health Environment

Health: Connects to many recreation opportunities in the Lake Mathews reservoir open space and potentially improves health conditions via opportunities for recreation.

Local Demographics (within ½-mile)



Collision History



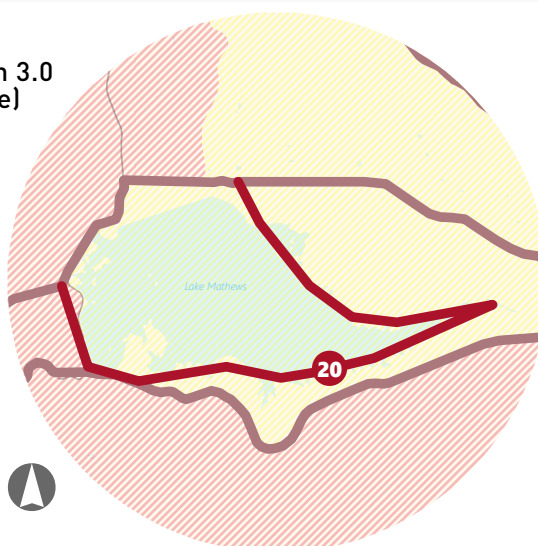
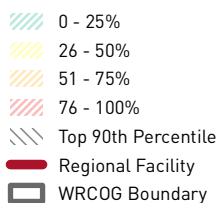
Source: TIMS, 2009-2013

Benefits to Implementation

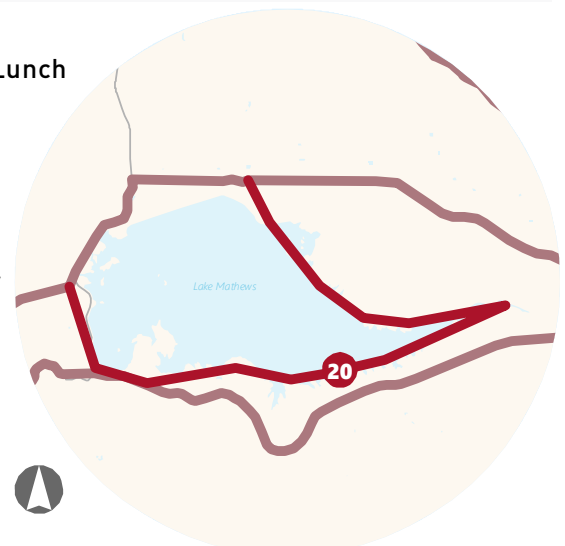
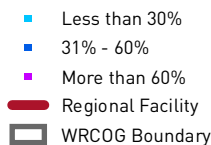
- Provides residents with a recreational facility to enjoy and exercise in the Lake Mathews vicinity
- Encourages residents to engage in physical activity, and may help reduce risk of obesity
- Connects to greater active transportation network, allowing cyclists from as far as Corona, Jurupa Valley, Beaumont, and Temecula to access via active transportation facilities

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





Estimated Costs

Total Estimated Cost	\$10,254,700
Class I Shared Use Path 7.8 miles	\$10,140,700
Class II Buffered Bike Lane 0.9 miles	\$114,000

Challenges to Implementation

- Requires coordination with adjacent land-owners
- Trail segments may require additional safety features such as lighting and way-finding
- May require CEQA analysis

Feasibility Considerations

- The width of the segment of the Lake Mathews Loop along La Sierra Ave is approximately 52 feet with one travel lane in each direction and two wide shoulders. Eight foot buffered bike lanes could be accommodated in each direction with additional striping to identify the bicycle facilities. There would still be room remaining for a four foot shoulder on each side of the roadway, and travel lanes could remain 14 feet wide.
- The Class I facility proposed to loop around Lake Mathews would utilize the service roads that are currently in place around the lake. These roads are wide enough that if paved, they could operate as shared use paths.

Project Map



Project Overview + Scope

The Lake Elsinore Loop route is a circular facility surrounding Lake Elsinore. This potential facility would provide 3.9 miles of off-street shared use path along the lake, 6.3 miles of Class II buffered bicycle lanes along Riverside Drive/Grand Avenue, and 0.5 miles of other bicycle facilities for a total of 10.7 miles. This project helps address issues such as limited active transportation infrastructure and recreational opportunities in the area and helps to improve active transportation safety, access, and mobility. The proposed facility would provide an active transportation facility route that is within one half mile of major transportation connections, a park, several schools, and regionally significant destinations. The project also improves connectivity to surrounding jurisdictions through linkages with local active transportation routes that are both existing and proposed.

Key Connections

Major Destinations

- Lake Elsinore
- Lake Elsinore Diamond
- The Links at Summerl
- Mission Trail Plaza Shopping Center

Regional Transportation Facilities

- RTA Bus Line 8

Trails

- None -

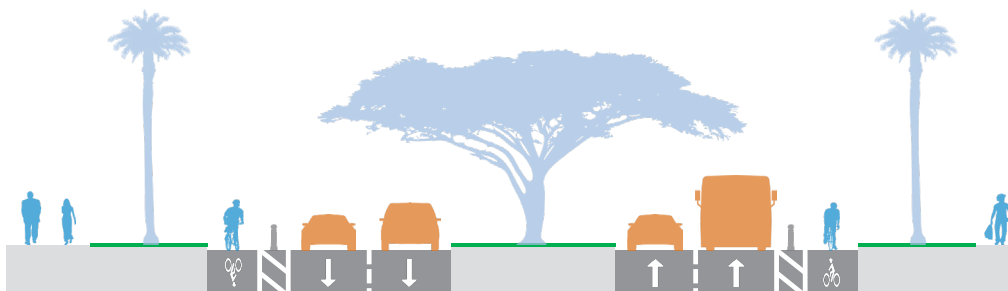
Schools

- Lakeside High School
- Machado Elementary School

Parks

- Perret Park

Sample Project Cross Section

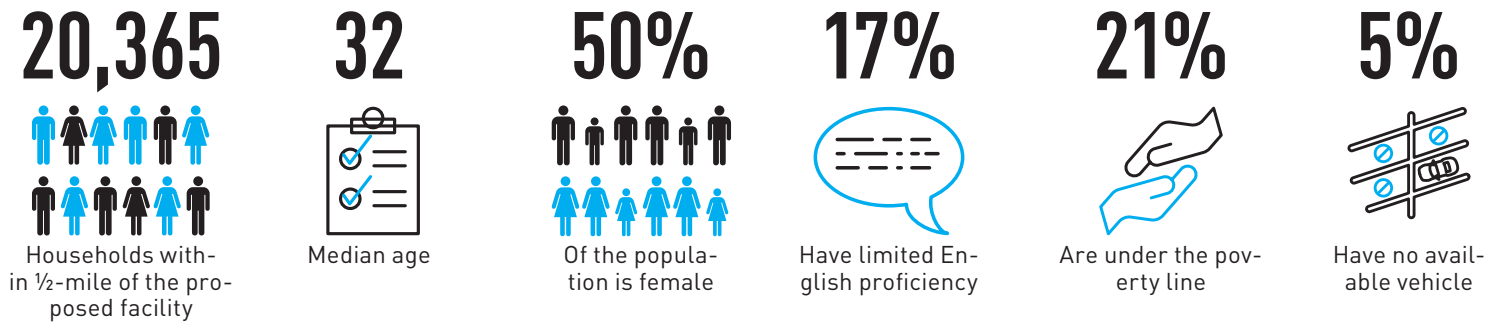


Health Environment

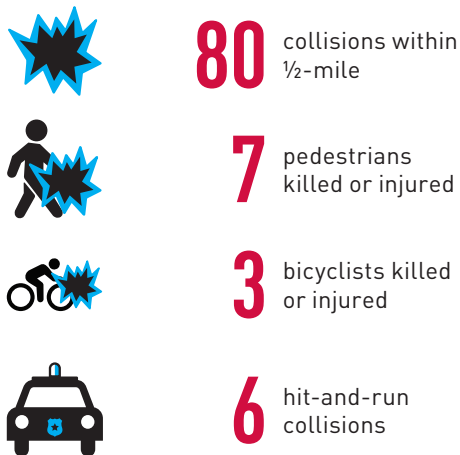
Health: Increase length of biking network, provides the option to many communities around Lake Elsinore to travel and commute via safe bicycle routes, and potentially improves health conditions via active transportation and connections to recreation.

Safety: Special consideration at intersection crossings and intersection approaches with existing roads reduces potential for collisions and increases traffic safety.

Local Demographics (within ½-mile)



Collision History



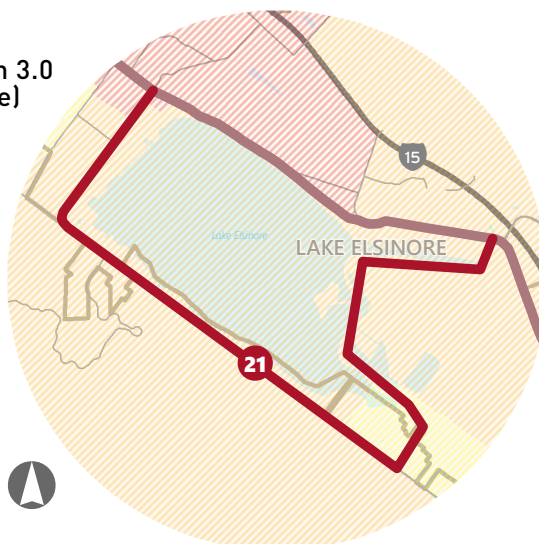
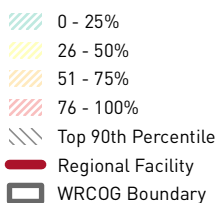
Source: TIMS, 2009-2013

Benefits to Implementation

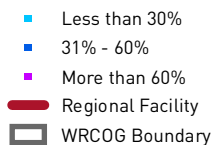
- Enhances cyclist experience by minimizing vehicle-bike conflict at the six signalized in-tersections that will have bicycle detection
- Encourages residents to engage in physical activity, and may help reduce risk of obesity
- Connects to greater non-motorized network, allowing cyclists from across the sub re-gion to access via non-motorized way of travel

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





LAKE ELSINORE

21 | LAKE ELSINORE LOOP

Estimated Costs

Total Estimated Cost	\$6,100,000
Class I Shared Use Path 3.9 miles	\$5,070,400
Class II Buffered Bike Lane 6.3 miles	\$1,013,800
Class III Bike Route 0.5 miles	\$15,800

Challenges to Implementation

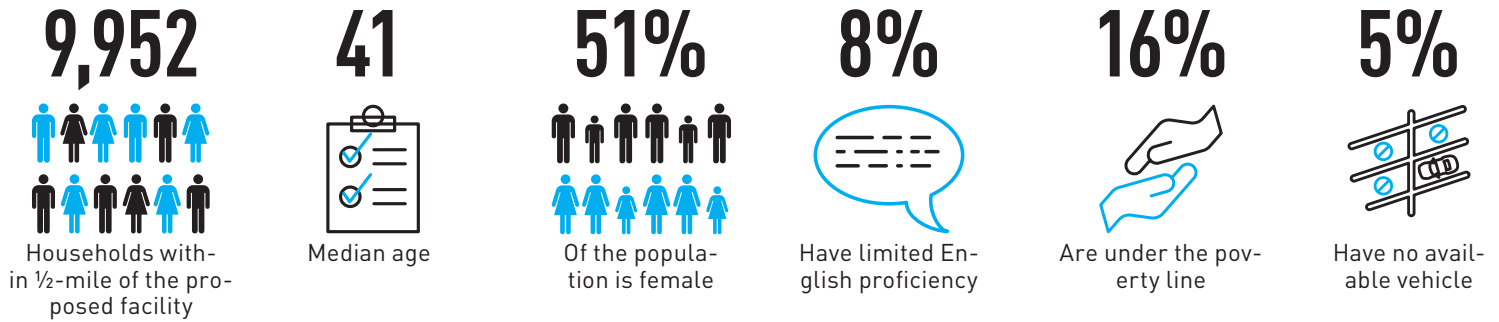
- Requires coordination with adjacent land owners
- Requires coordination with Caltrans on SR-74
- Trail segment will require additional safety features such as lighting and wayfinding
- May require CEQA analysis
- On-street segments may require intersection reconfiguration as part of a different project at the intersection of Riverside Drive and Lakeshore Drive

Feasibility Considerations

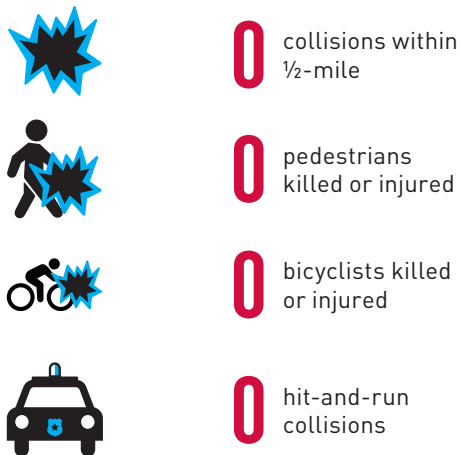
- The width of the segment from Lakeshore Drive to Le Harve Street along Riverside Drive is approximately 54 feet with one travel lane in each direction, a center turning lane, and two bike lanes. Eight foot buffered bike lanes could be accommodated in each direction through the restriping and narrowing of the two travel lanes and the center turning lane to 12 feet wide each.
- The width of the segment from Le Harve Street to Lakeside HS Stadium Way along Riverside Drive is approximately 80 feet with two travel lanes in each direction, a center turning lane, and two bike lanes. Eight foot buffered bike lanes could be accommodated in each direction through the restriping and narrowing of the two outside travel lanes.
- The width of the segment from Lakeside HS Stadium Way to Bonnie Lea Drive along Riverside Drive is approximately 44 feet with one travel lane in each direction and two bike lanes. Eight foot buffered bike lanes could be accommodated in each direction through the restriping and narrowing of the two travel lanes to 14 feet wide each.
- The width of the segment from Bonnie Lea Drive to Stoneman Street along Grand Avenue is approximately 48 feet with one travel lane in each direction, a center turning lane, and two bike lanes. Eight foot buffered bike lanes could be accommodated in each direction through the restriping and narrowing of the two travel lanes to 10.5 feet and the center turning lane to 11 feet wide.
- The width of the segment from Grand Avenue to Palomar Street along Stoneman Street is approximately 30 feet with one travel lane in each direction. Due to low speeds and traffic volumes on this segment a bike route with sharrows is proposed.
- A Class I shared use path is proposed for the open space between Palomar Street and Lakeshore Drive. This Class I facility is envisioned to travel alongside Lake Elsinore, through the paving of the unpaved trails and service roads that are already in existence.



Local Demographics (within ½-mile)



Collision History



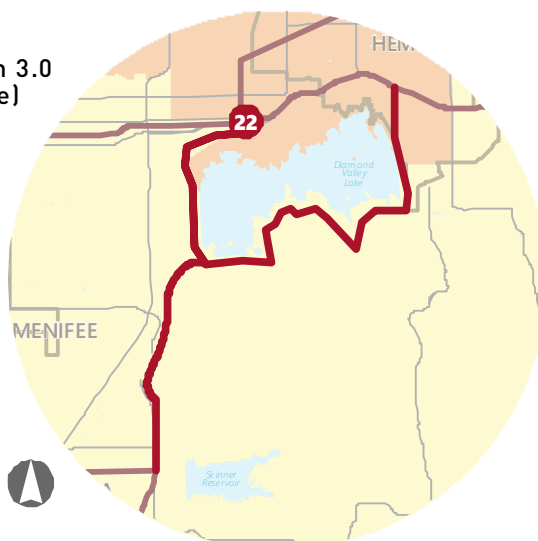
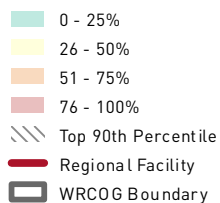
Source: TIMS, 2009-2013

Benefits to Implementation

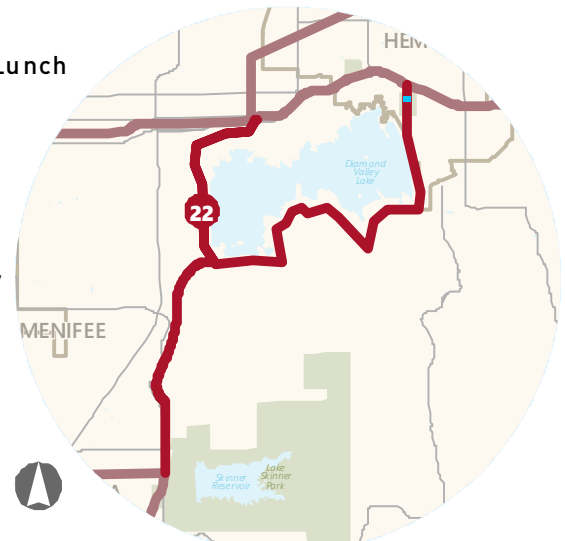
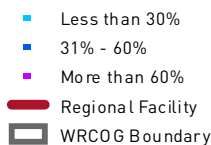
- Provides residents with a recreational facility to enjoy Diamond Valley Lake/Skinner Reservoir, and provides connection to nearby trails and parks
- Encourages residents to engage in physical activity, and may help reduce risk of obesity
- May help reduce emissions and need for parking since facility connects to greater non-motorized network, allowing cyclists to access via non-motorized way of travel

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





Estimated Costs

Total Estimated Cost **\$15,924,500**

Class I Shared Use Path 13.1 miles **\$15,924,500**

Cost estimates do not include facility extent between Diamond Valley Lake and Skinner Reservoir.

Challenges to Implementation

- Requires coordination with local Water Authority agency
- Careful consideration of mid-block crossing treatments where Class I shared use facility intersects with Domenigoni Parkway
- May require CEQA analysis
- Trail segments will require additional safety features such as lighting and wayfinding

Feasibility Considerations

- Diamond Valley Lake has an existing multi-use trail looping around the reservoir that accommodates pedestrians and bicyclists. The Lakeview Trail North segment is unpaved. In order to be considered a Class I shared-use facility, the trail should be paved, which will better accommodate more types of bicyclists and physically impaired parties. The minimum paved width should be 14 feet (wider preferred based on potential usage by groups and families), with 2 foot wide shoulders. The pavement material should be smooth, able to accommodate all-weather types, and able to drain. If nighttime use is allowed, facility lighting should be considered. Signage should be compliant with the California Manual on Uniform Traffic Control Devices (MUTCD).
- Diamond Valley Lake has an existing multi-use trail looping around the reservoir that accommodates pedestrians and bicyclists. The Lakeview Trail East segment is paved and can be considered a Class I facility.
- Diamond Valley Lake has an existing multi-use trail looping around the reservoir that accommodates pedestrians and bicyclists. The Lakeview Trail South segment is unpaved. In order to be considered a Class I facility, the trail should be paved, which will better accommodate more types of bicyclists and physically impaired parties. The minimum paved width should be 14 feet (wider preferred based on potential usage by groups and families), with 2 foot wide shoulders. The pavement material should be smooth, able to accommodate all-weather types, and able to drain. If nighttime use is allowed, facility lighting should be considered. Signage should be compliant with the CAMUTCD.
- Diamond Valley Lake has an existing multi-use trail looping around the reservoir that accommodates pedestrians and bicyclists. The Lakeview Trail West segment is paved and can be considered a Class I facility.
- The desired Class I shared use path between Diamond Valley Lake and Skinner Reservoir will require coordination between several regional agencies including the Eastern Municipal Water District, County of Riverside Transportation and Land Management Agency, and the Riverside Planning Department. The proposed facility will also have to take into account standards and regulations from documents such as the Multiple Species Habitat Conservation Plan and the Riverside County General Plan.
- The designated land use of the proposed alignment is currently recreation open space and vacant.

Local Demographics (within ½-mile)

11,484



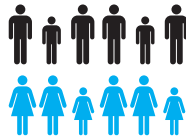
Households with-
in ½-mile of the pro-
posed facility

30



Median age

52%



Of the popula-
tion is female

17%



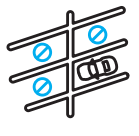
Have limited En-
glish proficiency

14%



Are under the pov-
erty line

2%



Have no avail-
able vehicle

Collision History



0 collisions within
½-mile



0 pedestrians
killed or injured



0 bicyclists killed
or injured



0 hit-and-run
collisions

Source: TIMS, 2009-2013

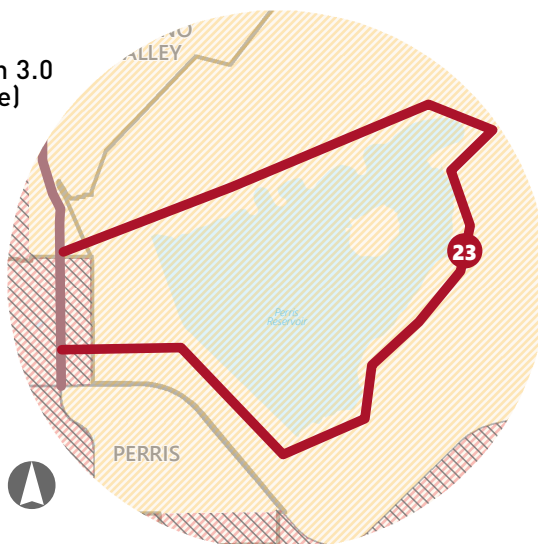
Benefits to Implementation

- Provides residents with a recreational facility to exercise at the Perris Reservoir
- Encourages residents to engage in physical activity, and may help reduce risk of obesity
- Provides non-motorized access to Lake Perris State Recreation Area and other recreation and cultural venues
- Well connected to greater active transportation network, allowing cyclists from all over the sub-region to access via non-motorized way of travel

Disadvantaged Communities

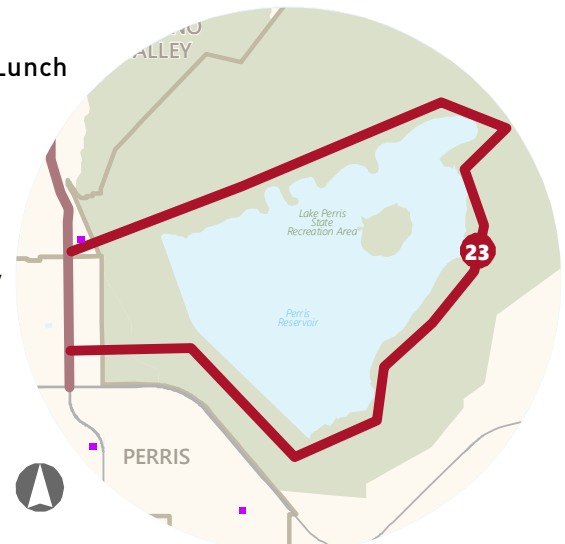
CalEnviroScreen 3.0 Score (Statewide)

- 0 - 25%
- 26 - 50%
- 51 - 75%
- 76 - 100%
- Top 90th Percentile
- Regional Facility
- WRCOG Boundary



Free/Reduced Lunch Participation (within 1 mile)

- Less than 30%
- 31% - 60%
- More than 60%
- Regional Facility
- WRCOG Boundary





PERRIS - MORENO VALLEY

23 | PERRIS RESERVOIR LOOP

Estimated Costs

Total Estimated Cost **\$4,934,700**

Class I Shared Use Path 3.5 miles **\$4,550,300**

Class II Bike Lane 2.6 miles **\$384,400**

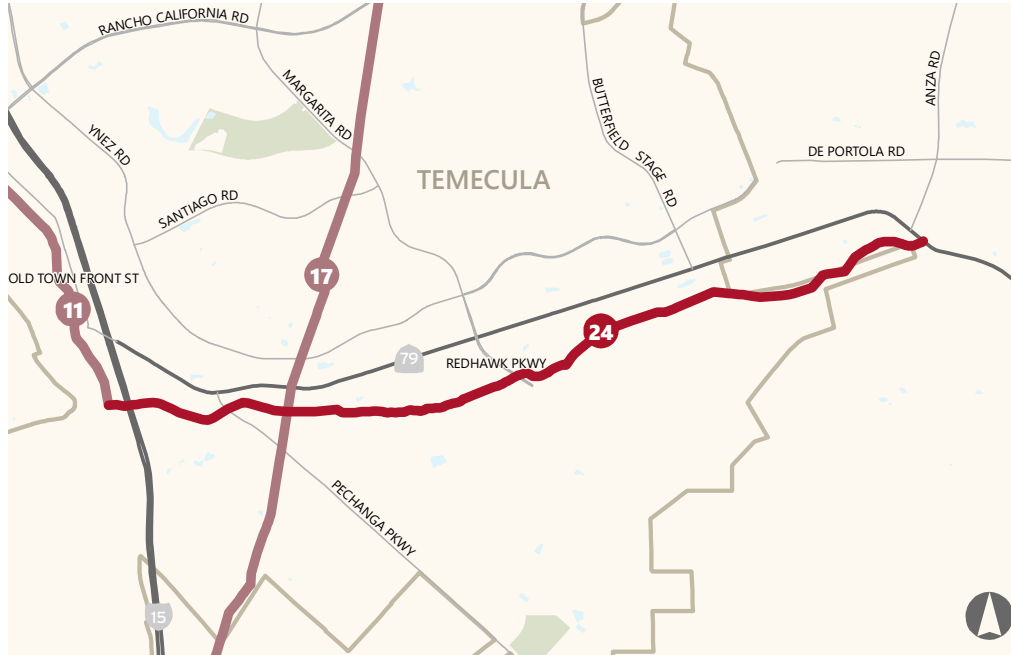
Challenges to Implementation

- Trail segments will require additional safety features such as lighting and way-finding
- May require CEQA analysis

Feasibility Considerations

- The width of the segment from Ramona Expressway to the Southern California Fair site along Lake Perris Drive is approximately 52 feet with two travel lanes in each direction. Five foot bike lanes could be accommodated in each direction by restriping and narrowing the inside travel lanes to 10 feet wide and the outside lanes to 11 feet wide.
- The width of the segment from Markham Street to Via Del Lago along Alta Calle is approximately 32 feet with one travel lane in each direction. Five foot bike lanes could be accommodated in each direction by restriping and narrowing the travel lanes to 11 feet wide.
- There is an existing paved shared use path that travels around Lake Perris between Via Del Lago and Martin Street. This facility currently operates as a Class I route.
- There is an existing multi-use trail between Bernasconi Road and Via Del Lago, running along the western side of Lake Perris. This multi-use trail is unpaved with gravel material. The existing trail is wide, but to be considered a Class I shared use facility and functional for bicycles, it needs to be paved. There is ample right-of-way to pave some of the trail and keep the rest unpaved for other uses, such as for equestrians. There is a segment of the trail, at Big Rock Bay, where the terrain is steep and narrow. This will require widening and paving the existing dirt path or developing an alternate route to connect to the existing Lake Perris shared use path.

Project Map



Project Overview + Scope

The Murrieta Creek – Temecula Creek route is an east-west regional facility that traverses the City of Temecula. This potential facility would provide 5.4 miles of off-street shared use path alongside Temecula Creek. This project helps address issues such as limited active transportation infrastructure and recreational opportunities in the area and helps to improve non-motorized safety, access, and mobility for bicyclists and pedestrians of all ages. The proposed facility would provide a non-motorized route that is within one half mile of transportation connections, several parks, schools, and retail destinations. The project also improves connectivity to surrounding jurisdictions.

Key Connections

Major Destinations

Redhawk Towne Center
Wold Store Retail Park

Regional Transportation Facilities

RTA Bus Line 24

Trails

Temecula Creek Trail

Schools

Erle Stanley Gardner Middle School
Rancho Christian School
Vail Ranch Middle School

Parks

Redhawk Community Park
Temecula Creek Trail Park
Pala Community Park

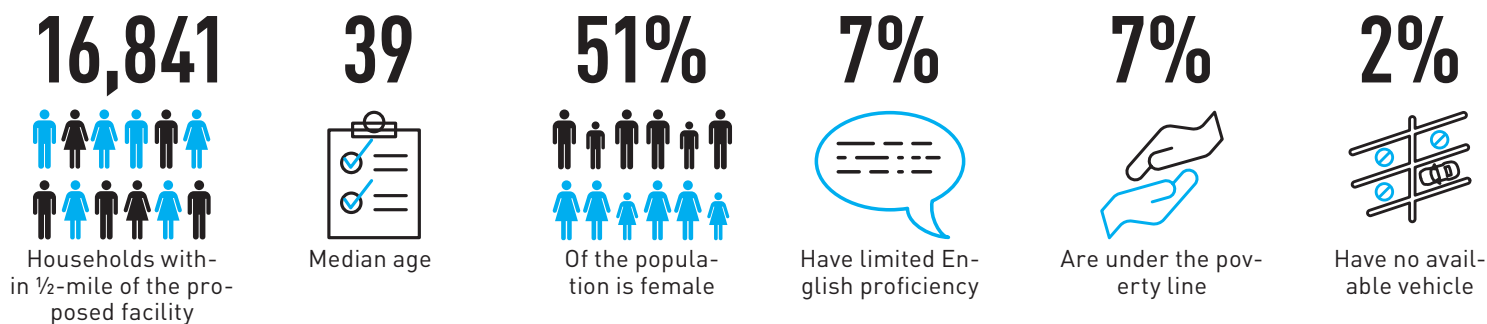
Project Cross Section



Health Environment

Health: Many connections to recreation opportunities and open space. Increases length of biking network, provides the option to many communities along Route 79 to connect to destinations via bicycle commuting, and potentially improves health conditions via active transportation and connections to recreation.

Local Demographics (within ½-mile)



Collision History



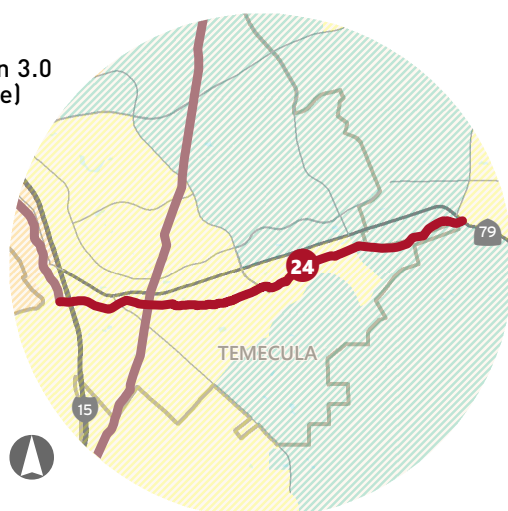
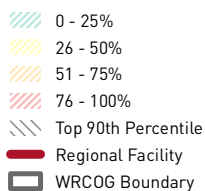
Source: TIMS, 2009-2013

Benefits to Implementation

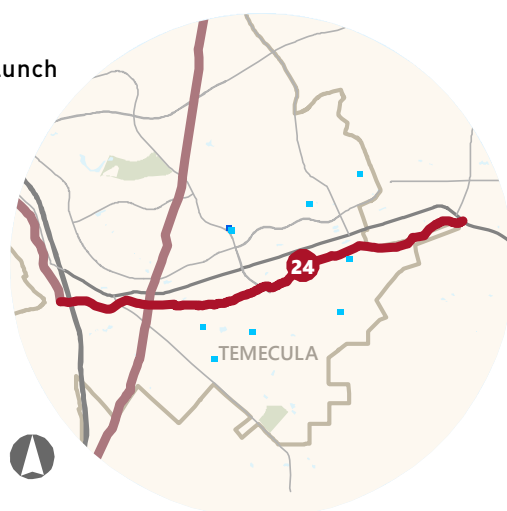
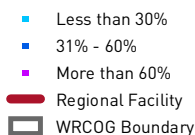
- Encourages transit riders to use non-motorized means of transportation for first-last mile barriers surrounding the Corona Transit Center and Magnolia Ave transit stops and stations
- Encourages transit riders to bike to transit stops along Vail Ranch Parkway, and help eliminate first-last mile barriers
- Provides non-motorized access to outdoor recreational facilities like Temecula Creek Trails and Redhawk Community Park
- Connects to greater region's non-motorized network and can help reduce ADT and congestion during peak travel times

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)





Estimated Costs

Total Estimated Cost **\$7,020,500**

Class I Shared Use Path 5.4 miles **\$7,020,500**

Challenges to Implementation

- May require CEQA analysis
- May require coordination with adjacent property owners
- Trail segments will require additional safety features such as lighting and wayfinding
- Will require coordination with Caltrans for I-15 and SR 79 crossings
- Trail segments require additional attention at:
 - » Pechanga Parkway
 - » Redhawk Parkway
 - » Butterfield Stage Road

Feasibility Considerations

- A shared use path has been proposed along Temecula Creek in the open space from Murrieta Creek to Pechanga Parkway. There is a sufficient width to accommodate a Class I bike route, primarily along the service road south of homes on Cupeno Lane.
- A shared use path has been proposed in the open space along Temecula Creek from Pechanga Parkway to Temecula Lane since there is a sufficient width to accommodate a Class I bike route. The service road behind Canterfield Drive on the southern side of the creek could be paved and incorporated as part of the facility.
- A shared use path has been proposed along Temecula Creek from Temecula Lane to Redhawk Parkway. At Pala Community Park there is an existing trail that can be converted to a shared use path, which travels along Temecula Creek to Via Del Coronado. At that street, there are service roads on both sides of Temecula Creek to Redhawk Parkway. Both of these service roads are wide enough (approximately 14 feet) to accommodate a shared use path when paved.
- A shared use path has been proposed along Temecula Creek from Redhawk Parkway to Butterfield Stage Road. There is an existing Class I path south of Wolf Store Road that travels along the northern bank of the creek. The adjacent service road is wide enough to accommodate a larger path if desired. There is a service road that travels along this same segment on the southern bank of the creek. It is wide enough (approximately 14 feet) to accommodate a shared use path when paved.
- A shared use path has been proposed along Temecula Creek from Butterfield Stage Road to SR 79. There are existing off-street trails on both sides of the creek at this segment. These are currently unpaved paths, but have surfaces that can still accommodate bicycles and pedestrians (as well as equestrians). The paths are also wide enough to be considered shared use facilities, therefore no changes would be needed unless paved surfaces are desired. Between the residential communities and SR 79, there is ample open space along the creek to build a shared use path connecting to the roadway.

TECHNICAL APPENDICES

Appendix A provides an introduction to Complete Streets and an overview of Complete Streets design elements.

Appendix B presents freeway facility designs that offer solutions to minimize conflict between bicyclists and vehicles.

Appendix C provides a guide to Level of Traffic Stress (LTS) bicycle rider classifications.

Appendix D provides an overview of effective strategies that have been utilized in other cities when implementing active transportation plans.

Appendix E contains the outreach materials that were used throughout the development of the ATP. It includes informational flyers, surveys and other mechanisms for informing the public and gathering input; presentation materials and other documents used in preparation of the ATP.

Appendix A - Introduction and Overview of Complete Streets

Introduction

City streets serve a multitude of functions: providing access to places, goods and services, serving as public space, capturing, channeling and sometimes filtering storm water, and serving as corridors for key utility systems. Streets are such an integral part of everyday life, it is important to maximize their value and their safety.

Western Riverside's streets take several forms and serve several functions in terms of how they are used for transportation and public space. They can provide a safe, peaceful route for children to walk or bicycle to school; a way for employees to get to work by bicycle, automobile or public transit; a place for residents and visitors to shop, dine or just sit and relax; and corridors that move people and goods efficiently. When total preference is given to a particular use, this usually comes at the expense of other uses. Therefore, the streets of Western Riverside should be designed to give sufficient consideration to all uses.

In Western Riverside, like most of the United States since the end of WWII, automobiles were given priority in the design of streets. This means that streets are primarily designed for cars and not for walking, bicycling, transit, or the natural environment. By contrast, the concept of Complete and Green Streets takes into consideration context, roadway users, and environmental concerns to ensure that streets are designed to reasonably balance the needs of all roadway users and uses. There are additional benefits of increased health, safety, and environmental improvements.

Definition of Complete and Green Streets: Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities are able to safely move along and across a complete street. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations. Many elements of street design, construction, and operation can work in favor of achieving both Complete Streets that work for all travelers and 'green' streets that serve environmental sustainability. Of particular concern are drainage and storm water runoff issues too common in traditional streets. Optimal storm water management looks beyond simply removing rainfall as quickly as possible, which risks negative environmental impacts associated with both storm water quality and quantity, like polluted runoff, sedimentation, and bank erosion. Instead it focuses on efforts to retain and treat – or even eliminate – runoff at the source through cost-effective green infrastructure, improving water quality and complementing Complete Streets efforts.¹

The Need for Complete and Green Streets

The benefits of Complete Streets within communities are numerous and have been documented by planners, engineers, state legislatures, non-profit coalitions, state and county health departments, and others. The National Complete Streets Coalition (www.completestreets.com) has published fact sheets on the many direct and indirect benefits Complete Streets provide. Some of the benefits that Western Riverside can expect include the following:

¹ Smart Growth America

Healthy and Livable Communities

Today, many local governments and businesses are facing a crisis as they attempt to cope with the growing healthcare costs associated with chronic diseases, many of which are preventable. Obesity and sedentary lifestyles are major contributors to chronic disease for both adults and children. The public health community recognizes that non-motorized or “active” travel helps citizens meet recommended levels of physical activity, thereby reducing the risk of chronic disease and associated health care costs.² In 2009, the Centers for Disease Control and Prevention (CDC) released Recommended Community Strategies and Measurements to Prevent Obesity in the United States, a report recommending Complete Streets policy adoption as a strategy for obesity prevention.³ Complete Streets are a way of providing an environment that will encourage and promote healthier, more active lifestyles for residents. Air Quality Reducing congestion along a roadway results in less vehicle idle times, thus reducing smog and ground level ozone, which are both large contributors of greenhouse gases. Complete Streets-designed corridors improve traffic flow by lessening the stop-and-go pace of vehicular traffic, help regulate vehicle speeds to appropriate levels for the corridor’s function, and reduce the number of cars on the road as some motorists become choice pedestrians, bicyclists, and transit riders.

Improved Safety

Streets without safe places to walk, cross, catch a bus, or bicycle put people at risk. The National Complete Streets Coalition publishes some sobering national statistics: “Pedestrian crashes are more than twice as likely to occur in places without sidewalks; streets with sidewalks on both sides have the fewest crashes. Of pedestrians killed in 2007 and 2008, more than 50% died on arterial roadways, typically designed to be wide and fast. More than 40% of pedestrian fatalities occurred where no crosswalk was available...Speed reduction has a dramatic impact on pedestrian fatalities. Eighty percent of pedestrians struck by a car going 40 mph will die; at 30 mph the likelihood of death is 40 percent. At 20 mph, the fatality rate drops to just 5 percent.”⁴

Roadway design and engineering approaches commonly found in complete streets create long-lasting speed reduction. Such methods include enlarging sidewalks, installing medians, and adding bike lanes. All road users - motorists, pedestrians and bicyclists - benefit from slower speeds.

Improved Access

Access to jobs, education, grocery shopping, healthcare, and other destinations is vital in our urban and suburban areas. Creating safe streets allows access and travel by pedestrians, wheelchair users, cyclists, transit users and builds a more livable, accessible community for people of all ages, abilities, and income levels.⁵

Changing demographics

America’s young people, including the ‘Generation Y’ and the maturing ‘Millennials’, are decreasing the amount they drive and increasing their use of transportation alternatives.⁶ National Household Transportation Survey

² Safe Routes to School National Partnership, Quick Facts (2012). <http://www.saferroutespartnership.org/resourcecenter/quick-facts>

³ Keener, D., Goodman, K., Lowry, A., Zaro, S., & Kettel Khan, L. Recommended community strategies and measurements to prevent obesity in the United States: Implementation and measurement guide. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. http://www.cdc.gov/obesity/downloads/community_strategies_guide.pdf

⁴ National Complete Streets Coalition, Fact Sheets (2012). <http://www.completestreets.org/complete-streets-fundamentals/factsheets/>

⁵ Cromartie & Nelson, Baby Boom Migration and Its Impact on Rural America, United States Department of Agriculture, Economic Research Service, Economic Research Report No. (ERR-79) (2009). <http://www.ers.usda.gov/publications/err79/>

⁶ Davis & Dutzik, Transportation and the New Generation, Frontier Group & U.S. PIRG Education Fund (2012). http://www.uspirg.org/sites/pirg/files/reports/Transportation%20%26%20the%20New%20Generation%20vUS_0.pdf

Data compared between 2001 and 2009 has shown that America's 16-34 year olds are driving less and walking, bicycling and taking transit more.

Young people's transportation priorities and preferences differ from those of past generations. Preferences for living in places where they can easily walk, bike or take public transportation are clearly exhibited by a recent study by the National Association of Realtors. Environmental consciousness is also becoming more evident with nearly twice as many 18 to 34-year olds stating that they drive less to protect the environment than older generations (16 percent versus 9 percent). The trend toward reduced driving among young people is likely to persist as a result of technological advancements that reduce the need to travel and increased legal and financial barriers to driving.

Intent and Use of the Guide

The Western Riverside Council of Governments Complete and Green Streets Guidelines will provide a toolbox of treatments for those who design, build and maintain streets, as well as citizens who live and travel on those streets. For designers, the typologies and guidelines presented in this document do not dictate rigid standards for roadway design; rather, they provide examples of appropriate design elements and dimensions used in unison, depending on the location of the roadway, its function and the nature of the surrounding area. The typologies presented do not necessarily show what treatments should be applied to a particular roadway, but rather what treatments can be applied to a particular roadway. Further planning studies, engineering studies and outreach should be conducted to weigh all available options and the desired balance of transportation modes. The Complete Streets elements presented in this document are compliant with nationally accepted best practices such as the AASHTO Guide for the Development of Bicycle Facilities (2012), the NACTO Urban Bikeway Design Guide (2012), the AASHTO Guide for the Planning, Design and Operation of Pedestrian Facilities (2004), ITE and CNU's Designing Walkable Urban Thoroughfares: A Context Sensitive Approach (2010), and the Manual on Uniform Traffic Control Devices (2009).

For citizens, the Complete and Green Streets Guidelines are intended to be an accessible and easy to understand document that show potential improvements that can be applied to local streets to make them more "complete and green." These guidelines will allow designers and citizens to use a common language while working together to create roadways that meet the current and future needs of residents of the Western Riverside sub-region.

Overview of Complete Streets Design Elements

There are many considerations that factor into the design of a Complete and Green Street. This chapter explains the elements that comprise a Complete and Green Street, as well as explain how considerations such as land use, expected users, and connectivity can affect the overall design of the roadway.

Treating streets simply as links often ignores the other important contexts and functions that streets should address. Roadways also function as a social space and have a relationship with the places where people live, work and play. The Complete and Green Streets design philosophy is a shift to use both link and place concepts in designing roadways. Designing for all modes with both link and place considerations has the potential to add value to Western Riverside's roadway system. This will help the sub-region transition to a network that is more sustainable and safe, while providing public spaces that are inviting for people and businesses.

Since ample guidelines exist on the accommodation of automobiles along roadways, and Western Riverside roadways are, for the most part, designed to give these users priority, this guide is intended to focus on the design considerations for bicyclists, pedestrians, and transit users.

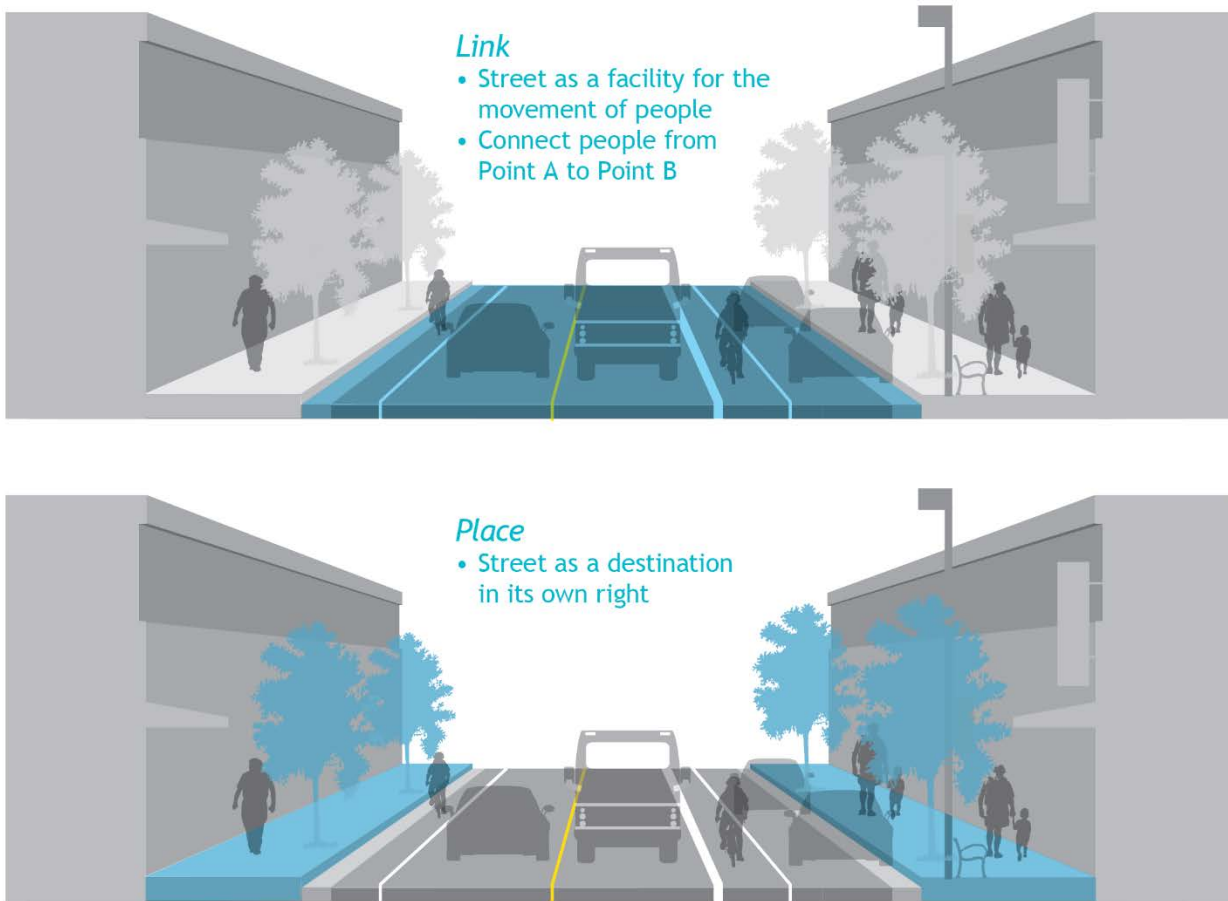


Figure 1: The street as a link and place

Design for Pedestrians

The transportation network should accommodate pedestrians with a variety of needs, abilities, and possible impairments. Age is one major factor that affects pedestrians' physical characteristics, walking speed, and environmental perception. Children have lower eye height and walk at slower speeds than adults. They also perceive the environment differently at various stages of their cognitive development. Older adults walk more slowly and may require assistive devices for walking stability, sight, and hearing. The Manual of Uniform Traffic Control Devices (MUTCD) recommends a normal walking speed of three and a half feet per second when calculating the pedestrian clearance interval at traffic signals. Typical walking speeds can drop to three feet per second in areas with older populations and persons with mobility impairments. While the type and degree of mobility impairment varies greatly across the population, the transportation system should accommodate these users to the greatest reasonable extent.

Sidewalks

Sidewalks are the most fundamental element of the walking network, as they provide an area for pedestrian travel that is separated from vehicle traffic. Sidewalks are a common application in both urban and suburban environments. Attributes of well-designed sidewalks include the following:

Accessibility: A network of sidewalks should be accessible to all users. Roadway crossing distances and distances between crossings should be minimized to accommodate and encourage pedestrian travel.

Adequate width: Two people should be able to walk side-by-side. Different walking speeds should be possible. In areas of intense pedestrian use, sidewalks should accommodate the high volume of walkers.

Safety: Design features of the sidewalk should allow pedestrians to have a sense of security and predictability. Sidewalk users should not feel they are at risk due to the presence of adjacent traffic.

Continuity: Walking routes should be obvious and should not require pedestrians to travel out of their way unnecessarily.

Landscaping: Plantings and street trees should contribute to the overall psychological and visual comfort of sidewalk users, and be designed in a manner that contributes to the safety of people.

Drainage: Sidewalks and curb ramps should be designed so that standing water is minimized.

Social space: There should be places for standing, visiting, and sitting. The sidewalk area should be a place where adults and children can safely participate in public life.

Quality of place: Sidewalks should contribute to the character of neighborhoods and business districts.

Sidewalk Zones

The sidewalk area can be broken down into four distinct zones as seen in **Figure 2** below. The concept of sidewalk zones should be strictly followed for a sidewalk to function properly and provide safe passage for all users. This is especially important for users with visual or physical impairments to be able to effectively navigate the corridor.

Other considerations such as sidewalk obstructions, driveways, width and access through construction areas are important to consider as well.

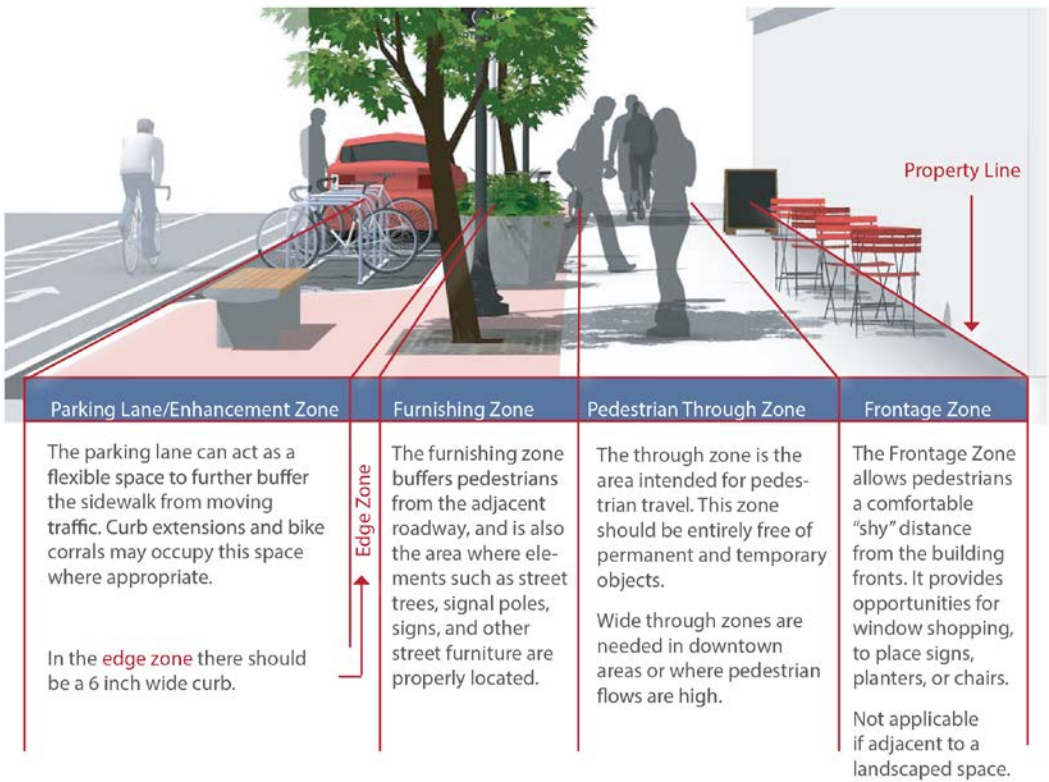


Figure 2: Elements of the Sidewalk Corridor

Intersections

Intersections are also an important piece of the pedestrian realm. Attributes of pedestrian friendly intersection design include:

- **Clear Space:** Corners should be clear of obstructions. They should also have enough room for curb ramps, for transit stops where appropriate, and for street conversations where pedestrians might congregate.
- **Visibility:** It is critical that pedestrians on the corner have a good view of vehicle travel lanes and that motorists in the travel lanes can easily see waiting pedestrians.
- **Legibility:** Symbols, markings, and signs used at corners should clearly indicate what actions the pedestrian should take.
- **Accessibility:** All corner features, such as curb ramps, landings, call buttons, signs, symbols, markings, and textures, should meet accessibility standards and follow universal design principles.
- **Separation from Traffic:** Corner design and construction should be effective in discouraging turning vehicles from driving over the pedestrian area. Crossing distances should be minimized.
- **Lighting:** Good lighting is an important aspect of visibility, legibility, and accessibility.

These attributes will vary with context but should be considered in all design processes. For example, more remote intersections may have limited or no signing. However, legibility regarding appropriate pedestrian movements should still be taken into account during design.

Design for Bicyclists

Bicyclists, by nature, are much more affected by poor facility design, construction and maintenance practices than motor vehicle drivers. Bicyclists lack the protection from the elements and roadway hazards provided by an automobile's structure and safety features. By understanding the unique characteristics and needs of bicyclists, a facility designer can provide quality facilities and minimize user risk.

Similar to motor vehicles, riders and their bicycles exist in a variety of sizes and configurations. The design of a bikeway should consider common bicycle types on the facility and utilize the appropriate dimensions. It is important to consider bicyclists of all skill levels when creating a non-motorized plan or project. Bicyclist skill level greatly influences expected speeds and behavior, both in separated bikeways and on shared roadways. Bicycle infrastructure should accommodate as many user types as possible, with decisions for separate or parallel facilities based on providing a comfortable experience for the greatest number of people.

The bicycle planning and engineering professions currently use several systems to classify the population, which can assist in understanding the characteristics and infrastructure preferences of different bicyclists. A particularly detailed understanding of the U.S. population as a whole is illustrated in **Figure 3** developed by planners in Portland, OR and supported by data collected nationally since 2005, this classification provides the categories discussed in the main reports "Health Setting" section.

Bicycle Facility Types

Consistent with bicycle facility classifications throughout the nation, the facility types presented in the figures below identify classes of facilities by degree of separation from motor vehicle traffic. In general, the wider the roadway, the higher the traffic volume, and the greater the traffic speed, the more separation is necessary to provide safe and comfortable riding conditions for bicyclists. The most common bicycle facility types are as follows:

Shared Roadways are bikeways where bicyclists and cars operate within the same travel lane, either side by side or in single file depending on roadway configuration. The most basic type of bikeway is a signed shared roadway. This facility provides continuity with other bicycle facilities (usually bike lanes), or designates preferred routes through high-demand corridors.



Shared Roadways with Pavement Markings. Shared roadways may also be designated by pavement markings, signage and other treatments including directional signage, traffic diverters, chicanes, chokers and /or other traffic calming devices to reduce vehicle speeds or volumes. Such treatments often are associated with Neighborhood Greenways (also known as Bicycle Boulevards).



Separated Bikeways, such as bike lanes and buffered bike lanes, use signage and striping to delineate the right-of-way assigned to bicyclists and motorists. Bike lanes encourage predictable movements by both bicyclists and motorists.



Cycle Tracks are exclusive bike facilities that combine the user experience of a separated path with the on-street infrastructure of conventional bike lanes. These are also referred to as protected bicycle lanes.



Shared Use Paths are facilities separated from roadways for use by bicyclists and pedestrians. Side paths usually refer to shared use paths immediately adjacent to the roadway.

Bicycle Parking

Bicyclists expect a safe, convenient place to secure their bicycle when they reach their destination. This may be short-term parking of two hours or less, or long-term parking for employees, students, residents, and commuters. In order to encourage bicycling in Western Riverside, plentiful, convenient and attractive bicycle parking should be provided.

Traffic Calming Treatments

Motor vehicle speeds affect the frequency at which automobiles pass bicyclists as well as the severity of bicycle and pedestrian crashes that can occur on a roadway. Slower vehicular speeds also improve motorists' ability to see and react to non-motorized users, minimize conflicts at driveways and other turning locations and in many cases, can improve vehicular throughput. Maintaining slower motor vehicle speeds and reducing traffic in areas where pedestrian and bicycle traffic is regularly expected greatly improves comfort and safety for non-motorized users on a street.

This section presents an overview of traffic calming treatments that can be applied to roadways in the Western Riverside region. Traffic calming treatments can be divided into two different types:

- "Hard" traffic calming are engineering measures taken with the sole intent of slowing traffic and reducing conflict.
- "Soft" traffic calming includes place making design measures that have the added effect of traffic calming, as well as educational and enforcement measures.

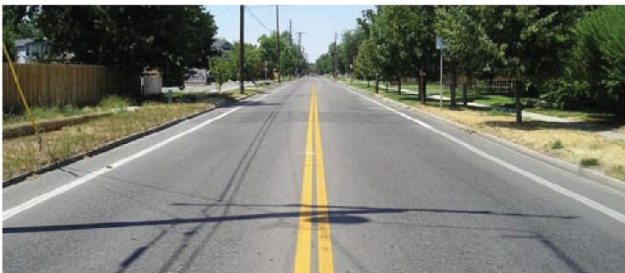
It should be noted that not all treatments listed here are appropriate for all roadways. The treatments are as follows:

Hard Traffic Calming Treatments

Speed limit reduction - A reduction in speed limit is a simple way to make the roadway a safer place for pedestrians and bicyclists. Statistically, eighty percent of pedestrians struck by a car going 40 mph will die; at 30 mph the likelihood of death is 40 percent. At 20 mph, the fatality rate drops to just 5 percent.⁷



Road diet - Road diets are a reduction in the number of lanes along a roadway. Typically, these are four lane roads reduced to three lanes (although larger road diets are done as well), often with the addition of bike lanes. This not only improves conditions for bicyclists, but it enhances the pedestrian environment and often improves traffic flow and vehicle-on-vehicle collision rates as well.



Lane narrowing - Lane narrowing is when an excessively large lane is reduced through the striping of a shoulder or the addition of bike lanes. This helps reduce traffic speed and adds dedicated space for bicyclists.



Speed humps/Speed tables - Speed humps are raised areas usually placed in a series across both travel lanes. Longer humps reduce impacts to emergency vehicles. Some speed hump designs can be challenging for bicyclists; however, gaps can be provided in the center or by the curb for bicyclists and to improve drainage. Speed humps can also be offset to accommodate emergency vehicles as seen in the image above.

⁷ The National Highway Traffic Safety Administration



Traffic diversion - Motor vehicle traffic volumes affect comfort for bicyclists and pedestrians on local streets. Higher vehicle volumes reduce bicycle and pedestrian comfort and can result in more conflicts. Traffic diversion treatments reduce motor vehicle volumes by completely or partially restricting through traffic on select neighborhood streets such as bicycle boulevards.



Pinch points/neckdowns - These are curb extensions placed on both sides of the street, narrowing the travel lane and encouraging all road users to slow down. When placed at intersections, pinch points are known as chokers or neckdowns. They reduce curb radii and further lower motor vehicle speeds.



Chicanes - Chicanes are essentially curb extensions arranged in an alternating pattern that require cars to oscillate along a roadway to avoid them. These are effective on long-straight neighborhood streets where speeding is an issue.

Soft Traffic Calming Treatments



Setback reduction - Large setbacks in roadside development are a result of car-oriented development practices which typically locate a large parking lot in the front of the building. Redeveloping these properties with little or no setback creates a sense of enclosure, adds visual stimuli, and creates a seemingly pedestrian environment, all of which help to slow traffic.



Street trees, landscaping and other aesthetic elements - Street trees, landscaping and other aesthetic elements such as art or banners produce a feeling of enclosure and add visual stimuli along a roadway corridor. Green elements often have added environmental benefits as well.



Street material - Textured street material, such as the use of pavers, creates visual stimuli and a feeling of a special district or pedestrian-oriented area which can help to calm traffic.



Appropriately scaled street lighting - Appropriately scaled street lighting can provide a safer, more inviting and more visible environment for all roadway users. Pedestrian-scaled street lighting along with other

improvements such as street trees can alert motorists to a potential presence of pedestrians and bicycles, slowing down traffic in these areas.



Enforcement and awareness measures - Enforcement and awareness measures such as signage, speed traps and educational programs can help to reduce speeding in problem areas. However, the effectiveness of these programs depends adequate frequency and duration.

Intersection Improvements



Minimize curb radius - The size of a curb's radius can have a significant impact on pedestrian comfort and safety. A smaller curb radius provides more pedestrian area at the corner, allows more flexibility in the placement of curb ramps, results in a shorter crossing distance and requires vehicles to slow more on the intersection approach. One effective way of minimizing the curb ramp radius is by adding curb extensions.



High-visibility crosswalks - Installing crosswalks alone will not necessarily make crossings safer, especially on multi-lane roadways. However, high-visibility crosswalks make crossings more visible to motorists and add a sense of security for pedestrians. High-visibility crosswalks should be combined with advanced stop bars and other tools to increase safety. At mid-block locations, crosswalks can be marked where there is a demand for crossing and there are no nearby marked crosswalks.



Median pedestrian refuge - Median pedestrian refuges at intersections provide pedestrians with a secure place to stand in case they are unable to walk the entire distance of the crossing in one movement. This is especially important for young, elderly and disabled users in areas where crossing distances are great.



Raised crosswalks and intersections - A raised crosswalk or intersection can eliminate grade changes from the pedestrian path and give pedestrians greater prominence as they cross the street. Raised crosswalks should be used where a special emphasis on pedestrians is desired.



Traffic circles - Traffic circles are a type of Horizontal Traffic Calming that can be used at minor street intersections. Traffic circles reduce conflict potential and severity while providing traffic calming to the corridor.



Bicycle intersection treatments - Designs for intersections with bicycle facilities should reduce conflict between bicyclists (and other vulnerable road users) and vehicles by heightening the level of visibility, denoting clear right-of-way and facilitating eye contact and awareness with other modes. Intersection treatments can improve both queuing and merging maneuvers for bicyclists, and are often coordinated with timed or

specialized signals. The configuration of a safe intersection for bicyclists may include elements such as color, signage, medians, signal detection and pavement markings. Intersection design should take into consideration existing and anticipated bicyclist, pedestrian and motorist movements. In all cases, the degree of mixing or separation between bicyclists and other modes is intended to reduce the risk of crashes and increase bicyclist comfort. The level of treatment required for bicyclists at an intersection will depend on the bicycle facility type used, whether bicycle facilities are intersecting, and the adjacent street function and land use.



Curb extensions/bulbouts - Curb extensions minimize pedestrian exposure during crossing by shortening crossing distance and giving pedestrians a better chance to see and be seen before committing to crossing. They are appropriate for any crosswalk where it is desirable to shorten the crossing distance and there is a parking lane adjacent to the curb.

Intersection parking control - Parking control involves restricting or reducing on-street parking near intersections with high pedestrian activity. Locating parking away from the intersection improves motorist's visibility on the approach to the intersection and crosswalk. Improved sight lines at intersections reduces conflicts between motorists and pedestrians. This can be accomplished in part through the use of bulbouts.



ADA compliant curb ramps - Curb ramps are the design elements that allow all users to make the transition from the street to the sidewalk. There are a number of factors to be considered in the design and placement of curb ramps at corners. Properly designed curb ramps ensure that the sidewalk is accessible from the roadway. A sidewalk without a curb ramp can be useless to someone in a wheelchair, forcing them back to a driveway and out into the street for access.

Midblock Treatments



Median pedestrian refuge island - Median refuge islands are located at the mid-point of a marked crossing and help improve pedestrian safety by allowing pedestrians to cross one direction of traffic at a time. Refuge islands minimize pedestrian exposure by shortening crossing distance and increasing the number of available gaps for crossing. These can be combined with curb extensions for added traffic calming.



Active warning beacons – Active warning beacons are pedestrian or bicyclist actuated illuminated devices designed to increase motor vehicle yielding compliance at crossings of multi-lane or high-volume roadways



In-street pedestrian crossing signs - In-street pedestrian crossing signs reinforce the presence of crosswalks and remind motorists of their legal obligation to yield for pedestrians in marked or unmarked crosswalks. This signage is often placed at high-volume pedestrian crossings that are not signalized. This is a low-cost treatment that has shown significant improvements to driver slowing and yielding rates at crosswalks.

Bicycle and Pedestrian Signalized Crossings



Countdown pedestrian signals - Pedestrian signal indicators demonstrate to pedestrians when to cross at a signalized crosswalk. Ideally, all traffic signals should be equipped with pedestrian signal indications except where pedestrian crossing is prohibited by signage. Countdown pedestrian signals are particularly valuable for pedestrians, as they indicate whether a pedestrian has time to cross the street before the signal phase ends. Countdown signals should be used at all signalized intersections. Designers should allow greater signal timing for crossing along large roadways, areas with a high frequency of pedestrian crossing and areas where seniors or disabled persons are expected. Accessible pedestrian signals should be used in locations where visual or hearing-impaired individuals can be expected. Also consider utilizing a leading pedestrian interval, where pedestrians are allowed in the intersection 3 seconds in advance of vehicles, in areas with frequent motor vehicle and pedestrian traffic



Hybrid Beacons - A hybrid beacon, previously known as a High-intensity Activated Crosswalk (HAWK), consists of a signal-head with two red lenses over a single yellow lens on the major street, and pedestrian and/or bicycle signal heads for the minor street.

Hybrid beacons are primarily applied at midblock pedestrian or trail crossings where non-motorized crossing volumes and crossing distance and/or motorized traffic volumes and speeds raise significant safety and accessibility concerns. Hybrid Beacons are also sometimes used to improve non-motorized crossings of major streets at intersections where side-street volumes do not support installation of a conventional traffic signal (or where there are concerns that a conventional signal will encourage additional motor vehicle traffic on the minor street).

Green Infrastructure for the Right of Way

Green infrastructure is an emerging suite of strategies for cleaning polluted runoff and managing storm water in the urban environment by mimicking the way water acts in a natural environment: soaking into the ground, being filtered by aquifers or trees and then returning to the water cycle.

During the process of urbanization, the land's natural cycle is broken due to the loss of pervious, vegetated ecosystems and their replacement by impervious surfaces like pavements and rooftops. These surfaces increase the rate and volume of water that flows into creeks, rivers and lakes, harming aquatic habitats. Streets, in particular, create water-borne pollution due to the various oil and petroleum products that drip on them and heavy metals that fall from vehicles during routine operations like braking.

Since streets make up a large part of public space in the sub-region, street side green infrastructure can help diminish peak storm water runoff volumes and can treat and infiltrate storm water.

One of the first steps to creating a greener storm water strategy is to reduce lane widths for automobiles. There are also significant opportunities to increase the right-of-way performance by reducing storm water runoff through a series of small-scale green infrastructure facilities. These include: amended soils, street trees, sheet flow dispersion, bio-retention systems and pervious pavements.

In addition to storm water benefits, streets can also be greened to save energy and reduce greenhouse gas emissions through use of efficient street lighting, recycled construction materials, green construction practices and tree planting.

Amended Soils

Healthy soil provides important storm water functions: it helps clean pollutants from runoff, supports the growth of vegetation that slows the release of storm water into urban waterways. By protecting and creating healthy soils, the cities in the Western Riverside sub-region can do much to protect its wildlife. In the urban environment, soil health can be damaged by excavation, clearing, grubbing and the use of heavy equipment can cause erosion, remove topsoil and compact soil, killing soil microorganisms, removing nutrients, and compressing the voids within soil structure that retain air and water. As streets are constructed preventing such damage during construction can be the most cost-effective way of managing soil quality on-site.



Where construction damage cannot be avoided or existing soils need revitalization, rototilling compost, organic waste, gravelly sand and/ or other amendments into existing soils can restore permeability, increase infiltration capacity and improve soil health. Soil amendments can be tailored to provide optimum growing conditions for particular plant communities or to meet different storm water management goals. Restoring disturbed soils can improve fertility and support vigorous plant growth, allow bio-filtration of urban pollutants and reduce irrigation needs.

Street Trees

A robust tree canopy is one of the great contributors to a healthy and livable urban landscape. Trees provide many benefits in terms of storm water flow regulation and water quality treatment. Mechanisms for these benefits include interception, transpiration, and increased infiltration. Additional benefits provided by trees include enhancing the visual and spatial character of a place; improving air quality; reducing noise and light pollution; traffic-calming and reducing the heat island effect. Trees provide numerous habitat benefits, including refuge from predators, food and nesting resources and habitat patches. Trees enhance the quality of open space and provide visual relief within the urban environment, leading to stress reduction and other health benefits. A healthy urban forest also increases property values. Because trees can take fifteen years or more to

develop a full canopy, preserving healthy existing trees wherever practicable is a cost effective and efficient way to obtain the most value from trees.



Sheet Flow Dispersion

Using sheet flow dispersion, paved surfaces are graded to evenly spread flows across the entire surface rather than concentrating them. As a result, only a narrow layer of vegetation is needed to further attenuate flows. This technique works well where there are continuous vegetated surfaces adjoining impervious areas.



Bio-Retention

Bio-retention facilities use amended soils and vegetation to absorb, hold, evaporate and clean polluted runoff from the streets. By reducing the peak rate and the total runoff volume, these facilities decrease the negative downstream or downslope impacts of storm events. With the right underlying geologic conditions, bio-retention systems can be designed to clean storm water then allow it to infiltrate, thus decreasing transport of some pollutants and recharging groundwater supply. In the right-of-way, bio-retention systems can be integrated into site design as linear features (e.g. bio-retention swales) or as cells (e.g. rain gardens and storm water planters).

Additional community benefits from bio-retention facilities can include improved property values, increased habitat, a better environment for walking, and traffic calming.

Opportunity areas for using bio-retention systems in streets include within traffic calming curb bulbouts, in roadside bioswales, and in place of standard landscape plantings on streets.



Bio-retention Cells/Bio-retention Swales - Bio-retention cells are shallow planted depressions that utilize climate-appropriate plants and soils to retain and treat storm water. Bio-retention cells promote transpiration of storm water through the vegetation; detention of storm water in the pores of amended and native soils; cleansing of storm water through various mechanisms that include sedimentation, filtration, adsorption, and phytoremediation; and retention of storm water via infiltration into native soils. Bio-retention cells may have underdrains to help convey excess water below the soil surface. Conveyance may be a secondary, but not the primary purpose for bio-retention cells. All bioswales perform some amount of conveyance, but those considered to be bio-retention systems also allow infiltration of storm water into surrounding soils.

Bioswales are recommended for use adjacent to drive lanes, in place of conventional in-road features (such as curbs and gutters) and as vegetated buffers vehicular and pedestrian areas. Rain gardens are typically designed with a ponding depth of less than 18" in order to meet small scale flow control and water quality requirements and may be formed in any shape. An overflow, either piped or natural, is typically included to manage higher flows and convey runoff to a public storm drain, channel or natural outlet. The area of a rain garden is generally sized to equal 5% of the area being treated. They can be particularly effective at heavy metal removal; reductions of up to 95% of lead, copper and zinc, and 70-85% of total phosphorus and nitrogen have been noted. Rain gardens are useful strategies for managing storm water in areas adjacent to parking, such as within tree islands, along pedestrian zones, in center roadway medians, and in unused open space, including front yards.



Bio-retention Planters - Bio-retention planters are similar in design and function to rain gardens, but have a more defined shape and vertical sides, and may employ an impermeable bottom layer or enclosure. The planters are often constructed of concrete, making them well-suited for urban applications where water needs to be directed away from building foundations. Storm water planters consist of a planter box made of sturdy material, amended soils, a gravel drainage layer, and plants. An overflow is incorporated to manage higher flows and convey runoff to the public storm drain system, either via a perforated pipe or via surface flow. Although storm water planters can be designed without a bottom to allow infiltration, they are typically designed to focus on flow control and attenuation to the public storm drain system. They are particularly effective at handling low intensity storms. In the right-of-way, storm water planters are recommended adjacent to buildings, sidewalks and pedestrian plazas where flow control is a significant concern and space is at a premium. Planters can also be designed to serve a conveyance function in the right of way where there is insufficient width to provide sloped sides (i.e., a swale) or the grade would be too steep. Storm water planters provide aesthetic benefits and, depending on plant selection and design, can provide water, food and nesting materials for birds.





Pervious Pavement

Pervious paving technologies provide hard surfaces for walking and driving while allowing storm water runoff to percolate into an underlying soil or reservoir base where it can infiltrate into native soil or be conveyed off-site via an overflow drainage system. Pervious paving is largely made up of the same components as conventional paving material, but includes more void space to allow runoff to percolate through the pavement section. Void spaces within these pavements trap oils, grease, and other roadway pollutants and create opportunities for micro-organisms to break them down. Additional benefits include reducing impervious surface area, which in turn, reduces storm water flows off-site. Pervious paving systems may be used in place of conventional impervious paving in many locations. They are typically used on low-traffic streets, such as residential streets and pedestrian corridors, and are especially appropriate for parking areas, driveways, alleys and sidewalks.

Pervious Concrete - Porous cement concrete generally has a narrower distribution of coarse aggregate and contains less fines than standard concrete. The porous concrete layer is placed atop a 6" to 12" permeable base course that serves as a reservoir, assisting with flow through. This base course can be sized to provide detention, and provides strength for the travel lane. Proper installation of porous cement concrete requires the talents of experienced craftsmen. Porous cement concrete can often be identified by the "popcorn" or "rice krispie" look of its surface. This surface finish can be mitigated by using smaller aggregate sizes to provide a smoother, more traditional finish. Aggregate sizing can range from as small as 1/4" all the way up to 1".





Porous Asphalt

Porous asphalt is a variation of the standard hot mix asphalt used as a road surface. Porous asphalt omits the fine sand and dust, creating void content of about 18-22% compared to the 2-3% void content of traditional asphalt mixes. This top course is installed as a 2-4" thick layer placed atop a course of coarse aggregate designed to rapidly filter and store water in addition to providing stability. Porous asphalt is slightly easier to install than porous concrete; however, product life tends to be shorter (about 10-12 years) in

roadway applications. In appearance, porous asphalt has a similar finish to standard asphalt. It is generally smoother than porous concrete, making it ideal for bicycle and pedestrian surfaces. Porous asphalt has been shown to reduce runoff by 60% and can reduce total suspended solids in runoff and their associated pollutants by more than 80%. It can also increase road safety by reducing splash and spray, providing better visibility and traction, and reducing hydroplaning. Porous asphalt also reduces road noise.

Permeable Pavers

Porous pavers are made for a wide variety of uses, from patios, paths and walkways, to drive - ways, parking areas and roadways. They come in many shapes, sizes and finishes, ranging from open grid systems with grass or gravel to interlocking porous blocks. Porous pavers tend to be easier and faster to install than porous concrete or porous asphalt, but require more long-term maintenance. They have been shown to reduce virtually all runoff and to substantially reduce runoff pollutant loads.



Recycled Roadway Surface

The use of recycled materials is becoming increasingly commonplace in roadway reconstruction and resurfacing projects across the country. Using materials such as reclaimed asphalt pavement, recycled asphalt shingles, and ground tire rubber in the mixing of the asphalt aggregate can have both great environmental and economic impacts. For example, the recent resurfacing of Michigan Avenue in Chicago consists of 45 percent recycled content. The project utilized asphalt shingles from about 130 houses, 2,200 recycled car tires and 24 truckloads of reclaimed pavement. It is estimated to be approximately 40 percent less expensive than non-recycled roadway resurfacing projects and has noise dampening benefits on account of the rubber.⁸

⁸ McMahon, Jeff. Taking Recycling To The Street: Chicago Recycles Michigan Ave. Forbes Magazine. <http://www.forbes.com/sites/jeffmcmahon/2012/07/31/taking-recycling-to-the-street-chicago-recycles-michigan-avenue/>

Appendix B – Freeway Facilities

When designing Complete and Green Streets it is important to consider the challenges that freeway on and off ramps present. This chapter briefly explains how particular design considerations can help strengthen designated bikeways (as part of Complete and Green Streets), when they interact with freeway or freeway-designed facilities.

Entrance Ramp Lane Crossings

Arterials may contain high speed freeway-style designs such as merge lanes, which can create difficulties for bicyclists. In this design, the entrance lane, by design, will bear visibility issues. The approach angles of this design in combination with varying speed of vehicles and bicyclists create challenges for providing a safe crossing for bicyclists. The design in the figures below illustrate designs to improve bicycle crossings for entrance ramps.

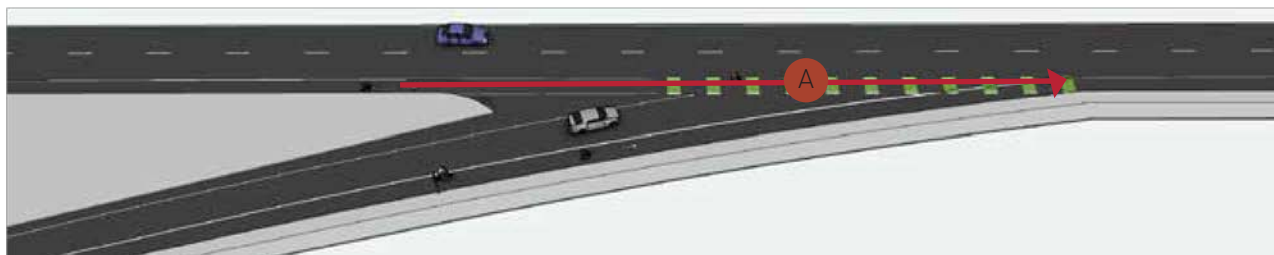


Figure 3: Low Speed Entrance Ramp (Bicycle Priority)

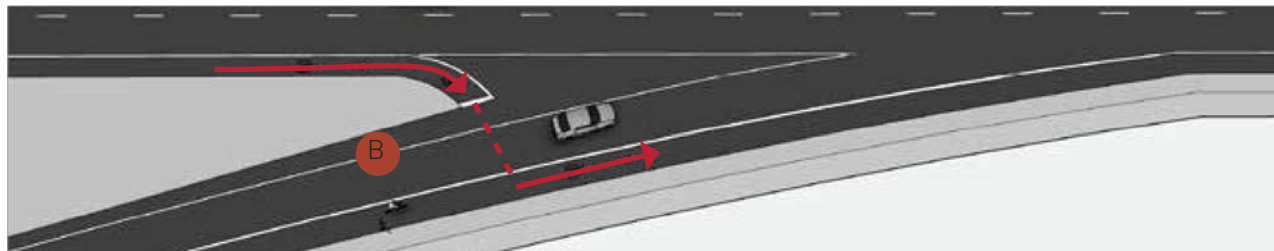


Figure 4: High Speed Entrance Ramp (Motor Vehicle Priority)

Typical Application

- Streets with high speed freeway style merge lanes
- Where users are skilled adult riders
- Design strategies differ for low-speed and high-speed configurations

Design Features

On low-speed entrance ramps (≤ 35 mph), the bike lane should travel straight through the merge area

- A: use dotted lines, colored pavement, and signs to define bicyclist priority over merging traffic

At high-speed entrance ramps (≥ 40 mph) with dedicated receiving lanes, bicyclists should be encouraged to yield to merging traffic and cross when safe.

- B: Angle the bike lane to increase the approach angle with entering traffic, and position the crossing before the drivers' attention is focused on the upcoming merge

Exit Ramp Lane Crossings

Arterials with freeway-style ramps can create difficulties for bicyclists. In this exit lane design does not feature the appropriate visibility for bicyclists, and juxtaposes bicyclists with high vehicle speeds. The design figures shown below illustrate designs that can help improve bicycle crossings at freeway or arterial exit ramps.



Figure 5: Low Speed Exit Ramp (Bicycle Priority)

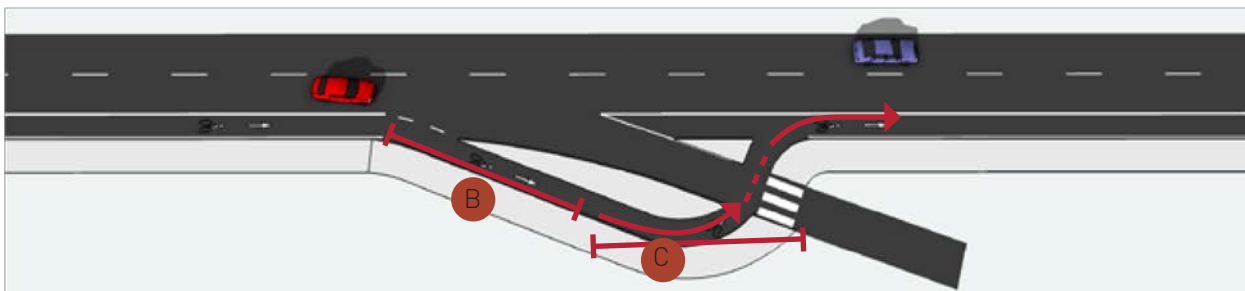


Figure 6: High Speed Exit Ramp (Motor Vehicle Priority)

Typical Application

- Streets with bicycle lanes
- Streets with freeway style exit ramps
- Where the expected user is a skilled adult rider

Design Features

On low-speed exit ramps (≤ 40 mph), the bike lane should travel straight through the merge area.

- A: Use dotted lines, colored pavement and signs to define bicyclist priority.

On high-speed exit ramps (≥ 45 mph), use a jug handle turn to bring bicyclists to a visible location with exiting traffic.

- B: 45 foot (35 foot minimum) taper from roadway
- C: 45 foot (35 foot minimum) jug handle turn

Appendix C – Level of Traffic Stress and Bicycle Rider Classifications

Bicycling offers many benefits to communities such as economic, social, and environmental. The Urban Land Institute writes that bicycling infrastructure means business and spurs property values (McMahon, 2017). As a transportation option, it is a healthy choice, attracts healthy-minded residents, supports tourism, creates vibrant communities, and overall, increases quality of life (City of Fort Collins, CO, 2014).



Figure 7. Biking can be a fun and rewarding activity with economic, social, environmental, and health benefits for communities

It is worth elaborating, however, on the important health benefits of riding. Riding a bicycle is healthy, fun, and a low-impact form of exercise for all ages. Cycling can help protect from serious diseases such as stroke, heart attack, some cancers, depression, diabetes, obesity and arthritis. Under the right conditions, cycling could easily fit into everyone's daily routine by riding to shops, park, school, or work. For these reasons, bicycle ridership can be important for communities if the goal is to improve the health and quality of life of its members. Some of the specific health benefits of regular cycling (Department of Health & Human Services, S.G.O.V.A., 2017) include:

- increased cardiovascular fitness
- increased muscle strength and flexibility
- improved joint mobility
- decreased stress levels
- improved posture and coordination
- strengthened bones
- decreased body fat levels
- prevention or management of disease
- reduced anxiety and depression

Environmental benefits of cycling include potential reductions in automobile use and congestion, especially where destinations are within a 1.5 to 2 miles from the origin of the bicycle trip such as home, office, or transit

stations. Such distances allow a transportation mode shift from the automobile to the bicycle and afford the stated benefits to communities. Benefits can be even more significant in areas with a large number of destinations such as downtowns (McNeil, 2010). Choosing to use a bicycle instead of the automobile, besides short distances, requires addressing street conditions which contribute to traffic stress and rider fear. Traffic stress and rider fear are inter-related factors and major deterrents of riding a bicycle in the U.S. (Furth, 2017).

Bicycle Riding Deterrents: Traffic Stress and Rider Fear

Although other factors such as long destination distances, experience, or lack of bicycle parking may deter bicyclists from riding, traffic stress and riders' fear seem to be the most important. Roger Geller of the City of Portland, OR Office of Transportation (Portland Office of Transportation, 2009) mentions that many cities in modern industrialized nations have achieved a high bicycle ridership and mode split through application of policies, practices, and through the considerable removal of the element of fear associated with bicycle riding on streets next to automobile traffic. According to research at Northwestern University (Furth, 2017) "the chief deterrent to riding a bike in the U.S. is the high stress of riding without protection from the danger of fast traffic, or, more briefly, traffic stress." Therefore, any community interested in increasing bicycle ridership will have to address the factors that contribute to traffic stress and rider fear.

Some of these factors are:

- lack of bicycle lanes
- width of traffic lanes
- presence of parking along the road
- dangerous intersection crossings or intersection approaches
- high vehicle speed
- high traffic volumes
- noise, and
- exhaust fumes

All these factors impact the rider's perceived danger and stress levels and act as deterrents to riding a bicycle. Since none of these factors alone can reduce riders' stress levels, a comprehensive assessment of rider safety is necessary. Such an assessment embraces a few other concepts as well such as classification of bicycle riders and identification of types of road segments bicyclists' use.



Figure 8. Relatively high Levels of Traffic Stress on a bike lane <6' on a local road in Sonoma County. Higher ADT levels and prevailing speed will negatively impact Levels of Traffic Stress.

Classification of Bicycle Riders

Since fear of traffic conditions is a riding deterrent frequently mentioned in surveys, the City of Portland Office of Transportation--now Bureau of Transportation--(Portland Office of Transportation, 2009) classified riders according to their comfort level on the streets and desire to ride. Such sorting of riders was applied to all adults whether interested in biking or not. Jennifer Dill, researcher at Portland State University, (Dill & McNeil, 2013) expanded this research to the whole country and found similar classes of riders among the general population. This classification, which is widely used, divides bicycle riders into 4 categories. The population ratios presented below derive from studies both in Portland, OR and the US in general.

Classes of bicycle riders according to their comfort level or interest

The riders' comfort level is important when measuring bicycle route safety because it signifies the level of traffic stress different types of riders tolerate. It forms the foundation for the Level of Traffic Stress (LTS) classification of road segments and intersections (Mekuria, Furth, & Nixon 2012, Furth 2017):

- Very uncomfortable or indifferent to riding a bicycle: This type of rider is deterred for reasons of topography, inability, or simply a complete and utter lack of interest (Portland Office of Transportation, 2009). This category is also referred to as the "no way no how" category and represents about 31-37% of the population.
- Interested in biking but concerned: These are people who represent the mainstream adult population, are curious about bicycling, like to ride, but they are worried about personal safety. Therefore, very few of these people regularly ride bicycles and represent about 51-60% of the population.
- Enthused and confident: These riders like to ride their bicycles, they are comfortable sharing the roadway with automotive traffic, and this demographic of bicyclists is the primary reason why bicycle commuting doubled between 1990 and 2000 (U.S. Census). This category represents 5-9% of the population.
- Strong and fearless: These are people who will ride regardless of roadway conditions. Riding is part of their identity, and they are generally undeterred by roadway conditions. They represent a smaller share of the population from less than 1% to 7%.

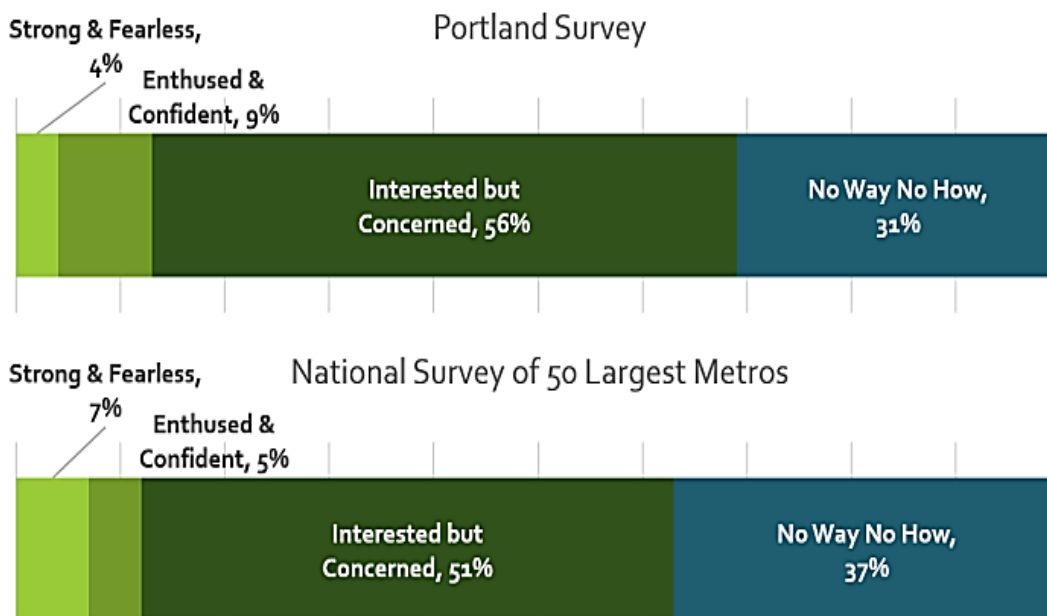


Figure 9. Classification of bicycle riders in Portland, OR and the U.S.

Typical Bicycle Route Parts and Traffic Stress Elements

Bicycle routes may vary in length and character but in general they consist of three types of parts:

- road segments
- intersection approaches
- intersection crossings

Different types of stress elements appear in each of these three parts. During assessment of route safety, a breakdown of the route into these parts and evaluation of each part separately is important in order to identify improvements and bring the full route to the level of desired safety.

In rating routes for safety, often the weakest link logic applies. As a result, if only one segment of a route is rated low in safety (includes presence of stress elements which contribute to low rider comfort level and high level traffic stress) then the full route acquires the low safety level of that segment.

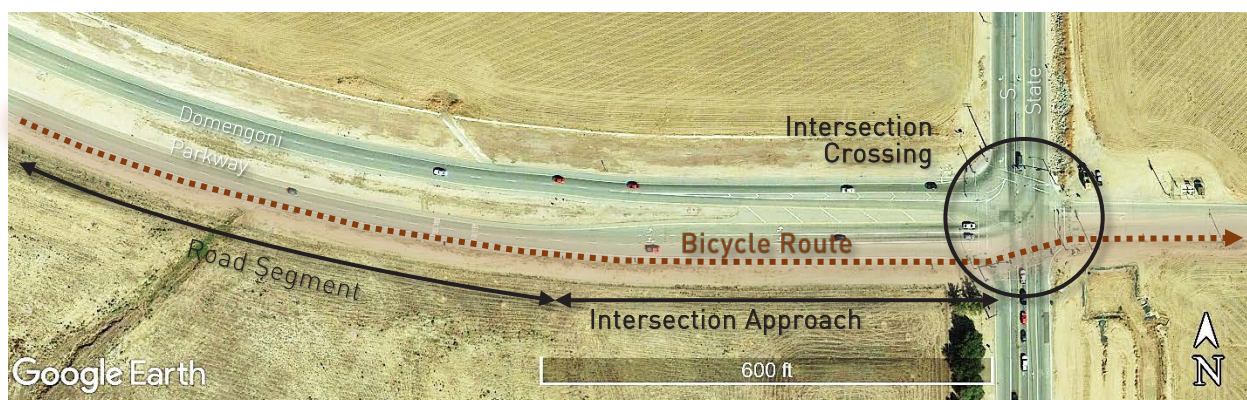


Figure 10. Route part breakdown on Domengoni Parkway and South State Street in the City of Hemet, Riverside County

Level of Traffic Stress (LTS) roadway classification systems

Traffic stress and riders' fear are measured using the Level of Traffic Stress (LTS) classification systems for bicyclists. The four types of bicyclist riders, the types of route segments, and the traffic stress elements form the foundation of these systems. Two systems are notable in the literature, a 4-level and a 5-level system. Both assess safety levels on bicycle routes in a similar manner. At the safest level, a bicycle route contains minimal traffic stress elements and is potentially safe for children. At the least safe level, routes contain significant traffic stress elements and are generally suitable only for the most fearless riders.

Differences between the two LTS systems

5-level system (2014 Fort Collins Bicycle Plan)	4-level system (Furth, 2017)
Based on level of riders' traffic stress levels	Based on level of riders' traffic stress levels
5 levels of safety	4 levels of safety
Highest level of safety is marked as level 1 and is potentially suitable for children riders	Highest level of safety is marked as level 1 and is potentially suitable for children riders
Lowest level of safety is levels 4 and 5 for speeds >40 mph, ADT>6000, sudden bike lane drops, and arterials	Lowest level of safety is level 4 depending on interaction of many stress elements. Generally for speeds >40 mph, ADT>6000, sudden bike lane drops, and arterials level of stress is 4. This is a level for "fearless riders."
Pictorial	Descriptive
Matrix	Linear
Fewer stress factors	More stress factors considered
Lack of detailed description of factors per route segment but pictorial depiction may be enough for evaluation.	Detailed description of stress elements for road segments, intersection approaches, intersection crossings, one way streets, and roundabouts.
Route parts are not identified and all stress elements are treated within the same matrix.	Route parts are split to road segments, intersection approaches, and intersection crossings and evaluated separately.

Appendix D - Implementation Strategies for Active Transportation Plans

Implementation Challenges

In active transportation plan implementation, it is important to tailor the plans to the physical needs of the community, and engage both members of the public and stakeholders. After reviewing the case studies, challenges of implementing active transportation plans seem to fit into the following categories which are then used to organize the measures communities took to successfully implement active transportation plans:

- Physical
- Political and Outreach
- Regulatory

Four case studies showcase these challenges and the resulting positive impact of active transportation measures: Portland, OR and Boulder, CO in the US and Groningen, NL and Freiburg, GER in Europe (Pucher, Dill & Handy, 2010).

These case studies are followed by additional successful individual implementation measures taken in Chattanooga-Hamilton County, GA, Columbus, OH, NY City, Marin County, CA, Davis, CA, Wellington County, ON, Elgin-St. Thomas, ON, Leamington, ON, and Cambridge, MA:

Case Study: Portland, OR (population 2010: 583,776):

Share of workers commuting by bicycle rose from 1.1% in 1990 to 1.8% in 2000 and 6.0% in 2008. Number of workers commuting by bicycle increased 608% from 1990 to 2008, while the number of workers increased only 36%. The number of bicycles crossing four bridges into downtown increased 369% from 1992 to 2008. Number of reported crashes increased only 14% over same period. The active transportation measures the City of Portland took that lead to such an increase include (Pucher, Dill & Handy, 2010):

Physical

- A 247% increase in the number of miles of bikeways (lanes, paths, and boulevards) from 79 in 1991 to 274 in 2008
- Colored bike lanes installed at several places of potential bicycle-motor vehicle conflict, assigning right of way to the cyclist
- Special bicycle-only signals at four difficult intersections
- Loop detectors for bicycles at all actuated traffic signals on bicycle routes
- Bike boxes at 10 intersections
- Bike racks on all transit buses
- Bikes allowed on trains
- City installs parking at other locations, including removing on-street parking to add bicycle parking “corrals.”

Political and Outreach

- Open Streets: First “Bike Sundays” held in 2008, closing city streets in one neighborhood to motor vehicles
- Education and marketing events conducted year-round and during SmartTrips program each summer
- City-wide and neighborhood bicycle maps provided for free

Regulatory

- Bicycle parking required in new development.

Case Study: Boulder, CO (population 2010: 97,385)

Share of workers commuting by bicycle more than doubled, from 3.8% in 1980 to 8.8% in 2006; bicycle share of all trips (all purposes) rose from 8% in 1990 to 14% in 2006. The active transportation measures the City of Boulder took that lead to such an increase include (Pucher, Dill & Handy, 2010):

Physical

- Over 100 miles of multi-use pathways
- 74 underpasses and 2 overpasses
- 74 miles of on-street bike lanes
- 195 miles of signed routes and streets with paved shoulders
- 95% of major arterials have bike lanes or adjacent pathways.

Political and Outreach

- Bike-to-Work Day events since 2003
- Safe Routes to School partnership with local school district
- Interactive bicycle routing website
- Individualized marketing program
- Coordination of transportation coordinators at local businesses
- Ambassador Community Outreach Program focused on improving bicycle safety

Regulatory

- City regulations requiring bike parking (at least 3 bike parking spaces or 10% of off-street parking)

Case Study: Groningen, NL (population 2017: 202,567)

Stable 40% bicycle share of trips since 1990; 50% decline in serious injuries 1997–2005. The active transportation measures the City of Groningen took include (Pucher, Dill & Handy, 2010):

Physical

- Separated bicycle facilities doubled to 220 km between 1980 and 2006, including construction of bicycle bridges and short-cuts to create a complete network of separate bicycling facilities
- Intersection modifications: advance stop lines and bike boxes, bicycle access lanes, priority traffic signals for cyclists, and four-way green lights for cyclists at some intersections
- Bi-directional travel permitted for cyclists on one-way streets
- Increase in guarded parking facilities, from one in 1982 to 20 by 1995 and 30 in 2006
- 15 schools with guarded bike parking.
- Extensive bike parking at all train stations and key bus stops; roughly 7,000 bike parking spaces at main station
- Most residential streets are traffic calmed at 30 km/hr, including many woonerfs with 7 km/hr limits
- Car-free zones in several parts of the city center
- Sharp reduction in car parking

Political and Outreach

- Mandatory bicycling education for all schoolchildren (Pucher, Dill & Handy, 2010)

Case Study: Freiburg, GER (population 2015: 226,393)

Bicycle share increased from 15% of trips in 1982 to 27% in 2007; 204% growth in bicycle trips 1976–2007; one serious injury per 896,000 bicycle trips in 2006. The active transportation measures the City of Freiburg took that lead to such an increase include (Pucher, Dill & Handy, 2010):

Physical

- The city expanded separate bicycle paths and lanes from 29 km in 1972 to 160 km in 2007, plus 120 km of bicycle paths through woods and agricultural areas; 2 km of special bicycling streets; 60 contraflow streets for cyclists
- Entire city center turned into car-free zone in 1970s
- All residential streets (400 km) traffic calmed, including 177 home zones with 7 km/hr limit
- Two car-free residential neighborhoods
- Car parking restricted to fringe of city center
- Parking prices raised
- Bike parking tripling between 1987 and 2009 (2,200 to 6,040 spaces), including full service bike station (with 1,000 parking spaces) at main train station, plus 1,678 bike racks at train and bus stops.

Political and Outreach

- Mandatory bicycling education for all schoolchildren

Regulatory

- City requires new developments to facilitate mixed-use, compact development that generates trips short enough to walk or bicycle

Additional Implementation Measures in US Cities

Other cities throughout the United States have taken additional measures that also produced positive results and increased ridership. Implementation programs in Chattanooga-Hamilton County, GA, Columbus, OH, NY City, Marin County, CA, Davis, CA, Wellington County, ON, Elgin-St. Thomas, ON, Leamington, ON, and Cambridge, MA reveal the following additional tools:

Physical

Implementing a full package of improvements compared to small incremental improvements: Many studies have shown that implementing incremental improvements do not necessarily lead to increased bicycle mobility. Instead, implementing a complete package of improvements along specified routes seems significant enough to increase ridership (Pucher, Dill & Handy, 2010).

Prioritizing Streets and Pilot Programs: In Chattanooga-Hamilton County roads are classified with health-based factors in mind and streets are prioritized based on maximum health benefit. Health, safety, and land use changes are planned based on the new or improved classification system. The major streets planning process began summer 2016 and will involve a thorough review of the definitions and functions of different street classification systems while piloting the program on certain streets. Launching pilot programs on certain streets identified impacts of active transportation measures.

Political and Outreach

Informing the Citizens: According to the City of Davis, an Implementation Plan helps clarify how the local transportation system is managed, funded, prioritized, and sets a course for future decision-making. The citizens often may not understand the role the municipal government plays in the maintenance, operations, and development of transportation plans over time (Abbanat, 2015). Therefore, clarifying the goals of a transportation plan to the citizens and offering reasonable explanation for decision making may be important

factors to consider in order to involve and get the approval of the public in critical and innovative decisions. In active transportation plans such biking and pedestrian plans the importance to the overall health of the community seems a paramount factor to communicate.

Education Programs: In NYC City, the Go Safe Go Green campaign, provided curricula emphasizing the health and environmental benefits of walking and bicycling through outreach programs and mileage clubs encouraging participants to walk 10,000 steps daily.

Safe Routes to School: In Marin County, CA, the Comprehensive and Collaborative Safe Routes to School (SRTS) Program the program identifies and creates safe routes to schools and invites communitywide involvement. By its second year, the program was serving 4665 students in 15 schools. Participating public schools reported an increase in school trips made by walking (64%), biking (114%), and carpooling (91%) and a decrease in trips by private vehicles carrying only one student (39%).

Community-Wide Campaigns for Funding and Bicycle Education: In NYC, the NYCDOT used grant funding from the Governor's Traffic Safety Committee to launch a safety campaign for pedestrians in 2010. The campaign involved increased enforcement of motorist and cyclist infractions and advertising to raise awareness of the city's 30 mph speed limit.

Identifying Street Priorities with Community Involvement: Community involvement has revealed areas in which active transportation safety improvements are most needed as in the case of the University of North Carolina — Greensboro (UNCG) which worked in close partnership with the city to promote transportation and health. Participants in workshops reviewed and selected strategies, interventions, and policies that could improve select corridors. Similarly, in Orlando, FL, community involvement revealed areas in which public health improvements are most needed.

Regulatory

Regulatory challenges involve updating and implementing new zoning policies and regulations that promote active transportation. Two stand out as important:

Require development applications to adopt active transportation components: Columbus, OH brought desired changes in bicycle infrastructure by using rezoning applications as a successful strategy to link public health to urban planning. While prior to the new policy only 7% of development applications in Columbus included active transportation components, "in 2009, 64% of development applications adopted active transportation components specifically recommended by the CHP review. Active transportation recommendations generally included adding bike racks, widening or adding sidewalks, and providing sidewalk connectivity" (Green & Klein, 2011).

Require bicycle parking: The City of Cambridge, MA Zoning Ordinance has required bicycle parking as part of new development since 1981. These requirements, along with other improvements and investments made by the City throughout the next decades, have helped support bicycling as a preferred transportation option in Cambridge contributing to a dramatic increase in biking, --approximately tripling-- in the 2010s alone (City of Cambridge, MA, 2017).

Summary of Actions and Programs

In the case studies reviewed, it becomes apparent that the most prolific efforts to address ATP implementation involve physical modifications of streets which increase the miles of bikeways, improve intersections, and increase bicycle parking.

Although no specific information specifies which of the implementation measures mentioned should be addressed first or what should take priority (physical, political, outreach, or regulatory challenges), one review emphasizes a comprehensive infrastructure approach instead of an incremental one. Taking a look at the four case studies showcased, it is obvious that all four cities took substantial and extensive infrastructure improvements to impact bicycling and walking.

Considering the outstanding health possibilities of active transportation programs, educational outreach and marketing of infrastructure improvements were a significant part of the overall effort. Involving the community in prioritizing streets, educational efforts starting early in school, and community-wide marketing events are common in all case studies. Education campaigns advertising the health benefits of commuting by bike should always be emphasized. Some cities like Portland, OR and NY City use an Open Streets day every month where select streets are closed to vehicles as a means to popularize active transportation. Creating an active transportation steering and advisory committee to guide efforts is also an effective strategy. In the regulatory challenges, requiring developments to include active transportation improvements had positive results.

The following is an overview of the major implementation actions and programs, grouped by physical, political and outreach, and regulatory categories, which could assist with the successful promotion of Active Transportation Plans:

Physical

From the case studies and the literature review, it is important to implement an extensive program of active transportation infrastructure improvements in order to build up a jurisdiction's active transportation network and improve Level of Traffic Stress. The result will be increased use of active transportation with significant health benefits for the community. The following list is an overview of the infrastructure-related actions/programs that have led to the successful implementation of active transportation plans, and could be applied in WRCOG jurisdictions:

When Implementing Active Transportation Plans:

- Implement a full package of improvements compared to small incremental improvements.
- Extensively expand the network of separate bicycle paths and lanes.
- Select and prioritize streets as "health streets" with community and planner input.
- Identify and prioritize intersections for active transportation improvements including bicycle-only signals at difficult intersections, detectors for bicycles at all actuated traffic signals on bicycle routes, bike boxes, and colored lanes.
- Significantly increase the density of bicycle parking throughout priority areas to increase and facilitate bicycle traffic at local commercial establishments. Replace one parking spot in every block with a bike corral.
- Identify major destinations and major origins of trips (e.g., major concentrations of households as origins and major job destinations such as the government center or downtown) and select and prioritize the most direct routes between them for active transportation improvements.
- As part of the active transportation plan implementation, include traffic calming measures to increase the comfort of pedestrians.

Political and Outreach

All cities reviewed implemented an extensive bicycle and walking education and marketing program to inform the community on the exceptional benefits of both bicycling and walking. The following are the most common education and marketing related actions and programs of successful Active Transportation Plans:

For A Successful Active Transportation Plan Implementation:

- Create a steering committee to guide active transportation efforts and contacts.

- Implement mandatory bicycling education for all schoolchildren.
- Designate First “Bike Sundays” or other days of the week to close select city streets to motor vehicles.
- Advertise and market the newly built infrastructure in the City’s website to increase people’s awareness and significantly increase biking and walking.
- Establish “Bike-to-Work Day” events as monthly or periodic marketing events throughout the year.
- Use the Safe Routes to School program for guidance and direction in the efforts and partner with local school districts.
- Distribute free maps of the newly built infrastructure.
- Inform the community that bicycle commuters are about 45% healthier on broad aspects of health issues including cancer and mortality.
- Educate business owners on the proved positive business impacts of increased bicycle circulation and bicycle parking.

Regulatory

In the regulatory aspect of successful active transportation planning implementation, the following actions and programs prove useful:

Regulations That Assist the Promotion of Active Transportation Plans:

- Require development applications in selected areas to adopt active transportation components.
- Require bike parking in all new developments or new businesses (one U-shaped bike rack for every business).
- Strategically increase mixed-use and compact development in select areas within two miles of major job destinations to generate trips short enough to allow commuting on the bicycle.

Appendix E: Outreach Materials

The development of Western Riverside's Active Transportation Plan required several years of continuous outreach. The opportunity to provide feedback, comments, and suggestions was given to stakeholders, decisionmakers, and the public. Through surveys, meetings, working sessions, and email correspondence, the outreach effort helped strengthen the content of the ATP and ensure that the recommendations were already vetted and desired by the region.

This appendix includes outreach materials used throughout the development of the ATP. It is organized as outlined in the table below.

Outreach Group	Material Included	Pages
Riverside County Active Transportation Network	- Meeting Sign-in Sheets from: » 9/21/16 » 11/16/16 » 2/15/17 » 11/15/17 » 9/20/17 » 2/21/18 - Meeting notes from: » 5/18/16 » 10/20/16 - Meeting PowerPoint Slides from: » 5/16 » 9/16 » 11/16 » 2/17 » 9/17	177 - 276
WRCOG Member Agencies	- Request for ATP Regional Facilities Input - Input Matrix - NMTP Network - Completed project matrix from all jurisdictions - Outreach responses	277 - 298
Planning Directors & Public Works Directors	- Planning Director Meetings PowerPoint slides from: » 4/16 » 11/16 » 2/17 » 4/18 - Public Works Meetings PowerPoint slides from: » 4/16 » 6/14 » 2/17 » 5/17 » 4/18	299 - 380
Staff & Public (Surveys)	- Outreach Flyer - Community Survey (English & Spanish) - Survey Results (Staff & Community)	381 - 416
Eastern Municipal Water District	- List of participants - Site visit photos from 9/19/17	417 - 429

ATN Outreach Materials



WRCOG Working Group Meeting #1 Meeting Notes

Wednesday, May 18, 2016
Riverside SCAG Offices
3403 10th St, #805
Riverside, CA 92501

WRCOG ATP Presentation

- Overview of project
- Discussion of Working Group role and logistics
- Existing conditions & needs analysis underway
 - Includes local review of plans and projects
 - Collision analysis
 - Staff and community survey
 - Some flexibility on survey duration to obtain more input
- Focus on understanding local desires and addressing regional routes and issues at the WRCOG level
- Most collisions occur within city limits, much fewer in unincorporated county
- There may be Caltrans money available for ramp retrofits
- See a lot of wrong-way riding
- Collisions, locations, built environment, and demographics all point to significant needs for education/enforcement
- Collision mapping/analysis requests:
 - Remove minor injuries (only KSI)
 - Map for collisions within certain distance to freeway and those not by freeway (idea being those near freeway are more regional in nature than what is happening in the outlying parts of the city tends to be more of a local issue)
 - Is it possible to define a high-injury network based on KSI only... do we see a substantial concentration of the KSI on a small subset of roadway miles?
- Many collisions appear to be near schools, what about universities?
- SR74 near Hemet and Lake Elsinore major hot spots
- SR79 near Winchester major hotspot
- Paved shoulders for these rural highways and certain areas could be a major help
- Correlation between income and transportation challenges



Western Riverside Active Transportation Plan

Project Overview

- Assisting WRCOG in developing an Active Transportation Plan (ATP)
- Existing conditions analysis identifies gaps in the region with regard to bicycle and pedestrian projects and programs
- Developing a list of key challenges, opportunities, and health topics that will be highlighted and addressed in the ATP
- ATP will recommend and set goals, objectives, and performance metrics for the implementation of active transportation programs and projects.

Role of ATN/Working Group

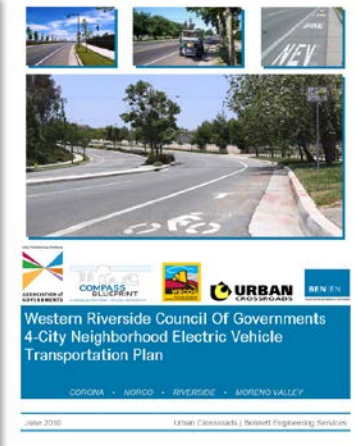
- Working group to engage a broad section of stakeholders
- Provides local input
- Resource with local/regional knowledge
- Acts as a “sounding board” for ideas



Existing Conditions

Table of Contents

1. Introduction	
2. Existing Planning Context.....	
Active Transportation Plans and Policies in the WRCOG Subregion.....	
State Initiatives	
Federal Initiatives.....	
3. Existing Active Transportation Environment.....	
WRCOG Today.....	
Types of Active Transportation Facilities	
Active Transportation Trip Types.....	
Existing Active Transportation Facilities.....	
Active Transportation Collision Analysis.....	
Key Issues and Active Transportation Needs Assessment.....	
Health Component	
4. Current Active Transportation Projects/Programs	
Active Transportation Projects List.....	
Active Transportation Programs List.....	
A. Active Transportation Documents	



Needs Analysis

Data Review

Collision Analysis

- Statewide Integrated Traffic Records System (SWITRS)

Community & Staff Surveys

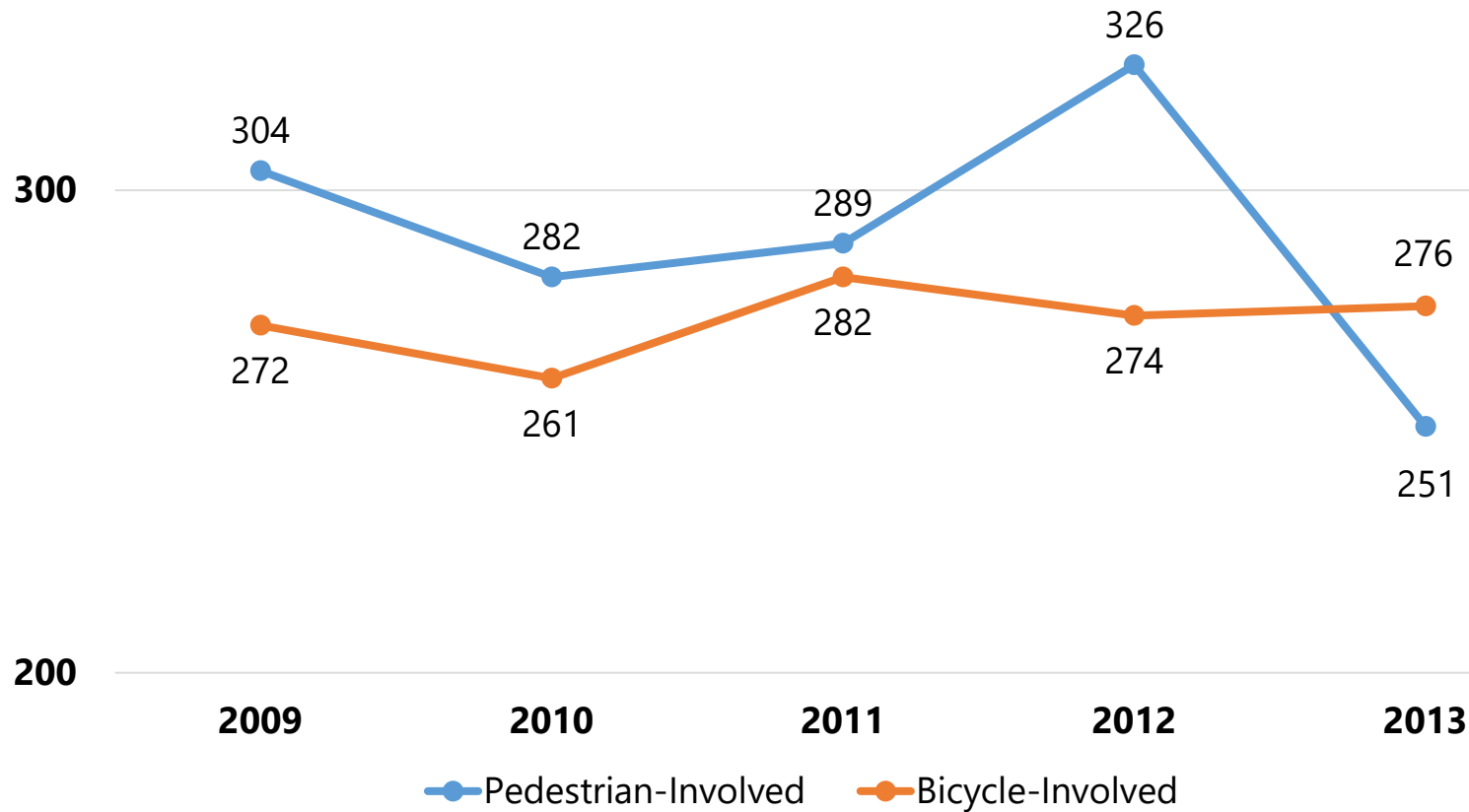
- Identify community needs, and perception of 2010 Western Riverside County NMTP
- Community Survey (English):
[www.surveymonkey.com/r/WRCOG ATP Eng](http://www.surveymonkey.com/r/WRCOG_ATP_Eng)
- Community Survey (Spanish):
[www.surveymonkey.com/r/WRCOG ATP Spa](http://www.surveymonkey.com/r/WRCOG_ATP_Spa)

Data Review

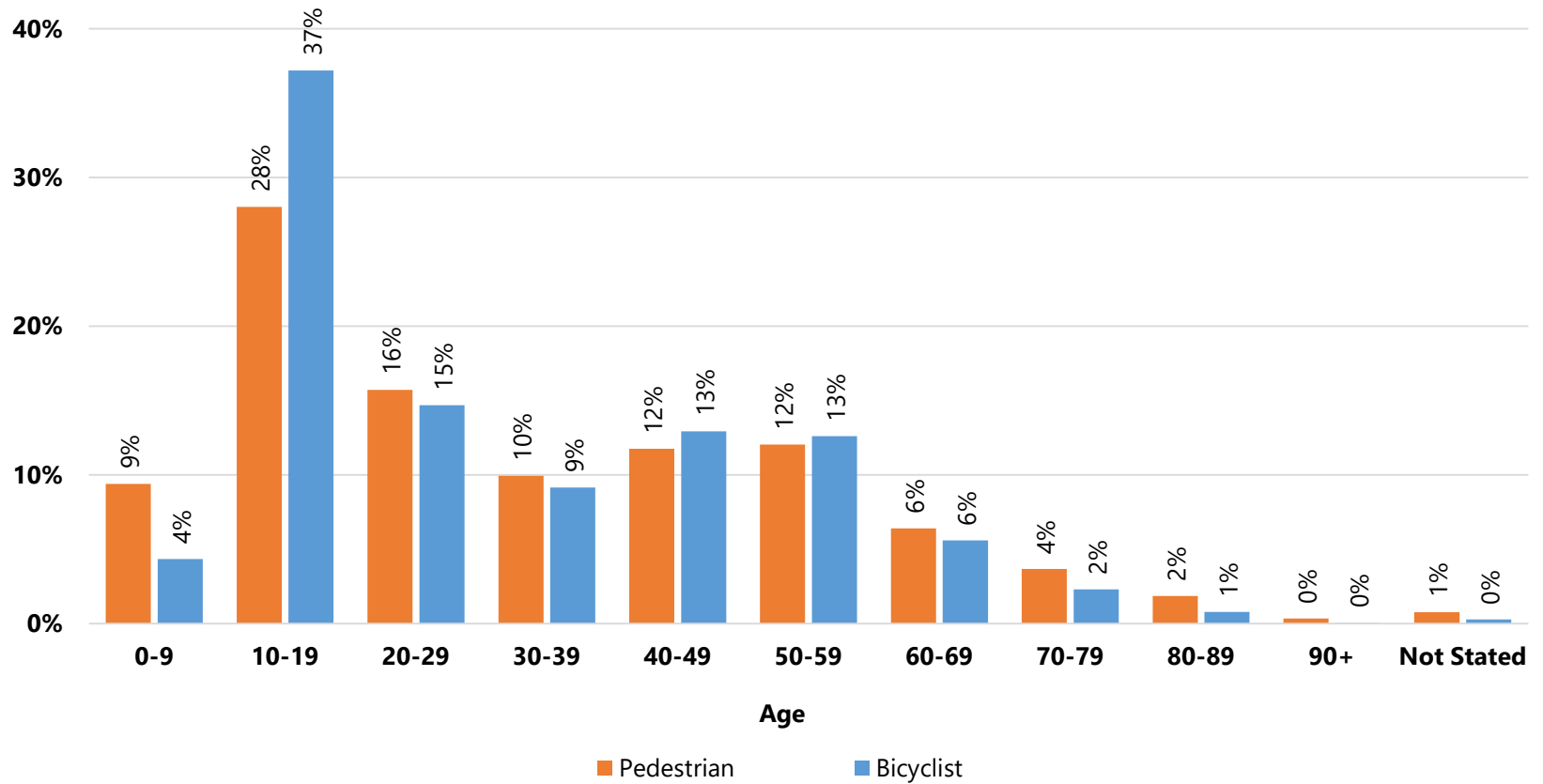
Common ATP Goals/Policies in General Plans

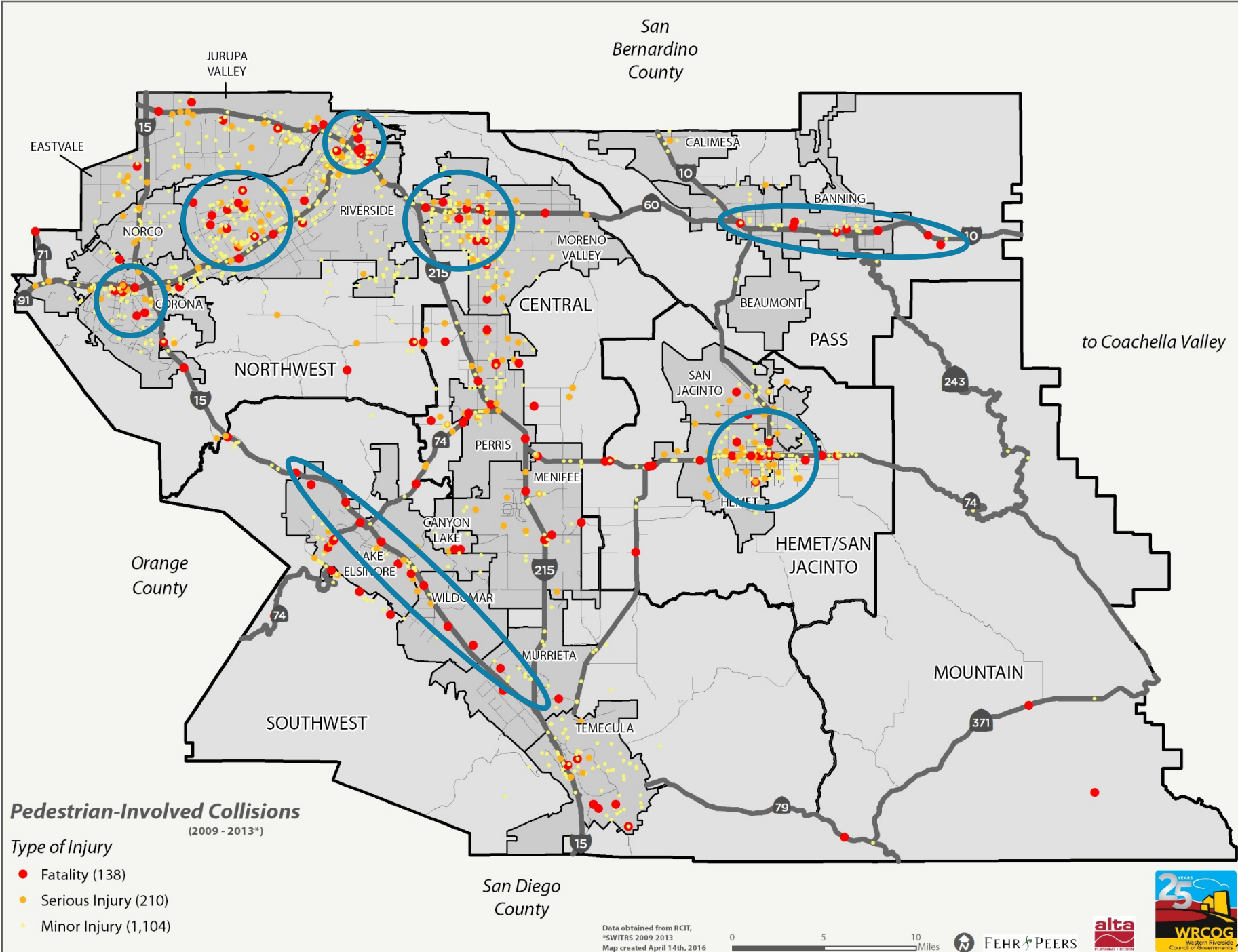
- Safety
- Safe Routes to School
- Transit-Oriented Development
- Complete Streets
- Flexibility in Level of Service
- Encouragement of Walking/Bicycling as Alternative to Single Occupancy Vehicle Travel

Collision Analysis



Collision Analysis





Pedestrian-Involved Collisions
(2009 - 2013*)

Type of Injury

- Fatality (138)
- Serious Injury (210)
- Minor Injury (1,104)

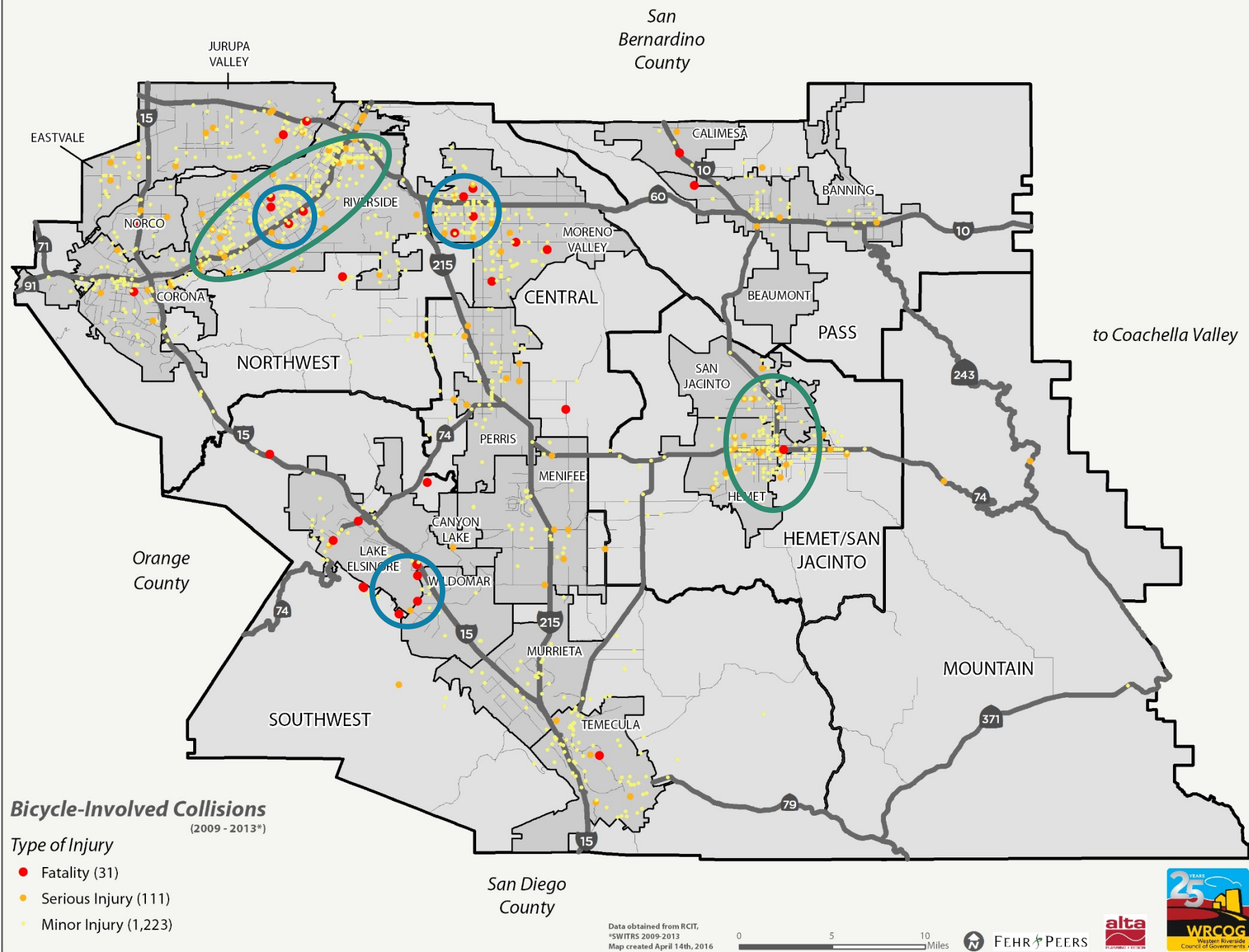
Data obtained from RCIT,
*SWITRS 2009-2013
Map created April 14th, 2016

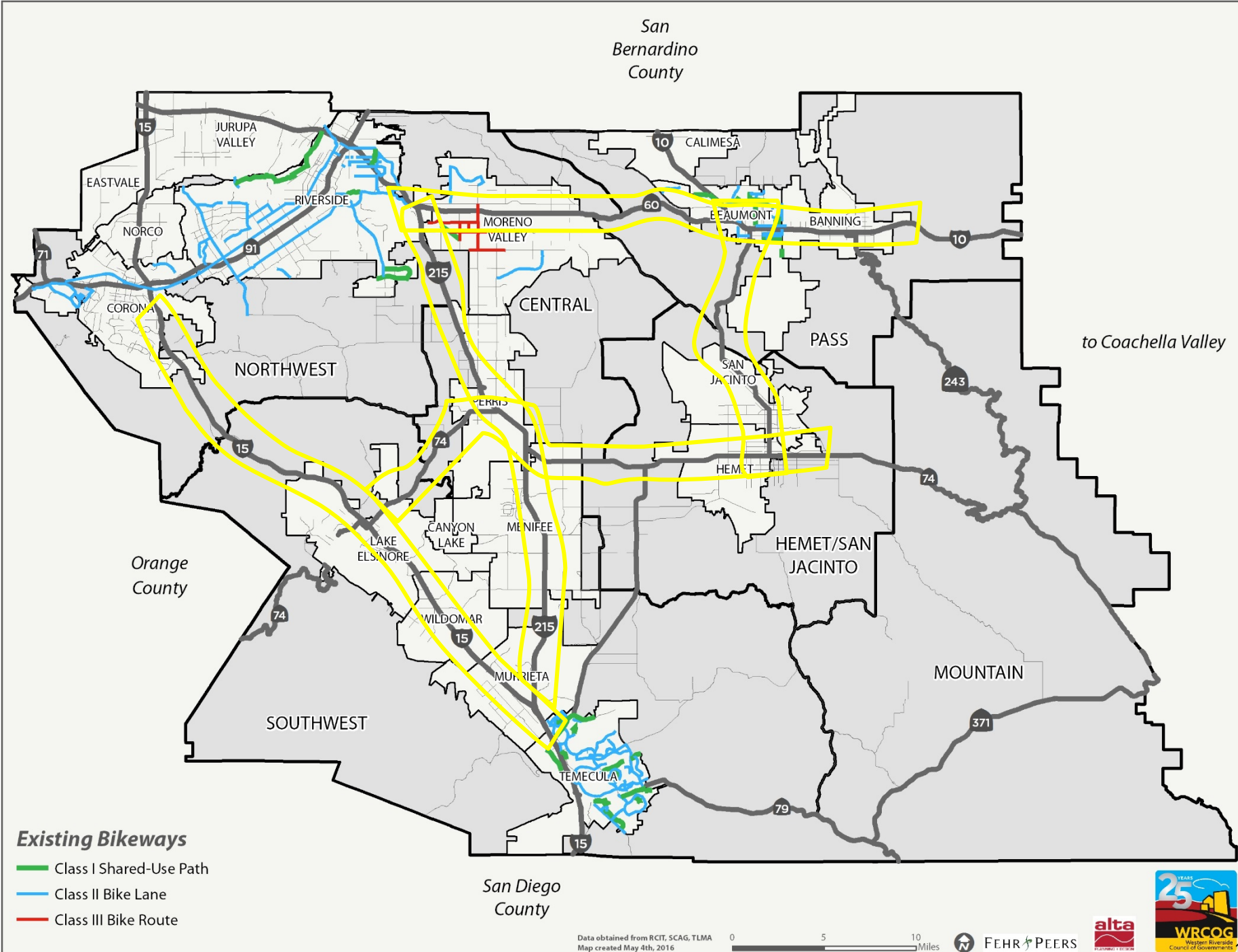
0 5 10 Miles

FEHR/PEERS

alta

25 YEARS
WRCOG
Western Riverside
Council of Governments





Existing Bikeways

- Class I Shared-Use Path
- Class II Bike Lane
- Class III Bike Route

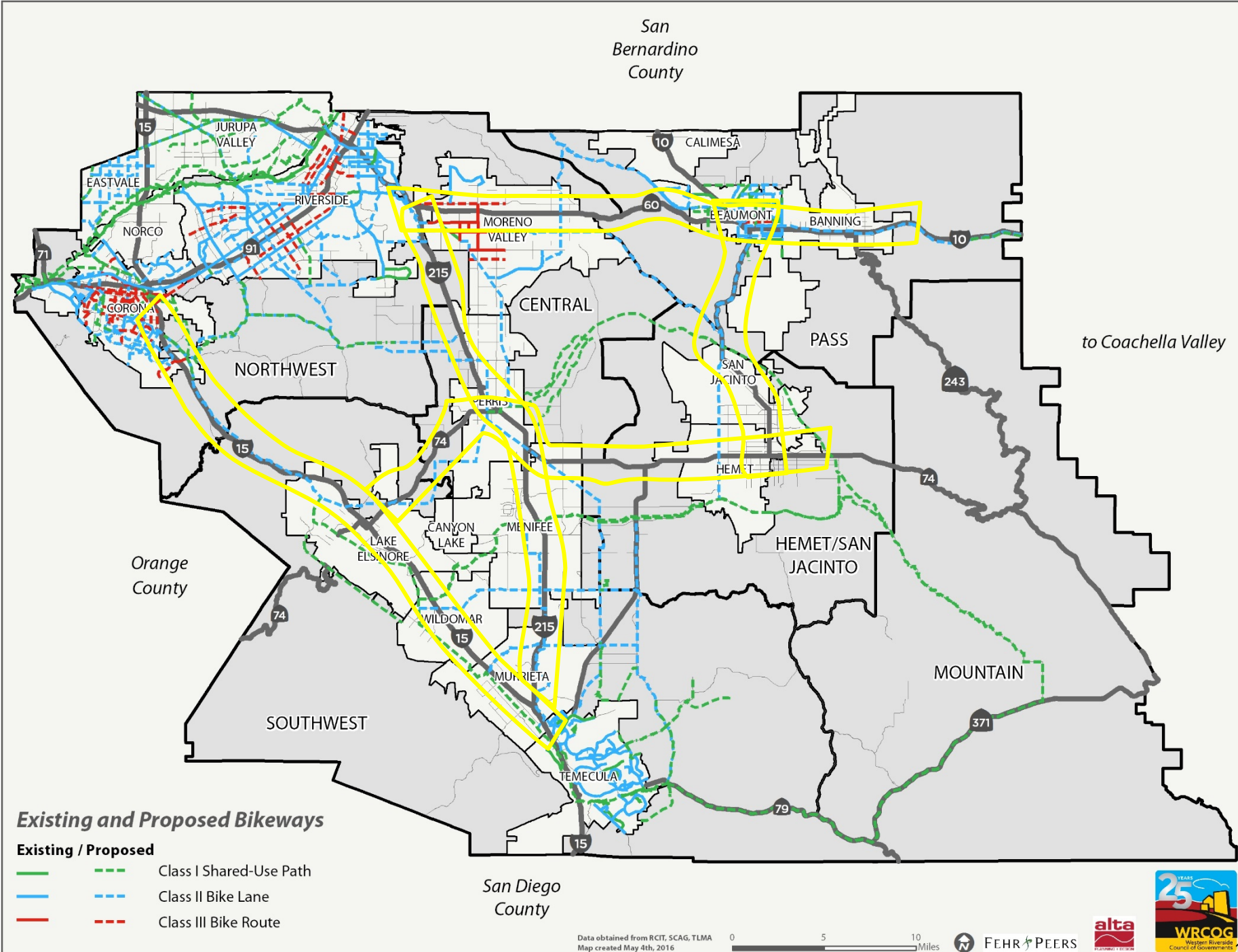
Data obtained from RCT, SCAG, TLMA
Map created May 4th, 2016

0 5 10 Miles

FEHR PEERS

alta

25 YEARS
WRCOG
Western Riverside
Council of Governments



Existing and Proposed Bikeways

Existing / Proposed

- | | | |
|--|--|-------------------------|
| | | Class I Shared-Use Path |
| | | Class II Bike Lane |
| | | Class III Bike Route |

Data obtained from RCT, SCAG, TLMA
Map created May 4th, 2016

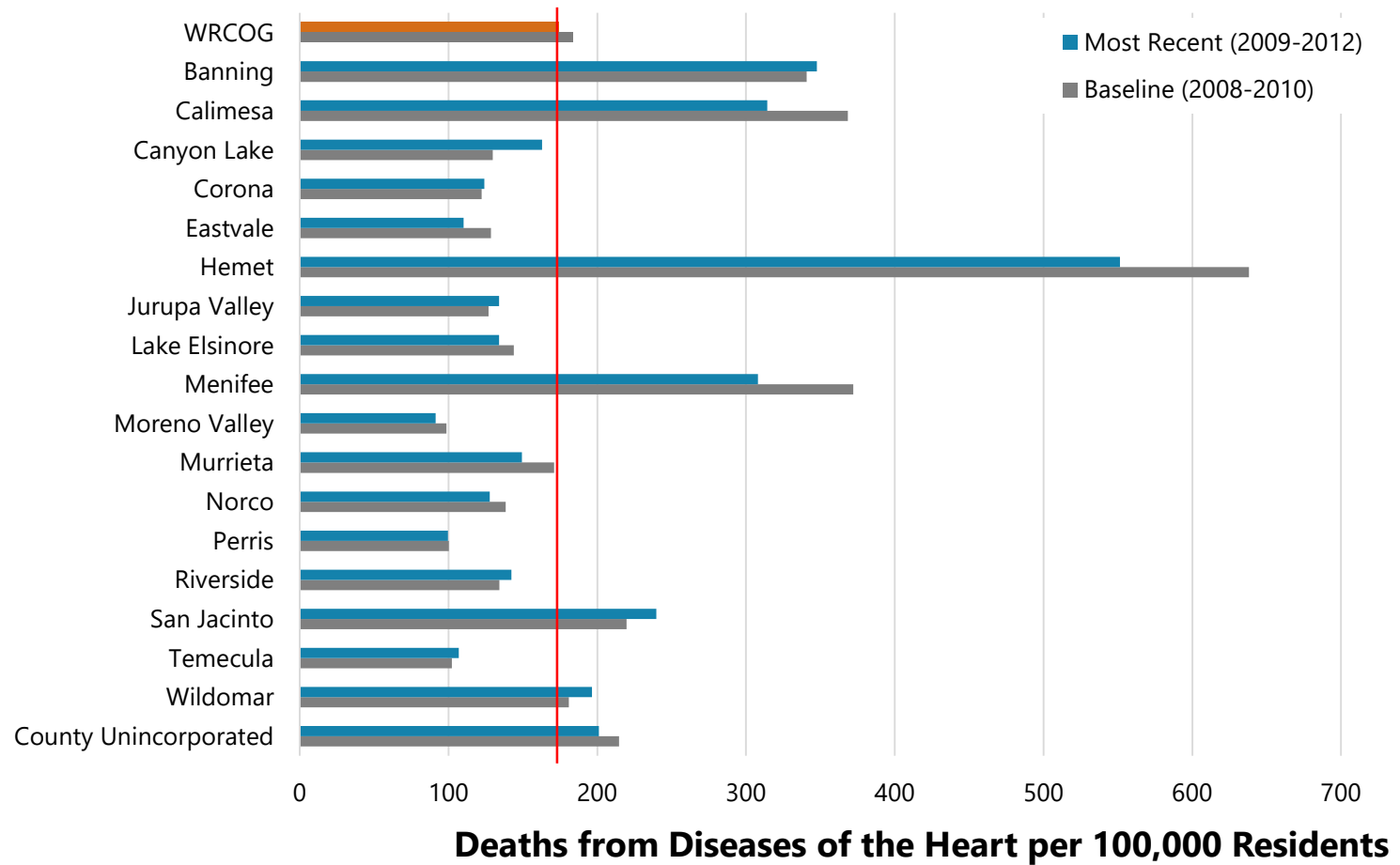
0 5 10 Miles

FEHR & PEERS

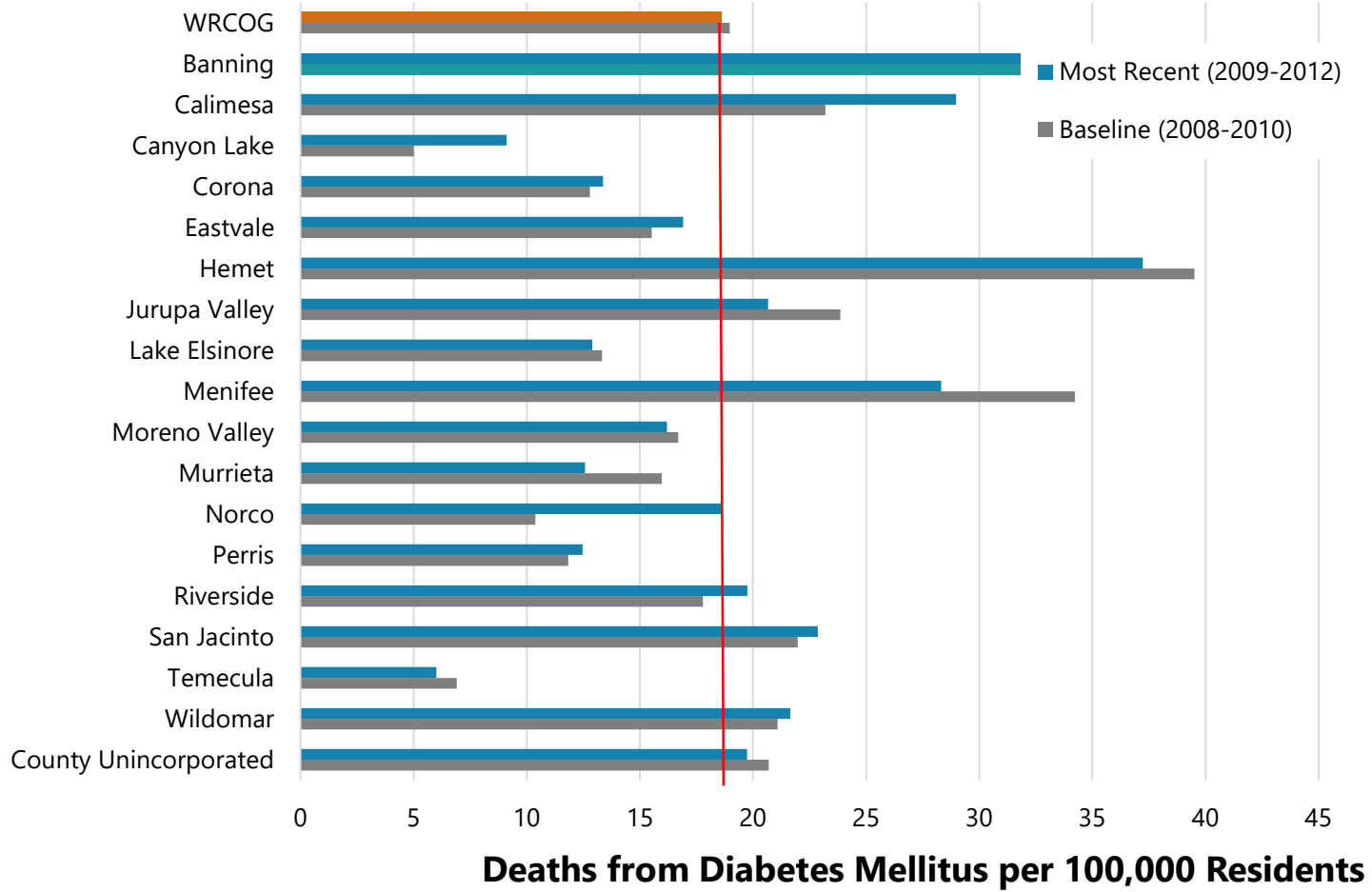
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25 YEARS
WRCOG
Western Riverside
Council of Governments

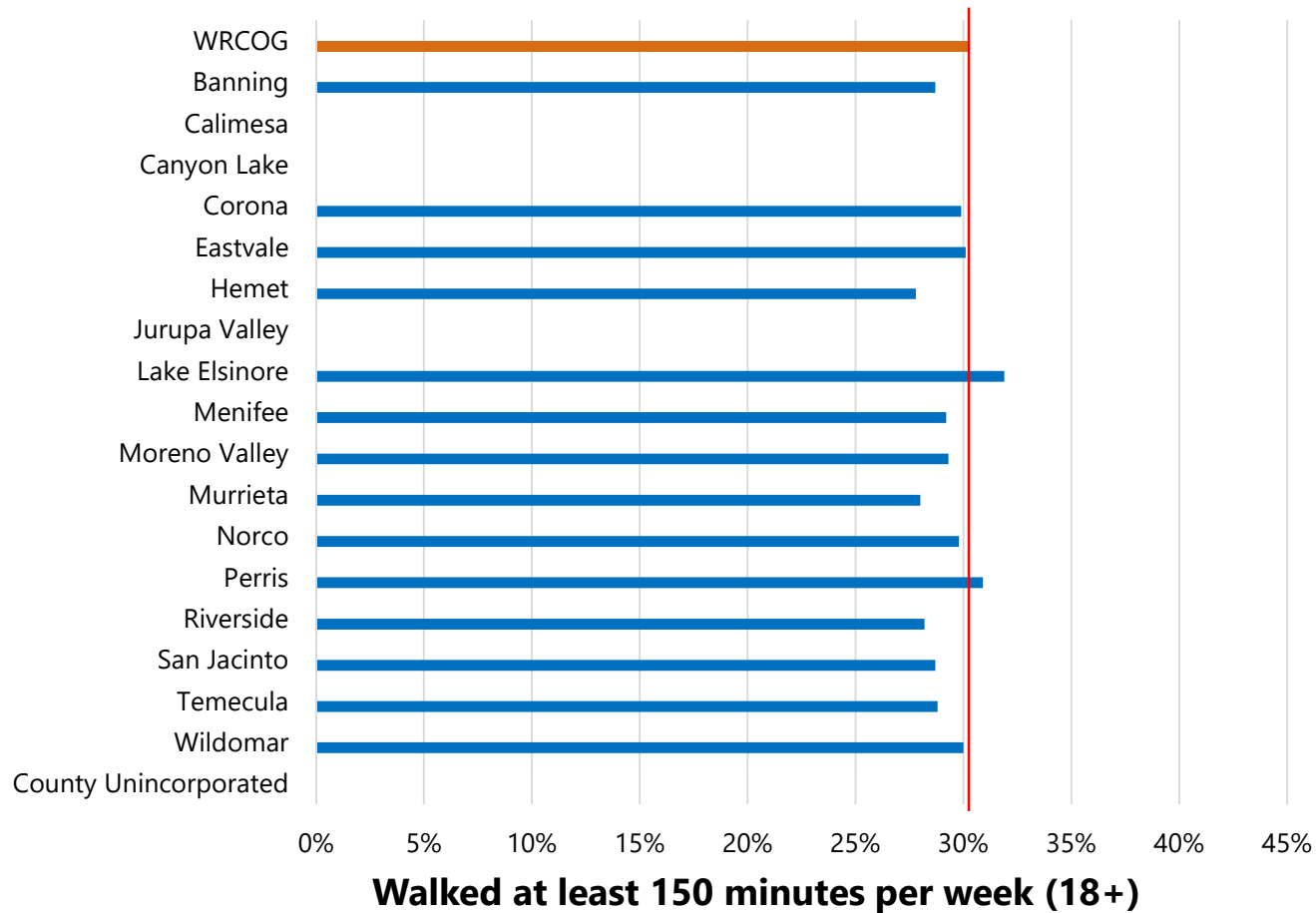
Heart Disease



Diabetes Mortality



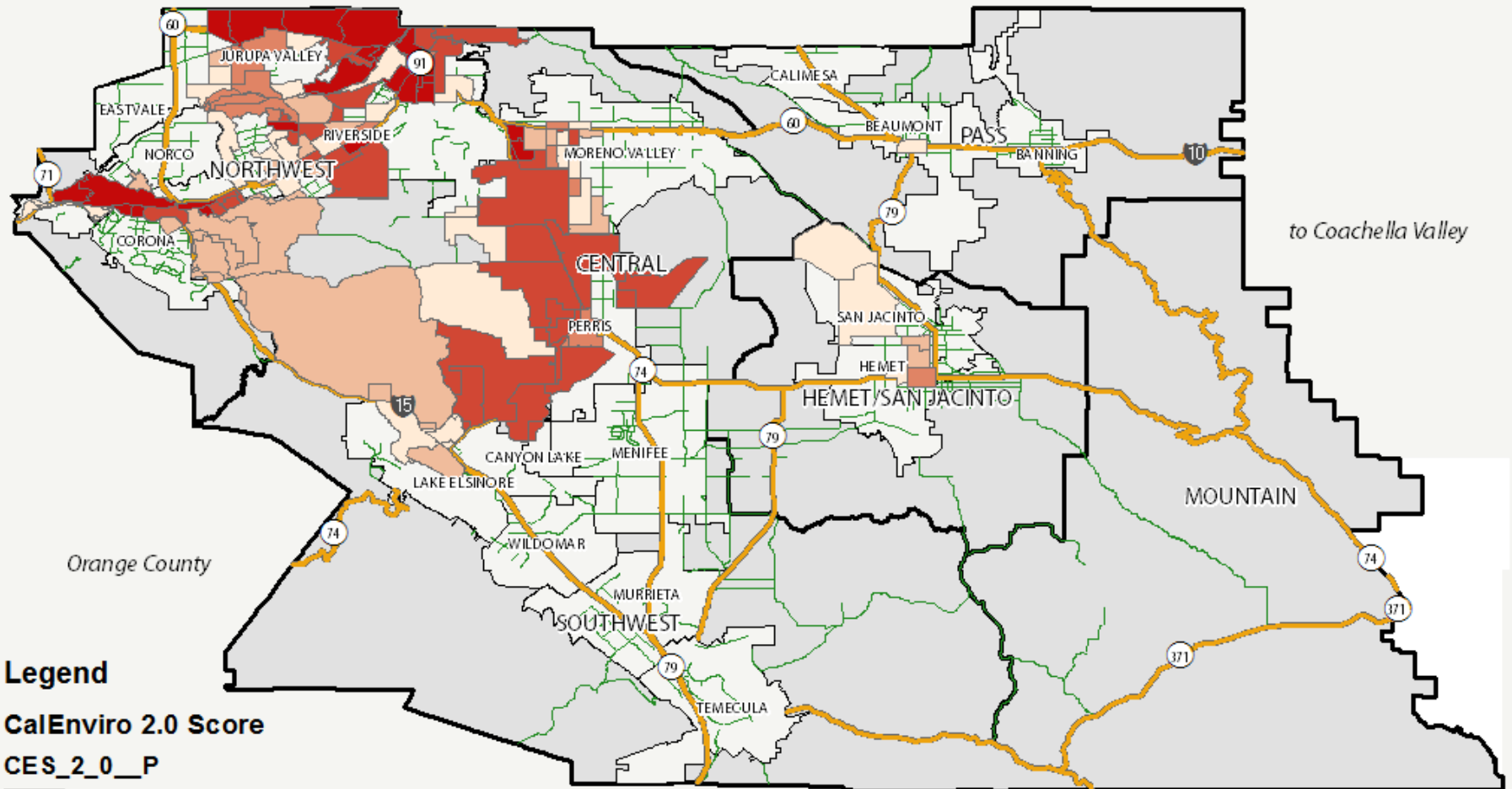
Physical Activity



Disadvantaged Communities

1. Cal Enviro Score > 80%
2. Median Income < 80% state average (\$49,100)
3. Schools > 80% students receive free or reduced school lunches

San Bernardino County



Legend

CalEnviro 2.0 Score

CES_2_0_P

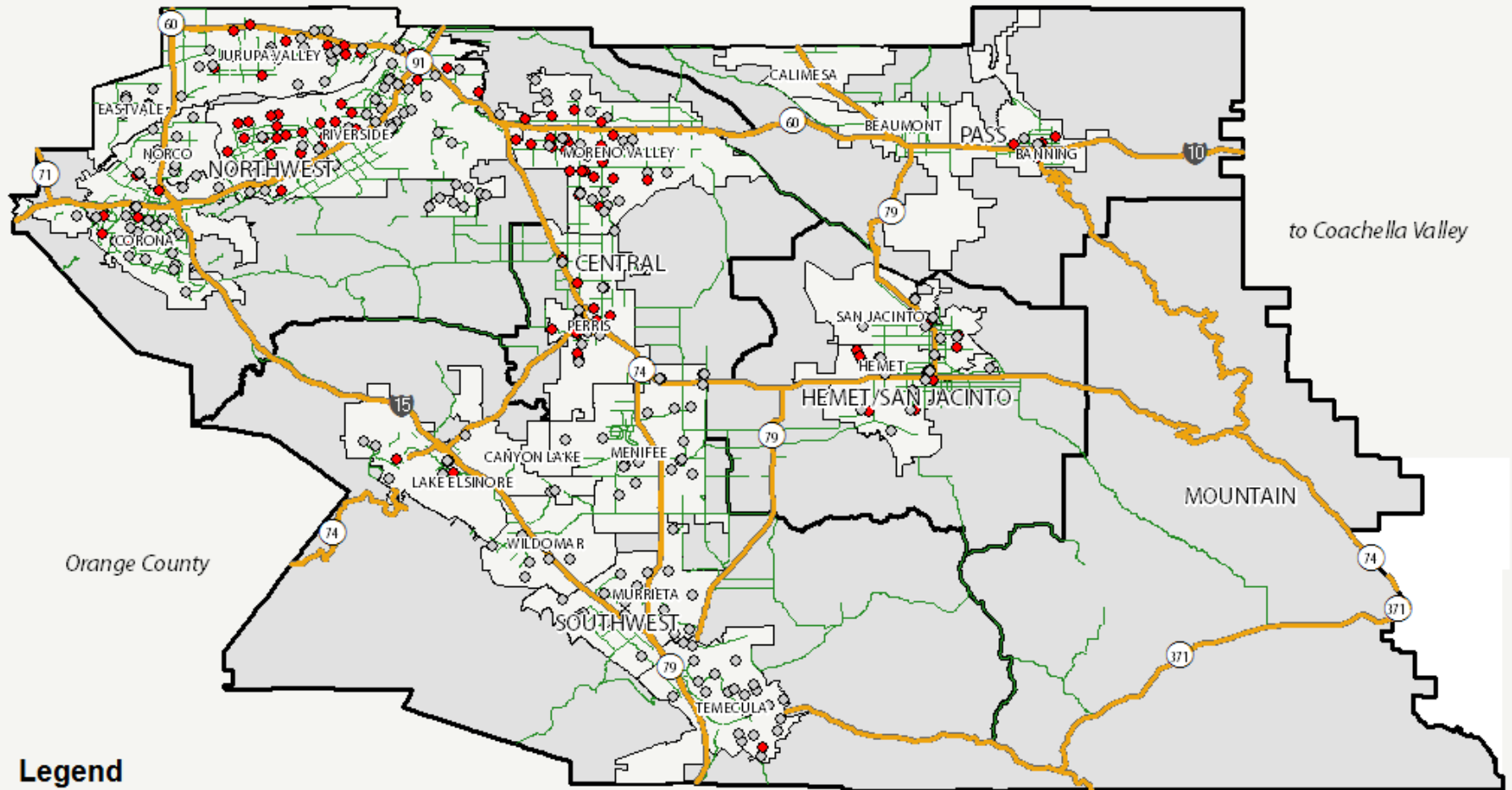
- 76-80%
- 81-85%
- 86-90%
- 91-95%
- 96-100% (highest scores)

Data obtained from RIVCOOT.org.
Map created May 5th, 2016.

0 5 10 Miles



San Bernardino County



Legend

WRCOG Schools

PerFRLP_

- ◊ 0% - 79%
- 80% - 100%

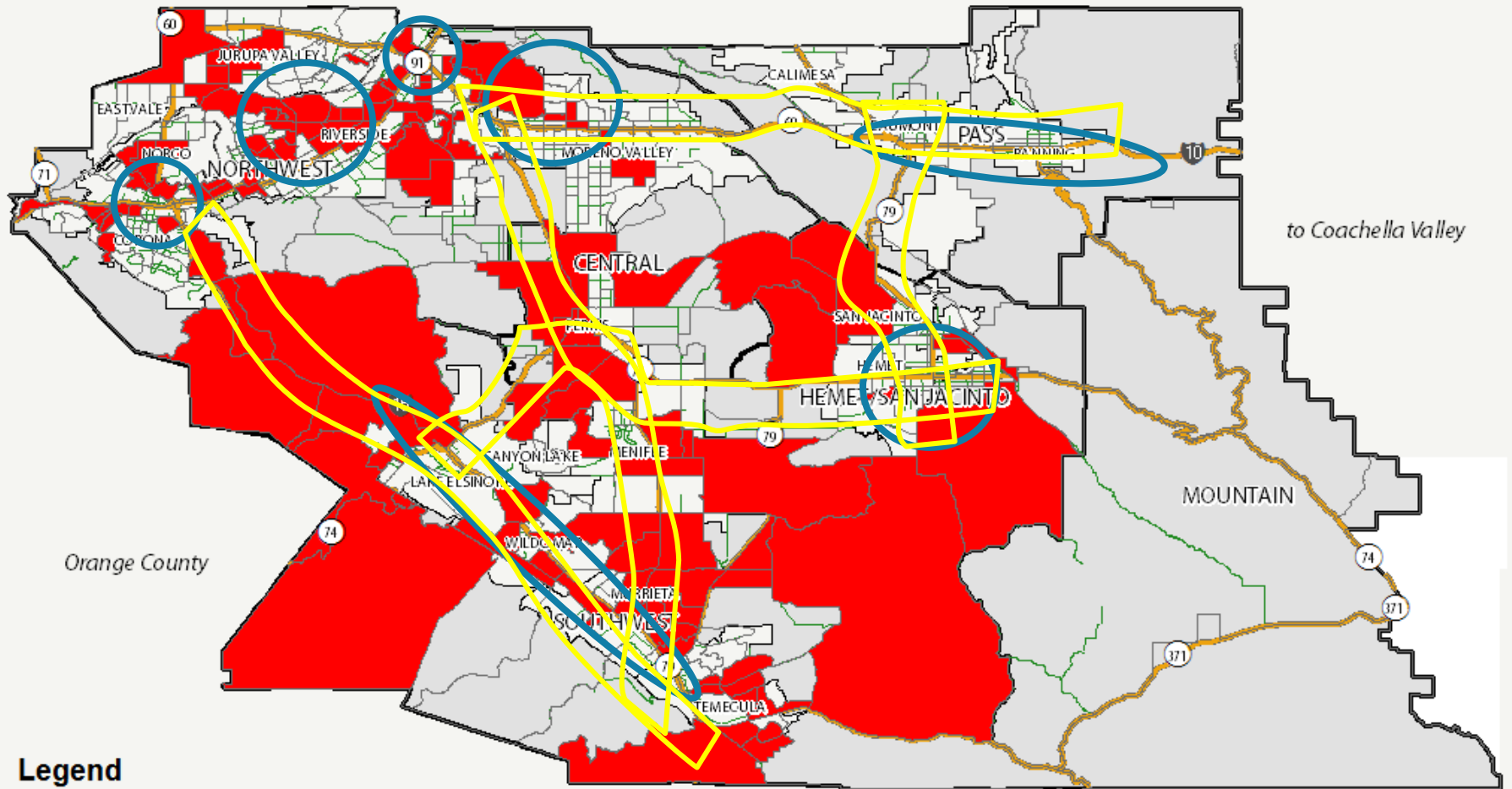
San Diego County

Data obtained from RIVCOIT.org.
Map created Nov. 2013

0 5 10 Miles



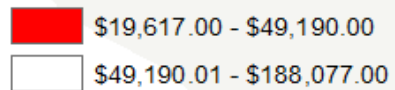
San Bernardino County



Legend

Median Income

MedInc



San Diego County

Data obtained from RIVCOIT.org.
Map created Nov. 30, 2019.



Working Group Feedback

- Does this reflect high priority locations?
- Are there any you expected to see and did not?
- Are you surprised by any?

Working Group Feedback

- Collision review reflective of experiences?
- Demand/potential for regional corridors?
 - Destinations
 - Facility gaps
 - Safety concerns
 - Equity
 - Community support
 - Existing/latent demand
- On-going/upcoming related efforts?



Working Group Meeting Topics

- May 2016: Existing conditions preview and future facility brainstorm
- August 2016: Existing conditions overview and Goals and Objectives review
- November 2016: Preliminary regional ATP network and feedback
- February 2017: Health, Safety, and Education focus
- May 2017: WRCOG Cost Tool training
- August 2017: Draft WRCOG ATP

Questions?



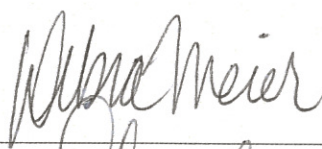
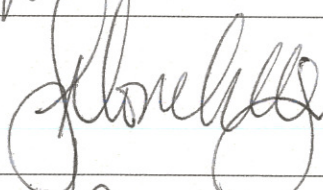
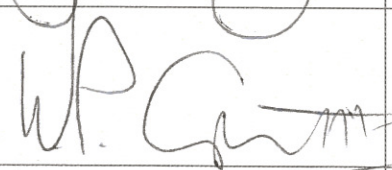
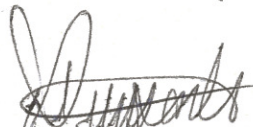
RIV CO ActiveTransNetwork

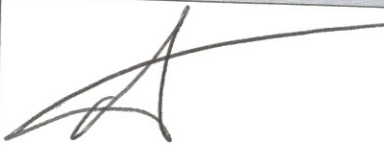
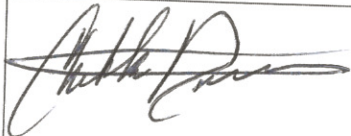
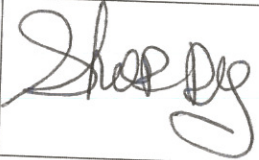
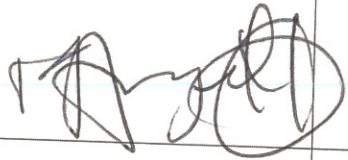
SIGN-IN SHEET

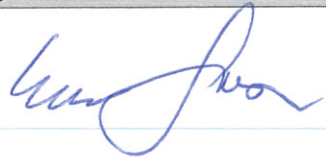
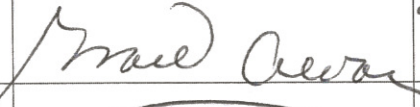
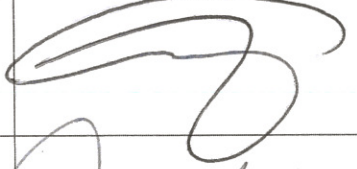
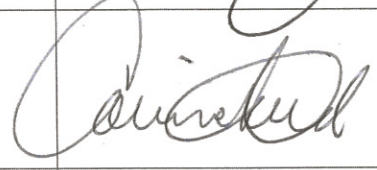
Meeting Location: - Southern California Association of Governments – Riverside Office

Meeting Date: 9/21/2016

Please complete contact information so that we can add you to our contact list.

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WRCOG Working Group Meeting Notes

Thursday, October 20, 2016

Riverside SCAG Offices

3403 10th St, #805

Riverside, CA 92501

Goals

- Reduce VMT
- Incentives for all users
- SR2S/Safe Routes to Destinations
 - Mary – Address obstacles
- Cal State Bike Plan
 - Multi Modal Access
 - Vibrant Economy
 - Livable Communities
 - Social Equity
 - Public Safety
 - Environmental Stewardship
- Coordinate mobility and land use planning
 - Healthy land uses and densities
- Capacity Building
 - Elected Officials
 - Staff
 - Community Engagement

Objectives

- Performance Metrics
 - Collision rates
 - Reduce severity and number of bicycle and pedestrian collisions

Add to Matrix

- Caltrans State Bike Plan
- Sustainability
- State Law

Collision for Cities

- Existing conditions analysis
- Summary statistics
- Recommendations



Western Riverside Active Transportation Plan

Project Update

Existing Conditions Report

- Analyzed collision data
 - Identified overall trends
 - Collision types
 - Collision factors
 - Collision times
 - Collision locations
- Conducted health analysis
 - Existing health conditions by jurisdictions
 - Identified disadvantaged communities

Mission

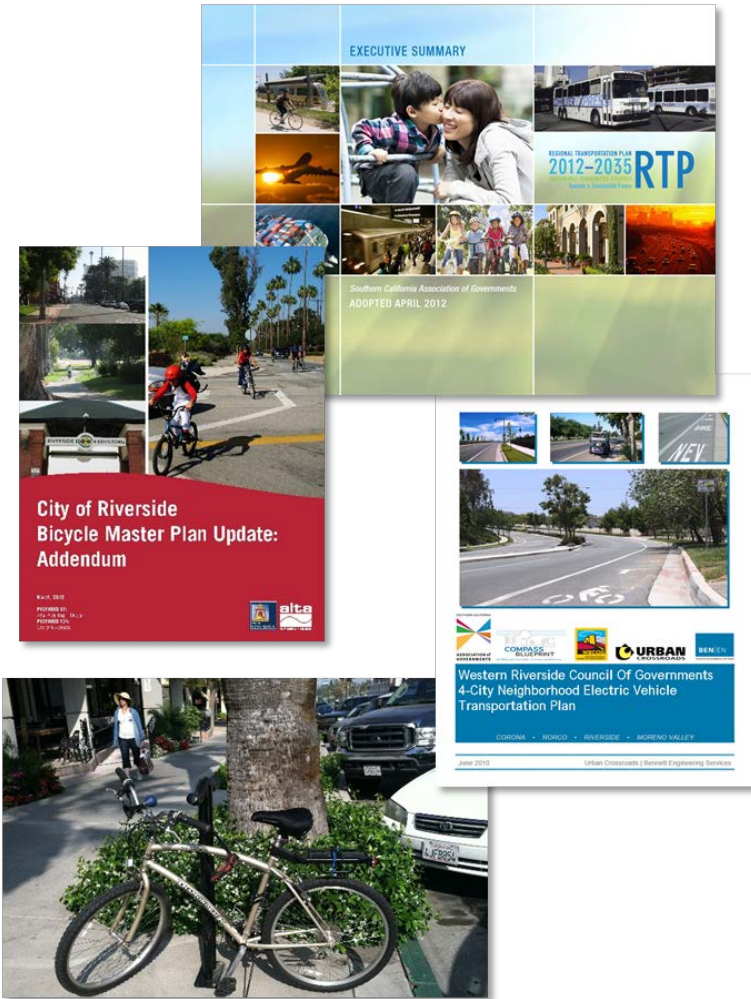
WRCOG seeks to improve transportation choices within the WRCOG region that will benefit all residents, employees and visitors within Western Riverside County. The ATP furthers this vision by identifying regional facilities to provide more transportation options within the WRCOG subregion. The ATP will also seek to identify funding opportunities to plan and construct projects to enhance the Western Riverside County's active transportation network. WRCOG sees its role as a facilitator towards future improvements, relying on our member agencies to conduct studies and implement future projects in furtherance of these overall goals.

Existing Sources for Goals

	NMTP	SCAG RTP/SCS	Subregional CAP	SB 743*	State Plan	Sustainability Strategy	State Law
<i>Active Transportation Facilities</i>	X	X	X	X			
<i>Greenhouse Gas Reduction</i>	X	X	X				
<i>Safety</i>	X	X					
<i>VMT</i>	X	X	X	X			
<i>Access</i>	X	X	X				
<i>AT Funding</i>	X	X					

* State legislation does not have a set list of "goals"

ATN Input



- What **goals** should be used to guide the framework of the Active Transportation Plan?
- Which **objectives** would help provide specific and measurable steps towards achieving these goals?

Draft Goals

1. Maximize regional mobility through AT.
2. Address safety and barriers to access in areas of traffic and bicycle/pedestrian activity.
3. Create affordable AT options to reduce criteria pollutants, greenhouse gas emissions, and lower VMT.
4. Using active transportation as a way to integrate physical activity.
5. Foster equitable and economically vibrant communities with greater transportation choices and access.

Draft Objectives

1. Create a regional active transportation network through coordination among member cities and regional entities.
2. Develop programs and policies focused on education/encouragement, enforcement, equity, economics, and evaluation.
3. Provide guidance for setting regional active transportation policies and develop guidelines to encourage future investments.
4. Increase dedicated funding for bicycle and pedestrian infrastructure and expedite implementation.
5. Promote healthy and active living with increased physical activity for residents of all ages.
6. Improve connectivity to important local and regional destinations.
7. Create a safer environment by decreasing fatalities and injuries.

Strategies

Different Categories –

- Safety
- Accessibility
- Maintenance and Funding
- Education/Community Involvement
- Encouragement/Evaluation

ATN Input

- Are there specific **performance metrics** the ATN feels would best measure the impact of active transportation improvements?



Draft Performance Metrics

Performance Metric	Project Level	County-Wide Level	Initial Baseline (2016)	Potential Benchmark	Available Data Sources
Percent trips completed by bicycle or by walking		X			2009 National Household Travel Survey
Miles of installed bicycle facilities, by class		X			Self-reported by jurisdictions
Total capital funding allocated to bicycle/pedestrian improvements		X			Self-tracked/self-reported by WRCOG
Total planning funding allocated to bicycle/pedestrian improvements		X			Self-tracked/self-reported by WRCOG
Collision statistics (number by mode, percent by mode for severe injury and fatal crashes)		X			State-Wide Integrated Traffic Reporting System (SWITRS)
Number of Cities with Bicycle/Pedestrian Plans (5 years or less)		X			Self-tracked/self-reported by WRCOG

Thank you!



Strategies: Safety

Examples –

- Address the actual and perceived safety/security concerns that limit biking and walking from being considered as viable mode choices through targeted educational efforts.
- Enforce proper and safe driving, bicycling, and walking practices and habits.
- Build bicycle and pedestrian infrastructure that is removed, protected, or buffered from automobiles.
- Provide adequate and consistent lighting along active transportation facilities.

Strategies: Accessibility

Examples –

- Prioritize corridors with existing or planned bicycle/pedestrian facilities.
- Provide bicycle detection at intersections and pedestrian activated push-buttons.
- Install bicycle parking throughout downtown retail areas (individual cities).

Strategies: Maintenance and Funding

Examples –

- Improve pavement condition and give priority to designated bike routes and corridors with high bicycle ridership.
- Keep roads and bike lanes clear of debris (prioritize street sweeping on routes with curbside bike lanes).
- Identify employees who will serve as a bicycle and pedestrian coordinator and manage non-motorized transportation projects and ongoing route maintenance.
- Coordinate street repaving, facility upgrades, and restriping with bicycle plan implementation and prioritize projects that include bicycle infrastructure.

Strategies: Education/ Community Involvement

Examples –

- Pursue Office of Traffic Safety grants for outreach campaigns.
- Establish Bike-Friendly Business Districts (BFBD).
- Conduct active transportation demonstrations through tactical urbanism, informing the community of what types of facilities could-be made permanent.

Strategies: Encouragement/Evaluation

Examples –

- Establish a large-scale car-free day similar to the popular events thorough Southern California. Open streets events have proven to be an effective strategy to encourage active living.
- Conduct walk/bicycle audits as part of outreach strategies for new development projects or as a comprehensive Safe Routes to School (SRTS) program.
- Develop metrics to measure the impact of walking and bicycling on public health, resident and merchant perceptions, environmental impact, amount of cycling, and safety

RIV CO ActiveTransNetwork

SIGN-IN SHEET

Meeting Location: SCAG Office- Riverside

Meeting Date: 11/16/16

Please complete contact information so that we can add you to our contact list.

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Western Riverside Active Transportation Plan

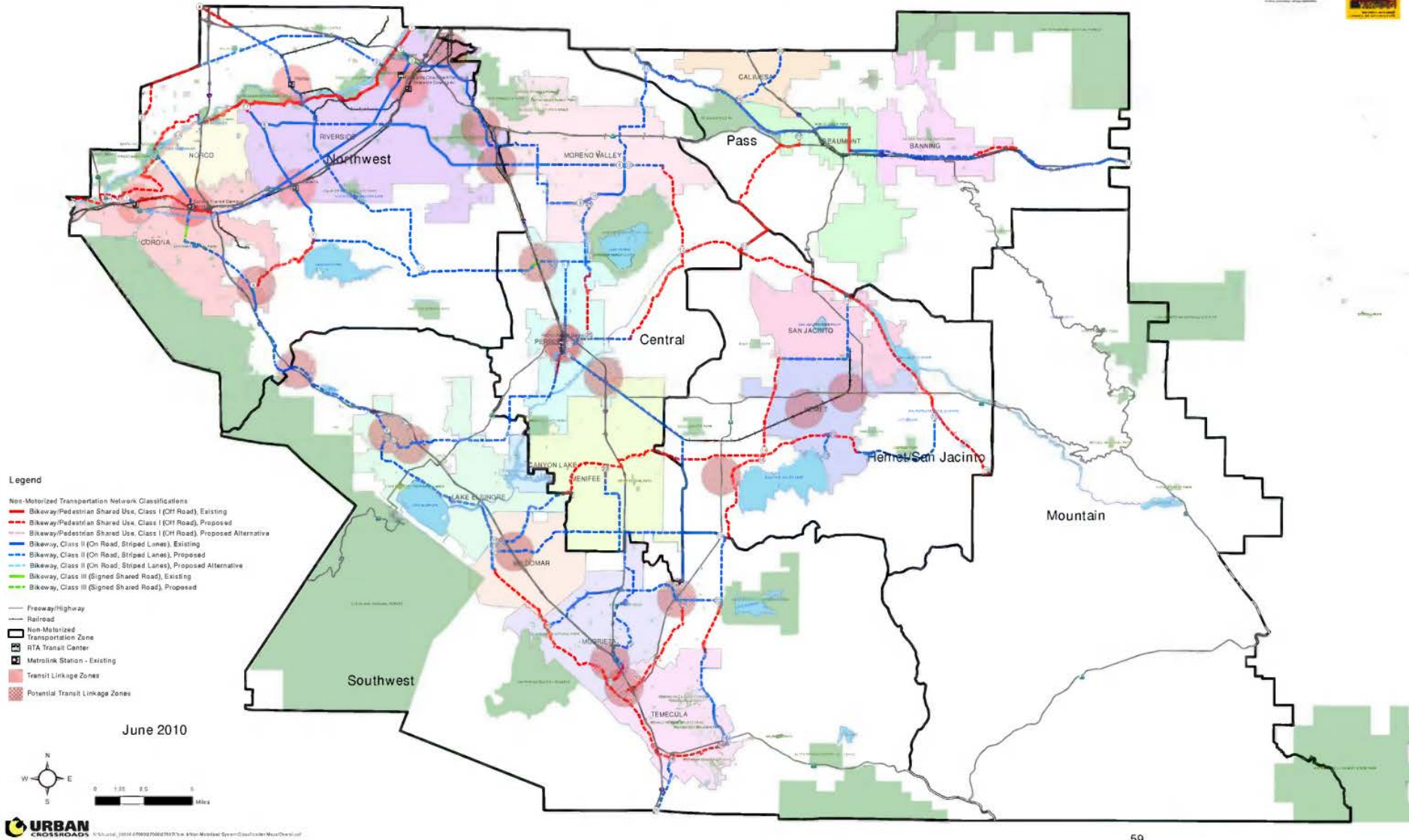
Project Update

- Finalized Existing Conditions Report
- Health, Safety & Education Metrics
- Drafted Goals & Objectives
- Drafting Active Transportation Network
- On-going stakeholder involvement
 - Riverside ATN
 - WRCOG staff and forums
 - Individual agencies

Draft Goals

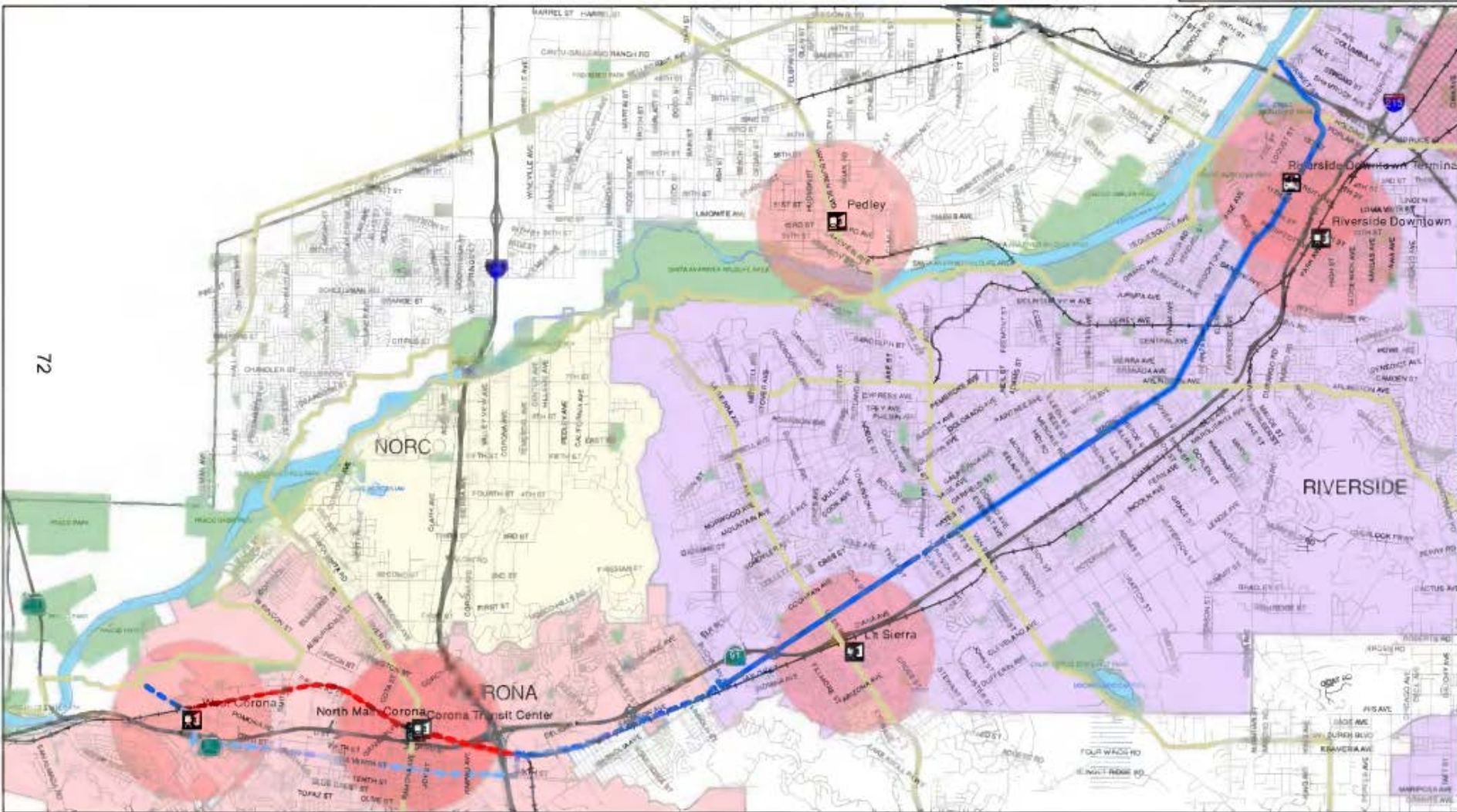
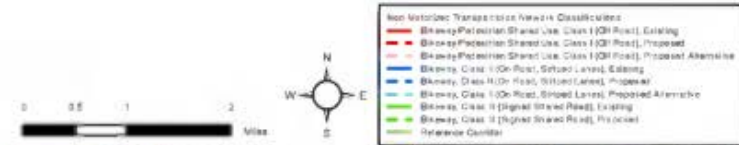
1. Maximize **regional mobility** through AT.
2. Address **safety** and barriers to access in areas of traffic and bicycle/pedestrian activity.
3. Create affordable AT **options to reduce** criteria pollutants, greenhouse gas emissions, and lower VMT.
4. Using active transportation as a way to integrate **physical activity**.
5. Foster **equitable and economically** vibrant communities with greater transportation choices and access.

WRCOG NON-MOTORIZED TRANSPORTATION NETWORK





CORRIDOR 3 - SR 91 CORRIDOR - MAGNOLIA NON-MOTORIZED TRANSPORTATION PLAN NETWORK



WRCOG Regionally Significant Project Matrix

- Street Name/Project Name
- To/From
- Traverses multiple jurisdictions? How many and which ones?
- Provides access to or across barriers?
- Provides access to regional transportation facilities (transit, bike paths)?
- Funding available?
- Construction Horizon (Short, Medium, Long-term?)
- Are there similar facilities in the area that serve a similar purpose?
- Key destinations along route
- Notes

WRCOG Regionally Significant Project Matrix

Construction Horizon (Short, Medium, Long-term?)	Are there similar facilities in the area that serve a similar purpose?	Key destinations along route	Notes
	Class I route along Santa Ana River (also goes E/W)	Downtown Riverside, Downtown Corona	Challenges include: High speed arterials, many intersections/crossings

Draft Objectives

1. Create a **regional** active transportation **network** through coordination among member cities and regional entities.
2. Develop **programs** and **policies** focused on education/encouragement, enforcement, equity, economics, and evaluation.
3. Provide guidance for setting regional active transportation policies and develop guidelines to encourage **future investments**.
4. Increase dedicated **funding** for bicycle and pedestrian infrastructure and expedite **implementation**.
5. Promote **healthy and active living** with increased physical activity for residents of all ages.
6. Improve **connectivity** to important local and regional destinations.
7. Create a **safer** environment by decreasing fatalities and injuries.

Strategies

Different Categories –

- Safety
- Accessibility
- Maintenance and Funding
- Education/Community Involvement
- Encouragement/Evaluation
- Equity

Strategies: Safety

Examples –

- Address the actual and perceived safety/security concerns that limit biking and walking from being considered as viable mode choices through targeted educational efforts.
- Enforce proper and safe driving, bicycling, and walking practices and habits.
- Build bicycle and pedestrian infrastructure that is removed, protected, or buffered from automobiles.
- Provide adequate and consistent lighting along active transportation facilities.

Strategies: Accessibility

Examples –

- Prioritize corridors with existing or planned bicycle/pedestrian facilities.
- Provide bicycle detection at intersections and pedestrian activated push-buttons.
- Install bicycle parking throughout downtown retail areas (individual cities).

Strategies: Maintenance and Funding

Examples –

- Improve pavement condition and give priority to designated bike routes and corridors with high bicycle ridership.
- Keep roads and bike lanes clear of debris (prioritize street sweeping on routes with curbside bike lanes).
- Identify employees who will serve as a bicycle and pedestrian coordinator and manage non-motorized transportation projects and ongoing route maintenance.
- Coordinate street repaving, facility upgrades, and restriping with bicycle plan implementation and prioritize projects that include bicycle infrastructure.

Strategies: Education/ Community Involvement

Examples –

- Pursue Office of Traffic Safety grants for outreach campaigns.
- Establish Bike-Friendly Business Districts (BFBD).
- Conduct active transportation demonstrations through tactical urbanism, informing the community of what types of facilities could-be made permanent.

Strategies: Encouragement/Evaluation

Examples –

- Establish a large-scale car-free day similar to the popular events thorough Southern California. Open streets events have proven to be an effective strategy to encourage active living.
- Conduct walk/bicycle audits as part of outreach strategies for new development projects or as a comprehensive Safe Routes to School (SRTS) program.
- Develop metrics to measure the impact of walking and bicycling on public health, resident and merchant perceptions, environmental impact, amount of cycling, and safety

Strategies: Equity

Examples –

- Improve the ability of traditionally underserved communities to travel safely and conveniently via walking or biking
- Involve the community in the planning process, with a foundation of transparency, inclusiveness, respectfulness, and trustworthiness.
- Develop active transportation routes that connect residents to key destinations including school, work, and shopping.

Thank you!



Non-Motorized Network Assessment

#	Name	Regional Connection	Links to Transit	Safety/ Low Stress	Equity	Recreational Opportunity
1	Santa Ana River	X	X	X		X
3	91 Corridor – Magnolia	X	X	X	X	
4	Van Buren – Washington	X	X	X	X	

Mission

WRCOG seeks to improve transportation choices within the WRCOG region that will benefit all residents, employees and visitors within Western Riverside County. The ATP furthers this vision by identifying regional facilities to provide more transportation options within the WRCOG subregion. The ATP will also seek to identify funding opportunities to plan and construct projects to enhance the Western Riverside County's active transportation network. WRCOG sees its role as a facilitator towards future improvements, relying on our member agencies to conduct studies and implement future projects in furtherance of these overall goals.

Existing Sources for Goals

	NMTP	WRCOG Sustainability Framework	TUMF	Subregional CAP	SCAG RTP/SCS	SB 743*	California Statewide Bike/Ped Plan
<i>Active Transportation Facilities</i>	X	X		X	X	X	X
<i>Greenhouse Gas Reduction</i>	X	X	X	X	X		X
<i>Safety</i>	X				X		X
<i>VMT</i>	X	X	X	X	X	X	
<i>Access</i>	X	X		X	X		X
<i>AT Funding</i>	X	X	X		X		

* State legislation does not have a set list of "goals"

RIV CO Active Trans Network

SIGN-IN SHEET

Meeting Location: Riverside

Meeting Date: 2/15/2017

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Western Riverside Active Transportation Plan

Project Update

- Finalized Existing Conditions Report
- Finalized Goals & Objectives
- Health, Safety & Education Metrics
- Drafting Active Transportation Network
- On-going stakeholder involvement
 - Riverside ATN
 - WRCOG staff and forums
 - Individual agencies

Regional Coordination

Regional efforts that can cross-collaborate

1. WRCOG ATP
2. RTA First-mile/Last-mile
3. Sustainability Framework
4. TUMF
5. Local plans
6. Parks/Recreation/Utilities

Outreach Process

- Presentation and initial correspondence
December 2016
 - Reviewed criteria
 - Matrix included with email
- Response collection between December 2016-
January 2017
 - Most jurisdictions provided completed Matrix, some with supporting materials
 - Project list composed based on review of projects relative to regional project criteria established for WRCOG ATP
 - Will prepare project sheets for 15 key regional facilities

WRCOG Regionally Significant Project Matrix

Provi to c bi	Key destinations along route	Notes	Similar e area milar ?
I-15 Teme BNSF F	Lake Elsinore Riverwalk Trail, Santa Ana River Trail, Lake Elsinore Outlets, Corona Crossings, Multiple Local Parks	This trail system would provide bicycle and pedestrian access from near the Lake Elsinore/Wildomar city limits up to the Santa Ana River Trail in Corona. The trail runs parallel to the Lake Elsinore Riverwalk Trail in Lake Elsinore and then runs along the I-15/Temescal Wash up through Corona. It will link to additional bicycle, pedestrian, transit, and recreational facilities throughout its length.	

WRCOG Regionally Significant Project Matrix

#	Street Name/Project Name	Potential Facility Type	To	From	Traverses multiple jurisdictions? How many and which ones?
1	Harrison Road Diet	Class II, Class IV, Road Diet Separation	Ontario Limit to North	Chandler/Santa Ana Regional Trail	Proposed trail network to Santa Ana Regional Trail

Project Prioritization

- Does the local project cross or travel along a regional route (from the NMTP)?
- Did multiple jurisdictions recommend the same project?
- Matrix questions
 - Traverses multiple jurisdictions? How many and which ones?
 - Provides access to regional transportation facilities (transit, bike paths)?
 - Key destinations along route
 - Are there similar facilities in the area that serve a similar purpose?
 - Provides access to or across barriers?
 - Funding available?
 - Construction Horizon (Short, Medium, Long-term?)



Results

- Geographically diverse projects
- ~30 local projects considered for regional active transportation network
- Remaining local projects to be categorized as other regional efforts (such as first-mile/last-mile) or maintained as local projects



Santa Ana River Trail

Thank you!



RIV CO ActiveTransNetwork

SIGN-IN SHEET

Meeting Location: Riverside

Meeting Date: 09/20/2017

Please complete contact information so that we can add you to our contact list.

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Western Riverside Active Transportation Plan

Regional Coordination

Regional efforts currently collaborating:

1. WRCOG ATP
2. RTA First-mile/Last-mile
3. Regional Trails
4. TUMF
5. Local plans
6. Sustainability Framework

ATP Route Development Process

- Developed regional framework by adapting NMTP
 - Identified important regional active transportation corridors with WRCOG ATP staff
- Presentation of initial Regional Network in December 2016
 - Local Routes with Regional Significance Matrix sent to all jurisdictions and stakeholders
- Matrix response collection between December 2016-January 2017
- Continued correspondence with jurisdictions and stakeholders (through July 2017)
- Finalized ATP network (August 2017)

On-going Correspondence

- After matrices were submitted, project team developed a list of local project most applicable to Regional Network
- Several rounds of jurisdiction/stakeholder vetting followed
 - One-on-one discussions between jurisdictions and consultant team to determine final local route
 - Draft lists and maps shared with other stakeholders like ATN and EMWD

Project List

#	Route Name	Length (miles)	Recommended by	Local Route Overlaps	Local Route Intersects	RTA First/Last Mile
1	Santa Ana River	26.8				
	Harrison Road Diet	4.5	Eastvale		X	
	Hamner Bikeway	5.4	Eastvale		X	Complements
2	91 Corridor via Magnolia	19.7				Overlaps
	Butterfield Overland Trail	6.1	Corona		X	
	Jurupa / Olivewood	3.4	Riverside		X	
	Vine / Mission Inn	1.6	Riverside		X	Complements
	La Sierra	3.2	Riverside		X	
3	Cajalco – San Bernardino Co. Line via Van Buren	18.9				
	Van Buren Boulevard	3.9	Jurupa Valley	X (entire route)		
	Arlington Ave	7.9	Riverside		X	
	Bellegrave Ave	6.2	Eastvale		X	
	Jurupa Road Corridor	8.2	Jurupa Valley		X	
	Holmes Ave/Limonite Ave	5.1	Jurupa Valley		X	
	San Sevaine Trail	4.2	Jurupa Valley		X	
4	15 Corridor via Temescal Canyon	20.8				
	Ontario Ave	2.9	Corona		X	
	Butterfield Overland Trail	7.2	Lake Elsinore	X		
5a	East Corona – Lake Perris via El Sobrante	19.0				Complements
5b	East Corona – <i>Lake Perris (Alternative) via Cajalco Rd</i>	17.7				
6	Bautista Creek – Perris via San Jacinto River	25.8				
	Juan Bautista De Anza Historic Trail (on San Jacinto River Levee)	5.4	San Jacinto	X		

Project List

	4th Street/San Jacinto Ave	2.2	Perris	X		Complements
	Perris Valley Channel Multi-Purpose Trail (Phase 2)	3.5	Perris		X	
	Bernasconi Rd	2.0	Moreno Valley		X	
7	San Timoteo Canyon Rd – Ramona Expy	13.3				Overlaps
	Alessandro Boulevard	7.8	Moreno Valley	X		
	Iris Avenue	4.1	Moreno Valley	X		
	JFK Drive	1.2	Moreno Valley	X		
	Redlands Blvd	5.8	Moreno Valley	X		
8	San Bernardino Co – Interstate 10 Pass Area via San Timoteo Canyon Rd	29.3				
9	San Jacinto River Park – Diamond Valley Lake [Adjusted]	11.6				
	Hemet Valley Bikeway Connect	10.3	Hemet	X (entire route)		
	Salt Creek Trail - B	2.2	Riverside County	X		
10	Bautista Creek – Mission Trail via Salt Creek/Lost Rd/Lemon St	31.2				Overlaps
	Salt Creek Trail - A	4.2	Riverside County	X		
	Newport Rd	6.1	Menifee		X	
	Murrieta	8.5	Menifee		X	
11	Lake Elsinore – Murrieta Creek	24.9				Complements
	Murrieta Creek Regional Trail	5.6	Wildomar	X		
	Santa Gertrudis Interconnect	1.4	Temecula	X		Overlaps
	Butterfield Overland Trail	7.2	Lake Elsinore		X	
	Murrieta Creek Trail/Union	3.6	Lake Elsinore			
12	Aberhill Ranch – Ramona Expy via Perris Blvd	18.0				Overlaps
	Perris Blvd	5.6	Perris	X		Overlaps

Project List

	Nuevo Rd	2.0	Perris		X	
13	Jefferson Ave – Lake Skinner	9.9				
14	215 South Corridor	14.1				
	Scott-Haun-Newport	3.0	Menifee	X		
	Scott	6.1	Menifee		X	
	Newport Rd	6.1	Menifee		X	
	Bundy Canyon Active Transportation Corridor	3.0	Wildomar			
	Sunset Regional Trail	4.2	Wildomar			
15	215 Central Corridor <i>[Partial]</i>	21.4				Overlaps
16	Gilman Springs Rd – Beaumont	11.4				
17	Lake Skinner – San Diego Co	11.6				
18	<i>Riverside Hunter Park – Downtown Menifee</i>	6.4				
	MLK Bike Path	1.3	Riverside	X		
	Canyon Crest	0.9	Riverside	X		
	Perris Downtown to South Metrolink Station Connectivity	2.2	Perris	X		Complements
	Perris Valley Channel Multi-Purpose Trail (Phase 2)	3.5	Perris		X	
	Murrieta Rd	1.4	Perris		X	
	Gage Canal	1.1	Riverside		X	
19	<i>Eastern Riverside – Moreno Beach Dr via Ironwood Ave</i>	7.0				
	Ironwood Avenue / Box Springs Road	8.6	Moreno Valley	X		
	Heacock St	4.0	Moreno Valley		X	
20	<i>Lake Matthews Loop</i>	8.7				
21	<i>Lake Elsinore Loop</i>	10.7				
	Wildomar Trail	4.7	Wildomar	X		
	Butterfield Overland Trail	7.2	Lake Elsinore	X		
22	<i>Pave Diamond Valley Lake Lakeview Trail (low priority)</i>	13.1				Complements

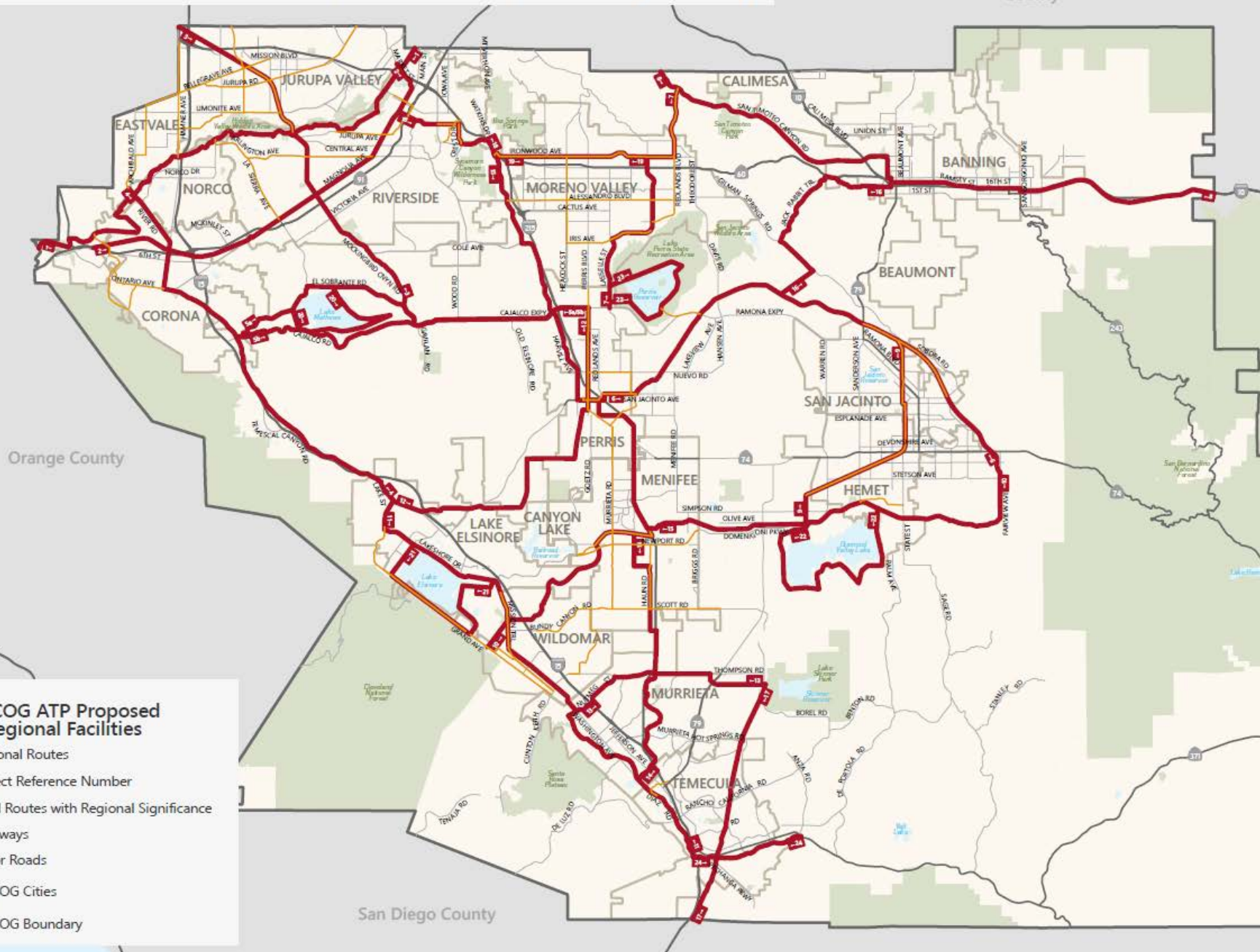
Project List

23	<i>Complete Perris Reservoir Loop</i>	9.0				Complements
24	Murrieta Creek - Temecula Creek	5.4				



Draft WRCOG Active Transportation Regional Project Map

San Bernardino County



Results

- ~40 local projects considered for regional active transportation network
- Geographically diverse projects
- Most locally “valuable” routes chosen



Santa Ana River Trail

Next Steps

- Request agency approval
- Complete report (focus on pursuing funding)
- WRCOG exploring TUMF and other options
- Agencies implement

Thank you!



RIV CO ActiveTransNetwork

SIGN-IN SHEET

Meeting Location: Riverside

Meeting Date: 11/13/2017

Please complete contact information so that we can add you to our contact list.

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RIV CO ActiveTransNetwork

SIGN-IN SHEET

Meeting Location: Riverside

Meeting Date: 2/21/18

Please complete contact information so that we can add you to our contact list.

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Name	Organization	Position	Phone	E-Mail
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Andrea Morey	RUHS-PH	Program Coord. I		amorey@rivcocha.org

WRCOG Member Agency Outreach Materials

Steven Keith

From: Tzeng, Christopher <Tzeng@wrcog.cog.ca.us>
Sent: Monday, November 28, 2016 11:53 AM
Cc: Gray, Christopher J.; Tzeng, Christopher; Steven Keith; Miguel Nunez
Subject: WRCOG Agency Request for Active Transportation Regional Facilities Input
Attachments: Jurisdiction_WRCOGATPMatrix.xlsx; 2010_NMTP_Network.pdf

Dear PDC and PWC Members:

WRCOG is working on an Active Transportation Plan (ATP) to identify needs and opportunities for people who bike and walk throughout the region. Part of this effort includes a framework that will enhance active transportation mobility and safety by helping local jurisdictions identify local projects with regional significance. This effort is built off the network established by the *Western Riverside County Non-Motorized Transportation Plan (NMTP, 2010)* and is intended to help identify and promote active transportation as a viable travel alternative for meeting the mobility needs of residents, workers, and visitors in the region.

We are reaching out to the WRCOG member agencies in an effort to identify a vetted list of local projects with regional significance. We understand that many jurisdictions already have local bike and pedestrian master plans, and we will not duplicate these efforts. Our goal is to help develop a regional network that connects to key regional facilities and elevates these projects to be included in local and regional plans, which can be leveraged for funding opportunities.

The matrix attached to this email has several criteria for identifying projects. Each jurisdiction has the opportunity to name facilities that would have regional significance for their municipality and include their proposed facility type and location. **We are primarily looking for input to new projects, though Cities may resubmit facilities included in the 2010 NMTP.** There are also columns corresponding to the criteria below to help the project team understand the project's regional significance, such as:

- Does this route traverse multiple jurisdictions (regional facility network)? If so, how many?
- Does it provides access to or across barriers like freeways and waterways (over/underpass, trails, inclusion of local streets that provide viable alternatives)?
- Does it provide access to regional transportation facilities (first/last mile network to high-use/high-frequency transit options)?
- Is any funding in place, such as a local match program?
- Is there a construction horizon (short, medium, or long-term)?
- Are there similar facilities in the area that serve a similar purpose?
- Any key destinations along the route?

Once we have collected project lists from each jurisdiction we will use it to inform a regional network for WRCOG. This network will also be developed with transit connections and accessibility in mind, and we will be working in tandem with the Riverside Transit Agency first-mile/last-mile effort. We've also provided a notes column, so you can fill-in additional information, such as:

- Is the facility already part of an existing plan?
- What are the major challenges of this facility?

The project ideas presented in the final WRCOG ATP will be for guidance and local agencies are not committed to the facility type or corridor presented. Ultimately, individual cities have discretion and flexibility to pursue these projects or undertake additional study and analysis that will allow implementation of bicycle/pedestrian facilities that best meet local needs.

We appreciate your time and help with this exercise. Please let us know if you have any questions. **Please return this matrix to Steven Keith (s.keith@fehrandpeers.com) or Christopher Tzeng (Tzeng@wrcog.cog.ca.us) by December 15.**

Regards,

Christopher Tzeng
Program Manager
Western Riverside Council of Governments
4080 Lemon Street
3rd Floor, MS 1032
Riverside, CA 92501-3609
Phone: (951) 955-8379
Fax: (951) 787-7991

Hemet is looking a little different at night! From September 2016 – January 2017, visit the City and experience the largest roadway lighting LED Demonstration Area in Western Riverside County!

For more information and details please visit <http://www.wrcog.cog.ca.us/streetlights>

"Respect Local Control...Provide Regional Perspective"



Exhibit 5.0.1

WRCOG NON-MOTORIZED TRANSPORTATION NETWORK

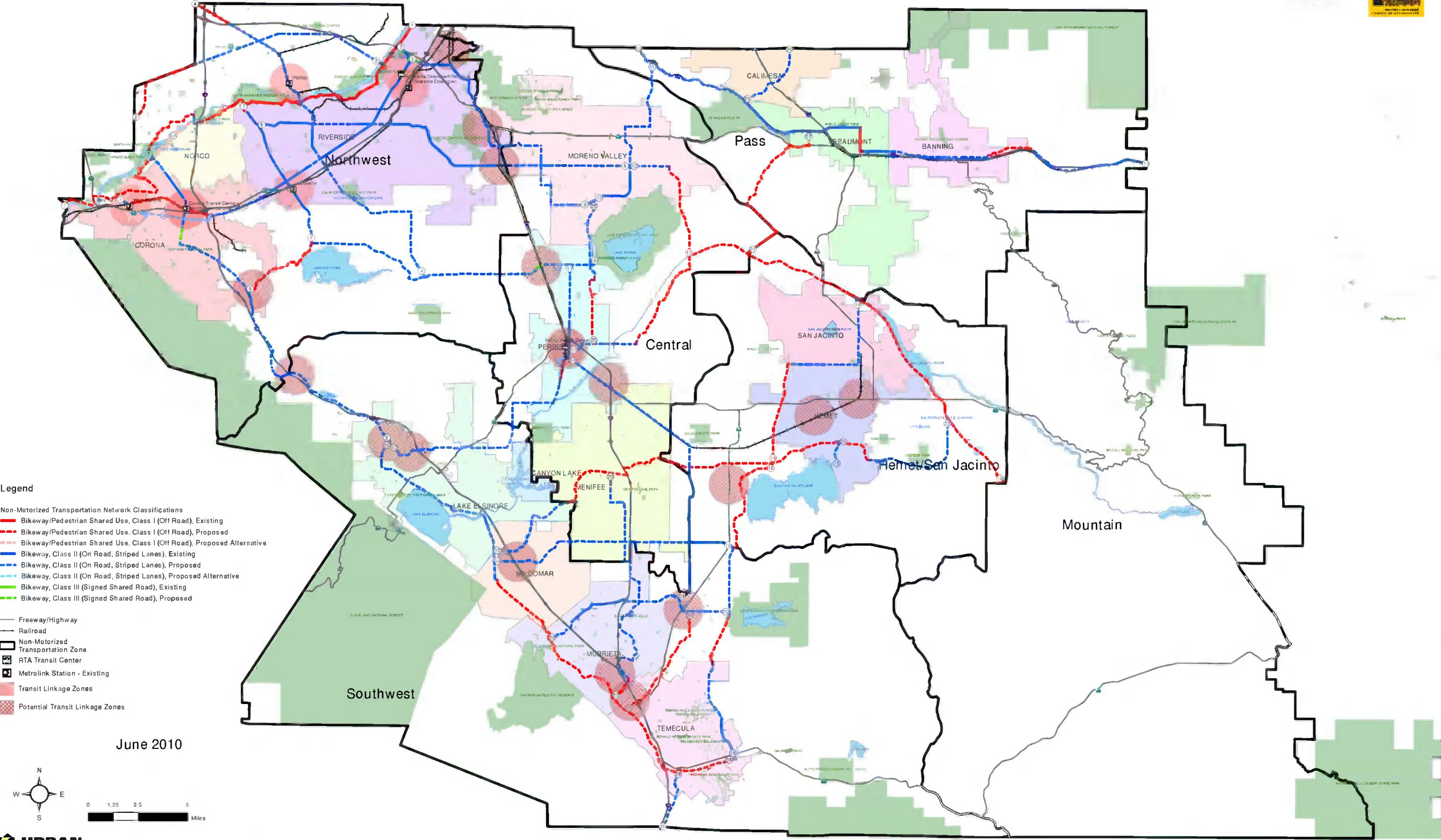


TABLE 1
WRCOG REGIONALLY SIGNIFICANT ACTIVE TRANSPORTATION PROJECTS

#	Street Name/Project Name	Potential Facility Type	To	From	Traverses multiple jurisdictions? How many and which ones?	Provides access to or across barriers?	Provides access to regional transportation facilities (transit, bike paths)?	Funding available?	Construction Horizon (Short, Medium, Long term?)	Are there similar facilities in the area that serve a similar purpose?	Key destinations along route	Notes
1	Harrison Road Diet	Class II, Class 1V, Road Diet Separation	Ontario Limit to North	Chandler/Santa Ana Regional Trail	Corona proposed trail network to Santa Ana Regional Trail	No Barriers	Santa Ana Trail, Parks, Several Cities,	No	Medium	No	Santa Ana Trail Portion, Large Public Parks, Schools, east/west and north/south connections	Subject of ATP Cycle 3 Grant
2	Scholar Way Road Diet	Class II and Class IV	Citrus	Belgrave	Corona future trail network to Santa Ana Regional Trail	No Barriers	Santa Ana Trail, Parks, Several Cities,	No	Medium	No	Santa Ana Trail Portion, Large Public Parks, Schools, east/west and north/south connections	Subject of ATP Cycle 3 Grant
3	65th Street Road Diet	Class II and Class IV	Archibald	Hamner	Connects to 68th Street and Jurupa Valley. Ultimately connects to Chino on the west.	No Barriers	Connects to Jurupa Valley using 68th Street Bridge, Connects to important N/S Streets	No	Medium	No	Connects N/S connections through city, parks, Santa Ana Trail, Jurupa Valley	Subject of ATP Cycle 3 Grant
4	Hamner Bikeway	Class IV	Bellgrave	Citrus	Connects to Corona and Ontario, connects to Santa Ana Trail	No Barriers	Yes	No	Long	No	City Center, Santa Ana Trail, Proximity to Schools	Per Bicycle Master Plan, Class II is more appropriate, due to funding
5	Sumner Bikeway	Class IV	Bellgrave	Citrus	Connects to Corona and Ontario via Citrus and Santa Ana Trail	No Barriers	Yes	No	Long	Yes, See #1-3	Schools, Parks, Regional trails, Future Class I in Ontario	Per Bicycle Master Plan, Class II is more appropriate, due to funding
6	Schleisman Bikeway	Class IV	Hellman	Hamner	Connects to Chino	No Barriers	Yes	No	Long	No	Schools, Parks, Regional trails, North/South Roads	Per Bicycle Master Plan, Class II is more appropriate, due to funding
7	Chandler Bikeway	Class II and Class IV	Hellman	Harrison	Connects Chino to Harrison and other n/s routes	No Barriers	Yes	No	Medium	No	Schools, Parks, Regional trails, North/South Roads	Width for Class II
8	Limonite Bikeway	Class II	Hellman	Archibald	Connects Chino and Jurupa Valley	Barrier, Limonite Section and Cucamonga Bridge Missing	Yes	No	Long	No	Schools, Parks, Regional trails, North/South Roads	Large portions will need to be Striped Class II, The Cucamonga Bridge is in the TUMF. Two sections yet to be developed w/o Archibald
9	Citrus Bikeway	Class II and Class IV	Harrison	Hamner	Connects to Norco and Santa Ana Regional Trail	No Barriers	Yes	No	Long	No	Schools, Parks, Regional Trails and N/S roads	Future development is necessary in the area of Scholar Way and to the east roads

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1	Jurupa Valley Comprehensive Master Plan for Bicycles and Pedestrians	Bicycle and Pedestrian Routes/Facilities	Citywide	Citywide	Within Jurupa Valley	Will address overcoming barriers	Yes, transit, Santa Ana River Trail, etc.	No	Long-Term	There are presently some bicycle and pedestrian facilities in the City	To be determined	The plan is currently under preparation.

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1	Matthews (to Ethanac) - Hwy74	Regional Bike/Trail (Arterial Road)	I-215	Briggs	Yes, Hemet, County, Menifee, Perris	Yes	Yes	??	Medium	Yes	Bus Service points, Residential, Businesses, I-215, Perris Station	
2	Scott-Haun-Newport	Community/Regional Bike/Trail	Paloma Wash (Newport)	Scott	Yes, County, Murrieta, Menifee	Yes	Yes	??	Medium	Yes	I-215, Bus Service Points, Salt Creek Trail	
3	Scott	Community/Regional Bike/Trail	West City limits	Leon Rd	Yes, County, Murrieta, Menifee, Wildomar	Yes	Yes	??	Medium	No	I-215, Businesses, Shopping Center, Residences, Bus Service Points, Wildomar Transit Station	
4	Salt Creek	Regional Bike, Trail	West City limits	Briggs	Yes, County, Menifee, Lake Elsinore, Canyon Lake	Yes	Yes	??	short/medium	No	Recreation Parks, Residences, Businesses, Transit Station	
5	Valley Blvd	Community Bike/Trail;	North City Limits	Murrieta Rd	No	Yes	Yes	??	Long	No	Recreation Parks, Residences, Businesses, schools	
7	Newport Rd	Community Bike/Trail;	City limits	Briggs	No	Yes	Yes	??	Medium	No	Recreation Parks, Residences, Businesses, schools	
8	Murrieta	Bike Lane	North City limits	South City limits	No	Yes	Yes	??	Medium	No	Recreation Parks, Residences, Businesses, schools	
9	Goetz	Bike Lane	North City limits	South City limits	No	Yes	Yes	??	Medium	No	Recreation Parks, Residences, Businesses, schools	

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1	Matthews (to Ethanac) - Hwy74	Regional Bike/Trail	I-215	Briggs	Yes, Hemet, County, Menifee, Perris	Yes	Yes	Not sure??	Medium	Yes	Bus Service points, Residential, Businesses, I-215, Perris Station	

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2	Scott-Haun	Community	Scott	Newport	Yes, County, Murrieta, Menifee	Yes	Yes	??	Medium	Yes	I-215, Bus Service Points, Salt Creek Trail	
3	Scott	Community/Regional	Briggs	West City Limits	Yes, County, Murrieta, Menifee, Wildomar	Yes	Yes	??	Medium		I-215, Businesses, Shopping Center, Residences	

Notes:

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1	Alessandro Boulevard	Class II	Redlands Boulevard	I-215	Yes; Moreno Valley Riverside	No	Yes	Limited	Medium	Yes	Metrolink, Numerous Commercial Centers, City Hall	Future BRT Route
2	Juan Bautista De Anza Trail	Class II	Lake Perris Recreational Area	Eucalyptus Avenue	Yes; Moreno Valley Perris	Yes	Yes	Limited through developers and ATP Grants	Long	Yes	Mall, Multiple Commercial Centers, Moreno Valley College, Lake Perris Recreational Area	City received funding in Cycle 2 and 3 of the Active Transportation Program
3	Iris Avenue	Class II / IV	Moreno Beach Drive	Heacock Street	No	No	Yes	No	Medium	Yes	MJPA, Moreno Valley College, Lake Perris Recreational Area, numerous commercial centers	
4	JFK Drive	Class II	Moreno Beach Drive	Redlands Boulevard	No	No	Yes	No	Short	Yes	Lake Perris Recreational Area	
5	Eucalyptus Avenue	Class II / Class IV	Sycamore Canyon Road	Towngate Boulevard	Yes; Moreno Valley Riverside	No	Yes	No	Medium	Yes	Mall, Juan Bautista De Anza Trail	Possible Cycletrack demonstration project for a portion of segment
6	Redlands Boulevard	Class II	San Timeteo Canyon Road	JFK Drive	Yes; Moreno Valley, County of Riverside, County of San Bernardino	No	Yes	No	Long	Yes	World Logistics Center	Used by recreational cyclists
7	Pigeon Pass Road	Class I / Class II	Ironwood Avenue	Box Springs Mountain Road	Yes; Moreno Valley, County of Riverside	Yes	Yes	No	Long	Yes	Box Springs Mountain	Connection to County of Riverside Trail System and Santa Ana River Trail
8	Ironwood Avenue / Box Springs Road	Class II	Sycamore Canyon Road	Redlands Boulevard	Yes; Moreno Valley, County of Riverside, City of Riverside	No	Yes	No	Medium	No	Box Springs Mountain	Heavily used by recreational cyclists. Provides connection to UCR

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1	Harley Knox Blvd	Class II Bike Lanes	I-215	Redlands Ave	Perris	N/A	N/A	N/A	COMPLETE	N/A	Developments, Shops, Restaurants, etc.	Project Complete
2	Ramona Exwy	Class I Bike/Ped Path	Avalon Pkwy	Rider St	Perris	N/A	N/A	N/A	COMPLETE	N/A	Residential, Parks, Schools	Project Complete
3	May Ranch Multi-Purpose Trail	Multi-Purpose Trail	Bradley Rd	Ramona Exwy	Perris	N/A	N/A	N/A	COMPLETE	N/A	Residential, Parks, Schools	Project Complete
4	Walnut Ave	Class II Bike Lanes	El Nido Ave	Sherman Ave	Perris	N/A	N/A	N/A	COMPLETE	N/A	Residential, Parks, Schools	Project Complete
5	May Ranch Rd	Class II Bike Lanes	Evans Rd	Morgant St	Perris	N/A	N/A	N/A	COMPLETE	N/A	Residential, Parks, Schools	Project Complete
6	Goldenrod Ave	Class II Bike Lanes	Allabaster Loop	Goetz Rd	Perris	N/A	N/A	N/A	COMPLETE	N/A	Residential, Parks	Project Complete
7	Murrieta Rd	Class II Bike Lanes	San Jacinto Ave	Clearwater Ave	Perris	Crosses Metz Channel	N/A	N/A	COMPLETE	N/A	Residential, Parks, Schools	Project Complete
8	Perris Valley Channel Multi-Purpose Trail	Class I Bike/Ped Path	Ramona Exwy	Nuevo Rd	Perris	Provides a rideable/walkable path along Perris Valley Channel	N/A	ATP Cycle 1	Short-Term	N/A	Residential, Parks, Schools, Businesses	Construction to begin 2017
9	Perris Valley Line	Metrolink Service	South Perris Station	Riverside Hunter Park Station	Perris, Moreno Valley, March Air Force Region, Riverside	Travel to multiple jurisdictions without use of vehicle	Mertolink	N/A	COMPLETE	N/A	Multiple Jurisdictions	Project Complete
10	Perris Valley Channel Multi-Purpose Trail (Phase 2)	Class I Bike/Ped Path	Nuevo Rd	South Perris Metrolink Station	Perris	Provides a rideable/walkable path along Perris Valley Channel	N/A	No	Medium-Term	N/A	Residential, Parks, Schools, Businesses, Metrolink Station	City applied for ATP Cycle 3 Grant (did not receive funding). Project would provide an active path for local residents to bike to South Station.

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11	Perris Downtown to South Metrolink Station Connectivity	Class I & Class II Bike Paths	Downtown Perris Metrolink Station	South Perris Metrolink Station	Perris	Provide bike/walk path across San Jacinto River Channel	N/A	No	Medium-Term	N/A	Residential, Parks, Schools, Businesses, Metrolink Station	City applied for ATP Cycle 3 Grant (did not receive funding). Project would provide an active path for local residents to bike to South Station from the City's Downtown region.
12	Ramona Exwy	Class II Bike Lanes	I-215	Evans Rd	Perris	N/A	N/A	No	Medium-Term	N/A	Residential, Parks, Schools, Businesses	Portion of roadway needs to be widened and the rest needs to be re-stripped to include bike lanes. Part of the WRCOG Proposed Non-Motorized System.
13	Perris Blvd	Class II Bike Lanes	North City Limits	Case Rd	Perris, Moreno Valley to the North	N/A	N/A	WRCOG (portion)	Medium-Term	N/A	Residential, Parks, Schools, Businesses	Portion of roadway needs to be widened and the rest needs to be re-stripped to include bike lanes. Part of the WRCOG Proposed Non-Motorized System.
14	Evans Rd	Class II Bike Lanes	North City Limits	Sinclair St	Perris	N/A	N/A	No	Medium-Term	N/A	Residential, Parks, Schools, Businesses	Portion of roadway needs to be widened and the rest needs to be re-stripped to include bike lanes. Part of the WRCOG Proposed Non-Motorized System.
15	4th Street/San Jacinto Ave	Class II Bike Lanes	Perris Blvd	Eastern City Limits	Perris	Provide bike/walk path across Perris Valley Channel	N/A	No	Long-Term	N/A	Residential, Parks, Schools, Businesses	4th Street would need to be re-stripped to include bike lanes. San Jacinto Ave. needs to be widened to include bike lanes. Part of the WRCOG Proposed Non-Motorized System.
16	Case Rd	Class II Bike Lanes	Perris Blvd	Ethanac Rd	Perris	Provide bike/walk path across Perris Valley Channel	N/A	No	Medium-Term	N/A	Residential, Parks, Schools, Businesses, Metrolink Station	Case Rd needs to be widened to include bike lanes. Part of the WRCOG Proposed Non-Motorized System.
17	A Street/Ethanac Rd	Class I & Class II Bike Paths	11th Street	Western City Limits	Perris	Provide bike/walk path across San Jacinto River Channel	N/A	No	Long-Term	N/A	Residential, Parks, Schools, Businesses	Ethanac Rd needs to be extended across the San Jacinto River (Nexus). Roadway would be wide enough for bike lanes. Part of the WRCOG Proposed Non-Motorized System.
18	Goetz Rd	Class II Bike Lanes	Case Rd	Southern City Limits	Perris, Menifee to the South	Provide bike/walk path across San Jacinto River Channel	N/A	No	Long-Term	N/A	Residential, Parks, Schools, Businesses	Goetz Rd needs to be widened across the San Jacinto River (Nexus). Roadway would be wide enough for bike lanes.
19	Murrieta Rd	Class II Bike Lanes	Case Rd	Ethanac Rd	Perris, Menifee to the South	N/A	N/A	No	Medium-Term	N/A	Residential, Parks, Schools, Businesses, Metrolink Station	Green Valley Parkway development in near future. Path would provide access to multiple residential, parks, metrolink, and business destinations.

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	Jurupa / Olivewood	Class II Bike Lanes	Florence Ave	Cridge St	No	No	Yes (SART)	Yes	Short	Yes	RCC, Martha McClean Anza Narrows Park, SART	A portion has been constructed as part of pavement rehabilitation, with the remaining to be completed as part of ATP Cycle 1
	Vine / Mission Inn	Class II Bike Lanes	Metrolink Station	Redwood Ave / City Limits	No	Yes	Yes (Transit, SART)	Yes	Short	No	Metrolink Station, Downtown Riverside, Mt. Rubidoux Park / SART	
	MLK Bike Path	Class I Bike Path	UCR	Chicago Ave	No	No	Yes	Yes	Short	No	UCR Parking, Iowa Ave, Link to planned Canyon Crest bike lane	
	Canyon Crest	Cycle Tracks	MLK	Canyon Crest Towne Center	No	No	Yes	Yes	Short	No	UCR Parking, Canyon Crest Town Center, MLK Bike Path	
	Bike Share Program	Bike Share	Metrolink Station	Downtown Riverside, RCC	No	Yes	Yes	Yes	Short	No	Metrolink Station, RCC, Downtown Riverside	

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1	Juan Bautista De Anza Historic Trail (on top of San Jacinto River Levee)	Multi-Use	Unincorporated Riverside County, Moreno Valley, Hemet	San Jacinto (Access via proposed trailheads at State St & Lake Park Dr)	4 --Unincorporated Riverside County, Moreno Valley, Hemet and San Jacinto	Provides access to Mystic Lake/San Jacinto Wildlife Area	Intersects with proposed State Street/Gilman Springs/Highway 79 Trail. State Street provides access to proposed multi-modal facility.	No	Long Term	No	New Soboba Casino/Resort, proposed Valley-Wide Park & Rec facility at State St & San Jacinto River Levee & Bautista Creek	This trail will likely be the City's top priority upon completion of the Trails Master Plan and completion of construction of the San Jacinto River Levee. The Trails Master Plan should be completed in March 2018 and the Levee construction completed by 2020.
1	Casa Loma Fault Trail	Multi-Use	Unincorporated Riverside County and City of Hemet	San Jacinto (Access via Ramona Expwy, Warren Rd, Cottonwood Ave, & Esplanade Ave)	3 -- Unincorporated Riverside County, Hemet and San Jacinto	Provides Access to Lakeview Mountains & Ramona Expwy	Intersects with proposed Regional Trail along Odell Avenue & proposed Warren Rd Regional Trail.	No	Long Term	Proposed Juan Bautista De Anza Historic Trail	Valley-Wide Regional Park (Esplanade Ave) and Bautista Creek	Access to proposed Mystic Lake/San Jacinto Wildlife Area and Juan Bautista De Anza Historic Trail via proposed Mid-County Parkway trail undercrossing. Also, if Hemet continues the project, access will be provided to Juan Bautista De Anza Historic Trail at Bautista Creek which will serve as a merger w/Hemet's proposed Pepper Creek and Avery Canyon Multi-Use Trails which link to Salt Creek Trail which goes to Menifee.
3	Lakeview Mountains Trail(s)	Multi-Use	Unincorporated Riverside County (Lakeview/Nuevo/Juniper Flats) and City of Hemet	San Jacinto (Access via Warren Rd or Lakeview/Nuevo Regional Trail)	3 -- Unincorporated Riverside County, Hemet and San Jacinto	Yes. Lakeview Mountains (RCA Property) via Casa Loma Canal (proposed Community Trail).	Yes. Lakeview/Nuevo Regional Trail, Ramona Expwy Regional Trail via proposed Casa Loma Canal Community Trail.	No	Long Term	No	Mountain vistas and access to variety of trails in Lakeview/Nuevo/Juniper Flats & Maze Stone Park in Hemet	Lakeview Mountains are currently utilized by equestrians and hikers (unofficially). Should be made open to the public. Proposed trail also provides access via proposed Warren Rd / Casa Loma Fault Trails. Also to Salt Creek Trail via Warren Rd, proposed Class II/Regional/Multi-Use Trail (which goes to Menifee), and North Hills Trail and Lakeview Trail at Diamond Valley Lake in Hemet
4	State Street/Gilman Hot Springs/Highway 79	Bike in Some Areas / Multi-Use in Other Areas	Unincorporated Riverside County, Beaumont, Banning and Hemet	San Jacinto (access via State St., Gilman Hot Springs Rd/Soboba Rd.)	4 -- Unincorporated Riverside County, Beaumont, Banning, Hemet and San Jacinto	Yes. Massacre Canyon, North Mountain and Portrero Canyon & Badlands (BLM, CDFW and RCA property)	Yes. Access to proposed multi-modal station in San Jacinto and proposed Juan Bautista De Anza Historic Trail	No	Long Term	Not	Massacre Canyon, North Mountain, Portrero Canyon & Badlands Open Space Trails	North Mountain currently utilized as hang glider/paraglider launch site. Access gained by Fire Road off of Hwy 79, private hillside property on San Jacinto side or via Banning & Beaumont unofficial trails. Beautiful vistas & scenery - should be made open to public. Provides access to proposed Juan Bautista De Anza Historic Trail at proposed trailhead at State Street & San Jacinto River Levee. Also provides access to proposed multi-modal station on State St between 7th St & Esplanade Ave.
5	San Jacinto Valley Rail Trail	Bike	Unincorporated Riverside County, Hemet, Menifee & Perris	San Jacinto (Access via State St. proposed San Jacinto & Hemet multi-modal & South Perris Metrolink stations)	5 -- Hemet, San Jacinto, Menifee, Perris & Unincorporated Riverside County	Yes. Rail Line which may become dedicated Express Bus Line. Could be expanded to include separate trail.	Yes. Proposed Multi-Modal Stations in Hemet, San Jacinto and existing South Perris Metrolink Station	No	Long Term	No	Estudillo Mansion & Downtown Hemet	Access also via multiple roads intersecting w/existing rail line. Further, provides access to proposed State Street/Gilman Hot Springs/State Highway 79 Trail & indirectly to proposed Juan Bautista De Anza Historic Trail

TABLE 1
WRCOG REGIONALLY SIGNIFICANT ACTIVE TRANSPORTATION PROJECTS

#	Street Name/Project Name	Potential Facility Type	To	From	Traverses multiple jurisdictions? How many and which ones?	Provides access to or across barriers?	Provides access to regional transportation facilities (transit, bike paths)?	Funding available?	Construction Horizon (Short, Medium, Long-term?)	Are there similar facilities in the area that serve a similar purpose?	Key destinations along route	Notes
21	Santa Gertrudis Interconnect	Class I Multi-Use Path	Murriet Creek Trail at Diaz and Winchester (existing)	Ynez Rd at Santa Gertrudis Creek Trail (existing)	This project would provide E-W connectivity to Wine Country in Riverside County and N-S connectivity to Murrieta, Wildomar, and Lake Elsinore	This project would cross the I-15/Winchester interchange barrier and help avoid two other major intersections along Winchester at Ynez and Jefferson	This project is in a planned transit linkage zone (21) and would connect housing to jobs in the westside business park. Furthermore, Chaparral High School is along the route, in addition to several commercial centers and the Promenade Mall	The City has shelf-ready engineered plans, and this project is identified in the City's CIP budget, but no funding is available at this time. The City has applied for several ATP grants, but does not meet the criteria for a Disadvantaged Community	Short term if funding, or matching grant becomes available	The trail has at-grade and undercrossings at a few intersections, but the I-15 is a major barrier and this project is necessary to provide connectivity and avoid 12-14 lane intersections with multiple turning movements at Winchester-Ynez and Winchester-Jefferson	Planned transit center, Uptown Jefferson Specific Plan area, Westside Business Park, Murrieta Creek Trail with linkage to Old Town, Promenade Mall access, Chaparral High School, several small shopping centers along the route, residential housing along the entire north side of the City, Nicolas Valley, Wine Country, and the Murrieta Creek Regional Trail	This is the single most important project in the City of Temecula to promote active transportation. The City recently updated its Trails and Bikeways Master Plan. As part of the update, the City conducted a community survey and the Santa Gertrudis Interconnect was identified as the most important project in the City. People see the potential for this interconnect to cross the I-15 safely and connect people to Old Town and north along the Murrieta Creek Trail. This interconnect would also get people to an MWD easement with north-south connectivity between the City of Temecula and to Lake Skinner. This trail would connect to Wine Country. This interconnect is also the "missing link" in providing a 17 mile loop around the City of Temecula connecting parks, schools, shopping centers, and housing. If the "Existing" Santa Gertrudis Creek Trail was identified on exhibit 5.0.1, the 17.1 mile loop around the City with e-w/n-s connectivity would be clear.

TABLE 1
WRCOG REGIONALLY SIGNIFICANT ACTIVE TRANSPORTATION PROJECTS

#	Street Name/Project Name	Potential Facility Type	To	From	Traverses multiple jurisdictions? How many and which ones?	Provides access to or across barriers?	Provides access to regional transportation facilities (transit, bike paths)?	Funding available?	Construction Horizon (Short, Medium, Long term?)	Are there similar facilities in the area that serve a similar purpose?	Key destinations along route	Notes
1	Murrieta Creek Regional Trail	Bike/ Multi-purpose Trail	Clinton Keith Road	Malaga Road	Temecula, Murrieta, Wildomar, Lake Elsinore (see notes)	Yes, this is the Wildomar Segment	Yes, there are spurs that connect to local streets, transit, community centers, parks, schools	Funding has not been secured for the un-improved portions, nor for safe pedestrian crossings at streets	The master plan has an implementation schedule	there are parallel facilities planned to complement the Master Plan	Various spanning 4 local agencies	The Murrieta Creek Regional Trail Master Plan was a collaborative effort with National Parks, Sierra Club, County Parks and local agencies. Resolutions have been adopted supporting regional trail through the jurisdictions.
2	Bundy Canyon Active Transportation Corridor	Bike/ Multi-purpose Trail	Monte Vista	Sunset	This segment connects to the City of Menifee with potential to connect to County Park system on Salt Creek	provides a safe route connection from I-15 to I-215	Yes, this is an important East-West Segment of the City's backbone system	Funding has not been secured. A portion is City DIF eligible, Subdivisions have been conditioned for segments	Medium	No	Part of Master concept connecting schools, city hall, commercial centers, parks	A concept Master ATP plan has been prepared. Funding is being pursued for a comprehensive Circulation Element update incorporating Active Transportation
3	Sunset Regional Trail	Bike/ Multi-purpose / Low Speed Vehicle Trail	City Hall	Bundy Canyon	This segment connects to the City of Menifee with potential to connect to County Park system on Salt Creek	Key barrier traversed through RCIP approved N-S trail through RCA	Yes, this is an important North-South Segment of the City's backbone system	Funding has not been secured. A portion is City DIF eligible, Subdivisions have been conditioned for segments	Medium	No	Part of Master concept connecting schools, city hall, commercial centers, parks	A concept Master ATP plan has been prepared. Funding is being pursued for a comprehensive Circulation Element update incorporating Active Transportation
4	Wildomar Trail	Bike/ Multi-purpose / Low Speed Vehicle Trail	Grand Avenue Bike and Multi-purpose Trail	Grand Avenue	City Hall	Plan anticipates downgrade of 4-lane arterial to Active Transportation	Yes, this is an important East-West Segment of the City's backbone system	Funding has not been secured. A portion is City DIF eligible, Subdivisions have been conditioned for	Medium	No	Part of Master concept connecting schools, city hall, commercial centers, parks	A concept Master ATP plan has been prepared. Funding is being pursued for a comprehensive Circulation Element update incorporating Active Transportation

Jurisdiction	Responded	Attachments
City of Menifee	11/29, 12/15	Provided a completed ATP matrix, added to their list on 12/15
City of Wildomar	12/9	Provided a completed ATP matrix, plus 2016 Trails map (could also provide a copy of the Murrieta Creek Regional Trail Master Plan that spans four jurisdictions)
City of Corona	12/13, 12/15	Need to incorporate Butterfield Overland Trail (as sent in 12/15 email from Nelson); Provided current Master Bike Plan and a draft version of the Master Bike and Trail Plan
City of Perris	12/13	Provided a completed ATP matrix
City of Moreno Valley	12/15	Provided a completed ATP matrix
Morongo Band	12/15	Shane asked for which locations in Banning/Cabazon the current NMTP travels through (Chris T sent some aerals and related projects)
City of Jurupa Valley	12/15	Provided a completed ATP matrix; Currently working on bike/ped master plan (no significant projects identified yet).City has no intention of providing on-street Class II bike lanes along Van Buren Boulevard as shown on the map. If any facility is provided in that corridor it would have to be a class I or similar off-street facility."
City of Eastvale	12/15	Provided a completed ATP matrix
City of Riverside	12/15	Provided a completed ATP matrix; Larger list of funded projects, along with maps showing the facilities that we list. Please note that the traffic circles shown on our ATP Cycle 1 map are no longer planned; bicycle master plan (most current revision), which should help you locate potential regional links. I'm not sure if the county has included a planned facility along Krameria in their list to you, but that link should be planned as part of the Van Buren Widening project.; will be drafting our own Active Transportation Plan should we receive the funding, and it would be great to acknowledge regional facilities and plan their completion / links to them
County of Riverside	12/15	Provided a completed ATP matrix
City of Hemet	12/19	Provided a completed ATP matrix
City of San Jacinto	12/29	Provided a completed ATP matrix; Final regional list will be determined upon completion of the San Jacinto Trails Master Plan, which is slated for completion in March 2018
City of Temecula	1/9	Provided a completed ATP matrix; Plus supporting materials for the identified project
City of Norco	1/10	No input to add
City of Lake Elsinore	1/10	Provided a completed ATP matrix;

		Documents showing planned facilities in the near vicinity of Lake Elsinore (LE Bikeway Plan, County of Riverside Trails, General Plan Trails, Butterfield Trail Corridor)
City of Canyon Lake	1/12	Not working on any regionally significant facilities at this time

Jurisdiction	Responded to final outreach	Comments	Attachments	Actions
Corona	6/14 (Nelson D. Nelson)	No additional comments from the City of Corona on this.	N/A	N/A
Wildomar	6/20 (Dan York)	Thank you for the map clean up.	N/A	N/A
Eastvale	7/5 (Craig Bradshaw)	Planning reviewed the draft plan and would like Bellegrave to be considered for an addition to the project list. Please give me your thoughts. Previously I had included virtually all the east-west and north-south roadways for consideration. I believe the only street I did not include was Bellegrave. I think Cathy Perring makes a compelling argument for it to be included on the list. Let me know your thoughts	Yes	- ADD BELLEGRAVE AS A LOCAL ROUTE WITH REGIONAL SIGNIFICANCE (beginning at Harrison and going east to the I-15) - Completed
Temecula	7/13 (Matt Peters)	The map looks fine, but it seems like the (E-W) Temecula Creek should have a separate number/description from (N-S) Murrieta Creek....	N/A	- Separated Murrieta Creek (#11) with Temecula Creek (#24) - Completed
Jurupa Valley	7/12 (Rob Olson)	Suggested five new routes for Jurupa Valley: Jurupa Road Corridor, San Sevaine Trail, Bellegave Corridor, Wineville Corridor, Studio-64th-Downey-Limonite-Holmes-68th	Yes, map and table	- Received input identifying five facilities. Following review, four of the five facilities were added to the regional network (Wineville did not meet criteria and not added, all others were added) - Completed - San Sevaine trail to be added - Completed

Planning Directors/Public
Works Directors
Outreach Materials



Western Riverside Active Transportation Plan

Project Introduction

Project Description:

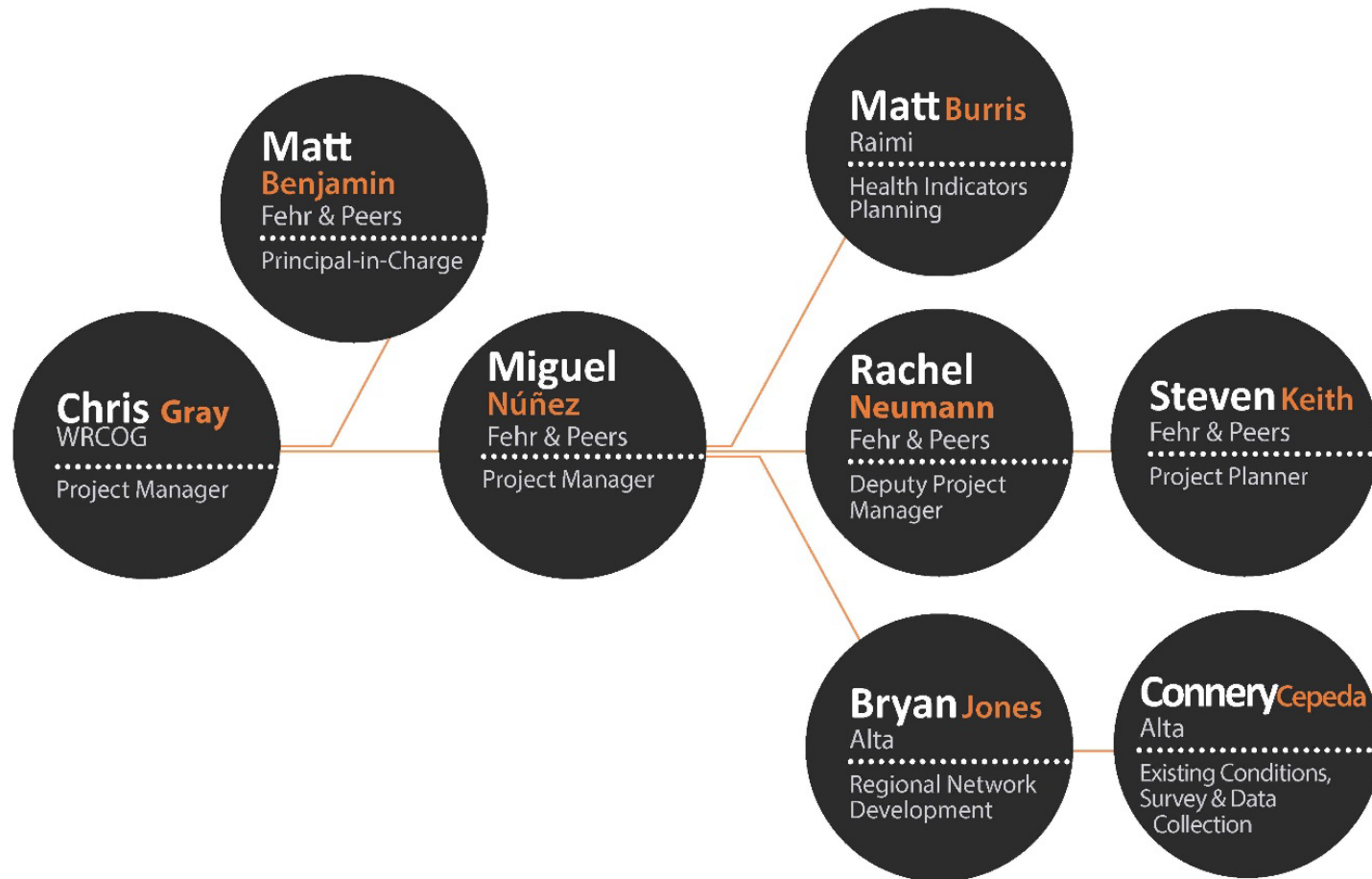
- Continues a regional conversation regarding the needs and opportunities for people who walk and bike, while establishing a policy framework that will enhance transportation mobility and safety for all

Project Components:

- Existing Conditions
- Active Transportation Plan



Project Team



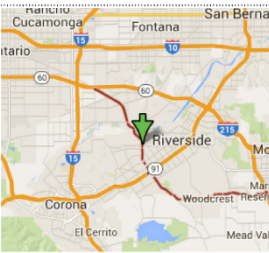
Active Transportation Plan



Van Buren Boulevard Bike Corridor

PROJECT HIGHLIGHTS

- The Van Buren Boulevard Bike Corridor provides a safe and connected bikeway through several major transportation, retail, and civic destinations.
- The costs are minimized due to existing bicycle infrastructure along the route.
- The project increases the mobility and health of the surrounding community.



The project extends about 20.3 miles from Etiwanda Avenue where Van Buren Boulevard begins down south to Riverside National Cemetery next to I 215.

FEHR & PEERS

Van Buren Boulevard spans approximately 20.3 miles, beginning in the northern unincorporated area of Jurupa Valley and continuing down southeast through Riverside. Currently an important arterial for auto users within the County, through the implementation of new and improved bicycle infrastructure this could become an important corridor for improving non motorized safety, access, and mobility. There are several disconnected segments of Class II bike lanes along Van Buren, resulting in an uncomfortable cycling environment that lacks cohesive treatments along the route. In areas with established bike lanes there are challenging auto and bicycle crossings that could be improved with minimal investments such as bike boxes or more visible crossing markings, resulting in increased safety for all users. Through engagement of stakeholders and a robust planning and implementation effort, Van Buren could be a significant corridor providing a low stress bicycle facility that improves access to a variety of different land uses, including shopping centers, parks, and regional transportation networks.

Benefits

- Enhances connectivity to Riverside Municipal Airport, Pedley Metrolink Station, local parks, schools, and several shopping centers
- Provides an affordable, healthy, and environmentally sensitive mode of transportation for the community
- Portions of the boulevard have already implemented bicycle facilities, minimizing the total investment needed

Challenges

- Large area to provide safe bike facility coverage
- Southern third of the route is hilly
- Portions of the roadway may be too narrow to add bike lanes without widening

Key Connections

Regional Transportation Facilities

- Riverside Municipal Airport
- Pedley Metrolink Station
- Connects to Routes 1, 2, 3, 6, and 8

- Goals and Objectives
- Develop Regional Non-Motorized Network
- Health, Safety, Education
- Cost Analysis
- Funding Sources
- Implementation Strategies

Existing Conditions

- Current local plans
- Projects in the pipeline
- Collision analysis
- Staff surveys
- Community surveys
- Health component

WESTERN RIVERSIDE COUNTY NON-MOTORIZED TRANSPORTATION PLAN



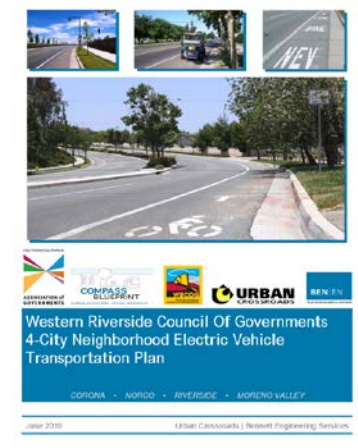
Review Existing Plans

Plan, Policy, Program and Project Review

- Start with existing plans and ideas

Existing Conditions Analysis

- Provide technical analysis to determine feasibility and identify innovative solutions



Needs Analysis

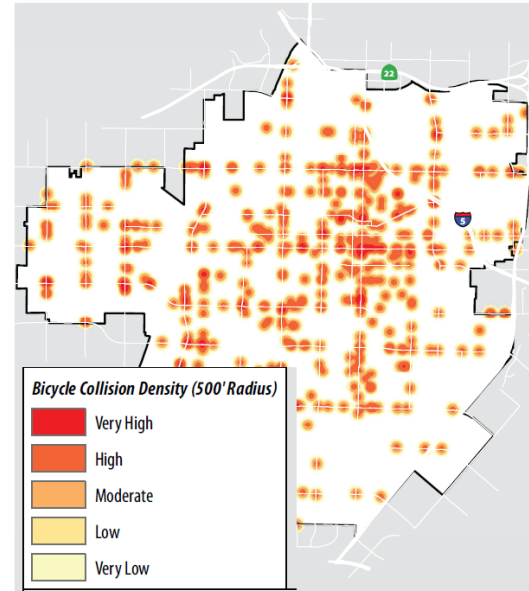
Data Review

Collision Analysis

- Statewide Integrated Traffic Records System (SWITRS)

Community & Staff Surveys

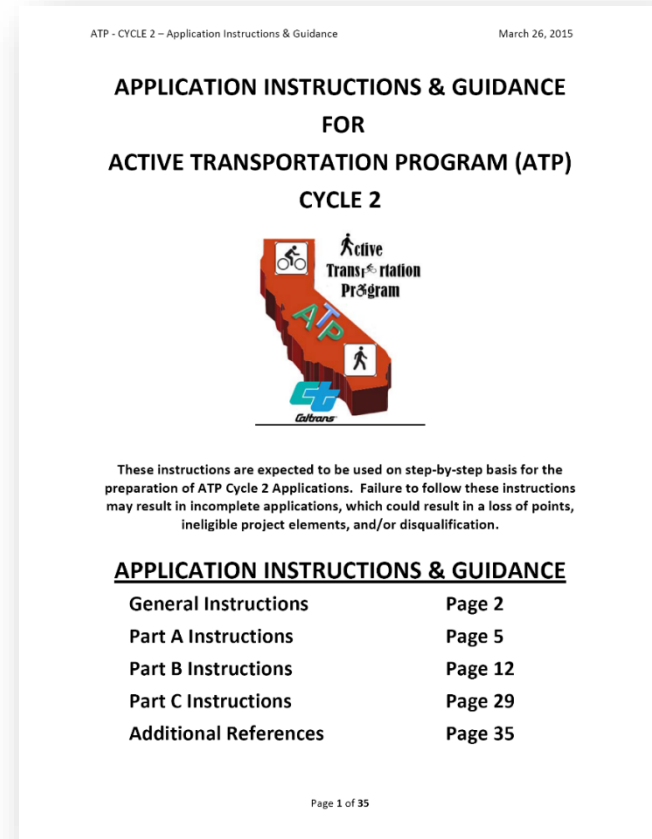
- Identify community needs, and perception of 2010 Western Riverside County NMTP



Funding Strategies

Comprehensive funding source matrix

- Case Studies
- Outline funding responsibilities by jurisdiction

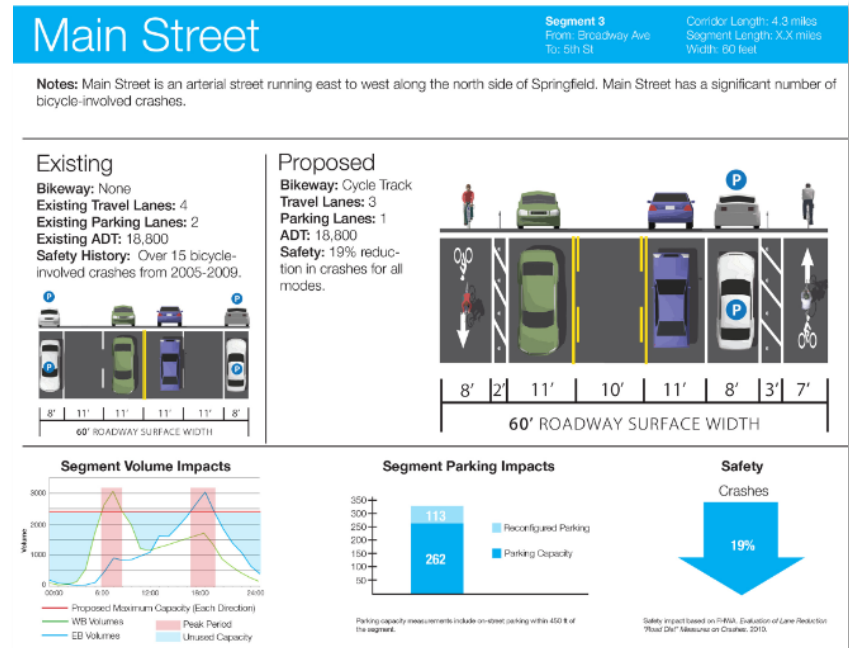


Implementation Strategies

Deliver community-supported, feasible projects

- Prioritization
- Grant ready Project Description Sheets

Design a user friendly plan



Existing Conditions (Health)

Build on WRCOG Sustainability Plan and Climate Action Plan data to develop **health indicators**



Health Status

- Adult health status



Mortality

- Heart disease
- Chronic lower respiratory disease
- Diabetes



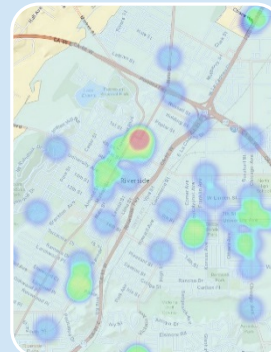
Asthma

- Asthma prevalence
- Asthma hospitalizations



Weight & Physical Activity

- Adult physical activity
- Adult obesity
- Child body composition



Environment

- Air quality
- Collisions with pedestrians and cyclists



Built Environment

- Street connectivity
- Park level of service
- Retail Food Index

Existing Conditions (Health)

- Analysis of health data and indicators
- Data to identify disadvantaged communities

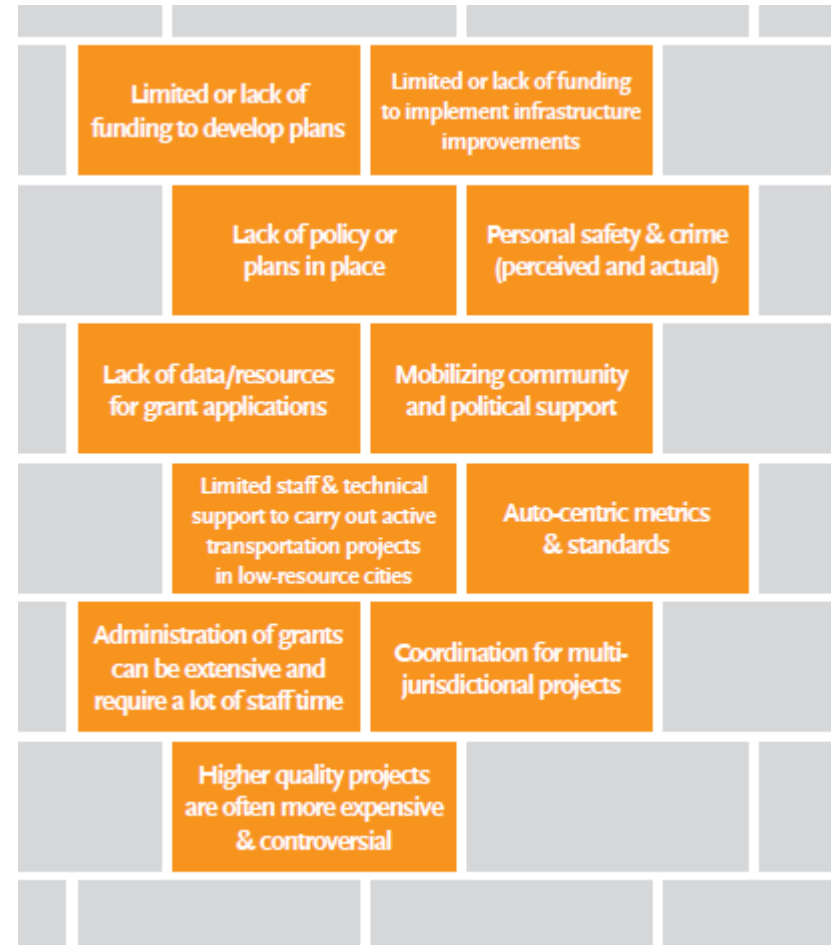


Related Efforts

Project/Program	Agency Lead	Status
Regional Programs		
Transportation Uniform Mitigation Fee (TUMF)	WRCOG	
Clean Cities Program	WRCOG	
HERO Program	WRCOG	
Healthy Communities	WRCOG	
Multiple Species Habitat Conservation Plan	WRCOG	
Active Transportation Projects		
WRCOG ATP	WRCOG (Agency) Fehr & Peers (Lead)	Just started
1 st Mile/Last Mile	Riverside Transit Agency (Agency) KTU&A (Lead)	In progress
Prior Efforts		
Subregional Climate Action Plan (CAP)	WRCOG	Complete
Sustainability Framework	WRCOG	

How does it benefit WRCOG?

- Grant funded
- Promotes regional coordination
- Promotes resource sharing
- Tie-in or initiate roadway planning efforts
- Attention to each agency needs



How does it benefit Member Agencies?

- o Positions for grants
- o Advanced level planning
- o Can improve resident quality of life (safety, access, mobility options)
- o Regulatory framework (SB 743)



How agency staff can help



Share information about greatest obstacles/challenges/opportunities to planning and implementation

Distribute staff & community surveys



Provide insight to regional destinations and corridors for bicyclists/pedestrians

Conduct local efforts for grant applications

Questions?





ABOUT THE PROJECT

The Western Riverside Council of Governments (WRCOG) received a grant from Caltrans to prepare an Active Transportation Plan for the sub-region. This is a planning effort that is focused on understanding and enhancing the environment for people who walk and bike.

This effort will start with a review of existing conditions and ultimately provide a road map for WRCOG by identifying regional active transportation facilities that meet local needs and desires, while also considering resources for funding and implementation. This project will be informed through a focus on health, safety, mobility options, and recreational opportunities for people in the WRCOG area.

The WRCOG Active Transportation Plan (ATP) represents a tremendous opportunity to serve local activity and enhance mobility options. This project, active through the end of 2017, will continue the region's conversation regarding the needs and opportunities for all roadway users, and help to establish a policy framework enhancing active transportation mobility and safety for the future.

LET US KNOW WHAT YOU THINK!

We've developed a short survey for you to let us know your needs, values, and concerns about walking, bicycling, and transit. The survey is open through the month of April:

- Community Survey (English): https://www.surveymonkey.com/r/WRCOG_ATP_Eng
- Community Survey (Spanish): https://www.surveymonkey.com/r/WRCOG_ATP_Spa
- Staff Survey (English): https://www.surveymonkey.com/r/WRCOG_ATP_Staff



CONTACT US

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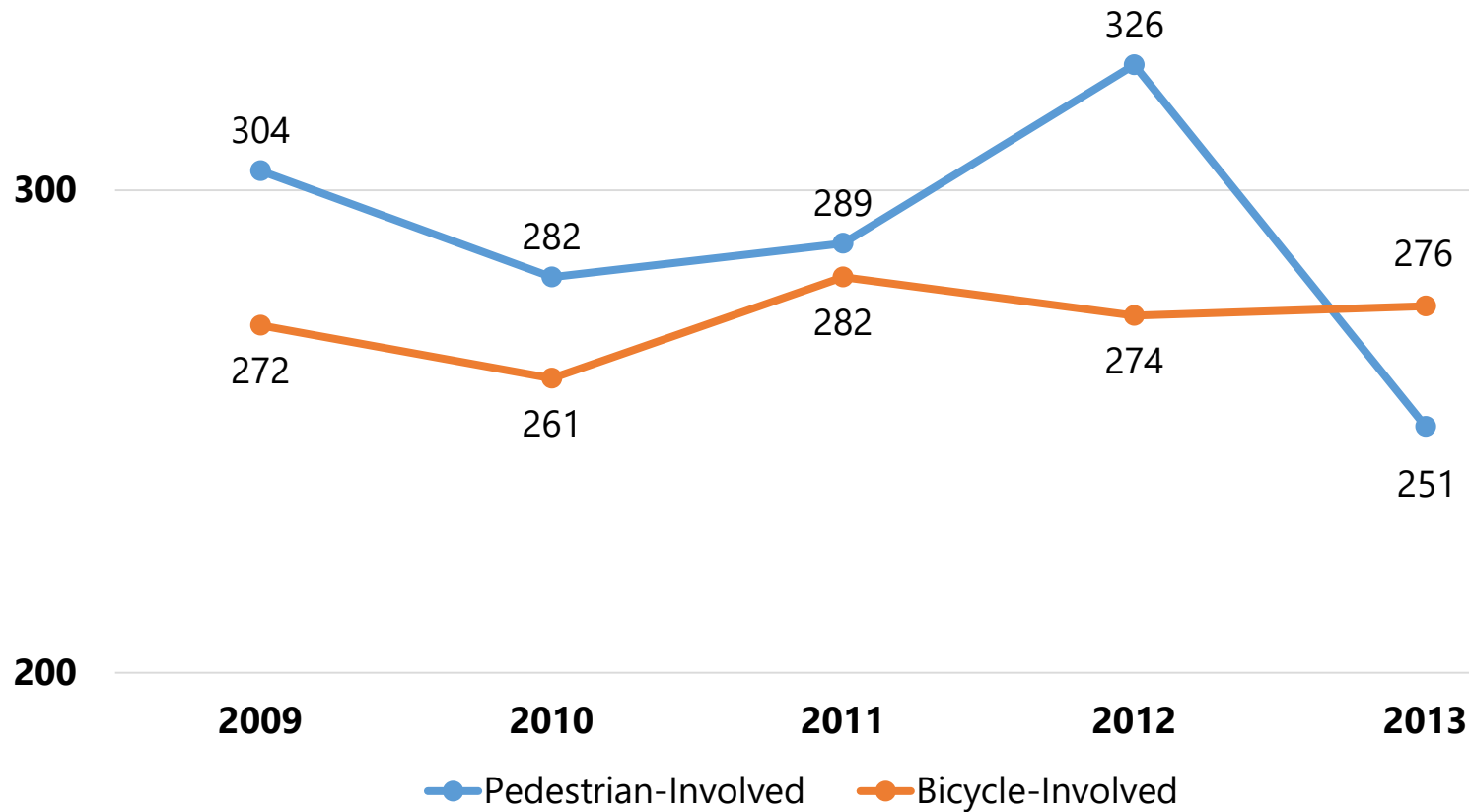


Western Riverside Active Transportation Plan

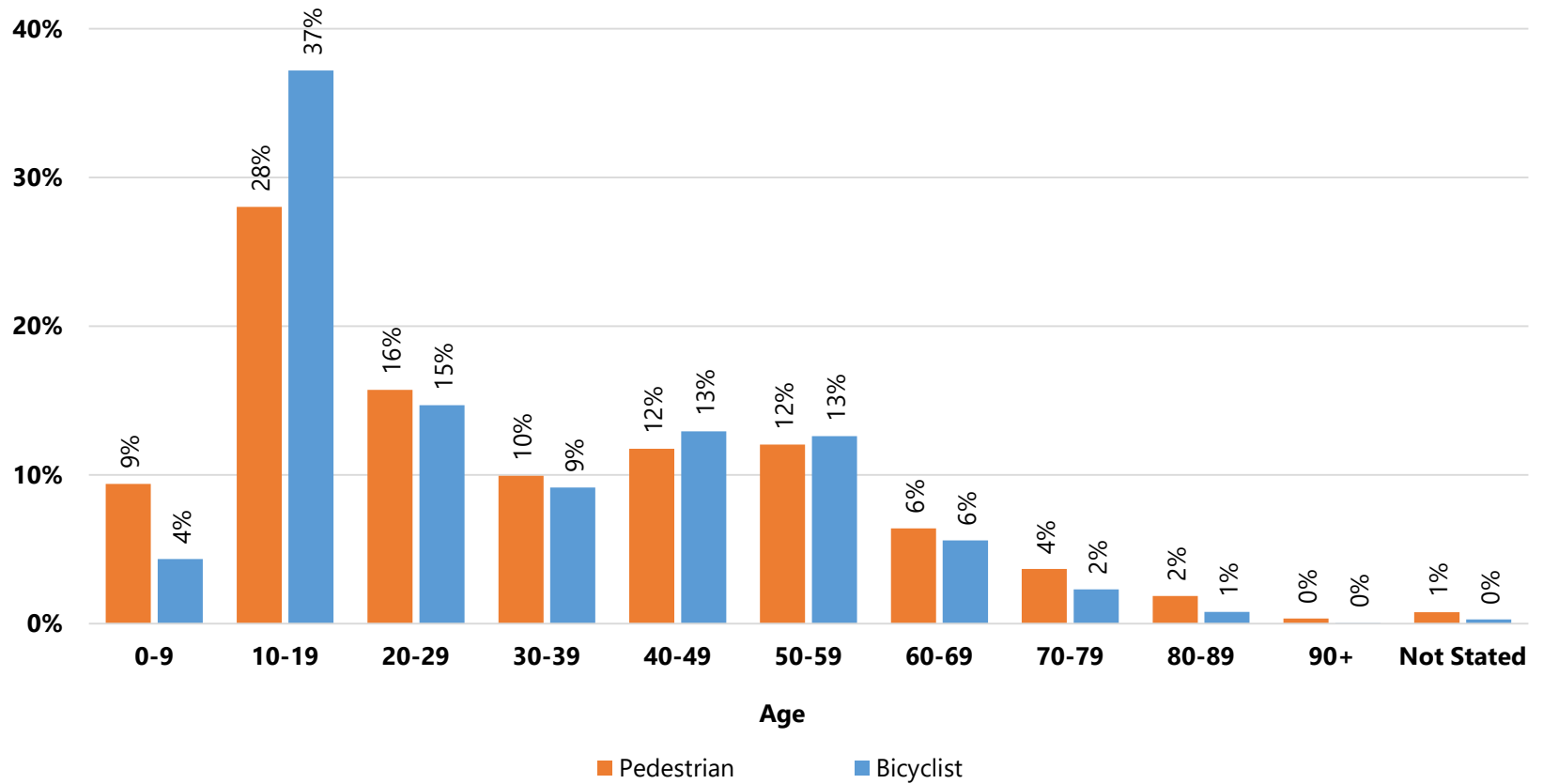
Project Overview

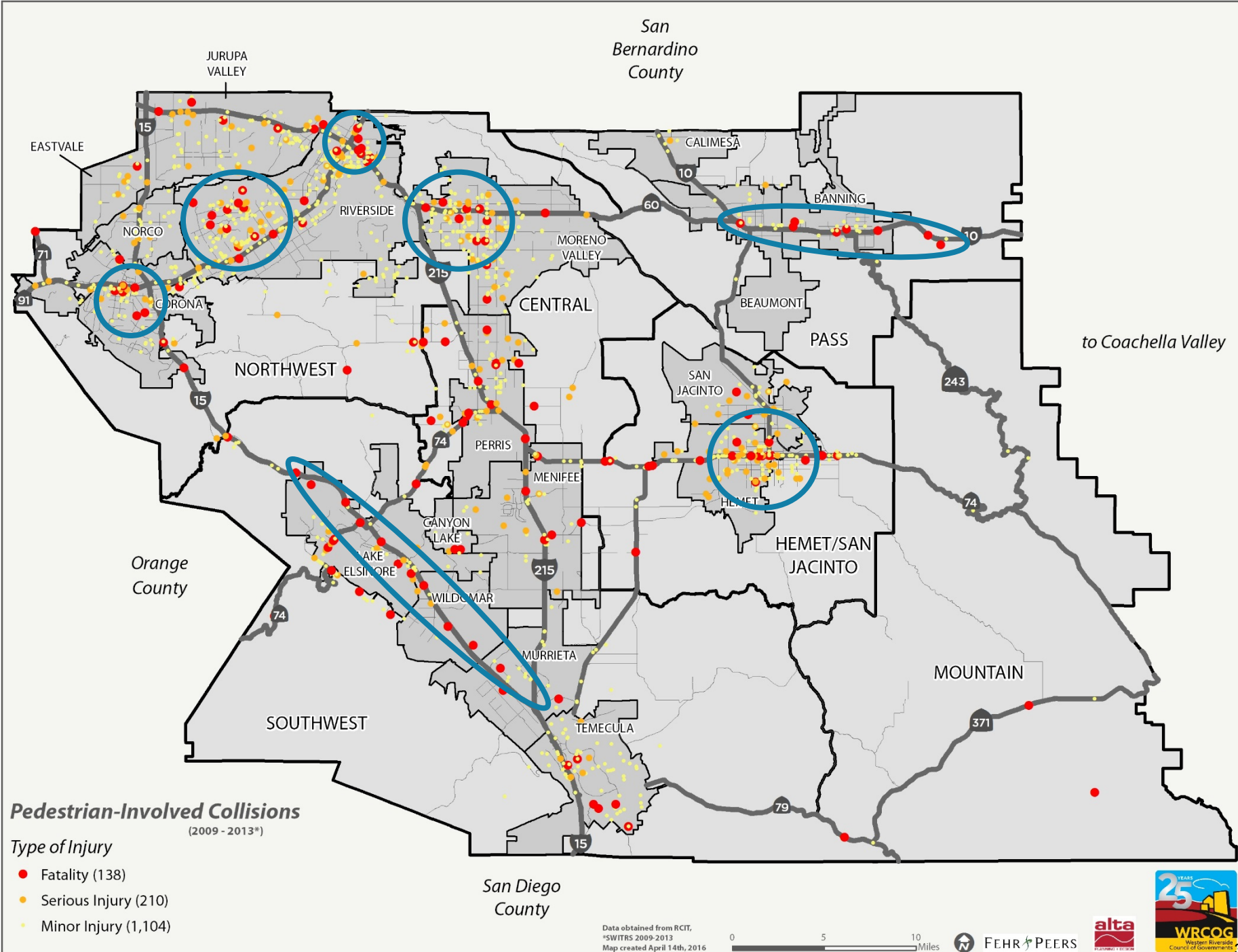
- Assisting WRCOG in developing an Active Transportation Plan (ATP)
- Existing conditions analysis identifies gaps in the region with regard to bicycle and pedestrian projects and programs
- Developing a list of key challenges, opportunities, and health topics that will be highlighted and addressed in the ATP
- ATP will recommend and set goals, objectives, and performance metrics for the implementation of active transportation programs and projects.

Collision Analysis

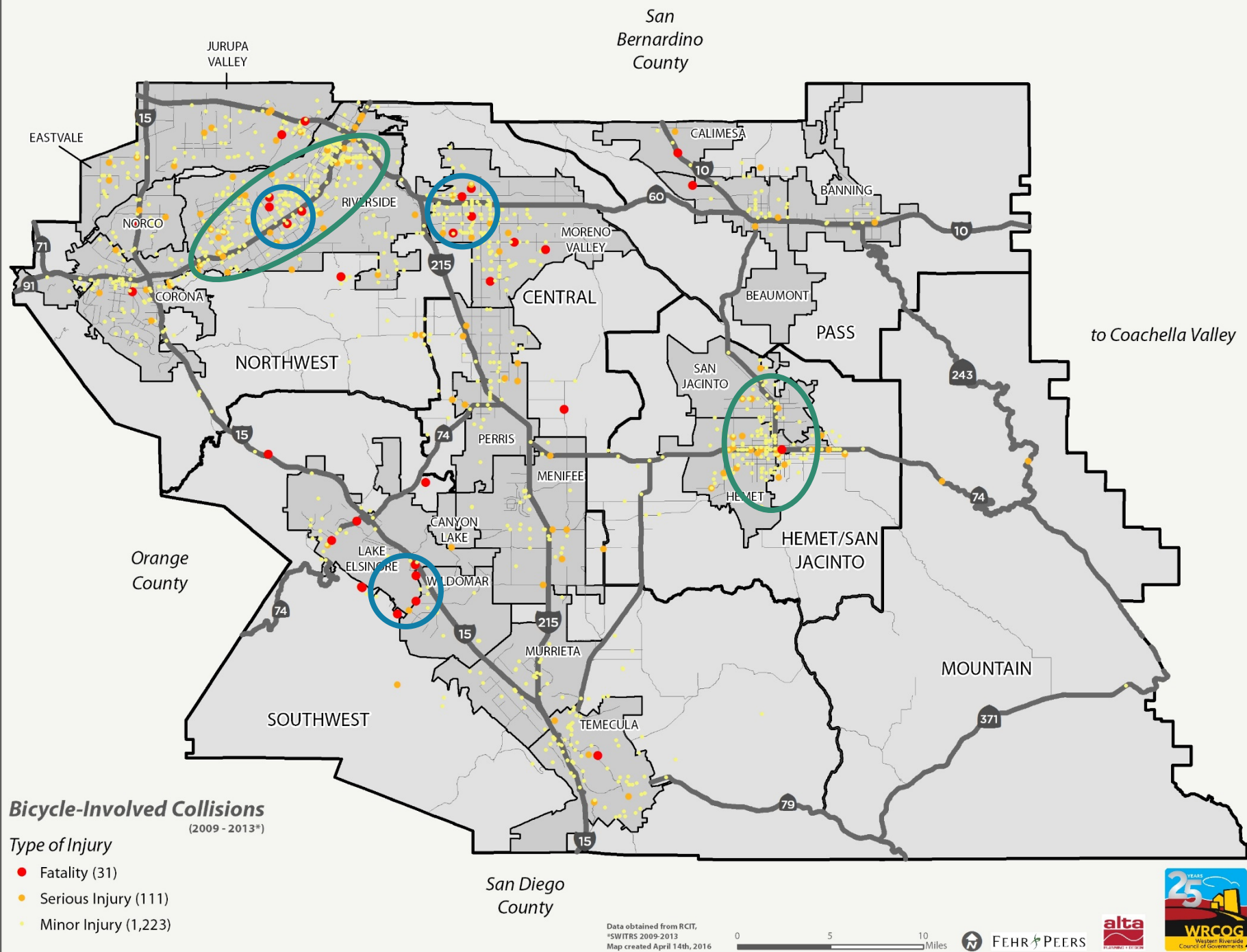


Collision Analysis





Data obtained from RCIT,
*SWITRS 2009-2013
Map created April 14th, 2016



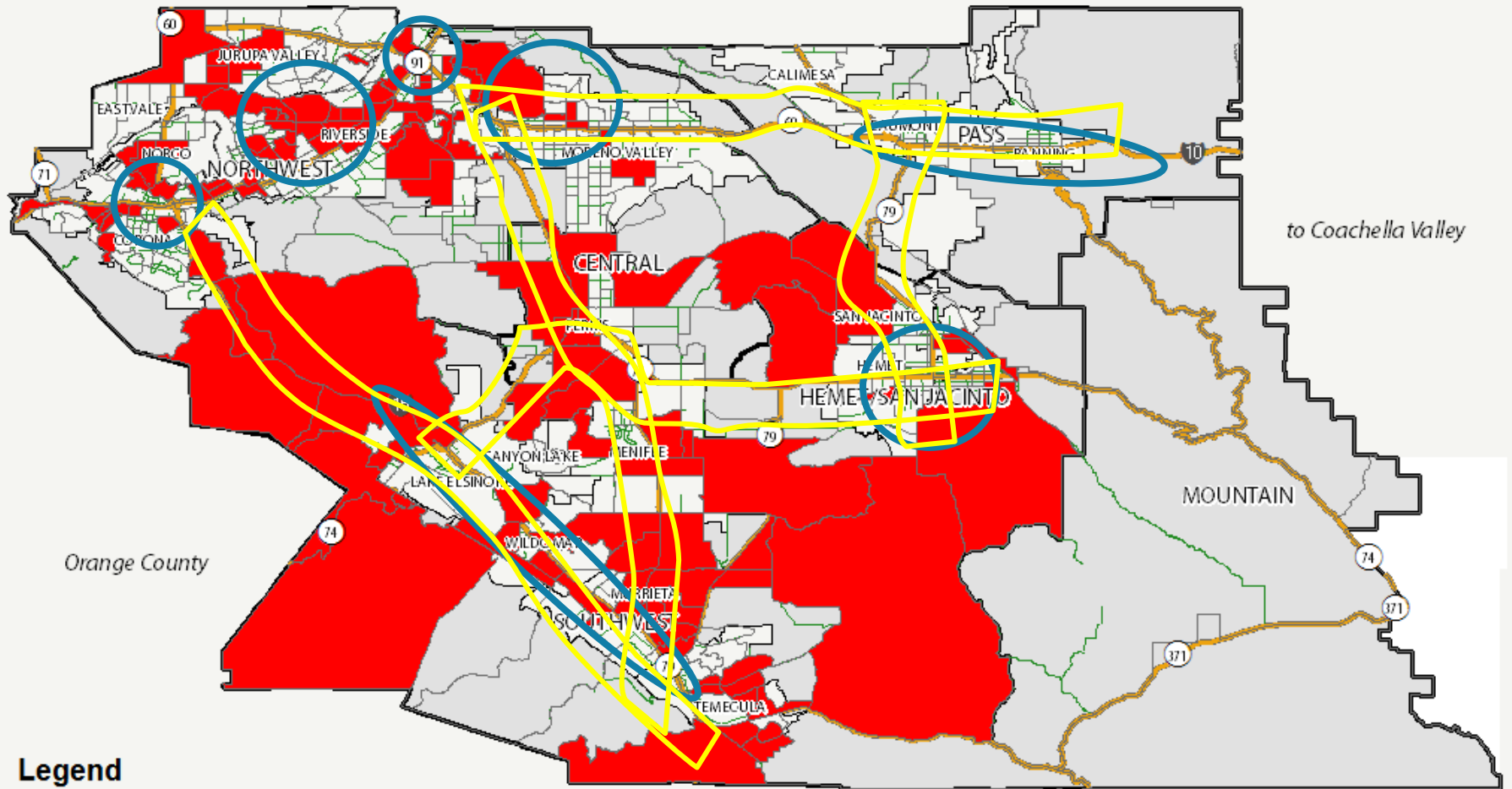
Next Steps

- Focus analysis on fatalities and severe injuries
- Develop different maps for clusters near freeways and regional facilities
- Identify high-incidence roadways and areas in an attempt to develop a network of priority areas where the return on infrastructure investment and greatest safety improvement benefits are maximized

Questions?



San Bernardino County



Legend

Median Income

MedInc

Red \$19,617.00 - \$49,190.00

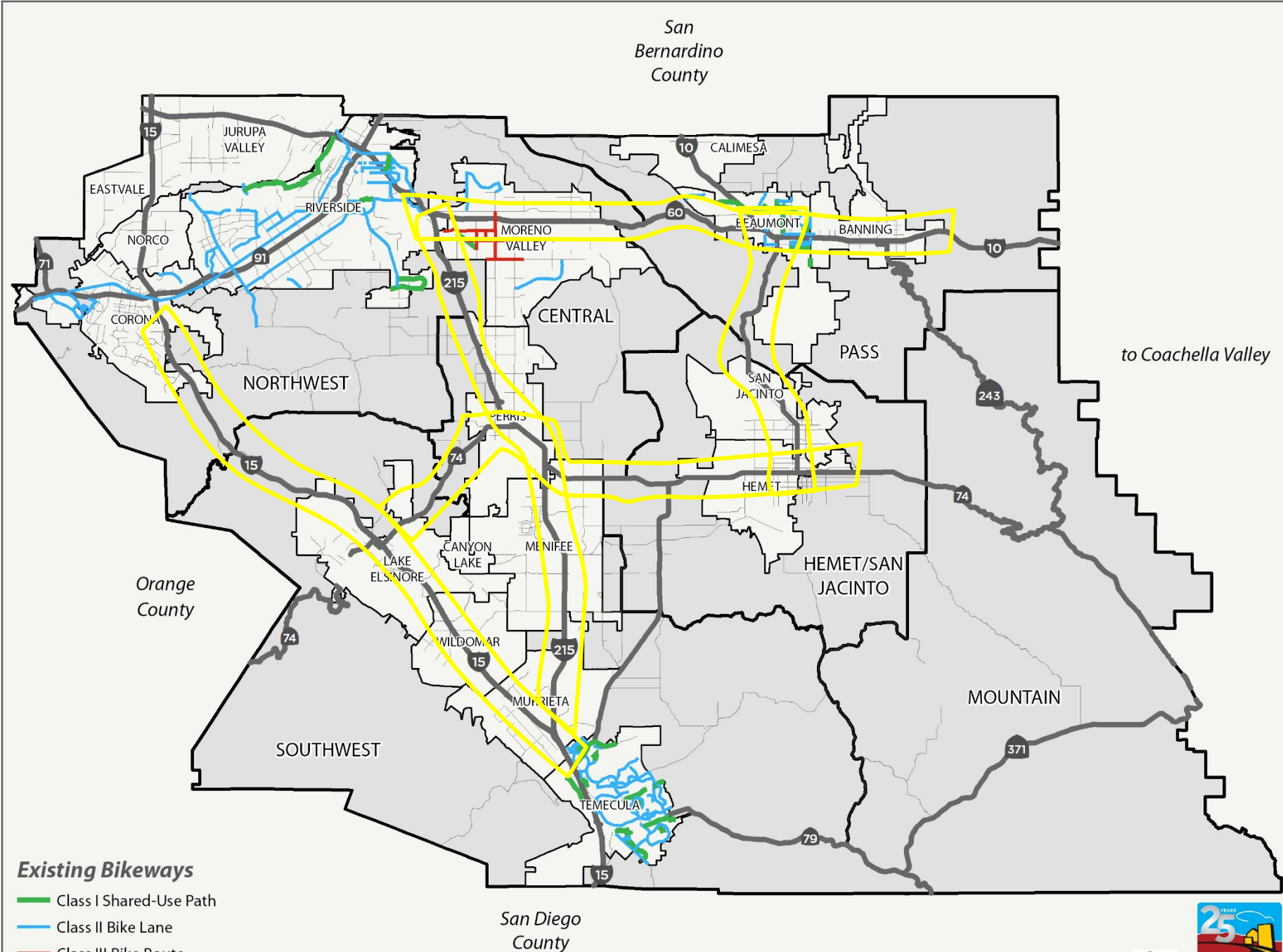
White \$49,190.01 - \$188,077.00

San Diego County

Data obtained from RIVCOIT.org.
Map created Nov. 30th, 2019.

0 5 10 Miles





Existing Bikeways

- Class I Shared-Use Path
- Class II Bike Lane
- Class III Bike Route

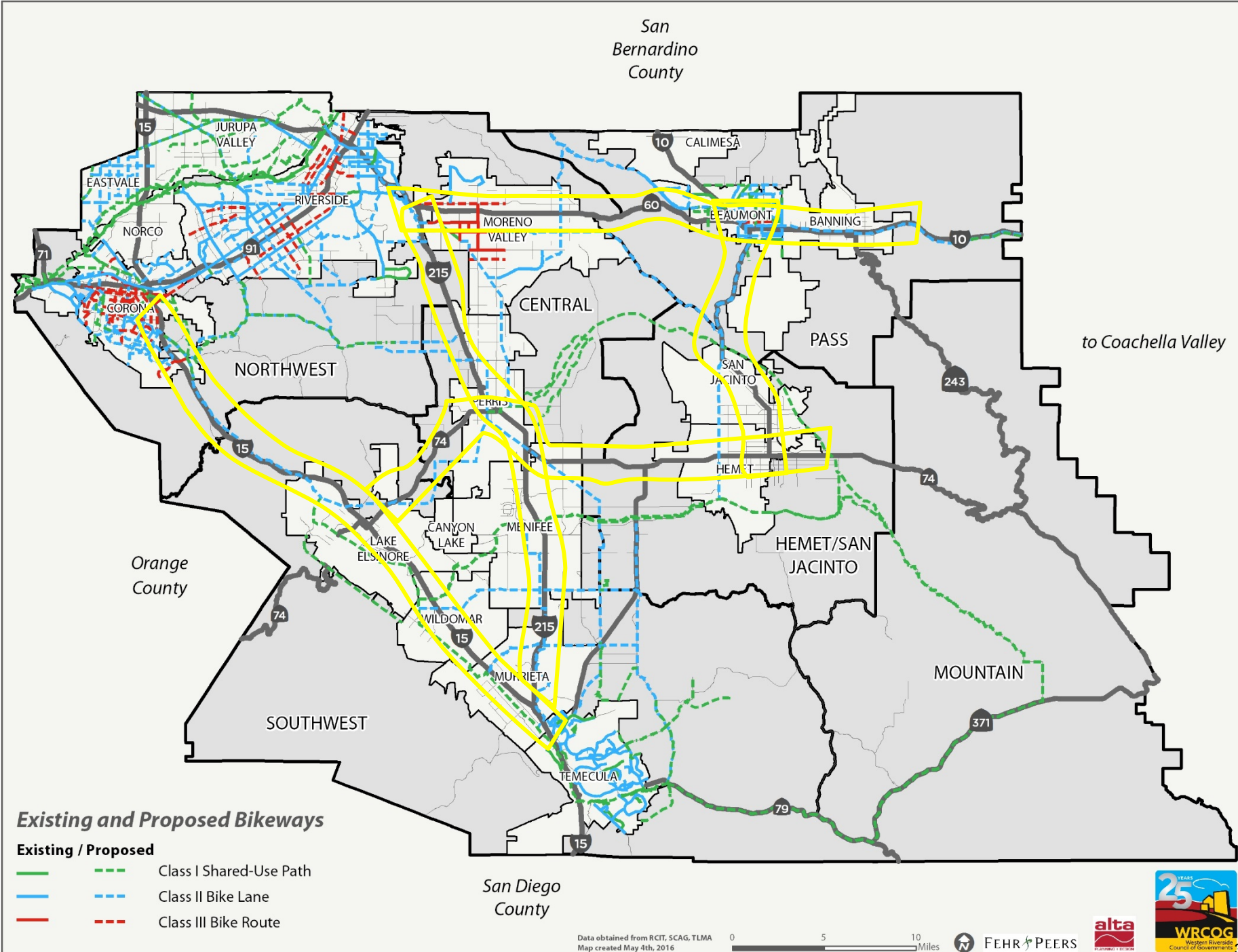
Data obtained from RCT, SCAG, TLMA
Map created May 4th, 2016

0 5 10 Miles

FEHR & PEERS

alta

25 YEARS
WRCOG
Western Riverside
Council of Governments

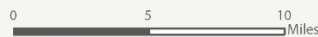


Existing and Proposed Bikeways

Existing / Proposed

- | | | |
|--|--|-------------------------|
| | | Class I Shared-Use Path |
| | | Class II Bike Lane |
| | | Class III Bike Route |

Data obtained from RCT, SCAG, TLMA
Map created May 4th, 2016





Western Riverside Active Transportation Plan

Project Update

- Finalized Existing Conditions Report
- Health, Safety & Education Metrics
- Drafted Goals & Objectives
- Drafting Active Transportation Network
- On-going stakeholder involvement
 - Riverside ATN
 - WRCOG staff and forums
 - Individual agencies

Mission

WRCOG seeks to improve transportation choices within the WRCOG region that will benefit all residents, employees and visitors within Western Riverside County. The ATP furthers this vision by identifying regional facilities to provide more transportation options within the WRCOG subregion. The ATP will also seek to identify funding opportunities to plan and construct projects to enhance the Western Riverside County's active transportation network. WRCOG sees its role as a facilitator towards future improvements, relying on our member agencies to conduct studies and implement future projects in furtherance of these overall goals.

Existing Sources for Goals

	NMTP	WRCOG Sustainability Framework	TUMF	Subregional CAP	SCAG RTP/SCS	SB 743*	California Statewide Bike/Ped Plan
<i>Active Transportation Facilities</i>	X	X		X	X	X	X
<i>Greenhouse Gas Reduction</i>	X	X	X	X	X		X
<i>Safety</i>	X				X		X
<i>VMT</i>	X	X	X	X	X	X	
<i>Access</i>	X	X		X	X		X
<i>AT Funding</i>	X	X	X		X		

* State legislation does not have a set list of "goals"

Draft Goals

1. Maximize **regional mobility** through AT.
2. Address **safety** and barriers to access in areas of traffic and bicycle/pedestrian activity.
3. Create affordable AT **options to reduce** criteria pollutants, greenhouse gas emissions, and lower VMT.
4. Using active transportation as a way to integrate **physical activity**.
5. Foster **equitable and economically** vibrant communities with greater transportation choices and access.

Draft Objectives

1. Create a **regional** active transportation **network** through coordination among member cities and regional entities.
2. Develop **programs** and **policies** focused on education/encouragement, enforcement, equity, economics, and evaluation.
3. Provide guidance for setting regional active transportation policies and develop guidelines to encourage **future investments**.
4. Increase dedicated **funding** for bicycle and pedestrian infrastructure and expedite **implementation**.
5. Promote **healthy and active living** with increased physical activity for residents of all ages.
6. Improve **connectivity** to important local and regional destinations.
7. Create a **safer** environment by decreasing fatalities and injuries.

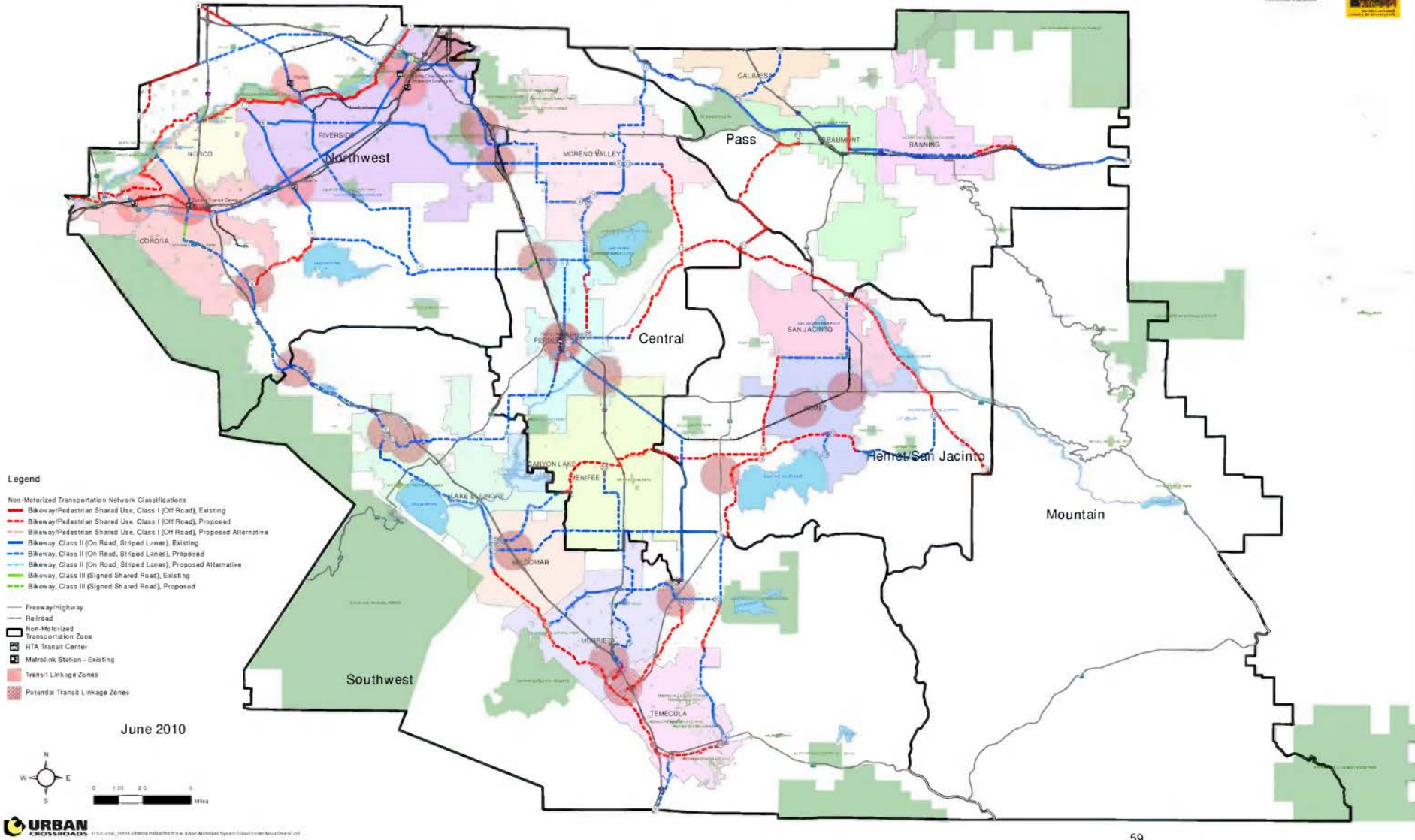
Strategies

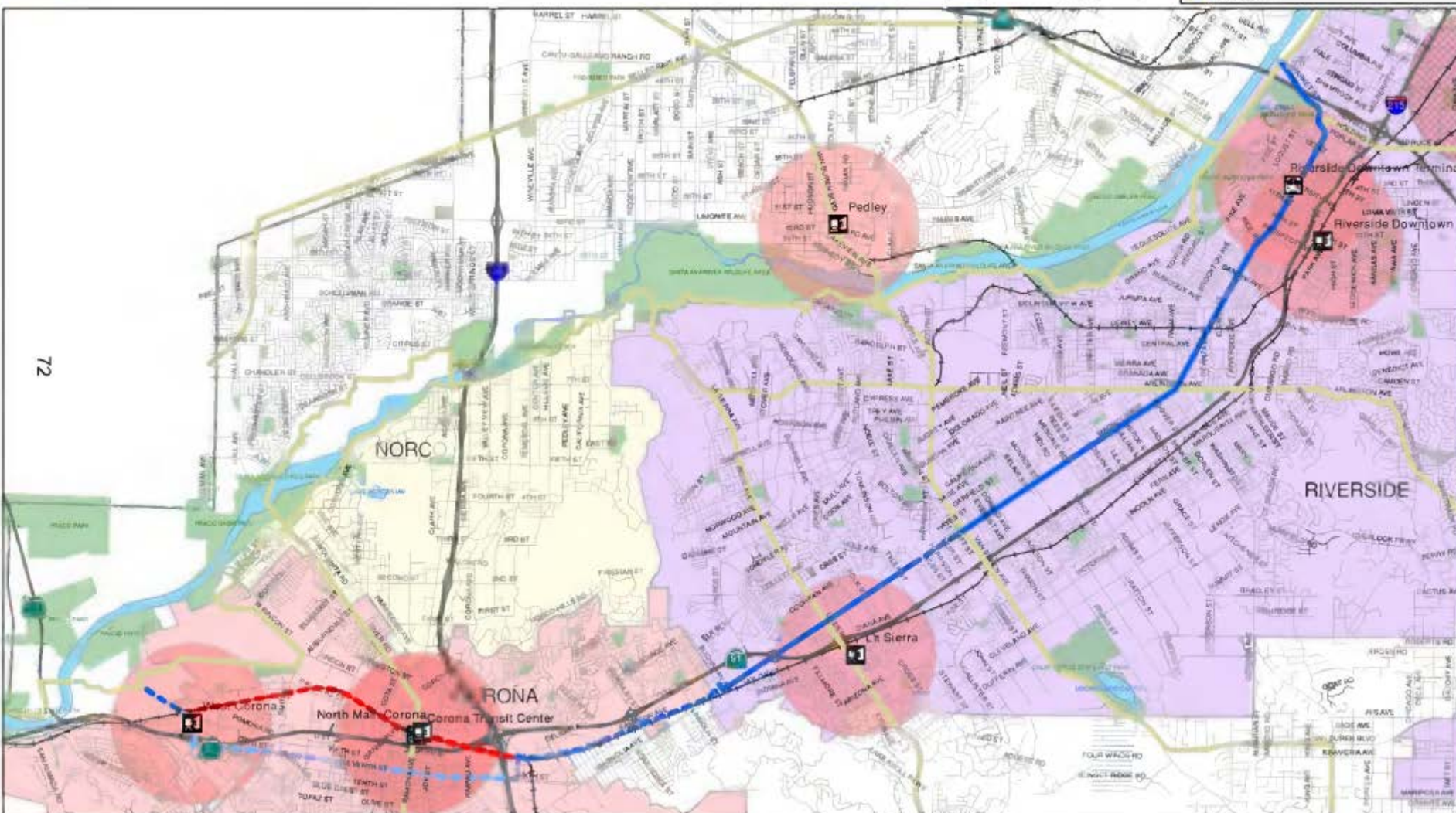
Different Categories –

- Safety
- Accessibility
- Maintenance and Funding
- Education/Community Involvement
- Encouragement/Evaluation
- Equity

Exhibit 5.0.1

WRCOG NON-MOTORIZED TRANSPORTATION NETWORK





WRCOG Regionally Significant Project Matrix

- Street Name/Project Name
- To/From
- Traverses multiple jurisdictions? How many and which ones?
- Provides access to or across barriers?
- Provides access to regional transportation facilities (transit, bike paths)?
- Funding available?
- Construction Horizon (Short, Medium, Long-term?)
- Are there similar facilities in the area that serve a similar purpose?
- Key destinations along route
- Notes

WRCOG Regionally Significant Project Matrix

Construction Horizon (Short, Medium, Long-term?)	Are there similar facilities in the area that serve a similar purpose?	Key destinations along route	Notes
	Class I route along Santa Ana River (also goes E/W)	Downtown Riverside, Downtown Corona	Challenges include: High speed arterials, many intersections/crossings

Non-Motorized Network Assessment

#	Name	Regional Connection	Links to Transit	Safety/ Low Stress	Equity	Recreational Opportunity
1	Santa Ana River	X	X	X		X
3	91 Corridor – Magnolia	X	X	X	X	
4	Van Buren – Washington	X	X	X	X	

Thank you!



Strategies: Safety

Examples –

- Address the actual and perceived safety/security concerns that limit biking and walking from being considered as viable mode choices through targeted educational efforts.
- Enforce proper and safe driving, bicycling, and walking practices and habits.
- Build bicycle and pedestrian infrastructure that is removed, protected, or buffered from automobiles.
- Provide adequate and consistent lighting along active transportation facilities.

Strategies: Accessibility

Examples –

- Prioritize corridors with existing or planned bicycle/pedestrian facilities.
- Provide bicycle detection at intersections and pedestrian activated push-buttons.
- Install bicycle parking throughout downtown retail areas (individual cities).

Strategies: Maintenance and Funding

Examples –

- Improve pavement condition and give priority to designated bike routes and corridors with high bicycle ridership.
- Keep roads and bike lanes clear of debris (prioritize street sweeping on routes with curbside bike lanes).
- Identify employees who will serve as a bicycle and pedestrian coordinator and manage non-motorized transportation projects and ongoing route maintenance.
- Coordinate street repaving, facility upgrades, and restriping with bicycle plan implementation and prioritize projects that include bicycle infrastructure.

Strategies: Education/ Community Involvement

Examples –

- Pursue Office of Traffic Safety grants for outreach campaigns.
- Establish Bike-Friendly Business Districts (BFBD).
- Conduct active transportation demonstrations through tactical urbanism, informing the community of what types of facilities could-be made permanent.

Strategies: Encouragement/Evaluation

Examples –

- Establish a large-scale car-free day similar to the popular events thorough Southern California. Open streets events have proven to be an effective strategy to encourage active living.
- Conduct walk/bicycle audits as part of outreach strategies for new development projects or as a comprehensive Safe Routes to School (SRTS) program.
- Develop metrics to measure the impact of walking and bicycling on public health, resident and merchant perceptions, environmental impact, amount of cycling, and safety

Strategies: Equity

Examples –

- Improve the ability of traditionally underserved communities to travel safely and conveniently via walking or biking
- Involve the community in the planning process, with a foundation of transparency, inclusiveness, respectfulness, and trustworthiness.
- Develop active transportation routes that connect residents to key destinations including school, work, and shopping.



Western Riverside Active Transportation Plan

Project Update

- Finalized Existing Conditions Report
- Finalized Goals & Objectives
- Health, Safety & Education Metrics
- Drafting Active Transportation Network
- On-going stakeholder involvement
 - Riverside ATN
 - WRCOG staff and forums
 - Individual agencies

Regional Coordination

Regional efforts that can cross-collaborate

1. WRCOG ATP
2. RTA First-mile/Last-mile
3. Sustainability Framework
4. TUMF
5. Local plans
6. Parks/Recreation/Utilities

Outreach Process

- Presentation and initial correspondence
December 2016
 - Reviewed criteria
 - Matrix included with email
- Response collection between December 2016-
January 2017
 - Most jurisdictions provided completed Matrix, some with supporting materials
 - Project list composed based on review of projects relative to regional project criteria established for WRCOG ATP
 - Will prepare project sheets for 15 key regional facilities

WRCOG Regionally Significant Project Matrix

Provi to c bi	Key destinations along route	Notes	Similar e area milar ?
I-15 Teme BNSF F	Lake Elsinore Riverwalk Trail, Santa Ana River Trail, Lake Elsinore Outlets, Corona Crossings, Multiple Local Parks	This trail system would provide bicycle and pedestrian access from near the Lake Elsinore/Wildomar city limits up to the Santa Ana River Trail in Corona. The trail runs parallel to the Lake Elsinore Riverwalk Trail in Lake Elsinore and then runs along the I-15/Temescal Wash up through Corona. It will link to additional bicycle, pedestrian, transit, and recreational facilities throughout its length.	

WRCOG Regionally Significant Project Matrix

#	Street Name/Project Name	Potential Facility Type	To	From	Traverses multiple jurisdictions? How many and which ones?
1	Harrison Road Diet	Class II, Class IV, Road Diet Separation	Ontario Limit to North	Chandler/Santa Ana Regional Trail	Proposed trail network to Santa Ana Regional Trail

Project Prioritization

- Does the local project cross or travel along a regional route (from the NMTP)?
- Did multiple jurisdictions recommend the same project?
- Matrix questions
 - Traverses multiple jurisdictions? How many and which ones?
 - Provides access to regional transportation facilities (transit, bike paths)?
 - Key destinations along route
 - Are there similar facilities in the area that serve a similar purpose?
 - Provides access to or across barriers?
 - Funding available?
 - Construction Horizon (Short, Medium, Long-term?)



Results

- Geographically diverse projects
- ~30 local projects considered for regional active transportation network
- Remaining local projects to be categorized as other regional efforts (such as first-mile/last-mile) or maintained as local projects



Santa Ana River Trail

Thank you!





Western Riverside COG Active Transportation Plan

Project Update

- Existing Conditions Report (Complete)
- Goals & Objectives (Complete)
- Develop Draft Active Transportation Network
- On-going stakeholder involvement
 - Riverside ATN (Public Works & Planning Directors)
 - WRCOG staff and forums
 - Individual agencies

Regional Coordination

Regional efforts:

1. WRCOG ATP
2. RTA First-mile/Last-mile Plan
3. County Trails Master Plan
4. TUMF
5. Sustainability Framework
6. Local plans
7. Parks/Recreation/Utilities

Outreach Process

Presentation and initial correspondence
December 2016

- Reviewed criteria
- Project matrix included with email

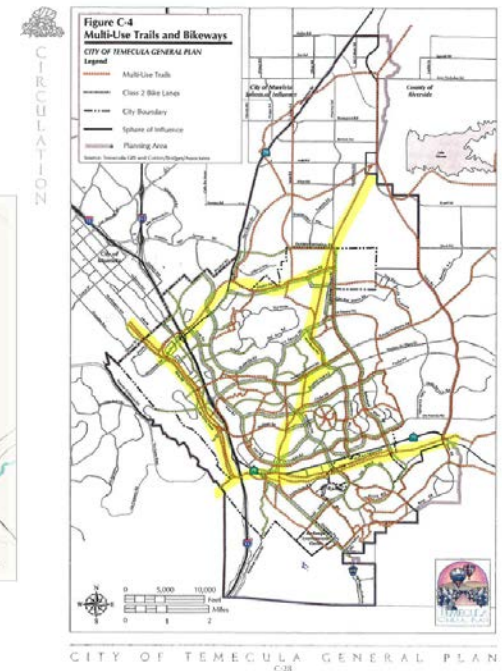
Response collection between December 2016-
January 2017

- Jurisdictions provided completed project matrix, some with supporting materials
- Draft project list composed based on review of projects relative to regional project criteria established for WRCOG ATP

Outreach Process

February 2017 - Current

- Presented draft project list and map at several meetings
- Individual correspondence with jurisdictions
 - Worked with 10 agencies to make changes
 - Updated project list and map as appropriate



Results

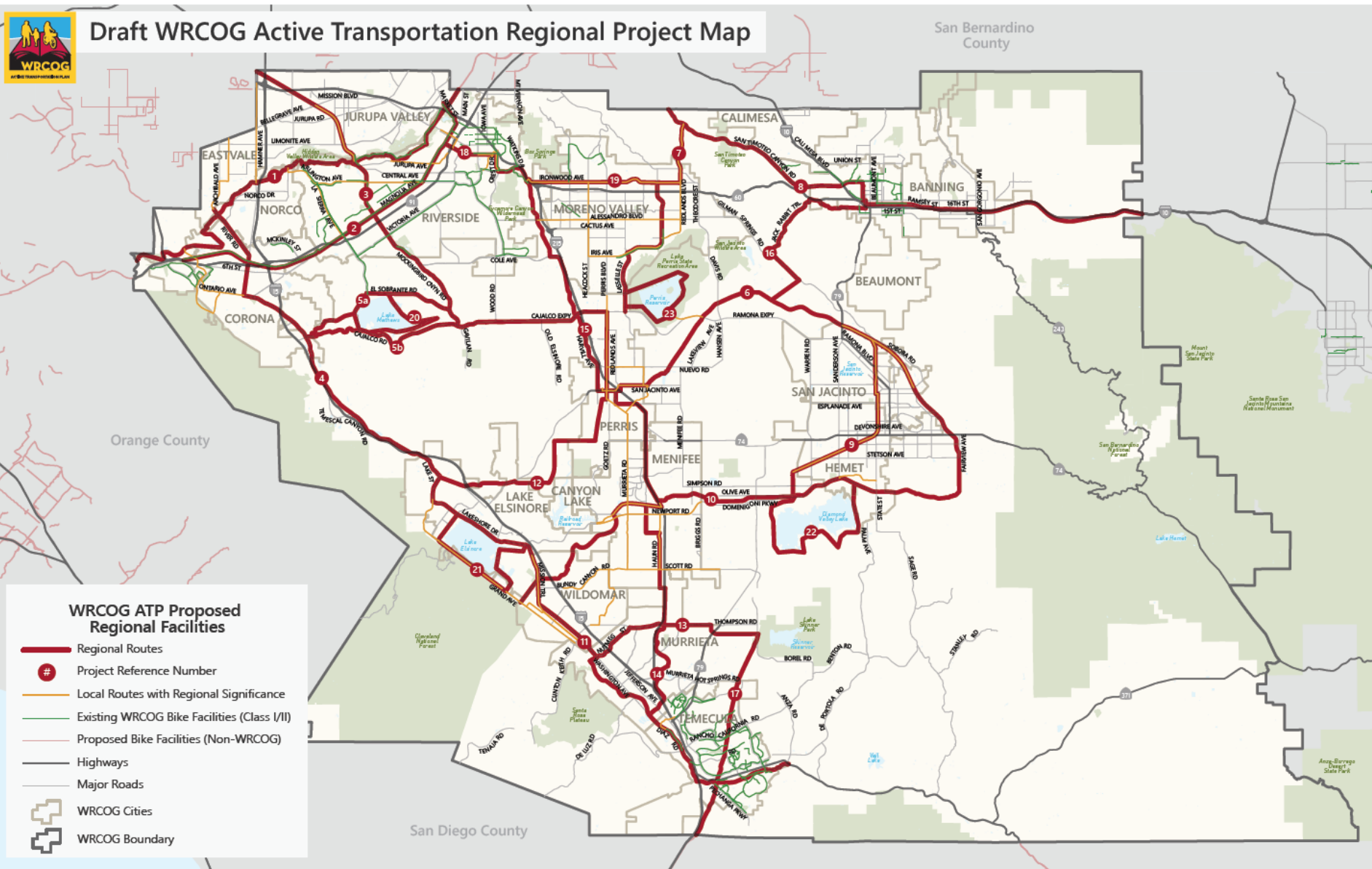
- Geographically diverse projects
- ~45 local projects considered for regional active transportation network (*15 new since last project list*)
- Connections to RTA and Master Trails study, as well as TUMF projects and existing facilities



Santa Ana River Trail



Draft WRCOG Active Transportation Regional Project Map



#	Route Name	Length (miles)	Recommended by	Local Route Overlaps	Local Route Intersects	RTA First/Last Mile
1	Santa Ana River	26.8				
	Harrison Road Diet		Eastvale		X	
	Hamner Bikeway		Eastvale		X	Complements
2	91 Corridor via Magnolia	19.7				Overlaps
	Butterfield Overland Trail		Corona		X	
	Jurupa / Olivewood		Riverside		X	
	Vine / Mission Inn		Riverside		X	Complements
	La Sierra		Riverside		X	
3	Cajalco – San Bernardino Co. Line via Van Buren	18.9				
	Van Buren Boulevard		Jurupa Valley	X (entire route)		
	Arlington Ave		Riverside		X	
4	15 Corridor via Temescal Canyon	20.8				
	Ontario Ave		Corona		X	
	Butterfield Overland Trail		Lake Elsinore	X		
5a	East Corona – Lake Perris via El Sobrante	19.0				Complements
5b	East Corona – <i>Lake Perris (Alternative) via Cajalco Rd</i>	17.7				
6	Bautista Creek – Perris via San Jacinto River	25.8				
	Juan Bautista De Anza Historic Trail (on San Jacinto River Levee)		San Jacinto	X		
	4th Street/San Jacinto Ave		Perris	X		Complements
	Perris Valley Channel Multi-Purpose Trail (Phase 2)		Perris		X	
	Bernasconi Rd		Moreno Valley		X	

7	San Timoteo Canyon Rd – Ramona Expy	13.3				Overlaps
	Alessandro Boulevard		Moreno Valley	X		
	Iris Avenue		Moreno Valley	X		
	JFK Drive		Moreno Valley	X		
	Redlands Blvd		Moreno Valley	X		
8	San Bernardino Co – Interstate 10 Pass Area via San Timoteo Canyon Rd	29.3				
9	San Jacinto River Park – Diamond Valley Lake <i>[Adjusted]</i>	11.6				
	Hemet Valley Bikeway Connect		Hemet	X (entire route)		
	Salt Creek Trail - B		Riverside County	X		
10	Bautista Creek – Mission Trail via Salt Creek/Lost Rd/Lemon St	31.2				Overlaps
	Salt Creek Trail - A		Riverside County	X		
	Newport Rd		Menifee		X	
	Murrieta		Menifee		X	
11	Lake Elsinore – Murrieta/Temecula Creek	30.4				Complements
	Murrieta Creek Regional Trail		Wildomar	X		
	Santa Gertrudis Interconnect		Temecula	X		Overlaps
	Butterfield Overland Trail		Lake Elsinore		X	
	Murrieta Creek Trail/Union		Lake Elsinore			
12	Aberhill Ranch – Ramona Expy via Perris Blvd	18.0				Overlaps
	Perris Blvd		Perris	X		Overlaps
	Nuevo Rd		Perris		X	
13	Jefferson Ave – Lake Skinner	9.9				
14	215 South Corridor	14.1				
	Scott-Haun-Newport		Menifee	X		

	Scott		Menifee		X	
	Newport Rd		Menifee		X	
	Bundy Canyon Active Transportation Corridor		Wildomar			
	Sunset Regional Trail		Wildomar			
15	215 Central Corridor <i>[Partial]</i>	21.4				Overlaps
16	Gilman Springs Rd – Beaumont	11.4				
17	Lake Skinner – San Diego Co	11.6				
18	<i>Riverside Hunter Park – Downtown Menifee</i>	6.4				
	MLK Bike Path		Riverside	X		
	Canyon Crest		Riverside	X		
	Perris Downtown to South Metrolink Station Connectivity		Perris	X		Complements
	Perris Valley Channel Multi-Purpose Trail (Phase 2)		Perris		X	
	Murrieta Rd		Perris		X	
	Gage Canal		Riverside		X	
19	<i>Eastern Riverside – Moreno Beach Dr via Ironwood Ave</i>	7.0				
	Ironwood Avenue / Box Springs Road		Moreno Valley	X		
	Heacock St		Moreno Valley		X	
20	<i>Lake Matthews Loop</i>	8.7				
21	<i>Lake Elsinore Loop</i>	10.7				
	Wildomar Trail		Wildomar	X		
	Butterfield Overland Trail		Lake Elsinore	X		
22	<i>Pave Diamond Valley Lake Lakeview Trail (low priority)</i>	13.1				Complements
23	<i>Complete Perris Reservoir Loop</i>	9.0				Complements

Thank you!



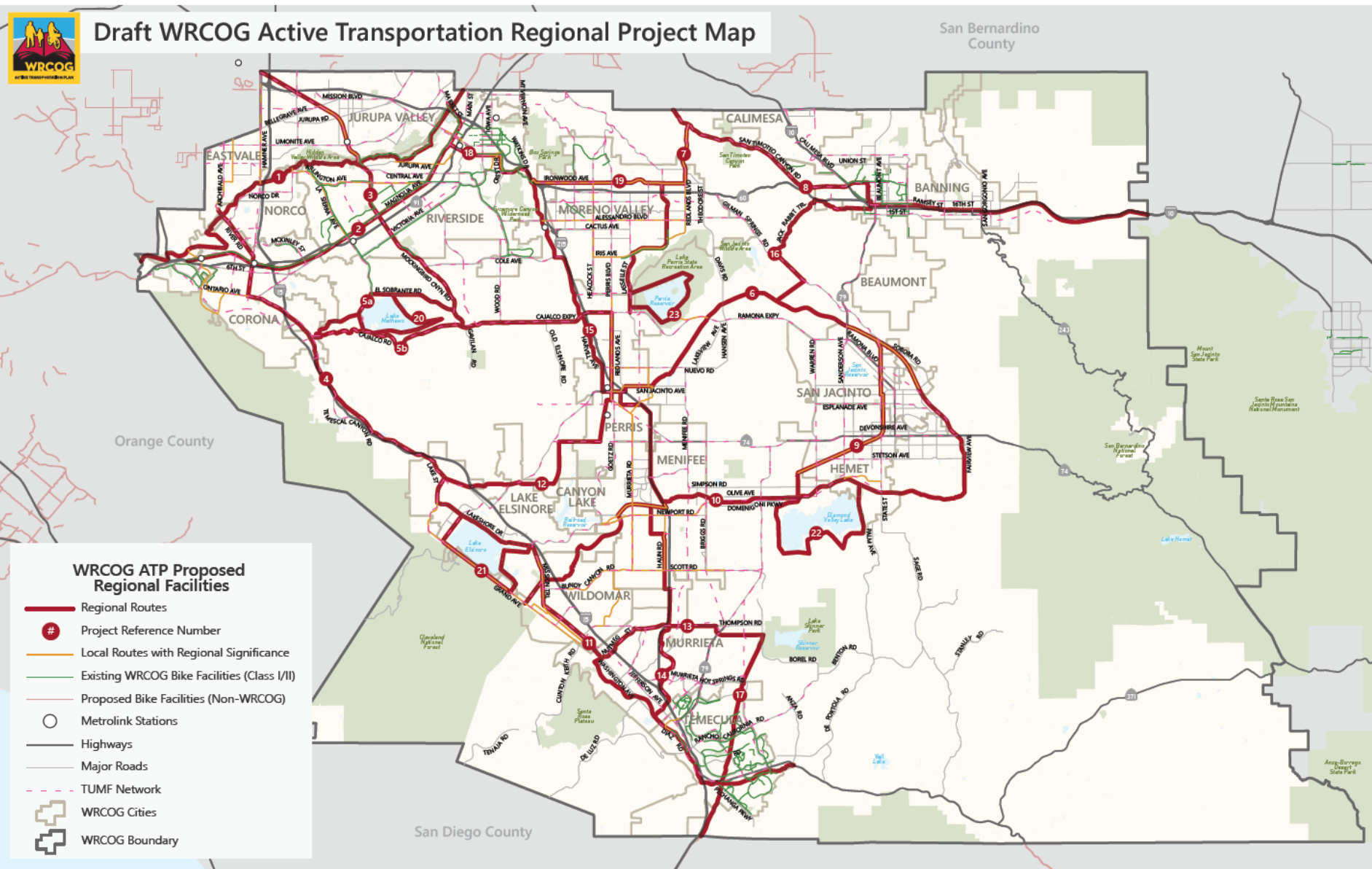
Project Prioritization

- Does the local project cross or travel along a regional route (from the NMTP)?
- Did multiple jurisdictions recommend the same project?
- Matrix questions
 - Traverses multiple jurisdictions? How many and which ones?
 - Provides access to regional transportation facilities (transit, bike paths)?
 - Key destinations along route
 - Are there similar facilities in the area that serve a similar purpose?
 - Provides access to or across barriers?
 - Funding available?
 - Construction Horizon (Short, Medium, Long-term?)





Draft WRCOG Active Transportation Regional Project Map





Western Riverside Council of Governments Active Transportation Plan

Project Purpose



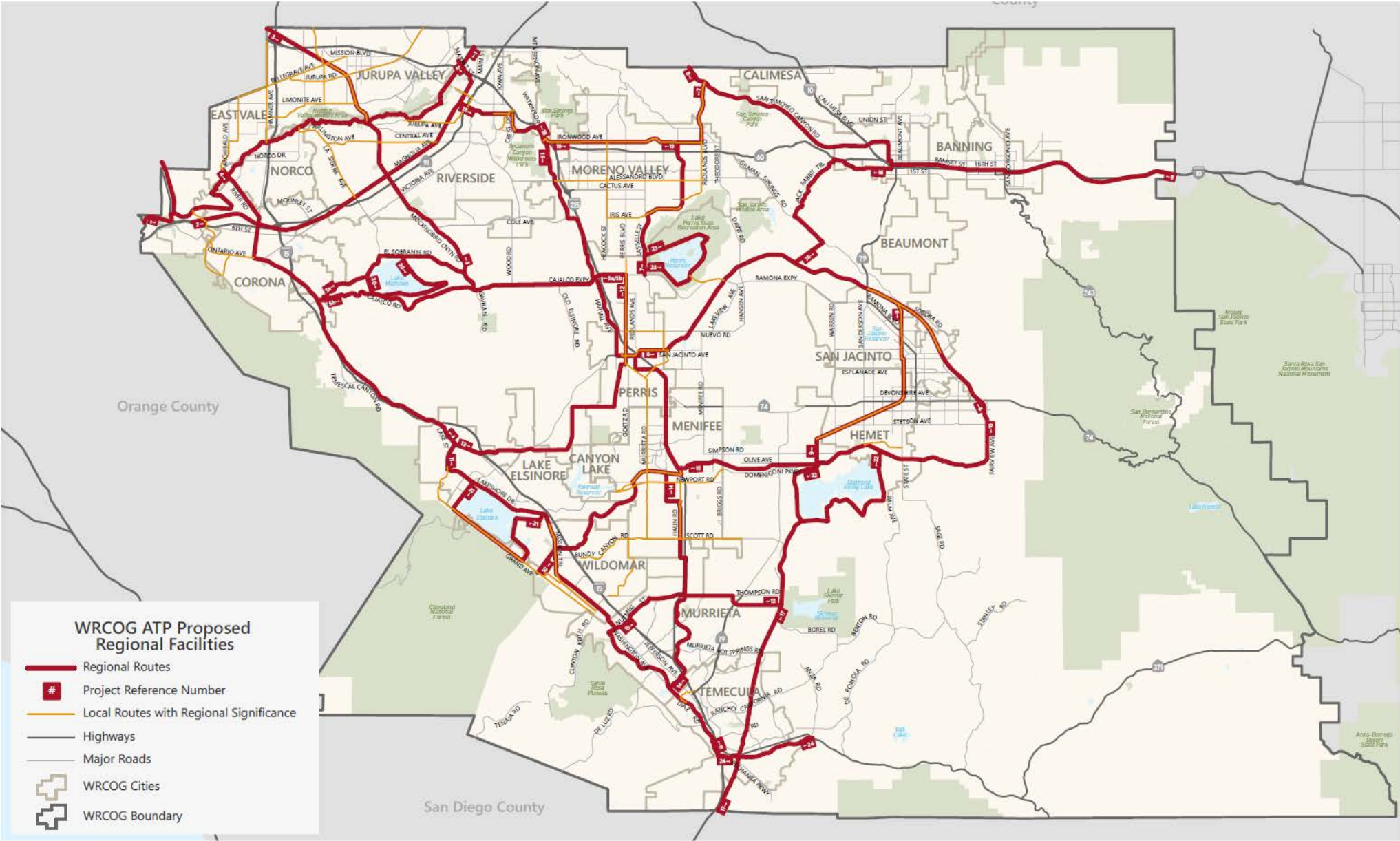
- The Active Transportation Plan (ATP) focuses on enhancing the non-motorized infrastructure throughout the region, in hopes of developing a robust network for people who choose or need to walk and/or bike.
- The plan serves as a resource for WRCOG member jurisdictions and stakeholders to help identify important active transportation facilities they would like to see in their community and provides guidance on how each individual project can be achieved

Project Overview

- 2016 – Existing Conditions Report
 - Goals & Objectives
 - Draft Active Transportation Network
- 2017 – Stakeholder Outreach
 - Finalizing Active Transportation Network
 - Draft Active Transportation Plan
- 2018 – Final Active Transportation Plan



Final Regional Network



Final Regional Project List

#	Route Name	Length (miles)	Recommended by
1	Santa Ana River	26.8	
	Harrison Road Diet	4.5	Eastvale
	Hamner Bikeway	5.4	Eastvale
2	SR-91 Corridor Via Magnolia Ave	19.7	
	Butterfield Overland Trail	6.1	Corona
	Jurupa / Olivewood	3.4	Riverside
	Vine / Mission Inn	1.6	Riverside
	La Sierra	3.2	Riverside
3	Cajalco – San Bernardino County Line	18.9	
	Van Buren Boulevard	3.9	Jurupa Valley
	Arlington Ave	7.9	Riverside
	Bellegrave Ave	6.2	Eastvale
	Jurupa Road Corridor	8.2	Jurupa Valley
	Holmes Ave/Limonite Ave	5.1	Jurupa Valley
	San Sevaine Trail	4.2	Jurupa Valley
4	I-15 Corridor via Temescal Canyon	20.8	
	Ontario Ave	2.9	Corona
	Butterfield Overland Trail	7.2	Lake Elsinore
5a	East Corona – Lake Perris via El Sobrante	19.0	
5b	East Corona – Lake Perris (Alternative) via Cajalco Rd	17.7	
6	Bautista Creek – Perris	25.8	
	Juan Bautista De Anza Historic Trail (on San Jacinto River Levee)	5.4	San Jacinto
	4th Street/San Jacinto Ave	2.2	Perris
	Perris Valley Channel Multi-Purpose Trail (Phase 2)	3.5	Perris
	Bernasconi Rd	2.0	Moreno Valley



Final Regional Project List

#	Route Name	Length (miles)	Recommended by
7	San Timoteo Canyon Road – Ramona Expressway	13.3	
	Alessandro Boulevard	7.8	Moreno Valley
	Iris Avenue	4.1	Moreno Valley
	JFK Drive	1.2	Moreno Valley
	Redlands Blvd	5.8	Moreno Valley
8	San Bernardino County – Interstate 10 Pass Area	29.3	
9	San Jacinto River Park – Diamond Valley Lake	11.6	
	Hemet Valley Bikeway Connect	10.3	Hemet
	Salt Creek Trail - B	2.2	Riverside County
10	Bautista Creek – Mission Trail	31.2	
	Salt Creek Trail - A	4.2	Riverside County
	Newport Rd	6.1	Menifee
	Murrieta	8.5	Menifee
11	Lake Elsinore – Murrieta Creek	24.9	
	Murrieta Creek Regional Trail	5.6	Wildomar
	Santa Gertrudis Interconnect	1.4	Temecula
	Butterfield Overland Trail	7.2	Lake Elsinore
	Murrieta Creek Trail/Union	3.6	Lake Elsinore
12	Aberhill Ranch – Ramona Expressway	18.0	
	Perris Blvd	5.6	Perris
	Nuevo Rd	2.0	Perris
13	Jefferson Avenue – Lake Skinner	9.9	



Final Regional Project List

#	Route Name	Length (miles)	Recommended by
14	I-215 South Corridor	14.1	
	Scott-Haun-Newport	3.0	Menifee
	Scott	6.1	Menifee
	Newport Rd	6.1	Menifee
	Bundy Canyon Active Transportation Corridor	3.0	Wildomar
	Sunset Regional Trail	4.2	Wildomar
15	I-215 Central Corridor	21.4	
16	Gilman Springs Road – Beaumont	11.4	
17	Lake Skinner – San Diego County	11.6	
18	Riverside Hunter Park – Downtown Menifee	6.4	
	MLK Bike Path	1.3	Riverside
	Canyon Crest	0.9	Riverside
	Perris Downtown to South Metrolink Station Connectivity	2.2	Perris
	Perris Valley Channel Multi-Purpose Trail (Phase 2)	3.5	Perris
	Murrieta Rd	1.4	Perris
	Gage Canal	1.1	Riverside
19	East Riverside – Moreno Beach Drive	7.0	
	Ironwood Avenue / Box Springs Road	8.6	Moreno Valley
	Heacock St	4.0	Moreno Valley
20	Lake Mathews Loop	8.7	
21	Lake Elsinore Loop	10.7	
	Wildomar Trail	4.7	Wildomar
	Butterfield Overland Trail	7.2	Lake Elsinore
22	Diamond Valley Lake Lakeview Trail	13.1	
23	Perris Reservoir Loop	9.0	
24	Murrieta Creek – Temecula Creek	5.4	



Latest Update

- Draft Western Riverside Active Transportation Plan complete
 - Includes:
 - Overview of Regional Active Transportation network
 - Active transportation Goals & Objectives for the region
 - Active transportation and impacts on health
 - Detailed project-level summary sheets providing information on individual facilities, supported by statistics, cost estimates, and feasibility outlines
 - Implementation and Funding guidance
 - Technical Appendices covering Green/Complete Streets, Freeway Facilities, and Implementation Case Studies



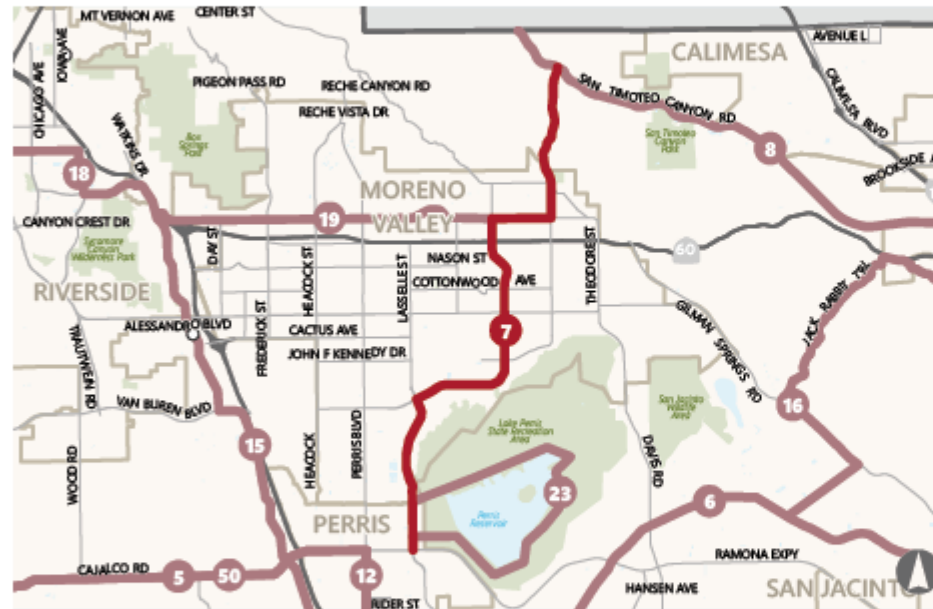
Sample Regional Facility



PERRIS - MORENO VALLEY

7 | SAN TIMOTEO CANYON ROAD – RAMONA EXPRESSWAY

Project Map



Project Overview + Scope

The San Timoteo Canyon Rd – Ramona Expy route is a north-south regional facility connecting Moreno Valley and Perris. This potential facility would provide 3.7 miles of Class IV one-way cycle tracks on both sides of Moreno Beach Drive. An additional 9.3 miles of Class II Buffered bike lanes would bring the total facility to 13.3 miles. While Moreno Beach Drive and Lasselle Street have some existing active transportation facilities, and could be improved by expanding connections to destinations and existing/proposed bicycle facilities and implementing infrastructure that better addresses active transportation safety, access, and mobility. This project would help to provide an active transportation facility within one half mile of major transportation connections, several parks, schools, and retail destinations. The project also improves connectivity to nearby jurisdictions through linkages with local active transportation routes that are both existing and proposed.

Key Connections

Major Destinations

- Kaiser Permanente Moreno Valley Medical Center
- Stoneridge Town Centre
- Moreno Beach Plaza
- Lasselle Sports Park

Regional Transportation Facilities

- RTA Bus Lines 20, 31, 41

Trails

- None -

Schools

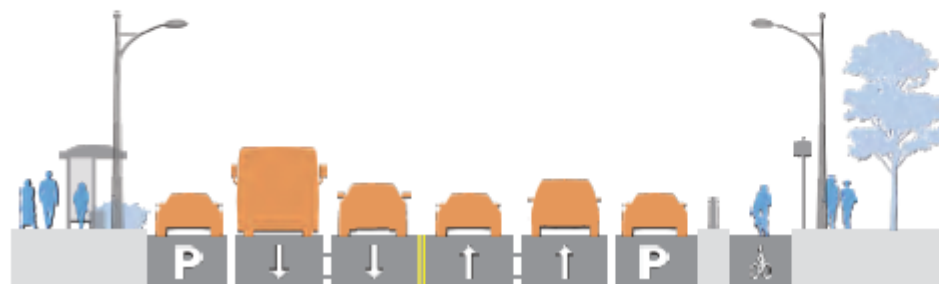
- Moreno Valley College
- Wilmot Elementary School
- Rancho Verde High School

Parks

- Lake Perris State Recreation Area
- Vista Loma Park
- El Portrero Park



Sample Project Cross Section



Health Environment

Health: Increases length of biking network, provides the option to a segment of the population to connect to recreation and jobs via bicycle commuting and potentially improves health conditions via active transportation and connections to recreation.

Safety: Special consideration at intersection crossings and intersection approaches with existing roads improves Levels of Traffic Stress along the route.

Local Demographics (within ½-mile)

23,807



Households within ½-mile of the proposed facility

32



Median age

51%



Of the population is female

14%



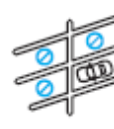
Have limited English proficiency

11%



Are under the poverty line

2%



Have no available vehicle

Collision History



168

collisions within ½-mile



7

pedestrians killed or injured



17

bicyclists killed or injured



6

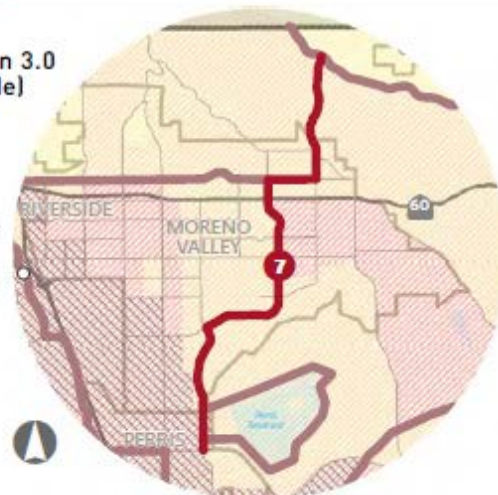
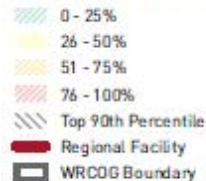
hit-and-run collisions

Benefits to Implementation

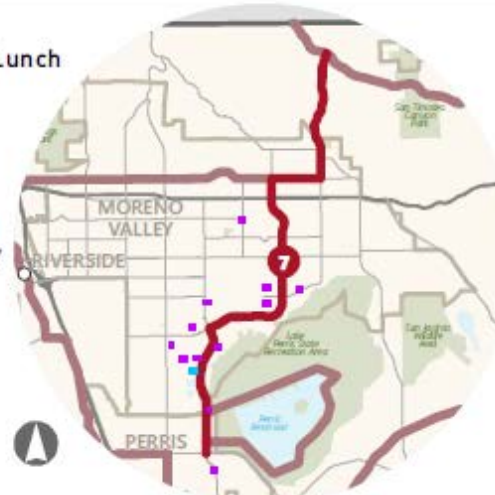
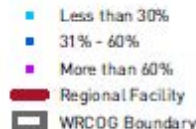
- May reduce congestion, pollution, and average daily trips in Moreno Valley, particularly surrounding Kaiser Permanente and Rancho Vista High School by providing an active transportation route for employees and students to use
- May alleviate congestion and pollution surrounding Rancho Vista High School by encouraging students, parents, and faculty to bike to school/work
- Provides bicycle access to multiple shopping centers in the region, which can help stimulate the local economy
- Promotes physical fitness among residents of Moreno Valley by providing a central, well-connected bike route

Disadvantaged Communities

CalEnviroScreen 3.0 Score (Statewide)



Free/Reduced Lunch Participation (within 1 mile)



Estimated Costs

Total Estimated Cost	\$11,424,700
Class IV One-Way Cycle Track 7.4 miles	\$3,953,500
Class II Buffered Bike Lane 9.3 miles	\$7,471,200

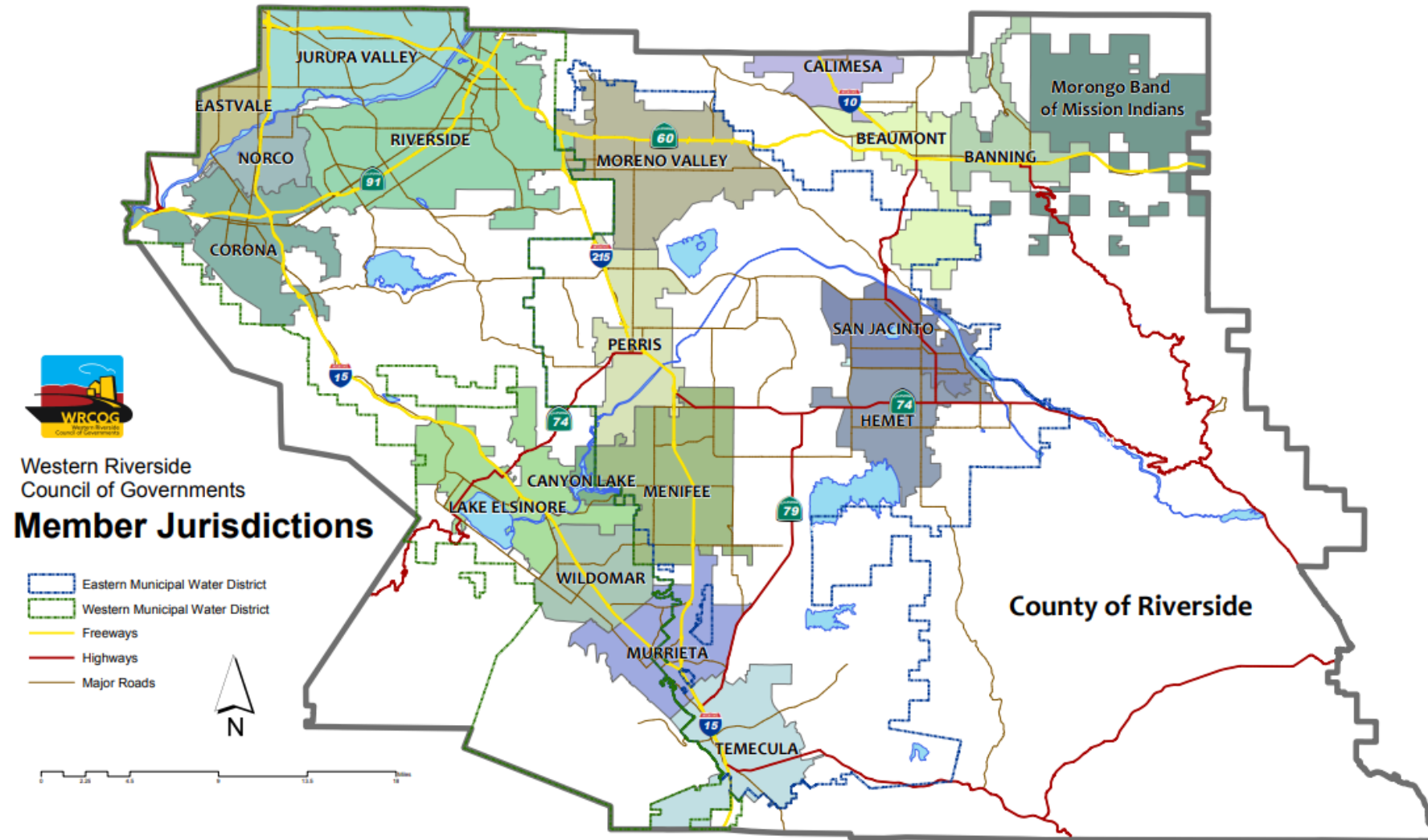
Challenges to Implementation

- Requires coordination with Caltrans for the SR-60 crossing
- Requires coordination between Moreno Valley and Perris city staff
- May require intersection reconfiguration as part of a different project at:
 - » Krameria Avenue at Lasselle Street
 - » Lasselle Street at College Drive
 - » Lasselle Street at Iris Avenue
 - » Iris Avenue at Via Del Lago
 - » Moreno Beach Drive at John F Kennedy Drive
 - » Moreno Beach Drive at Cactus Avenue
 - » Moreno Beach Drive at Eucalyptus Avenue
 - » Moreno Beach Drive at SR-60 on and off ramps

Feasibility Considerations

- The width of the segment from Ramona Expressway to Marabelle Gate along Evan Road is approximately 56 feet with two travel lanes and a shoulder in both directions. Eight foot buffered bike lanes could be accommodated in each direction through paving the shoulder and restriping and narrowing the travel lanes to 10 feet.
- The width of the segment from Evans Road & Marabelle Gate to Lasselle Street & Iris Avenue is 78 feet with two travel lanes in both directions and a center median. Eight foot buffered bike lanes could be accommodated in each direction by restriping and narrowing the travel lanes to 10 to 12 feet.
- The width of the segment from Lasselle Street & Iris Avenue to Moreno Beach Drive & Brodiaea Avenue is 106 feet with three travel lanes and a bike lane in both directions and a center median. The bike lanes are wide enough to accommodate a protected bike lane without needing to restripe and narrow the travel lanes.

Any Questions?



Western Riverside
Council of Governments

Member Jurisdictions

- Eastern Municipal Water District
- Western Municipal Water District
- Freeways
- Highways
- Major Roads



0 2.5 5 10



Survey Materials



WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS (WRCOG)

Active Transportation Plan

ABOUT THE PROJECT

The Western Riverside Council of Governments (WRCOG) received a grant from Caltrans to prepare an Active Transportation Plan for the sub-region. This is a planning effort that is focused on understanding and enhancing the environment for people who walk and bike.

This effort will start with a review of existing conditions and ultimately provide a road map for WRCOG by identifying regional active transportation facilities that meet local needs and desires, while also considering resources for funding and implementation. This project will be informed through a focus on health, safety, mobility options, and recreational opportunities for people in the WRCOG area.

The WRCOG Active Transportation Plan (ATP) represents a tremendous opportunity to serve local activity and enhance mobility options. This project, active through the end of 2017, will continue the region's conversation regarding the needs and opportunities for all roadway users, and help to establish a policy framework enhancing active transportation mobility and safety for the future.

LET US KNOW WHAT YOU THINK!

We've developed a short survey for you to let us know your needs, values, and concerns about walking, bicycling, and transit. The survey is open through the month of April:

- Community Survey (English): https://www.surveymonkey.com/r/WRCOG_ATP_Eng
- Community Survey (Spanish): https://www.surveymonkey.com/r/WRCOG_ATP_Spa
- Staff Survey (English): https://www.surveymonkey.com/r/WRCOG_ATP_Staff



CONTACT US

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Western Riverside Council of Governments Active Transportation Plan Community Survey



**The survey has 13 questions, and should take no more than 5 minutes to complete*

1. Where do you live? Please input your zip code below.

Zip Code _____

2. How often do you walk or bike to work/school/errands?

☐ Every day ☐ At least once a week ☐ At least once a month ☐ Rarely or never

3. How often do you walk or bike for exercise/recreation?

☐ Every day ☐ At least once a week ☐ At least once a month ☐ Rarely or never

4. Why do you walk or bike? (check all that apply)

☐ Health and fitness ☐ Monetary savings ☐ Spend time outdoors ☐ More convenient than driving
☐ Fun/pleasure ☐ Environmentally friendly ☐ I do not walk/and or ride a bicycle
☐ I have no choice; walking and/or bicycling is my only option ☐ Other (please specify) _____

5. What locations do you currently or are you most interested in walking/bicycling to? (check all that apply)

☐ Work ☐ School ☐ Bus stop ☐ Shopping/errands ☐ Restaurants
☐ Houses of friends or family ☐ Civic buildings (library, city, or social services)
☐ Parks, open space or recreation center ☐ I prefer not to walk/bike
☐ No particular destination, just biking for fitness ☐ I can't walk/bike for other reasons
☐ Other _____

6. What trails and paved paths do you currently or are you most interested in walking/bicycling to? (check all that apply)

☐ Santa Ana River Trail ☐ Jim Real Regional Trail (Bain St) ☐ Santa Gertrudis Creek Trail
☐ Rosanna Scott Memorial Bicycle Trail (Victoria Avenue) ☐ Lakeview Trail (Diamond Valley Lake)
☐ Other (please specify) _____

7. What are the top three obstacles or concerns that may prevent you from walking and/or bicycling more?

☐ I do walk and/or ride frequently enough; no concerns here! ☐ Lack of interest in walking/bicycling
☐ The distance to my destination is too far ☐ The roads, sidewalks, or trails do not feel safe
☐ There aren't facilities such as bike parking, showers, or changing rooms at my destination (s)
☐ I don't know the best routes for walking/bicycling

- ☐ There are no convenient routes to the destination(s) I'd like to go to
- ☐ I'm not aware of recreational walking/biking trails or how to access them
- ☐ Sidewalks, bike lanes, or trails are not well maintained ☐ I have too much to carry
- ☐ High speed or heavy car traffic ☐ It's difficult to cross major streets
- ☐ There isn't enough shade (i.e., too hot) ☐ Drivers are too aggressive
- ☐ I don't know how to bike ☐ I don't have access to a bike
- ☐ Additional comments (e.g., where and why) _____

8. Please select your top three priorities for future active (walking, biking, transit) transportation investment.

- ☐ More paved paths and trails ☐ More sidewalks ☐ More on-street bikeways ☐ Bike parking
- ☐ Better crossings of major streets ☐ Shade trees, landscaping, lighting
- ☐ Directional wayfinding signage ☐ Education/training (classes, workshops, handouts) for drivers
- ☐ Education/training for people that bike ☐ Education/training for people that walk
- ☐ Connections to public transportation (i.e. bus and train stops)

9. Are you familiar with the *Western Riverside County Non-Motorized Transportation Plan*, published in June 2010?

- ☐ Yes ☐ No

10. Please provide any additional comments or information regarding walking and bicycling in Western Riverside County that you would like to share.

11. What is your age? (OPTIONAL)

- ☐ 18 and under ☐ 19-25 ☐ 26-35 ☐ 36-45 ☐ 46-55 ☐ 56-65 ☐ 66 and older

12. What is your gender? (OPTIONAL)

13. To receive updates related to the Western Riverside County Active Transportation Plan, including notification of public meetings and events, please include your email address below. (OPTIONAL)

Encuesta Comunitaria de Transporte Activo del Consejo de Gobiernos del Oeste de Riverside



**La encuesta tiene 13 preguntas y no debe de tardar más de 5 minutos.*

1. ¿Dónde vive? Por favor ponga su código postal abajo.

Código Postal _____

2. ¿Con que frecuencia camina o anda en bicicleta a su empleo/escuela/mandados?

- ☐ Todos los días ☐ Al menos una vez por semana ☐ Al menos una vez por mes
☐ Raramente o nunca

3. ¿Con que frecuencia camina o anda en bicicleta para hacer ejercicio/diversión?

- ☐ Todos los días ☐ Al menos una vez por semana ☐ Al menos una vez por mes
☐ Raramente o nunca

4. ¿Por qué camina o anda en bicicleta? (Marque todas las que apliquen)

- ☐ Salud ☐ Ahorrar dinero ☐ Pasar tiempo al aire libre ☐ Es más conveniente
☐ Placer, diversión, o para socializar ☐ Es bueno para el medio ambiente
☐ Yo no camino o ando en bicicleta
☐ No tengo otra alternativa; es mi única opción ☐ Otra razón (por favor, especifiqué): _____

5. ¿Cuáles ubicaciones está usted actualmente o está interesado/a en caminar o andar en bicicleta? (Marque todas las que apliquen)

- ☐ Empleo ☐ Escuela ☐ Parada de autobús ☐ Centros comerciales/ mandados
☐ Restaurantes ☐ Hogares de familia o de amigos
☐ Edificios cívicos (librería, departamento de servicios sociales, municipios)
☐ Parques, espacios abiertos, o centros recreacionales ☐ Prefiero no caminar ni andar en bicicleta
☐ Solamente ando en bicicleta para hacer ejercicio o por diversión
☐ No puedo caminar ni andar en bicicleta por otra razón ☐ Otra razón (especifique): _____

6. ¿Cuáles senderos y caminos pavimentados fuera de la calle usted actualmente usa o tiene interés en usar para caminar o andar en bicicleta? (Marque todas las que apliquen)

- ☐ Santa Ana River Trail ☐ Jim Real Regional Trail (Bain St) ☐ Santa Gertrudis Creek Trail
☐ Rosanna Scott Memorial Bicycle Trail (Victoria Avenue) ☐ Lakeview Trail (Diamond Valley Lake)
☐ Otro (especifique): _____

7. ¿Cuáles son sus tres mayores obstáculos o preocupaciones que le impide caminar o andar en bicicleta más?

- ☐ Yo camino o ando en bicicleta suficientemente con frecuencia
- ☐ Falta de interés en caminar o andar en bicicleta ☐ La distancia a mi destino es muy lejos
- ☐ Las calles, banquetas, o caminos no son seguros ☐ No se andar en bicicleta
- ☐ No hay instalaciones, por ejemplo como biciestacionamientos, regaderas, o vestuarios en mi destino
- ☐ Yo no sé las mejores rutas para caminar o andar en bicicleta
- ☐ No tengo conocimiento o sé cómo acceder los caminos para caminar o para andar en bicicleta
- ☐ Las banquetas, ciclocarriles, y caminos no están bien mantenidos ☐ No tengo acceso a una bicicleta
- ☐ Tengo muchas cosas para cargar ☐ Es difícil cruzar calles principales
- ☐ No hay rutas convenientes al/los destino(s) que me gustaría ir
- ☐ La alta velocidad de los vehículos o el congestionamiento ☐ Los automovilistas son muy agresivos
- ☐ No hay suficiente sombra (calor) ☐ Comentarios adicionales (dónde y por qué) _____

8. Por favor seleccione sus tres mayores prioridades para futuras inversiones en transporte activo (caminar/ andar en bicicleta, transito).

- ☐ Más calles/caminos pavimentados ☐ Más banquetas ☐ Más ciclocarriles en las calles
- ☐ Biciestacionamientos ☐ Mejores cruces de calles en calles principales
- ☐ Árboles que aporten sombra, paisajes, alumbramiento ☐ Sistema de señalización
- ☐ Educación/entrenamiento (clases, talleres, folletos) para automovilistas
- ☐ Educación/entrenamiento para la gente que anda en bicicleta
- ☐ Educación/entrenamiento para gente que camina
- ☐ Conexiones con el transporte público (p.ej., paradas de autobús/tren)

9. ¿Está familiarizado/a con el Plan de Transportación No-Motorizado del Condado Oeste de Riverside publicado en junio del 2010?

- ☐ Sí ☐ No

10. Por favor deje comentarios adicionales o información sobre caminar y andar en bicicleta en el condado de Riverside que le gustaría compartir.

11. ¿Qué edad tiene? (OPCIONAL)

- ☐ Menos de 18 ☐ 19-25 ☐ 26-35 ☐ 36-45 ☐ 46-55 ☐ 56-65 ☐ Más de 66

12. ¿Qué género es? (OPCIONAL)

13. Para recibir información relacionada con el Plan de Transporte Activo del Condado Oeste de Riverside, por favor incluya su correo electrónico abajo.



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Western Riverside Council of Governments Active Transportation Plan Staff Survey

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Q1



What agency do you represent and/or work for?

Answered: 24 Skipped: 0

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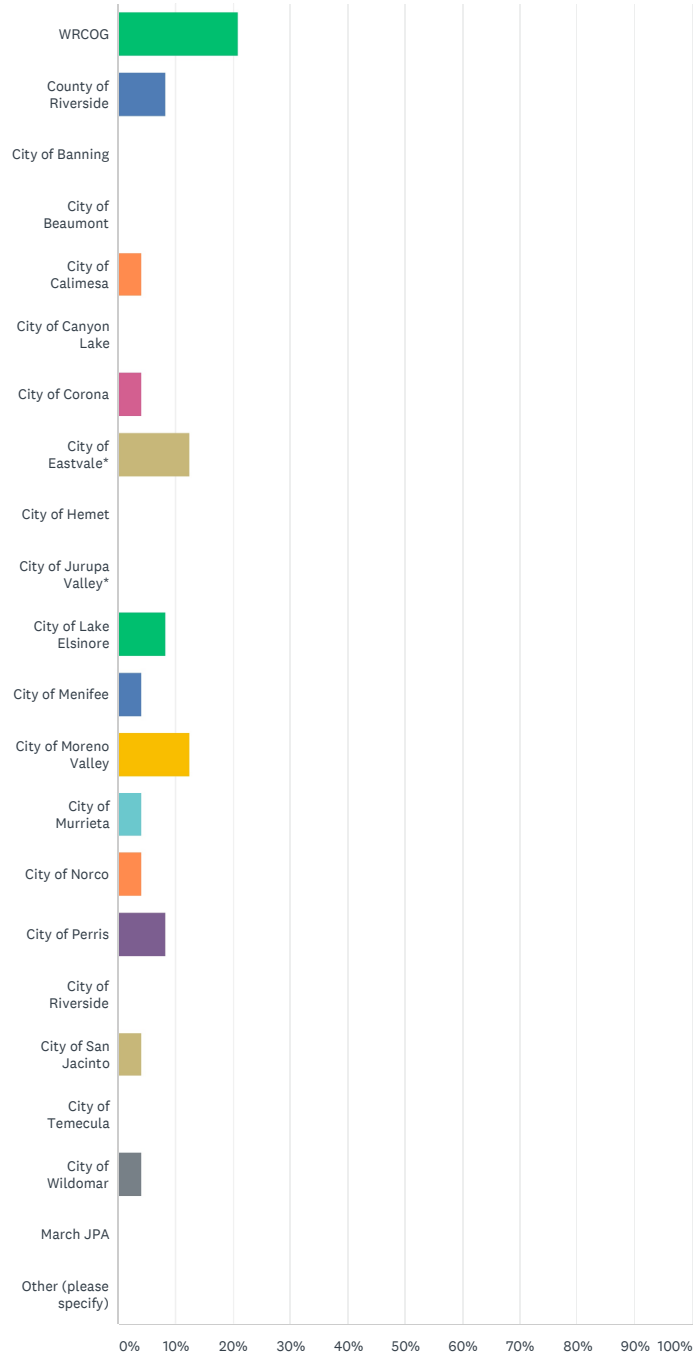
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24 responses



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ANSWER CHOICES	RESPONSES	
WRCOG	20.83%	5
County of Riverside	8.33%	2
City of Banning	0.00%	0
City of Beaumont	0.00%	0
City of Calimesa	4.17%	1
City of Canyon Lake	0.00%	0
City of Corona	4.17%	1
City of Eastvale*	12.50%	3
City of Hemet	0.00%	0
City of Jurupa Valley*	0.00%	0
City of Lake Elsinore	8.33%	2
City of Menifee	4.17%	1
City of Moreno Valley	12.50%	3
City of Murrieta	4.17%	1
City of Norco	4.17%	1
City of Perris	8.33%	2
City of Riverside	0.00%	0
City of San Jacinto	4.17%	1
City of Temecula	0.00%	0
City of Wildomar	4.17%	1
March JPA	0.00%	0
Other (please specify)	0.00%	0
TOTAL		24

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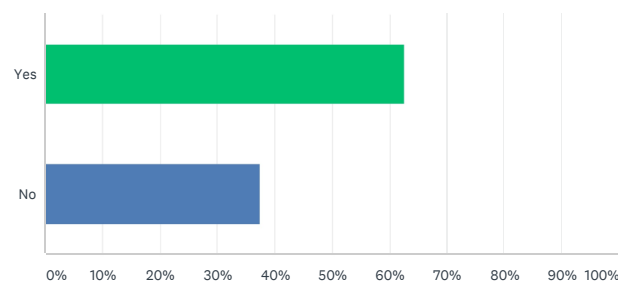
ANSWER CHOICES	RESPONSES	
City of Lake Elsinore	8.33%	2
City of Menifee	4.17%	1
City of Moreno Valley	12.50%	3
City of Murrieta	4.17%	1
City of Norco	4.17%	1
City of Perris	8.33%	2
City of Riverside	0.00%	0
City of San Jacinto	4.17%	1
City of Temecula	0.00%	0
City of Wildomar	4.17%	1
March JPA	0.00%	0
Other (please specify)	0.00%	0
TOTAL		24

Q2



Are you familiar with the Western Riverside County Non-Motorized Transportation Plan, published in June 2010?

Answered: 24 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	62.50%	15
No	37.50%	9
TOTAL		24

Q3

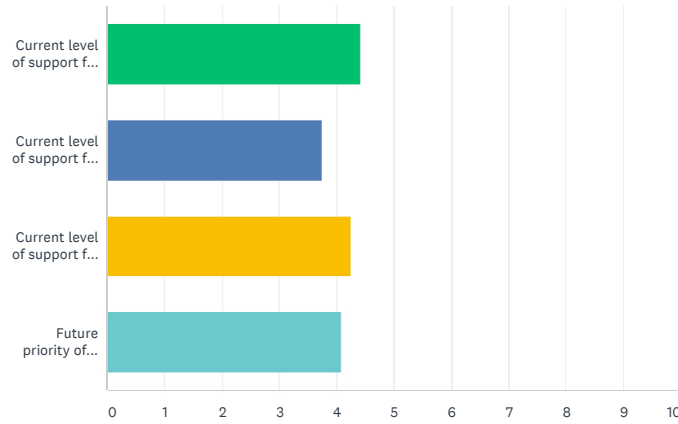


G-1. Increase the range of transportation options for travel within and between Western Riverside jurisdictions and neighboring counties.

Answered: 12 Skipped: 12

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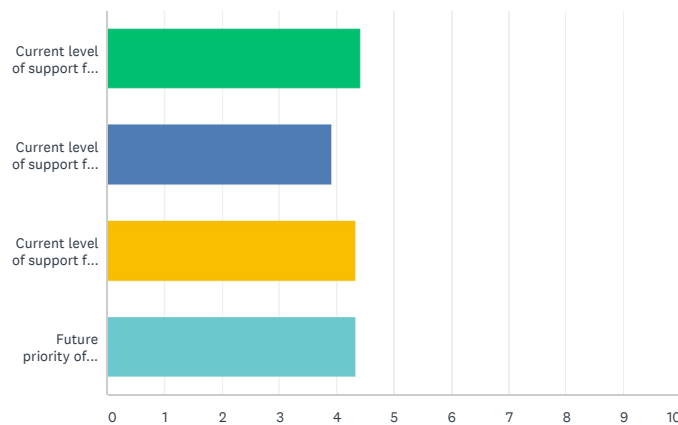
	HIGHLY SUPPORTIVE	SUPPORTIVE	NEUTRAL	SOMEWHAT SUPPORTIVE	NOT SUPPORTIVE	N/A	TOTAL	WEIGHTED AVERAGE
Current level of support from established plans and policies:	50.00% 6	41.67% 5	8.33% 1	0.00% 0	0.00% 0	0.00% 0	12	4.42
Current level of support from dedicated funding and resources:	16.67% 2	58.33% 7	8.33% 1	16.67% 2	0.00% 0	0.00% 0	12	3.75
Current level of support from agency leadership and staff:	33.33% 4	58.33% 7	8.33% 1	0.00% 0	0.00% 0	0.00% 0	12	4.25
Future priority of goal for agency:	25.00% 3	58.33% 7	16.67% 2	0.00% 0	0.00% 0	0.00% 0	12	4.08

Q4



G-2. Create safer travel accommodations for pedestrians and cyclists.

Answered: 12 Skipped: 12

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24 responses



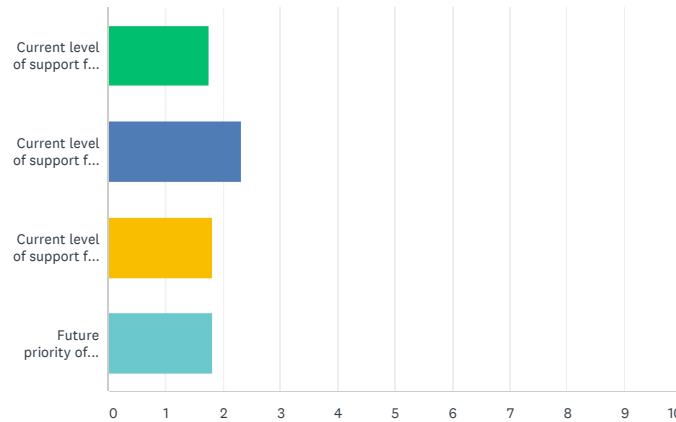
	HIGHLY SUPPORTIVE	SUPPORTIVE	NEUTRAL	SOMEWHAT SUPPORTIVE	NOT SUPPORTIVE	N/A	TOTAL SIGN UP	WEIGHTED AVERAGE
Current level of support from established plans and policies:	50.00% 6	41.67% 5	8.33% 1	0.00% 0	0.00% 0	0.00% 0	12	4.42
Current level of support from dedicated funding and resources:	25.00% 3	50.00% 6	16.67% 2	8.33% 1	0.00% 0	0.00% 0	12	3.92
Current level of support from agency leadership and staff:	41.67% 5	50.00% 6	8.33% 1	0.00% 0	0.00% 0	0.00% 0	12	4.33
Future priority of goal for agency:	50.00% 6	33.33% 4	16.67% 2	0.00% 0	0.00% 0	0.00% 0	12	4.33

Q5



G-3. Establish a sub regional backbone network of routes that enhances access to and from public transportation services and major attractions.

Answered: 12 Skipped: 12



	HIGHLY SUPPORTIVE	SUPPORTIVE	NEUTRAL	SOMEWHAT SUPPORTIVE	NOT SUPPORTIVE	N/A	TOTAL	WEIGHTED AVERAGE
Current level of support from established plans and policies:	41.67% 5	41.67% 5	16.67% 2	0.00% 0	0.00% 0	0.00% 0	12	1.75
Current level of support from dedicated funding and resources:	16.67% 2	41.67% 5	33.33% 4	8.33% 1	0.00% 0	0.00% 0	12	2.33
Current level of support from agency leadership and staff:	41.67% 5	33.33% 4	25.00% 3	0.00% 0	0.00% 0	0.00% 0	12	1.83

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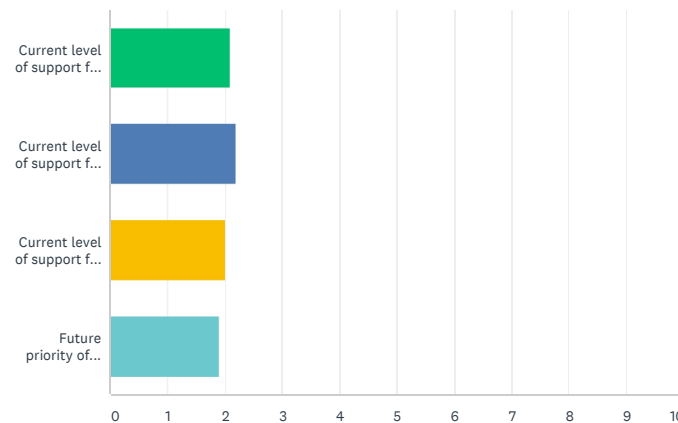
	HIGHLY SUPPORTIVE	SUPPORTIVE	NEUTRAL	SOMEWHAT SUPPORTIVE	NOT SUPPORTIVE	N/A	TOTAL SIGN UP	WEIGHTED AVERAGE
agency leadership and staff:								
Future priority of goal for agency:	50.00% 6	25.00% 3	16.67% 2	8.33% 1	0.00% 0	0.00% 0	12	1.83

Q6



G-4. Establish design classifications and typical design standards for the various corridor types that are adopted by individual WRCOG jurisdictions.

Answered: 10 Skipped: 14



	HIGHLY SUPPORTIVE	SUPPORTIVE	NEUTRAL	SOMEWHAT SUPPORTIVE	NOT SUPPORTIVE	N/A	TOTAL	WEIGHTED AVERAGE
Current level of support from established plans and policies:	40.00% 4	30.00% 3	20.00% 2	0.00% 0	10.00% 1	0.00% 0	10	2.10
Current level of support from dedicated funding and resources:	30.00% 3	40.00% 4	20.00% 2	0.00% 0	10.00% 1	0.00% 0	10	2.20
Current level of support from agency leadership and staff:	30.00% 3	40.00% 4	30.00% 3	0.00% 0	0.00% 0	0.00% 0	10	2.00
Future priority of goal for agency:	40.00% 4	30.00% 3	30.00% 3	0.00% 0	0.00% 0	0.00% 0	10	1.90

Q7



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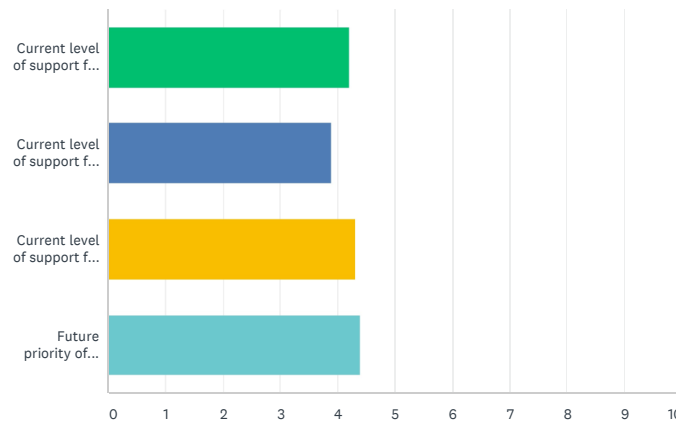


G-5. Reduce auto generated emissions while encouraging healthier lifestyles and more sustainable development patterns.

SIGN UP



Answered: 10 Skipped: 14



	HIGHLY SUPPORTIVE	SUPPORTIVE	NEUTRAL	SOMEWHAT SUPPORTIVE	NOT SUPPORTIVE	N/A	TOTAL	WEIGHTED AVERAGE
Current level of support from established plans and policies:	30.00% 3	60.00% 6	10.00% 1	0.00% 0	0.00% 0	0.00% 0	10	4.20
Current level of support from dedicated funding and resources:	20.00% 2	60.00% 6	10.00% 1	10.00% 1	0.00% 0	0.00% 0	10	3.90
Current level of support from agency leadership and staff:	40.00% 4	50.00% 5	10.00% 1	0.00% 0	0.00% 0	0.00% 0	10	4.30
Future priority of goal for agency:	60.00% 6	20.00% 2	20.00% 2	0.00% 0	0.00% 0	0.00% 0	10	4.40

Q8



G-6. Maximize opportunities to fund bicycle and pedestrian improvements, as well as operations and maintenance costs associated with the sub regional backbone network, in cooperation with local jurisdictions.

Answered: 10 Skipped: 14

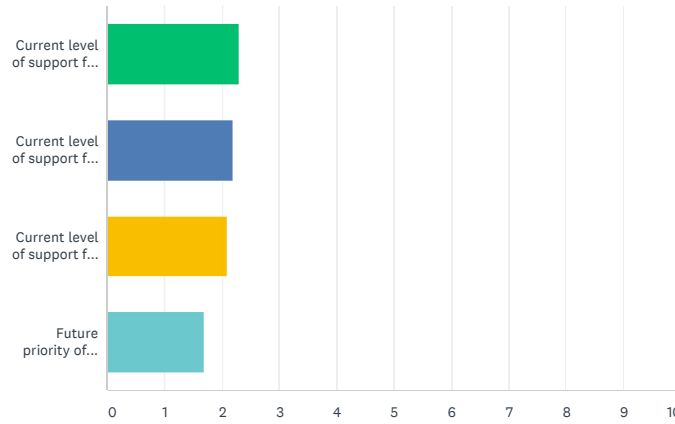
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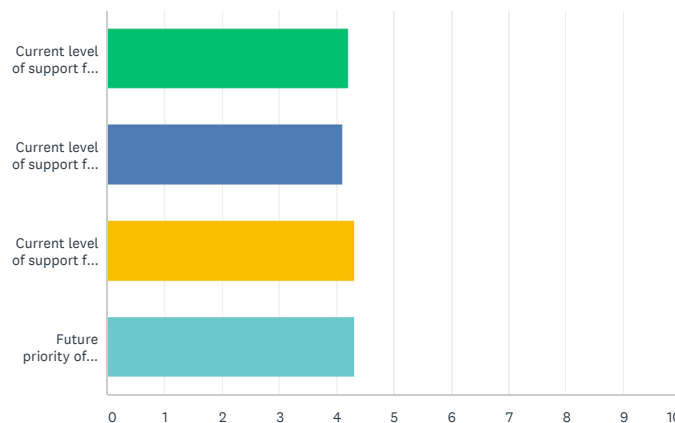
	HIGHLY SUPPORTIVE	SUPPORTIVE	NEUTRAL	SOMEWHAT SUPPORTIVE	NOT SUPPORTIVE	N/A	TOTAL	WEIGHTED AVERAGE
Current level of support from established plans and policies:	20.00% 2	50.00% 5	20.00% 2	0.00% 0	10.00% 1	0.00% 0	10	2.30
Current level of support from dedicated funding and resources:	30.00% 3	40.00% 4	20.00% 2	0.00% 0	10.00% 1	0.00% 0	10	2.20
Current level of support from agency leadership and staff:	30.00% 3	30.00% 3	40.00% 4	0.00% 0	0.00% 0	0.00% 0	10	2.10
Future priority of goal for agency:	60.00% 6	10.00% 1	30.00% 3	0.00% 0	0.00% 0	0.00% 0	10	1.70

Q9



G-7. Achieve implementation of the sub regional backbone network by 2035.

Answered: 10 Skipped: 14

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24 responses



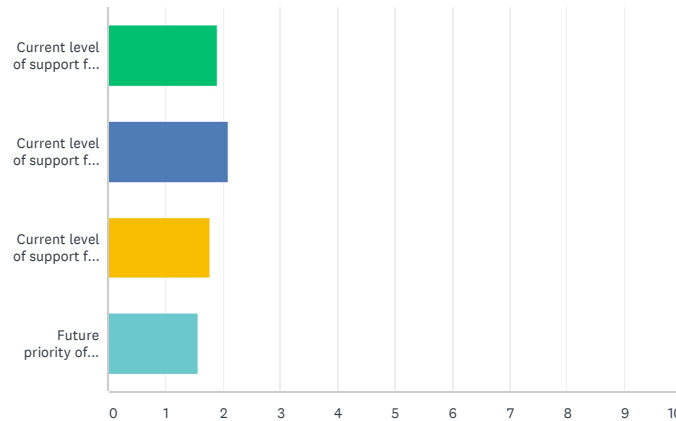
	HIGHLY SUPPORTIVE	SUPPORTIVE	NEUTRAL	SOMEWHAT SUPPORTIVE	NOT SUPPORTIVE	N/A	TOTAL SIGN UP	WEIGHTED AVERAGE
Current level of support from established plans and policies:	50.00% 5	20.00% 2	30.00% 3	0.00% 0	0.00% 0	0.00% 0	10	4.20
Current level of support from dedicated funding and resources:	40.00% 4	30.00% 3	30.00% 3	0.00% 0	0.00% 0	0.00% 0	10	4.10
Current level of support from agency leadership and staff:	50.00% 5	30.00% 3	20.00% 2	0.00% 0	0.00% 0	0.00% 0	10	4.30
Future priority of goal for agency:	60.00% 6	10.00% 1	30.00% 3	0.00% 0	0.00% 0	0.00% 0	10	4.30

Q10



G-8. Determine an annual funding goal for Regional Backbone Network projects every year in western Riverside County, through both local and sub regional efforts.

Answered: 10 Skipped: 14



	HIGHLY SUPPORTIVE	SUPPORTIVE	NEUTRAL	SOMEWHAT SUPPORTIVE	NOT SUPPORTIVE	N/A	TOTAL	WEIGHTED AVERAGE
Current level of support from established plans and policies:	30.00% 3	50.00% 5	20.00% 2	0.00% 0	0.00% 0	0.00% 0	10	1.90
Current level of support from dedicated funding and resources:	30.00% 3	30.00% 3	40.00% 4	0.00% 0	0.00% 0	0.00% 0	10	2.10

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33.33%
COPY

55.56%
5

11.11%
1

0.00%
0

0.00%
0

0.00%
0

24 responses
1.78



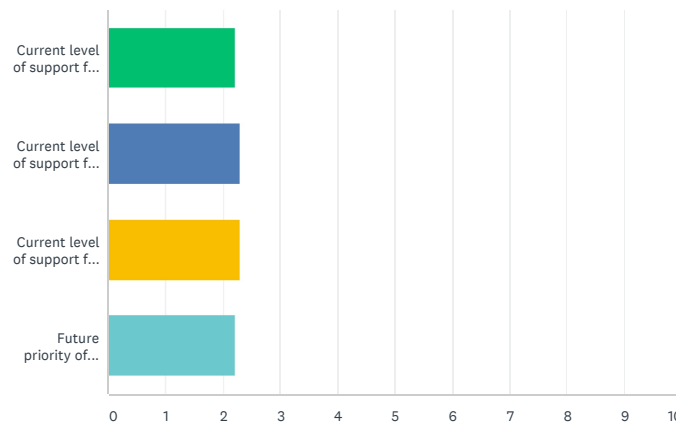
	HIGHLY SUPPORTIVE	SUPPORTIVE	NEUTRAL	SOMEWHAT SUPPORTIVE	NOT SUPPORTIVE	N/A	TOTAL SIGN UP	WEIGHTED AVERAGE
support from agency leadership and staff:								
Future priority of goal for agency:	55.56% 5	33.33% 3	11.11% 1	0.00% 0	0.00% 0	0.00% 0	9	1.56

Q11



G-9. Create a branding program for the sub regional system that distinguishes it from local-serving routes and includes special signage and general promotion.

Answered: 10 Skipped: 14



	HIGHLY SUPPORTIVE	SUPPORTIVE	NEUTRAL	SOMEWHAT SUPPORTIVE	NOT SUPPORTIVE	N/A	TOTAL	WEIGHTED AVERAGE
Current level of support from established plans and policies:	33.33% 3	22.22% 2	33.33% 3	11.11% 1	0.00% 0	0.00% 0	9	2.22
Current level of support from dedicated funding and resources:	20.00% 2	30.00% 3	50.00% 5	0.00% 0	0.00% 0	0.00% 0	10	2.30
Current level of support from agency leadership and staff:	30.00% 3	10.00% 1	60.00% 6	0.00% 0	0.00% 0	0.00% 0	10	2.30
Future priority of goal for agency:	33.33% 3	22.22% 2	33.33% 3	11.11% 1	0.00% 0	0.00% 0	9	2.22

Q12



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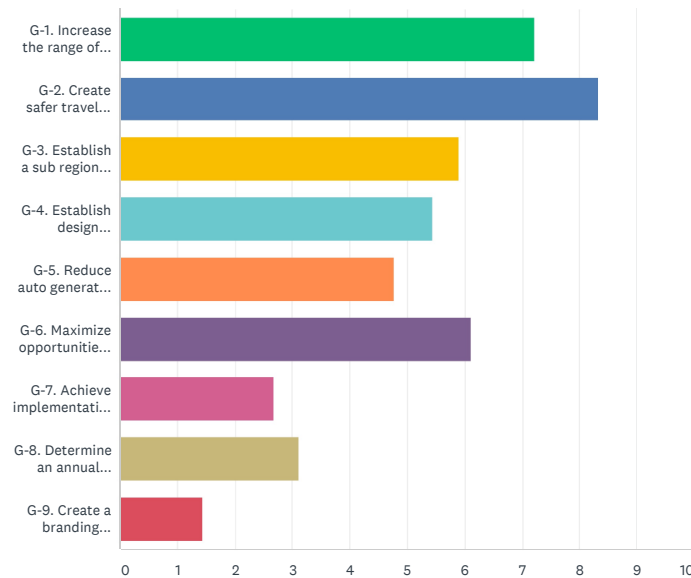


Please rank the 9 goals established in the 2010 Western Riverside County Non-Motorized Transportation Plan by your preferred priority for your agency.

SIGN UP



Answered: 9 Skipped: 15



	1	2	3	4	5	6	7	8	9	TOTAL
G-1. Increase the range of transportation options for travel within and between Western Riverside jurisdictions and neighboring counties.	44.44% 4	11.11% 1	22.22% 2	0.00% 0	11.11% 1	0.00% 0	0.00% 0	11.11% 1	0.00% 0	9
G-2. Create safer travel accommodations for pedestrians and cyclists.	55.56% 5	33.33% 3	0.00% 0	11.11% 1	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	9
G-3. Establish a sub regional backbone network of routes that enhances access to and from public transportation services and major attractions.	0.00% 0	11.11% 1	33.33% 3	11.11% 1	22.22% 2	22.22% 2	0.00% 0	0.00% 0	0.00% 0	9
G-4. Establish design classifications and typical design standards for the various corridor types that are adopted by individual WRCOG jurisdictions.	0.00% 0	11.11% 1	0.00% 0	44.44% 4	11.11% 1	33.33% 3	0.00% 0	0.00% 0	0.00% 0	9
G-5. Reduce auto generated emissions while encouraging healthier lifestyles and more sustainable development patterns.	0.00% 0	0.00% 0	11.11% 1	11.11% 1	44.44% 4	11.11% 1	22.22% 2	0.00% 0	0.00% 0	9

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<https://www.surveymonkey.com/r/development-patterns>

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24 responses



	1	2	3	4	5	6	7	8	9	TOTAL
G-6. Maximize opportunities to fund bicycle and pedestrian improvements, as well as operations and maintenance costs associated with the sub regional backbone network, in cooperation with local jurisdictions.	0.00% 0	22.22% 2	33.33% 3	11.11% 1	0.00% 0	33.33% 3	0.00% 0	0.00% 0	SIGN UP 0.00% 0	9
G-7. Achieve implementation of the sub regional backbone network by 2035.	0.00% 0	0.00% 0	0.00% 0	11.11% 1	0.00% 0	0.00% 0	44.44% 4	22.22% 2	22.22% 2	9
G-8. Determine an annual funding goal for Regional Backbone Network projects every year in western Riverside County, through both local and sub regional efforts.	0.00% 0	11.11% 1	0.00% 0	0.00% 0	11.11% 1	0.00% 0	22.22% 2	44.44% 4	11.11% 1	9
G-9. Create a branding program for the sub regional system that distinguishes it from local-serving routes and includes special signage and general promotion.	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	11.11% 1	22.22% 2	66.67% 6	9

Q13



Does your agency have any of the following to support people walking and bicycling in your jurisdiction? (check all that apply)

Answered: 9 Skipped: 15

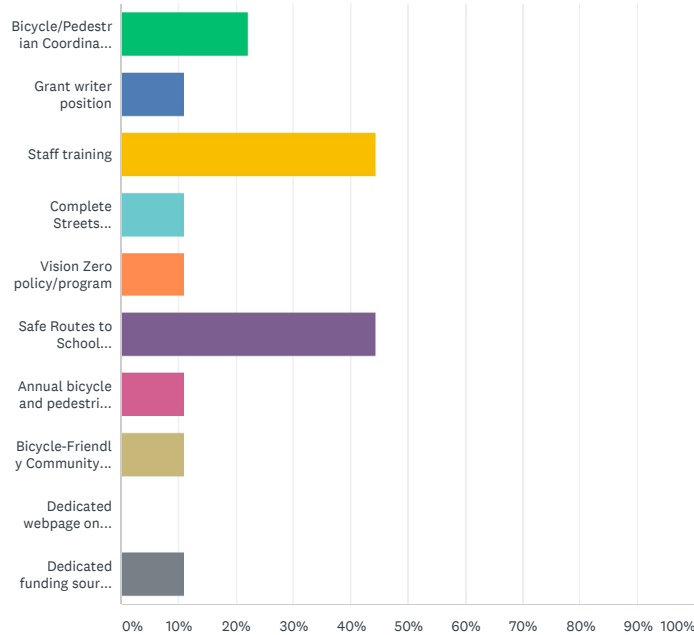
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[SIGN UP](#)**ANSWER CHOICES****RESPONSES**

Bicycle/Pedestrian Coordinator position	22.22%	2
Grant writer position	11.11%	1
Staff training	44.44%	4
Complete Streets policy/program	11.11%	1
Vision Zero policy/program	11.11%	1
Safe Routes to School program/liaisonReport card/Annual report on walking and bicycling	44.44%	4
Annual bicycle and pedestrian count program	11.11%	1
Bicycle-Friendly Community designation by League of American Bicyclists	11.11%	1
Dedicated webpage on walking and bicycling with regular updates	0.00%	0
Dedicated funding source for active transportation infrastructure and/or programs	11.11%	1

Total Respondents: 9**Q14**

Are there any other programs that support agency staff and policies that your agency should consider?

Answered: 0 Skipped: 24

Q15

Are there any other programs that support agency staff and policies that WRCOG should consider?

Answered: 0 Skipped: 24

Q16

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24 responses



Please provide any additional comments or information regarding walking and bicycling in Western Riverside County that you would like to share.

Answered: 0 Skipped: 24

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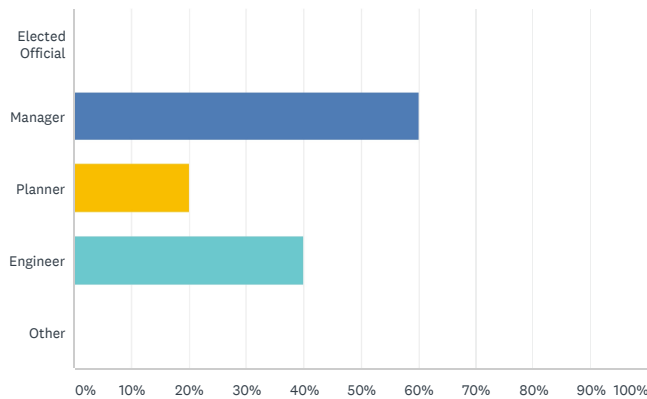


Q17



What is your position/role? (check all that apply)

Answered: 5 Skipped: 19



ANSWER CHOICES

RESPONSES

Elected Official	0.00%	0
Manager	60.00%	3
Planner	20.00%	1
Engineer	40.00%	2
Other	0.00%	0

Total Respondents: 5

Q18



To receive updates related to the Western Riverside County Active Transportation Plan, including notification of public meetings and events, please include your email address below. (OPTIONAL)

Answered: 1 Skipped: 23

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24 responses



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Q1



Where do you live? Please input your zip code below.

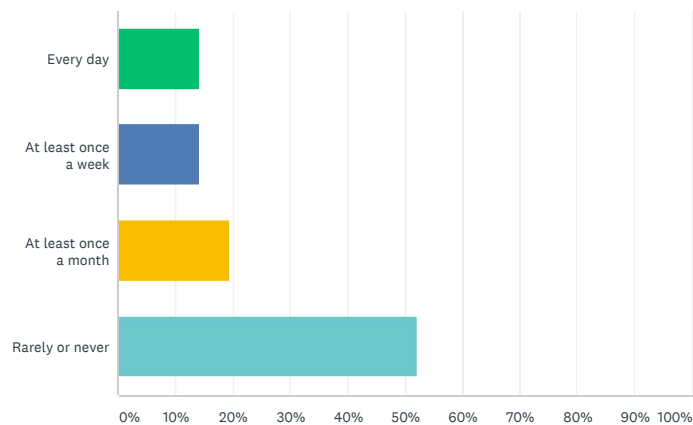
Answered: 169 Skipped: 0

Q2



How often do you walk or bike to work/school/errands?

Answered: 169 Skipped: 0



ANSWER CHOICES

RESPONSES

Every day	14.20%	24
At least once a week	14.20%	24
At least once a month	19.53%	33
Rarely or never	52.07%	88
TOTAL		169

Q3



How often do you walk or bike for exercise/recreation?

Answered: 169 Skipped: 0

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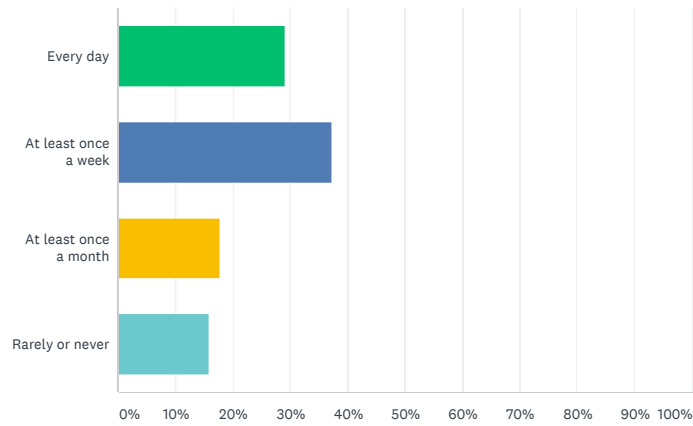
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169 responses



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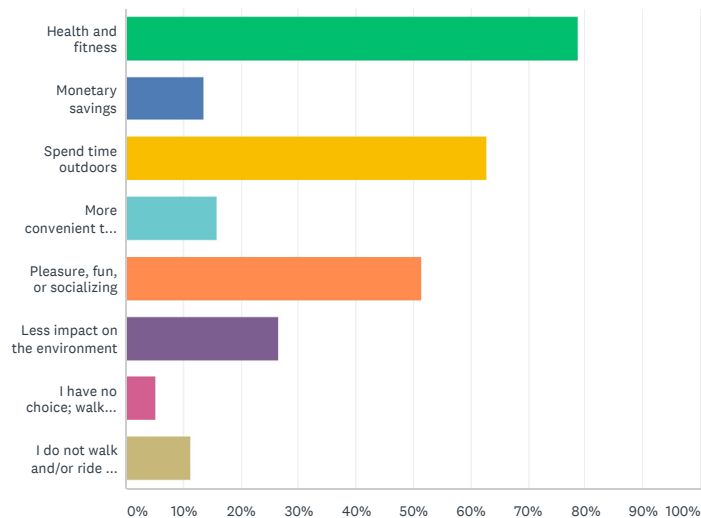
ANSWER CHOICES	RESPONSES	
Every day	28.99%	49
At least once a week	37.28%	63
At least once a month	17.75%	30
Rarely or never	15.98%	27
TOTAL		169

Q4



Why do you walk or bike? (check all that apply)

Answered: 169 Skipped: 0



ANSWER CHOICES	RESPONSES	
Health and fitness	78.70%	133
Monetary savings	13.61%	23
Spend time outdoors	62.72%	106
More convenient than driving	15.98%	27
Pleasure, fun, or socializing	51.48%	87
Less impact on the environment	26.63%	45
I have no choice; walking and/or bicycling is my only option	5.33%	9
I do not walk and/or ride a bicycle	11.24%	19

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169 responses

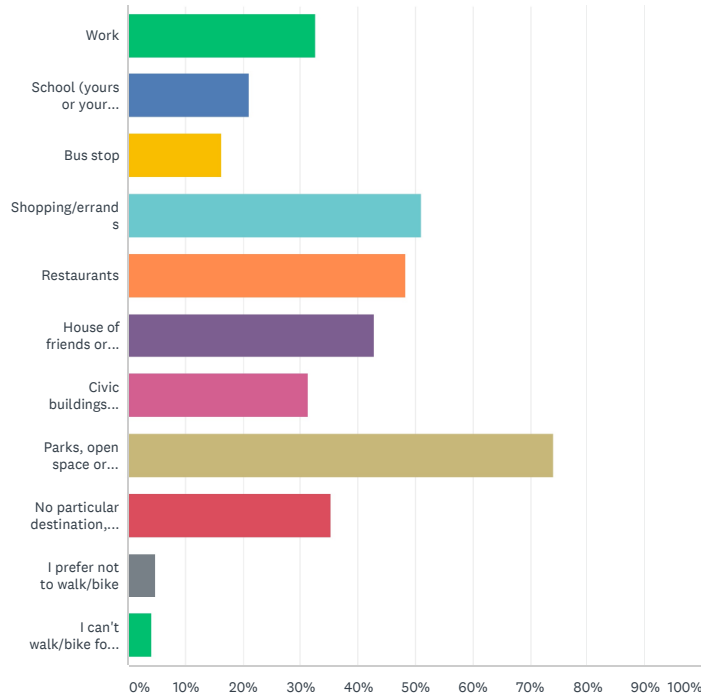
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Q5



What locations do you currently or are you most interested in walking/bicycling to? (check all that apply)

Answered: 147 Skipped: 22



ANSWER CHOICES

RESPONSES

Work	32.65%	48
School (yours or your children's)	21.09%	31
Bus stop	16.33%	24
Shopping/errands	51.02%	75
Restaurants	48.30%	71
House of friends or family	42.86%	63
Civic buildings (library, city, or social services)	31.29%	46
Parks, open space or recreation centers	74.15%	109
No particular destination, just biking for fitness leisure	35.37%	52
I prefer not to walk/bike	4.76%	7
I can't walk/bike for other reasons	4.08%	6

Total Respondents: 147

Q6



What trails and off-street paved paths do you currently or are you most interested in walking/bicycling to? (check all that apply)

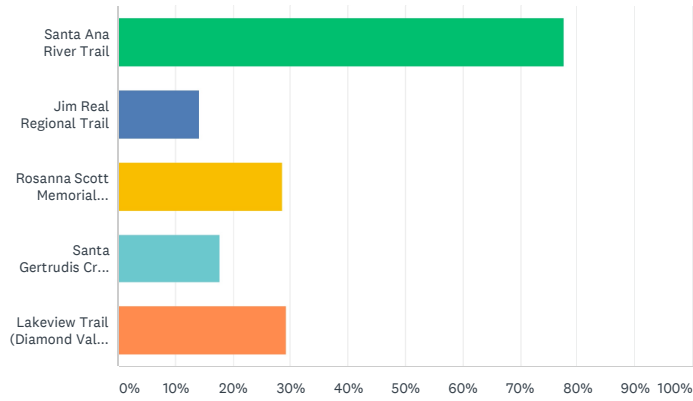
Answered: 147 Skipped: 22

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169 responses



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ANSWER CHOICES

RESPONSES

Santa Ana River Trail	77.55%	114
Jim Real Regional Trail	14.29%	21
Rosanna Scott Memorial Bicycle Trail (Victoria Avenue)	28.57%	42
Santa Gertrudis Creek Trail	17.69%	26
Lakeview Trail (Diamond Valley Lake)	29.25%	43

Total Respondents: 147

Q7



What are the top three obstacles or concerns that may prevent you from walking and/or bicycling more?

Answered: 147 Skipped: 22

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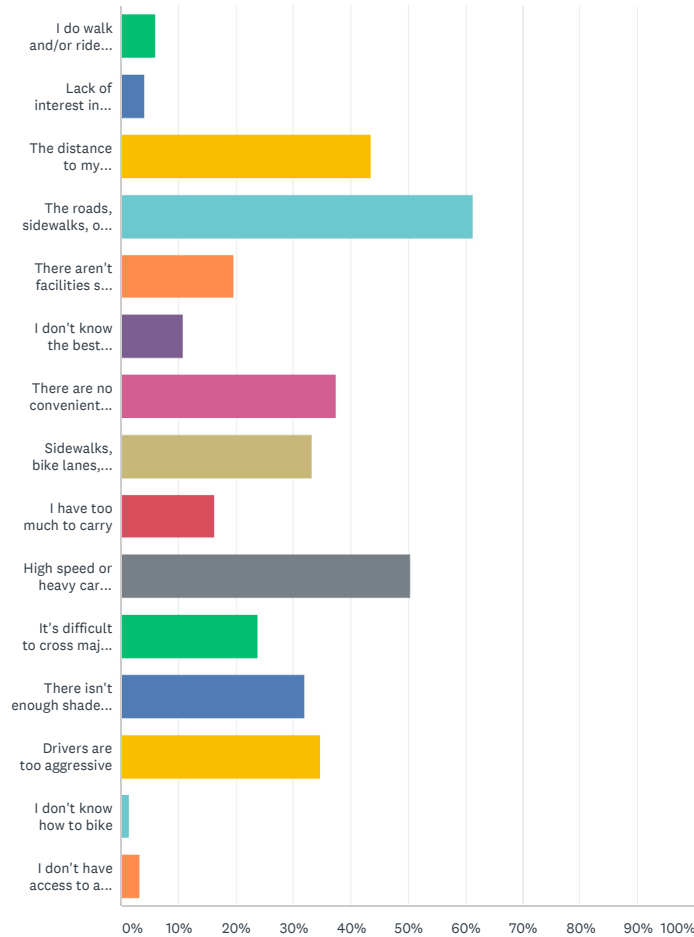
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169 responses



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ANSWER CHOICES

RESPONSES

I do walk and/or ride frequently enough; no concerns here!	6.12%	9
Lack of interest in walking/bicycling	4.08%	6
The distance to my destination is too far	43.54%	64
The roads, sidewalks, or trails do not feel safe	61.22%	90
There aren't facilities such as bike parking, showers, or changing rooms at my destination(s)	19.73%	29
I don't know the best route(s) for walking/bicycling	10.88%	16
There are no convenient routes to the destination(s) I would like to go	37.41%	55
Sidewalks, bike lanes, trails are not well-maintained.	33.33%	49
I have too much to carry	16.33%	24
High speed or heavy car traffic	50.34%	74
It's difficult to cross major streets	23.81%	35
There isn't enough shade (i.e., too hot)	31.97%	47
Drivers are too aggressive	34.69%	51
I don't know how to bike	1.36%	2
I don't have access to a bike	3.40%	5

Total Respondents: 147

Q8



Please select your top three priorities for future transportation investment.

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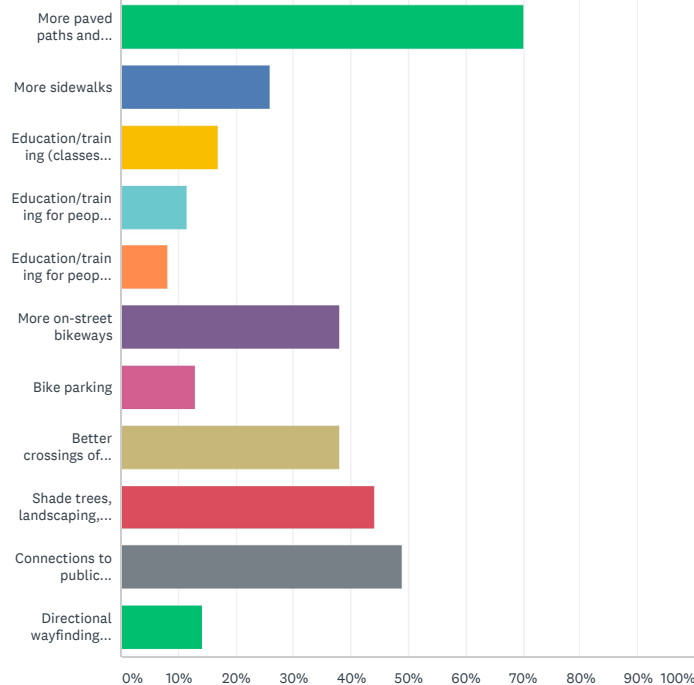
...

Answered: 147 Skipped: 22

169 responses



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ANSWER CHOICES

RESPONSES

More paved paths and trails	70.07%	103
More sidewalks	25.85%	38
Education/training (classes, workshops, handouts) for people that drive	17.01%	25
Education/training for people that bike	11.56%	17
Education/training for people that walk	8.16%	12
More on-street bikeways	38.10%	56
Bike parking	12.93%	19
Better crossings of major streets	38.10%	56
Shade trees, landscaping, lighting	44.22%	65
Connections to public transportation (i.e., bus and train stops)	48.98%	72
Directional wayfinding signage	14.29%	21

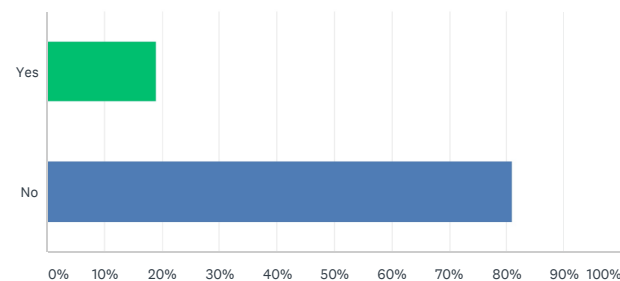
Total Respondents: 147

Q9



Are you familiar with the Western Riverside County Non-Motorized Transportation Plan, published in June 2010?

Answered: 142 Skipped: 27



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169 responses



ANSWER CHOICES	RESPONSES	
Yes	19.01%	27
No	80.99%	115
TOTAL		142

SIGN UP



Q10



Please provide any additional comments or information regarding walking and bicycling in Western Riverside County that you would like to share.

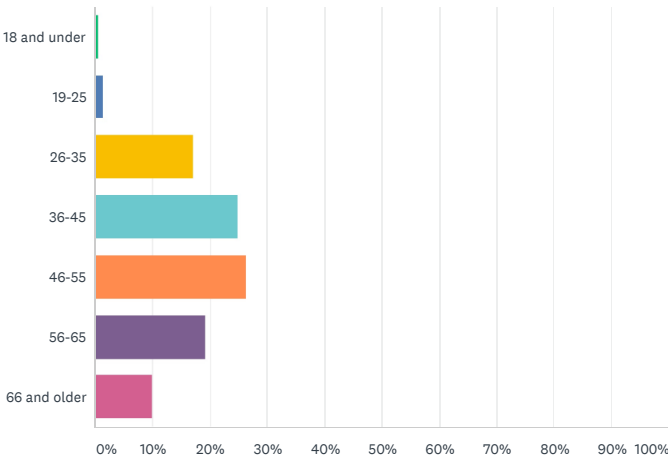
Answered: 51 Skipped: 118

Q11



What is your age? (Optional)

Answered: 140 Skipped: 29



ANSWER CHOICES	RESPONSES	
18 and under	0.71%	1
19-25	1.43%	2
26-35	17.14%	24
36-45	25.00%	35
46-55	26.43%	37
56-65	19.29%	27
66 and older	10.00%	14
TOTAL		140

Q12



What is your gender? (Optional)

Answered: 102 Skipped: 67

Q13



To receive updates related to the Western Riverside County Active Transportation Plan, including notifications

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CLIP

169 responses



of public meetings and events, please include your email address below. (Optional)

Answered: 54 Skipped: 115

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169 responses



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Encuesta Comunitaria de Transporte Activo del Consejo de Gobiernos del Oeste de Riverside

Todas las páginas ▼

P1



¿Dónde vive? Por favor ponga su código postal abajo.

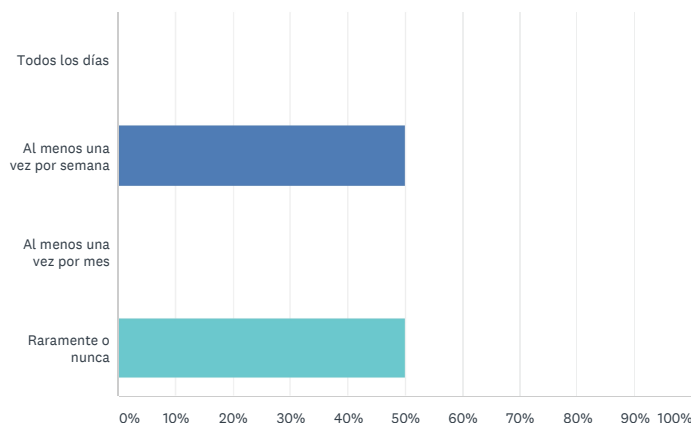
Respondidas: 2 Omitidas: 0

P2



¿Con que frecuencia camina o anda en bicicleta a su empleo/escuela/mandados?

Respondidas: 2 Omitidas: 0



OPCIONES DE RESPUESTA

RESPUESTAS

Todos los días	0,00%	0
Al menos una vez por semana	50,00%	1
Al menos una vez por mes	0,00%	0
Raramente o nunca	50,00%	1
TOTAL		2

P3



¿Con que frecuencia camina o anda en bicicleta para hacer ejercicio/diversión?

Respondidas: 2 Omitidas: 0

Enlace para compartir

<https://es.surveymonkey.com/resi>

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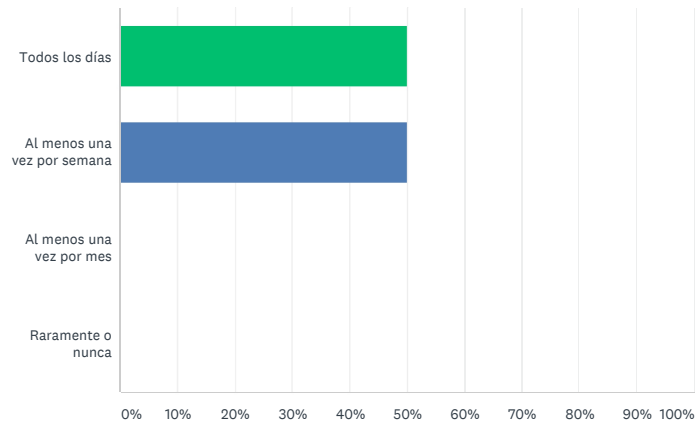
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2 respuestas



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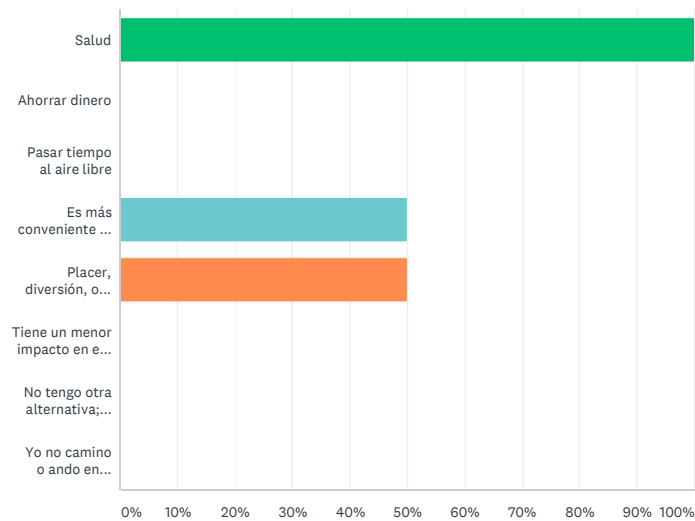
OPCIONES DE RESPUESTA	RESPUESTAS	
Todos los días	50,00%	1
Al menos una vez por semana	50,00%	1
Al menos una vez por mes	0,00%	0
Raramente o nunca	0,00%	0
TOTAL		2

P4



¿Por qué camina o anda en bicicleta?(Marque todas las que apliquen)

Respondidas: 2 Omitidas: 0



OPCIONES DE RESPUESTA	RESPUESTAS	
Salud	100,00%	2
Ahorrar dinero	0,00%	0
Pasar tiempo al aire libre	0,00%	0
Es más conveniente que conducir	50,00%	1
Placer, diversión, o para socializar	50,00%	1
Tiene un menor impacto en el medio ambiente	0,00%	0
No tengo otra alternativa; caminar y/o andar en bicicleta es mi única opción	0,00%	0

Enlace para compartir

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2 respuestas

Total de encuestados: 2



OPCIONES DE RESPUESTA

Yo no camino o ando en bicicleta

RESPUESTAS

0,00% 0

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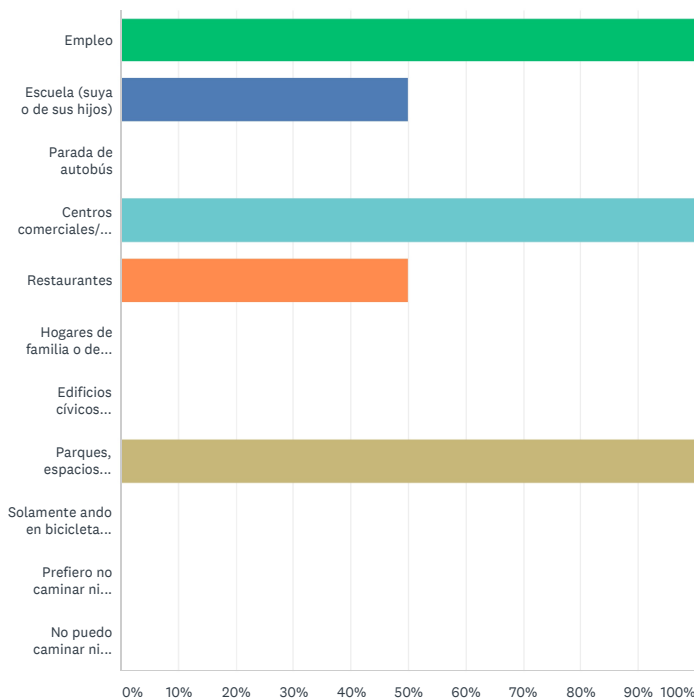
Total de encuestados: 2

P5



¿Cuáles ubicaciones está usted actualmente o está interesado/a en caminar o andar en bicicleta? (Marque todas las que apliquen)

Respondidas: 2 Omitidas: 0



OPCIONES DE RESPUESTA

RESPUESTAS

Empleo	100,00%	2
Escuela (suya o de sus hijos)	50,00%	1
Parada de autobús	0,00%	0
Centros comerciales/mandados	100,00%	2
Restaurantes	50,00%	1
Hogares de familia o de amigos	0,00%	0
Edificios cívicos (librería, departamento de servicios sociales, municipio)	0,00%	0
Parques, espacios abiertos, o centros recreacionales	100,00%	2
Solamente ando en bicicleta para hacer ejercicio o por diversión	0,00%	0
Prefiero no caminar ni andar en bicicleta	0,00%	0
No puedo caminar ni andar en bicicleta por otra razón	0,00%	0

Total de encuestados: 2

P6



¿Cuáles senderos y caminos pavimentados fuera de la calle usted actualmente usa o tiene interés en usar para

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2 respuestas

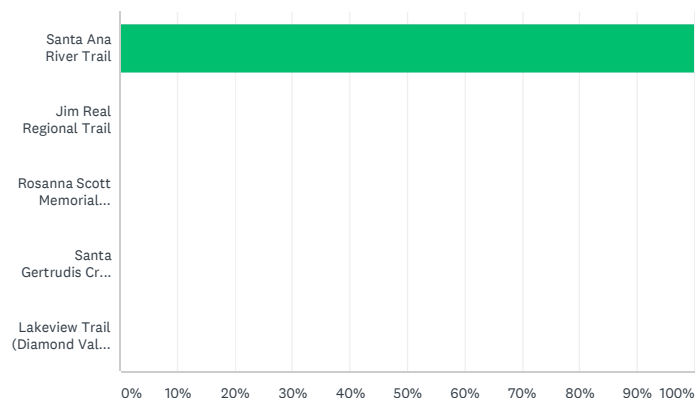


caminar o andar en bicicleta? (Marque todas las que apliquen)

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Respondidas: 2 Omitidas: 0



OPCIONES DE RESPUESTA	RESPUESTAS	
Santa Ana River Trail	100,00%	2
Jim Real Regional Trail	0,00%	0
Rosanna Scott Memorial Bicycle Trail (Victoria Avenue)	0,00%	0
Santa Gertrudis Creek Trail	0,00%	0
Lakeview Trail (Diamond Valley Lake)	0,00%	0
Total de encuestados: 2		

P7



¿Cuáles son sus tres mayores obstáculos o preocupaciones que le impide caminar o andar en bicicleta más?

Respondidas: 2 Omitidas: 0

Enlace para compartir

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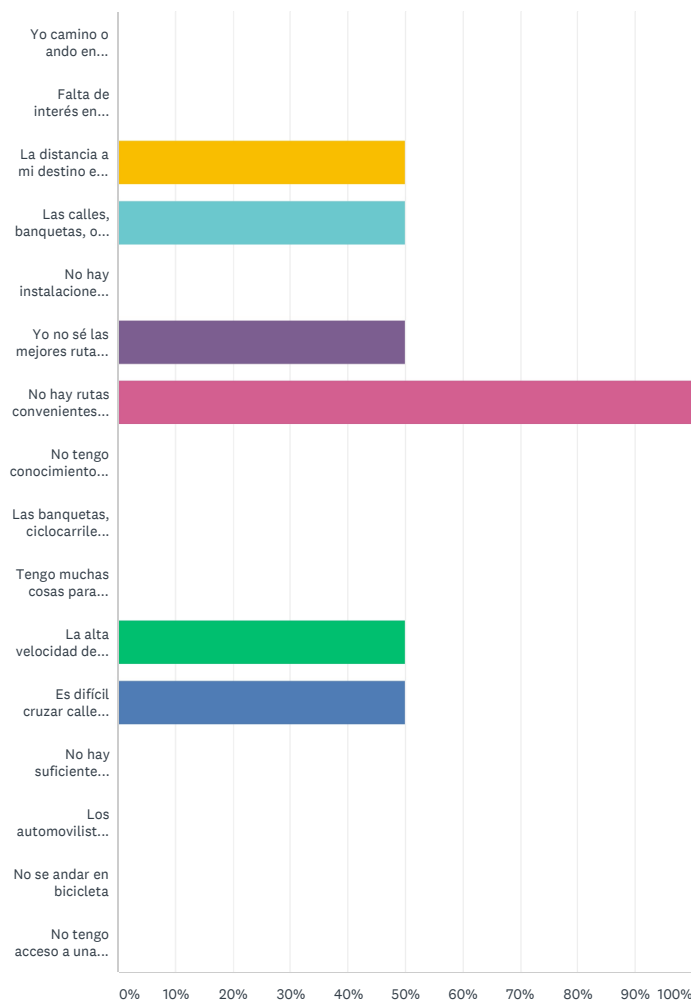
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2 respuestas



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OPCIONES DE RESPUESTA	RESPUESTAS	
Yo camino o ando en bicicleta suficientemente con frecuencia; ino hay preocupaciones aquí!	0,00%	0
Falta de interés en caminar o andar en bicicleta	0,00%	0
La distancia a mi destino es muy lejos	50,00%	1
Las calles, banquetas, o caminos no se sienten seguros	50,00%	1
No hay instalaciones, por ejemplo como biciestacionamientos, regaderas, o vestuarios en mi destino.	0,00%	0
Yo no sé las mejores rutas para caminar o andar en bicicleta.	50,00%	1
No hay rutas convenientes al/los destino(s) que me gustaría ir.	100,00%	2
No tengo conocimiento o sé cómo acceder los caminos para caminar o para andar en bicicleta	0,00%	0
Las banquetas, ciclocarriles, y caminos no están bien mantenidos.	0,00%	0
Tengo muchas cosas para cargar	0,00%	0
La alta velocidad de los vehículos o el congestionamiento	50,00%	1
Es difícil cruzar calles principales	50,00%	1
No hay suficiente sombra (calor)	0,00%	0
Los automovilistas son muy agresivos	0,00%	0
No se andar en bicicleta	0,00%	0
No tengo acceso a una bicicleta	0,00%	0
Total de encuestados: 2		

Enlace para compartir

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2 respuestas



P8



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Por favor seleccione sus tres mayores prioridades para futuras inversiones en el transporte activo (caminar/ andar en bicicleta, transito).

Respondidas: 2 Omitidas: 0



OPCIONES DE RESPUESTA

RESPUESTAS

Más calles/caminos pavimentados	50,00%	1
Más banquetas	50,00%	1
Educación/entrenamiento (clases, talleres, folletos) para automovilistas	0,00%	0
Educación/entrenamiento para la gente que anda en bicicleta	50,00%	1
Educación/entrenamiento para gente que camina	50,00%	1
Más ciclocarriles en las calles	100,00%	2
Biciestacionamientos	50,00%	1
Mejores cruces de calles en calles principales	0,00%	0
Árboles que aporten sombra, paisajes, alumbramiento	50,00%	1
Conexiones con el transporte público (p.ej., paradas de autobús/tren)	100,00%	2
Sistema de señalización	50,00%	1

Total de encuestados: 2

P9



¿Está familiarizado/a con el Plan de Transportación No-Motorizado del Condado Oeste de Riverside publicado en junio del 2010?

Respondidas: 2 Omitidas: 0

Enlace para compartir

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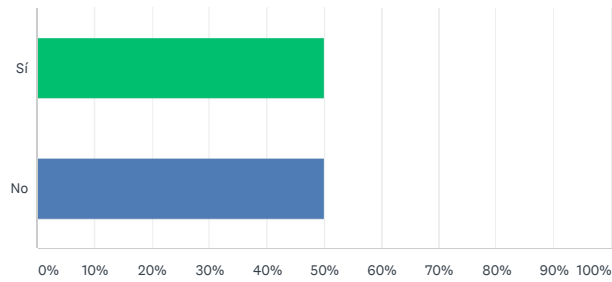
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2 respuestas



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OPCIONES DE RESPUESTA

RESPUESTAS

Sí	50,00%	1
No	50,00%	1
TOTAL		2

P10



Por favor deje comentarios adicionales o información sobre caminar y andar en bicicleta en el condado de Riverside que le gustaría compartir.

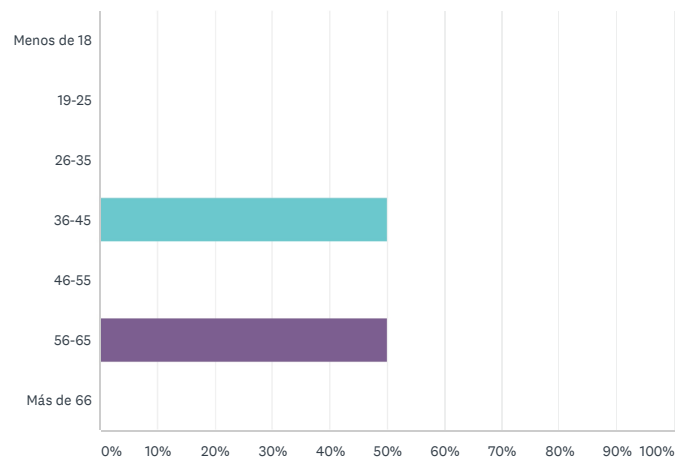
Respondidas: 0 Omitidas: 2

P11



¿Qué edad tiene? (OPCIONAL)

Respondidas: 2 Omitidas: 0



OPCIONES DE RESPUESTA

RESPUESTAS

Menos de 18	0,00%	0
19-25	0,00%	0
26-35	0,00%	0
36-45	50,00%	1
46-55	0,00%	0
56-65	50,00%	1
Más de 66	0,00%	0
TOTAL		2

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2 respuestas



P12



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¿Qué género es? (OPCIONAL)

Respondidas: 1 Omitidas: 1

P13



Para recibir información relacionada con el Plan de Transporte Activo del Condado Oeste de Riverside, incluyendo notificaciones de juntas y eventos públicos, por favor incluya su correo electrónico abajo.

Respondidas: 1 Omitidas: 1

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2 respuestas

Eastern Municipal Water District Outreach Materials

EMWD TOUR 9-19

Currently nine people are attending, and our largest vehicle only holds eight (without a special license). While we would like to take only one vehicle since much of the conversation will take place in the car, we may have to split into two vehicles.

Here's the latest breakdown, please confirm:

MWD- 3 (Patty, Wendy, and Alex)

WRCOG/Fehr and Peers – 3 (Chris, Miguel, and Steven)

RivCo Parks- 1 (Name TBD)

EMWD-2 (Danielle and Jolene)

Thank you,
Jolene





















