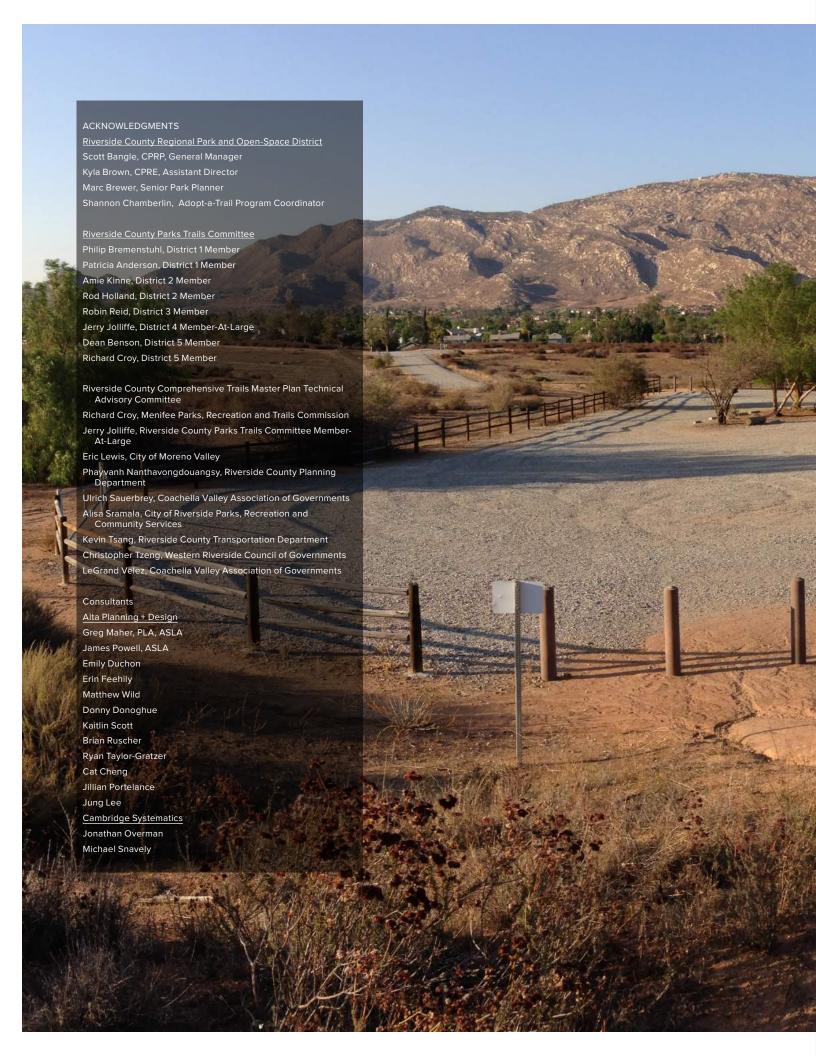
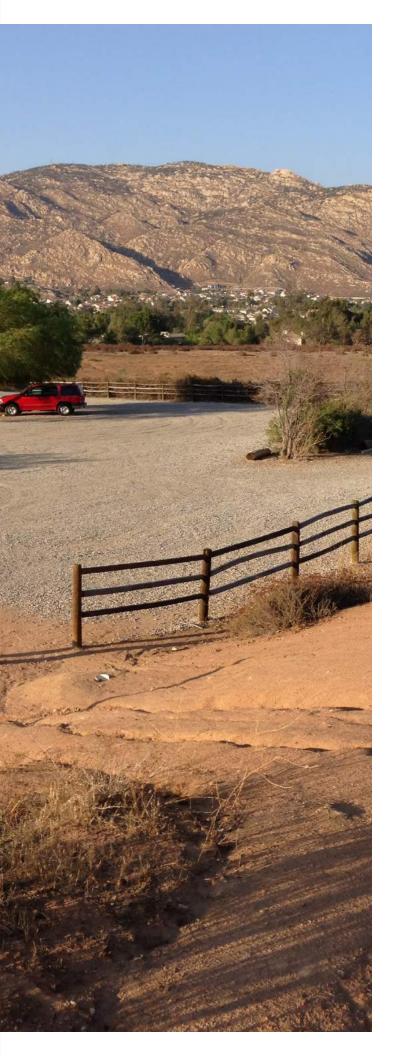


Riverside County Regional Park and Open-Space District

# COMPREHENSIVE TRAILS PLAN







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## **Context**

Riverside County is the fourth largest county in the state, encompassing approximately 7,300 square miles. The County is comprised of 28 cities and over 60 unincorporated communities. Riverside County is divided east to west by the San Jacinto and Santa Rosa Mountains and distinguished by physical characteristics and historic growth patterns. The western portion of the County is roughly half the size of the eastern half and contains the greatest concentration of population in the County. The eastern region is known for its desert terrain and has relatively less populated communities.

## **Overview**

Stakeholders and managing agencies have been involved in a collaborative planning process leading to the development of this plan with clear policies, operational and maintenance requirements, implementation guidance, funding and partnership recommendations, and design standards for trail typologies appropriate for a regional trail system.

The development of this plan has involved field work, mapping and data analysis, stakeholder outreach, and surveys of best practices in California, the Southwest, and nationwide.

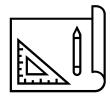
Specific opportunities and challenges have been identified, some of which are physical, socio-cultural, and legal in form.

## **Plan Goals**

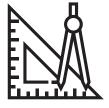
The three primary goals of the Comprehensive Trails Plan are to provide the Riverside County Parks and Open-Space District with the following:

- A backbone trail network that is feasible, compatible with other plans, leverages trails within other jurisdictions, and closes gaps in a countywide trail system;
- Guidance for design of trails which are accessible, usable by a variety of users, and connect to major destinations and other trails;
- Recommendations for the future management of regional trails within **Riverside County.**

## **Plan Objectives**



- Provide an analysis of current trail segments, catalogue the District's inventory of existing trails and trail classifications, and verify trail status;
- Analyze system gaps, determine property ownership and approaches for property acquisition, where necessary;



Develop sustainable trail design guidelines which refine current standards and are compatible with adjacent trail networks;



Examine key policy issues related to trails such as: land use, easements, liability, unsanctioned use, illegal motorized trail use;



Develop a plan for trail implementation and phasing;



Define the District's role, as lead agency or manager of the County trails program, and identify opportunities for other agencies to assume responsibility for the trail network;



Identify potential trail partnerships and recommend immediate and long-term funding models;



- Provide a framework of recommendations that will serve as a blueprint for future trails planning, maintenance, and development;
- Base recommendations on input from stakeholders, other trail agencies, and local trail users.

## **Planning Process**

#### Stakeholder Collaboration

Crucial to the formation of the Plan was a continuous and collaborative process with stakeholders. These included representatives from Riverside County, cities within the County, California State Parks, and the County's Trails Advisory Committee. A series of meetings and regular review of interim deliverables helped ensure that stakeholder priorities were met, and specialized, local knowledge informed the plan.

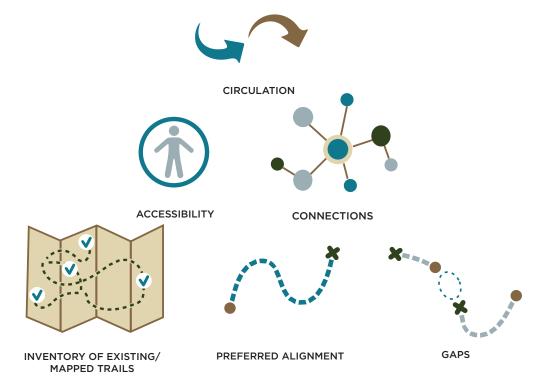
#### Plan and Data Review

Relevant planning documents and spatial data were reviewed at the federal, state, county, area plan, community, and city level. Plans covering areas outside of County jurisdiction were reviewed to help provide compatibility between adjacent jurisdictions and proposed trails.

Documents and data were reviewed for: existing and planned trail alignments; design recommendations such as trail width, surface, and allowable uses; policies related to planning, funding, building, and maintaining trails; and potential partnerships for trails operations.

#### Recommendations

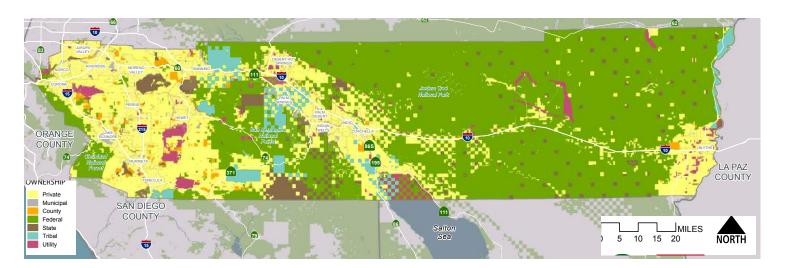
The Comprehensive Trails Plan provides policies, a recommended backbone trail network, and design standards to encourage and promote new trails and improve existing trails. The proposed backbone trail network is constructed primarily from previously planned trails, and recommends alignments to close gaps and reach major destinations. Policies are provided related to trail funding, maintenance, future planning, and operations. Implementation strategies, including funding sources and potential partnerships are also provided. A series of preferred cross sections are recommended for backbone trail development, to accommodate multiple trail user types.



## **Land Ownership**

Riverside County, at 7,300 square miles, is California's 4th largest county, and the ownership of this land greatly influences the potential to build and maintain trails. The County has more than half of its land under federal ownership, largely due to the presence of Joshua Tree National Park, Cleveland, and San Bernardino National

Forests, and large areas held by the Bureau of Land Management. This public ownership provides many recreational opportunities and potential connections for a regional County trail network but also limits the County's planning jurisdiction. The County itself only directly owns 107 square miles of land, most of which is within regional parks.



## **County Jurisdiction**

Beyond land ownership, the County's jurisdiction plays a significant role in the planning and eventual operation of trails. Per County of Riverside Board of Supervisors Policy J-11, the County is encouraged to pursue trails within existing public right-of-way, and will only focus its efforts on regional trails. Overall County jurisdiction falls into areas outside of incorporated cities and lands owned by state and federal agencies.

## **Existing Trails**

Existing trails within Riverside County are concentrated within communities and in County, State, and Federal public lands. The District currently maintains trails within its parks, but only one trail outside of park boundaries, the Santa Ana River Trail. As such, there does not currently exist a regional, interconnected network of trails across the County, and continuous trail experiences are broken up by jurisdictional and geographical barriers.

## **Trail Planning**

The County's extensive trails network is overseen by the District Trails Committee, housed within the Riverside County Regional Park and Open-Space District. This committee was formed to advise over and make recommendations concerning the acquisition, maintenance and promotion of multi-use trails in Riverside County.

The County is responsible for planning and operating regional trails only, though it maintains data and maps of several other trail types, some existing and some only planned. These trails appear in and are updated in the County General Plan's Circulation Element.

While the County has, through land ownership and jurisdiction, a clear directive of lands which should receive regional trails, it also has a mandate to plan for trails with true regional connectivity. A trail network that is solely planned within County jurisdiction would have limited countywide connectivity. As such, the County has gradually added trails to its planned trail network that could not be implemented by the County.



## **Previously-Planned Trails**

As of 2017, the County's planned trail network (data maintained by County Planning) had reached 3,927 miles, with 2,400 miles of those being potentially within County jurisdiction, and 846 miles classified as regional. While this is a valuable database of potential trail opportunities, it does not provide the District with a clear vision or priority for the implementation or prioritization of future trail

development. This planned trail network were it to be implemented, would form an extensive network across the county and provide a multitude of trail experiences, but is not currently feasible. The County does not have resources or jurisdiction to complete this network, and as such a network that is reduced in scope and prioritized must be proposed.

## **Opportunities and Constraints**

#### CONNECTIONS

The greatest opportunities for trail development within the County are those which leverage existing trails and public lands. By tying regional trails into trail systems within communities, National Forests and County Parks, the total miles of trails required to create a Countywide network are greatly reduced. Additionally, providing connections to desirable destinations, including those serving employment, retail, recreation, and tourism, will help ensure a trail system that is enjoyed by a variety of users and that enjoys wide-reaching support.

#### **BARRIERS**

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

At 7,500 square miles, the size of the County presents one of the greatest challenges to creating a countywide trail network. Beyond distance, several mountain ranges and large expanses of desert present obstacles to continuous trail routes. Fortunately, these same lands possess great scenic beauty and are also largely under Federal ownership, with internal trail systems that can be leveraged by County trails.

The single most impeding factor to trail network development at the County level is funding. As of 2011, funding to maintain trails was cut from the district budget and even with the possibility of grants to fund new trail construction, maintenance will be an ongoing financial struggle without new funding sources.



## **Trail Partners**

A number of partners throughout Riverside County provide trail users with a high-quality trail experience by operating, maintaining and otherwise supporting trail systems in their respective areas or managed lands. These partners range from the federal to the community level, with varying operational context from each organization.

FEDERAL	STATE	PRIVATE	REGIONAL / COUNTYWIDE
National Park Service	California State Parks	Center for Natural Lands Management	Coachella Valley of Associated Governments
Bureau of Land Management	State of California Department of Fish & Wildlife	Inland Empire Waterkeeper	Desert, Jurupa Area, and Valley-Wide Recreation and Park Districts
US Fish & Wildlife Service	California Coastal Conservancy	Greater Riverside Chamber of Commerce	Riverside County Adopt-A-Trail
US Department of Agriculture		Friends of Hidden Valley Preserve	Riverside Community Health Foundation
Military Installations and Bases		Friends of Riverside Hills	Riverside County Economic Development Agency
US Army Corps of Engineers		Friends of the Coachella Valley Link Trail	Riverside County Habitat Conservation Agency
		Friends of the San Jacinto Mountain County Parks	Riverside County Health Coalition
		Inland Valley Mountain Bike Association	Riverside County Sheriff
		Wildlands Conservancy	Riverside County Transportation Commission
		Sierra Club	Riverside County Transportation Department
			Riverside-Corona Habitat Conservation District
			Southern California Association of Governments
			Western Riverside Council of Governments
			Western Riverside County Regional Conservation Authority
			Jurupa Community Services District (Eastvale)

## **Trail Policy Updates**

The nature of trail development requires careful attention to detail and proactive efforts by stakeholders to ensure a high-quality trail system is ensured through policy. Trail policies should encourage private involvement in trail efforts, community stewardship of trails, ensure ease in managing the trail, and long-term public support, with all of these goals aimed towards the implementation and encouragement of active transportation and recreation. Thus, a number of trail-related policies have been identified as examples and best practices to provide guidance on updating the Riverside County Trails Master Plan. These policies, with accompanying objectives, are described in more detail in Chapter 4.

**Guiding Principle:** The interconnectedness of trails, regional trails and supporting bikeways and pedestrian infrastructure is integral to the liveliness of Riverside County. Connecting area communities through safe, interconnected, vibrant trails ensures a high quality of life for residents and visitors to the culturally and environmentally rich area. The County will provide a vision for establishing the trail system through a series of regional and local connections while guiding the implementation of management activities by municipalities and other willing partners in the area.

#### GOAL

#### PLAN FOR REGIONAL AND LOCAL TRAIL CONNECTIVITY

The Riverside County Parks and Open Space District will retain staff who manage the planning of regional trails countywide. This staff will work with Riverside County Planning to incorporate trail planning into community plans wherever possible and ensure that updated trail planning efforts are incorporated into the General Plan on the regular update schedule. Partnership opportunities shall be explored during trail planning processes, following the guidance of the Trail Partners section of this plan.

#### PROVIDE ACCESSIBLE TRAILS

The County shall create a trail system that is accessible to all users, whenever feasible, is enhanced for users with different abilities, and promotes a safe system.

#### STRATEGICALLY CLOSE TRAIL SYSTEM GAPS

The County will be an advocate, leading coordinator and supporter for closing gaps in the regional trail system. The County will facilitate public-private partnerships to co-locate facilities and services in public and non-public right-of-way. It will also acquire and manage lands, and when appropriate, transfer lands to other entities for management purposes.

#### GOAL

#### ADMINISTER THE TRAIL SYSTEM IN AN ECONOMICALLY SUSTAINABLE MANNER

The management of the system shall be supported through the development of Riverside County, users in the system, and other means. It is recommended that the County implement an annual assessment in the support of trail maintenance and development. Commercial and Industrial properties have previously been excluded from these fees. Based upon surveys and research conducted as part of this plan (see Appendix A), it has been found that trails are used for commuting purposes in Riverside County. Adjacent counties and other cities in California do not exclude specific land uses from development fees. It is recommended that these development types are subject to developer impact fees for trails.

#### GOAL

## ENFORCE TRAIL SAFETY, USE, AND JURISDICTION

The County shall identify the appropriate area under which it is authorized to enforce uses, work with external agencies to ensure collaborative enforcement, and work within its jurisdiction to ensure a safe, high-quality user experience.

#### GOAL

#### SIMULTANEOUSLY DEVELOP LAND, TRANSPORTATION, AND TRAIL IMPROVEMENTS

Development in Riverside County will blend development and transportation impacts into the considerations and needs of the Countywide Trail System. The County will identify trail alignments to be incorporated into plans and to market potential return on investment to developers and commercial areas.

#### GOAL

#### DEVELOP HISTORICAL TRAIL ROUTES, THEMES, AND RESOURCES

Historical and cultural routes located within Riverside County shall be identified and have facilities located that provide for a trail experience along these routes. Identification and listing these routes will provide for additional funding opportunities by external stakeholders, and opportunities for the County to increase tourism.

#### GOAL

## ACTIVELY FUND TRAIL PROJECTS

The County shall identify a funding approach and strategies for the long term and short term investment in the trail system. This includes the evaluation of past policy changes and the potential creation of new funding sources towards the development of the trail system. Specific funding policies appear in Chapter 4.

#### GOAL

# COORDINATE THE MAINTENANCE AND MANAGEMENT OF THE COUNTYWIDE SYSTEM IN A COLLABORATIVE AND CONSISTENT MANNER

The County shall coordinate management strategies between agencies and other potential partners to ensure an efficiently managed, countywide trail system. The County shall encourage structures of management that enable the County to more efficiently manage the workload in the trail system. The District shall defer management of the trail to the following agencies, based upon trail conditions:

- Along utility and/or drainage rights-of-way: Riverside County Flood Control District
- Adjacent to or following roadway corridors: Riverside County Department of Transportation

#### GOAL

## LEVERAGE VOLUNTEER GROUPS AND COMMUNITY SUPPORT

1. Adopt-A-Trail Program: The County will continue its Adopt-A-Trail Program, to support the County in the maintenance, management and ongoing operations of the existing trail system. The County will also consider the expansion of the program to include sponsorships from organizations that choose to enter into agreements as a welcomed component in the County's mission to manage a high-quality trail system. Funds collected from this program shall be exclusively available to the County for programming, maintenance, management and other activities directly related to the trail system.

## Backbone Trail Network

The current planning effort undertakes primarily a reductive process, refining previous trail planning efforts in the service of creating a regional trail network that can be prioritized and is feasible for implementation by the County. In order to preserve previous planning work while giving a path forward, trails have been classified into three tiers.

Tier 1 trails form the backbone trail network and represent the highest priority and greatest connectivity for the County. It incorporates historical alignments, regional trails with dedicated plans, those currently existing or under construction, and those with long-distance connectivity. Tier 1 trails proposed in this document do not enter MSHCP areas. These trails are intended to be major thoroughfares and are not appropriate for sensitive ecological areas. Where possible, backbone trails provide connections to trails within MSHCP areas.

Additional criteria used to evaluate backbone trails include:

- · Population adjacency;
- · Connection to destinations;
- Connection to other jurisdictions;
- Available right-of-way;
- Land ownership;
- Ability of the trail to close gaps in the regional network.
- Historic/cultural significance

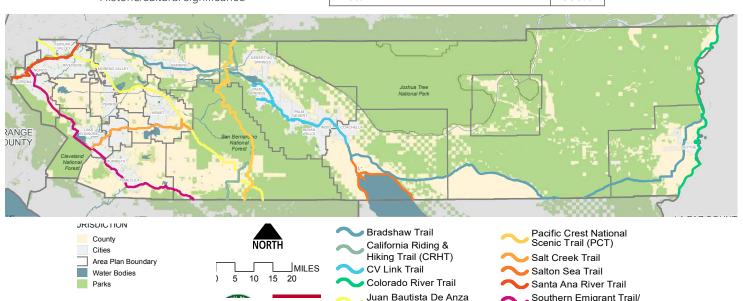
The tier 1 backbone trail network is depicted in the map below.

**Tier 2** trails are those which the County has previously identified as regional but do not provide regional connectivity. Many of these trails are destinations unto themselves, but often form networks internal to parks, without providing external connectivity.

Tier 3 trails are local and community trails, which generally either fall outside County jurisdiction or are comprised of trail networks with only local connectivity. These trails are important as connections to local destinations, and often must be relied upon for connection between regional trails.

Backbone Trail Corridor	Miles
Bradshaw Trail	129.5
California Riding & Hiking Trail (CRHT)	89.0
Colorado River Trail	37.5
CV Link	50.0
Juan Bautista de Anza Historical Trail	84.9
Pacific Crest National Scenic Trail (PCT)	82.2
Salt Creek Trail	37.8
Salton Sea Trail	32.4
Santa Ana River Trail	25.7
Southern Emigrant Trail/ Butterfield Overland Trail	66.8
Total	635.8

Butterfield Overland Trail



#### **Bradshaw Trail**

The Bradshaw would follow the historic Bradshaw Trail, extending from southeast to northwest Riverside County. The trail would utilize 100 miles of existing trail and ultimately develop a connection to the CV Link trail as it heads north towards Palm Springs.

#### California Riding & Hiking Trail (CRHT)

The Proposed California Riding & Hiking Trail (CRHT) would extend nearly 90 miles along mostly existing unmaintained dirt roads, providing an alternate route to the PCT as it travels north from the Juan Bautista de Anza trail towards the Bradshaw Trail.

#### Colorado River Trail

The proposed Colorado River Trail would extend from the center of Blythe and run along a river canal before connecting with the Colorado River. From there the alignment would run north along the river to the County border. For most of the route, the trail would be within County jurisdiction. In the City of Blythe, the existing trail is functional, though not maintained.

#### **CV** Link

The proposed CV Link will be a 50 mile long Class I (paved) path. It will operate primarily within urban areas, connecting to destinations in Palm Desert, Indio, and Palm Springs. Much of the route will follow a dry creek bed, and will, once constructed, serve a wide range of users, including hikers, bicyclists, equestrians, and neighborhood electric vehicles (NEVs).

#### Juan Bautista de Anza Historical Trail

The Juan Bautista de Anza Historical Trail would run northwest from the southern border of the Riverside County 94 miles along the western side of the San Bernardino National Forest, towards Jurupa Valley in the northwestern corner of the county.

## Pacific Crest National Scenic Trail (PCT)

The PCT is a continuous, maintained trail that runs north/south near the center of Riverside County. Within Riverside County, it

is primarily within the San Bernardino National Forest. It does not pass through populated areas. It intersects the Juan Bautista de Anza Historical Trail and the Bradshaw Trail.

#### Salt Creek Trail

The Salt Creek Trail is a planned combination Class I (paved) and soft surface trail that will run east/west adjacent to the Domenigoni Parkway north of Diamond Valley Lake Reservoir. The trail will provide a connection between two backbone trails: Juan Bautista de Anza Historic Trail in the east, and Southern Emigrant Trail / Butterfield Overland Trail in the west.

#### Salton Sea Trail

The Salton Sea Trail is a proposed trail that would run along the northern perimeter of the Salton Sea from the county boundary on the east side of the sea to that on the west. As such, it would connect to campgrounds and a number of small populated areas of North Shore and Oasis, and provide recreational access to the Salton Sea. The trail would extend north from the Salton Sea to intersect with The Bradshaw and CV Link.

#### Santa Ana River Trail

The Santa Ana River Trail is a partially-completed Class I Bike Path that runs adjacent to the Santa Ana River (on the south side). The proposed trail will follow an east/west alignment, in the northwest corner of the County, and connect to two proposed backbone trails: Southern Emigrant Trail and de Anza Trail. 13 miles of the Santa Ana River Trail have been completed. The trail will have two parallel trails, a soft surface trail for equestrian and hikers, and a paved trail for pedestrians and bicyclists.

#### Southern Emigrant Trail/Butterfield Overland Trail

The Southern Emigrant Trail and Butterfield Overland Trail are historical corridors without existing current trails. Through Riverside County, both proposed trails generally follow the same alignment. The Butterfield Overland Trail recently underwent a thorough planning process (see Appendix E). The result is the most reasonable alignment for the planned trail but still requires environmental review for feasibility..

## **Design Guidelines**

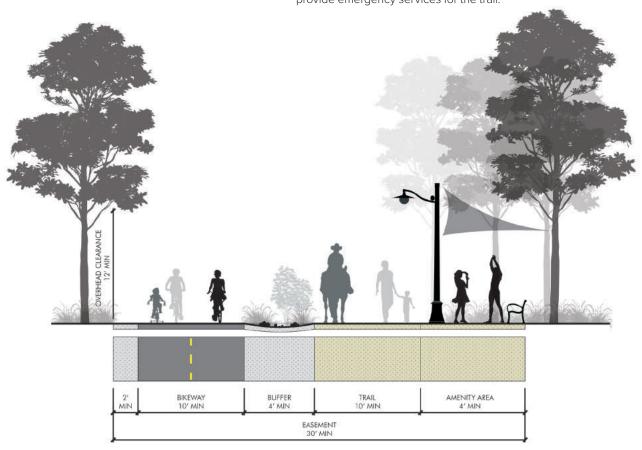
The Comprehensive Trails Plan includes cross sections and guidelines that are recommended as updates to the County's existing trail design standards. These sections cover a variety of available easement widths and are intended to serve as the standards upon which the backbone trail network is built.

Guidelines include the treatment of intersections. combinations of trail users, and materials.

## Wayfinding

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

Comprehensive and innovative map, marking, and signing systems (collectively "wayfinding") helps to make trail networks more accessible and desirable. An overarching signage and directional system for the Riverside County trails system will inform and educate users to help them find their way to, from, and along trails. A good wayfinding plan requires an accurate understanding of the regional trail system: its routes, trail types, jurisdictions, destinations, origins, users, and the needs and abilities of those who maintain, manage, and provide emergency services for the trail.



Class I Trail and Side Path w/ amenity area: This trail condition maintains a minimum of 2' shoulder on either side of the bikeway. On the side adjacent to the multi-use trail there is a minimum 4' buffer to provide separation from equestrian users which should be landscaped, and provides an opportunity for green infrastructure. The trail is intended for use by both equestrian and pedestrian, and this condition provides an additional amenity area which should be at a minimum 4' to provide for seating or other amenities.

## Implementation Framework

There are a number of steps related to the implementation of a countywide trail system. This framework outlines the necessary components for trail development and leadership within Riverside County. The framework is provided based on the practices of numerous external agencies, including cities, counties, regional and other plans of greater scale.

The primary steps involved with trail development are:

#### **Planning**

Concepts

Trail Corridor Master Plan

Coordination

Technical leadership

Regional corridor integration

#### **ENVIRONMENTAL REVIEW**

Initial Study

Negative Declaration/Negative Declaration with Mitgation Measures/ Environmental Impact Report (EIR)

Mitigation Monitoring

#### **Design and Construction**

Engineering and Landscaping Plan

Construction

Inspection

#### Management and Maintenance

Maintenance of trail amenities and surface

Management of trail as a public asset

#### Promotion

Event Planning

Marketing

#### **Enforcement**

Ranger Programs

Safety and Law Enforcement

15

## **Funding Strategies**

Much of the funding for trail construction comes from federal sources passed through to state agencies or local agencies. These funds are often dispersed through competitive grant programs. At the County or local level, municipal bonding, sales taxes, general funds, and fee programs are common sources for sustained and dedicated trails funding. Often, local agencies are opportunistic about the source of funds available for specific trails. Trails that go through property owners associations or special taxing districts may have dedicated funds for on-going maintenance, freeing up general funding sources for other trails.

#### LONG TERM STRATEGIES

In developing a long-term plan for funding trail network development, many considerations should be made for contingency planning; who will be the implementing and maintaining agency, and where will additional funding come from down the road in case of needed capital. These are important questions and are susceptible to change over time.

#### SHORT TERM FUNDING

Short term funding strategies typically occur within a narrow timeframe, such as one to three years. In targeting funding resources for trail projects, managers should generally prioritize discretionary or competitive grant programs. However, these funds are distributed nationwide and sometimes only result in marginal gains on an annual basis. Other successful funding pursuits in the near term could come from a diverse set of funding available from not-for-profits, local government funds, and others. Because of the limited timeframe associated with most funding resources, each funding resource may be in a state of flux and requires attention to ensure opportunities are not missed.

## **Trail Partners in Riverside County**

A number of partners throughout Riverside County provide trail users with a highquality trail experience by operating, maintaining and otherwise supporting trail systems in their respective areas or managed lands. These partners range from the federal to the community level, with varying operational context from each organization. Each partner can provide support to the development of a comprehensive trail network in Riverside County.

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## **Overview**

Stakeholders and managing agencies have been involved in a collaborative planning process leading to the development of this plan with clear policies, operational and maintenance requirements, implementation guidance, funding and partnership recommendations, and design standards for trail typologies appropriate for a regional trail system.

The development of this plan has involved field work, mapping and data analysis, stakeholder outreach, and surveys of best practices in California, the Southwest, and nationwide.

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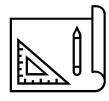
The following pages briefly outline this process.

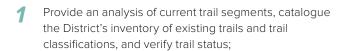
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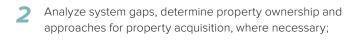
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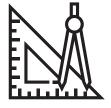
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## **Plan Objectives**





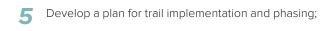




Develop sustainable trail design guidelines which refine current standards and are compatible with adjacent trail networks;



Examine key policy issues related to trails such as: land use, easements, liability, unsanctioned use, illegal motorized trail use;





Define the District's role, as lead agency or manager of the County trails program, and identify opportunities for other agencies to assume responsibility for the trail network;



Identify potential trail partnerships and recommend immediate and long-term funding models;



- Provide a framework of recommendations that will serve as a blueprint for future trails planning, maintenance, and development;
- Base recommendations on input from stakeholders, other trail agencies, and local trail users.

Chapter 2 PLANNING PROCESS 20

## **Planning Process**

#### Stakeholder Collaboration

Crucial to the formation of the Plan was a continuous and collaborative process with stakeholders. These included representatives from Riverside County, cities within the County, California State Parks, and the County's Trails Advisory Committee. A series of meetings and regular review of interim deliverables helped ensure that stakeholder priorities were met, and specialized, local knowledge informed the plan.

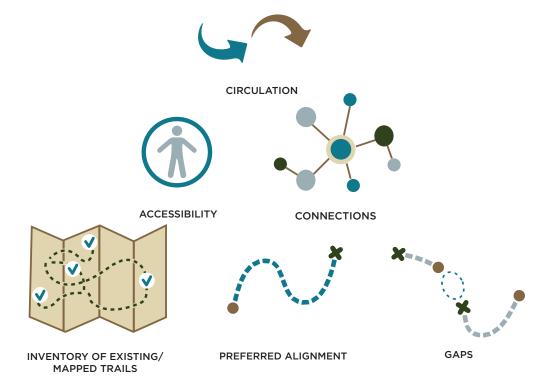
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Relevant planning documents and spatial data were reviewed at the federal, state, county, area plan, community, and city level. Plans covering areas outside of County jurisdiction were reviewed to help provide compatibility between adjacent jurisdictions and proposed trails.

Documents and data were reviewed for: existing and planned trail alignments; design recommendations such as trail width, surface, and allowable uses; policies related to planning, funding, building, and maintaining trails; and potential partnerships for trails operations.

#### Recommendations

The Comprehensive Trails Plan provides policies, a recommended backbone trail network, and design standards to encourage and promote new trails and improve existing trails. The proposed backbone trail network is constructed primarily from previously planned trails, and recommends alignments to close gaps and reach major destinations. Policies are provided related to trail funding, maintenance, future planning, and operations. Implementation strategies, including funding sources and potential partnerships are also provided. A series of preferred cross sections are recommended for backbone trail development, to accommodate multiple trail user types.







## **County Context**

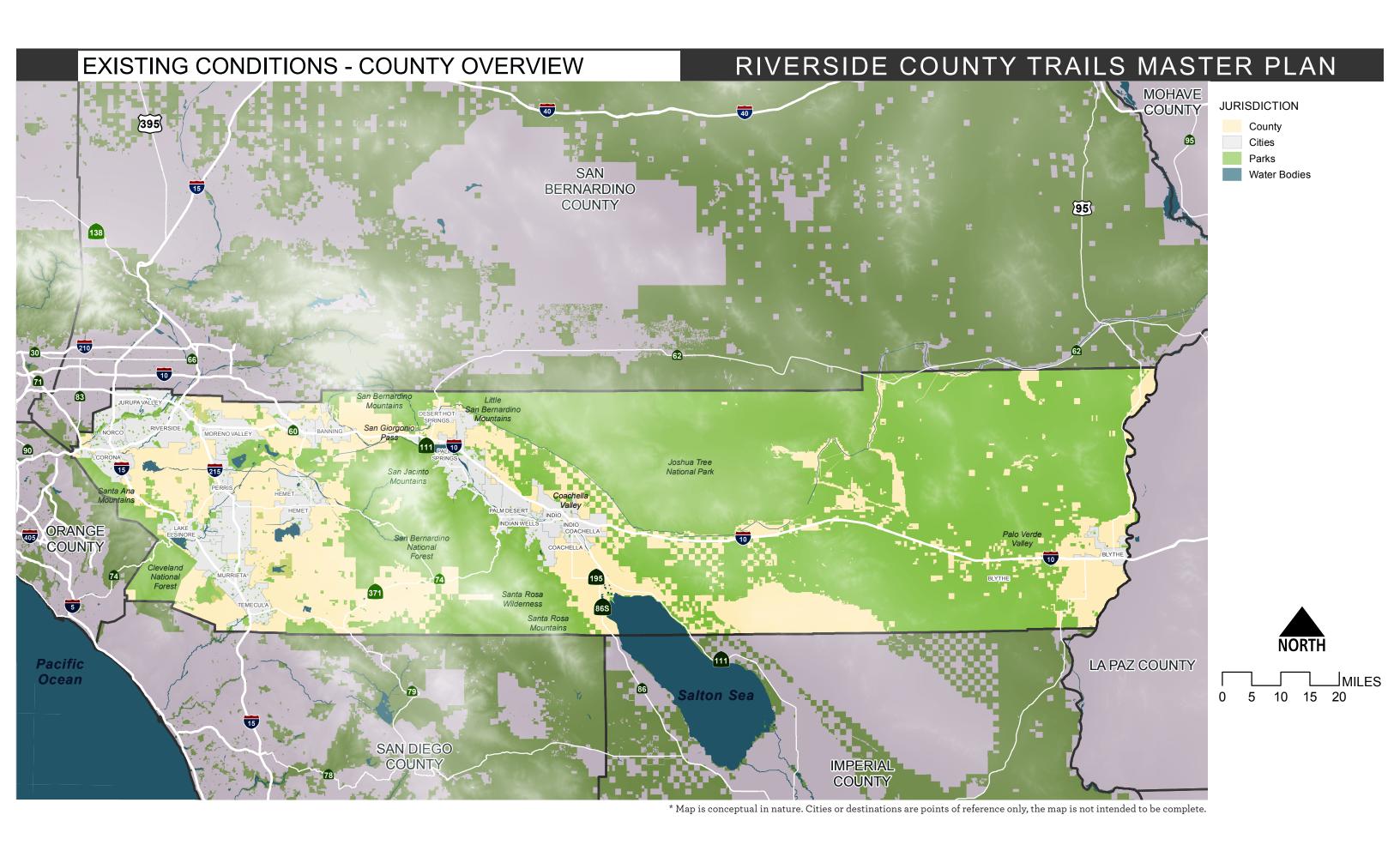
Riverside County is located in Southern
California and lies east of Orange
County, north of San Diego and Imperial
Counties, and south of San Bernardino
and Los Angeles Counties. It is the
fourth largest county in the state by size
and population, and the tenth largest
in the United States by population. It
encompasses approximately 7,300 square
miles and extends from the Colorado
River westward toward the Pacific Ocean,
a stretch of at least 200 miles. Riverside
County is comprised of 28 cities and over
60 unincorporated communities.

## **Project Area Overview**

At over 7,300 square miles, Riverside County covers a highly diverse geography that stretches from Orange County to the California/Nevada state line (see map "Existing Conditions", on p. 24). It is divided into eastern and western portions by the San Jacinto and Santa Rosa Mountains. The San Gorgonio Pass, framed by the San Jacinto and San Gorgonio Mountains, creates a corridor that links these two portions. The San Bernardino and Little San Bernardino Mountains form a portion of the northern boundary while numerous mountain ranges, including those in the Santa Rosa Wilderness and Cleveland National Forest, serve as boundaries along the southern and western edges of the County.

These eastern and western portions of the County are distinguished by their physical characteristics as well as their historic growth patterns. The western portion of the County is roughly half the size of the eastern half and is bounded by the Santa Ana Mountains and Cleveland National Forest on the west and the San Jacinto Mountains and the San Bernardino National Forest on the east.

The western portion of the County contains the greatest concentration of population and has experienced the greatest growth pressures. The eastern side of the County is bounded by the Colorado River on the east and the Santa Rosa and San Jacinto Mountains on the west. This portion of the County is known for its desert terrain and has less populated communities. Just east of the San Jacinto Mountains, the Coachella Valley marks the beginning of the desert portion of Riverside County. Joshua Tree National Park forms a natural boundary at the northern end of the Coachella Valley, which extends south to the Salton Sea. A vast expanse of desert wilderness separates the Coachella Valley from the Colorado River where the city of Blythe is located in the Palo Verde Valley.





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#### RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

The Riverside County Regional Park and Open-Space District (the Park District) was established to acquire, protect, develop, manage, and interpret for the inspiration, use, and enjoyment of all people, a well-balanced system of areas of outstanding scenic, recreational, and historic importance.

The Park District is administered under two Bureaus – the Operations and Resources Bureau and the Business Services Bureau. Housed within the Park District is the District Trails Committee. This committee was formed to advise and make recommendations concerning the acquisition, maintenance and promotion of all multi-use trails in Riverside County. The Trails Committee consists of 5 members (the Trails Committee was restructured from an 11-member committee to a 5-member committee in August 2017) who are appointed by the Riverside County Board of Supervisors to represent each district within the County and reports directly to the Park & Open-Space District Advisory Commission.



#### LAND OWNERSHIP

Land ownership effects the protection and use of land, transportation options, and future growth patterns. In Riverside County, the majority of land is protected by public landowners, the greatest being Federal, followed by State and County. These protected lands present opportunities for trail system expansion and partnerships for the collaborative creation and maintenance of trails. Figure 3-1 shows landowner percentages in Riverside County, with more detail found throughout this section.

The Federal Government owns the majority (61%) of land in Riverside County. This includes tribal lands spread across several reservations. A number of federal areas are provided special protections, including national forests and national parks. Environmentally sensitive areas are present throughout some of these lands, which limit development but provide partnership opportunities for interlinked trail networks. Many of the mountain ranges in the county are encompassed by federal

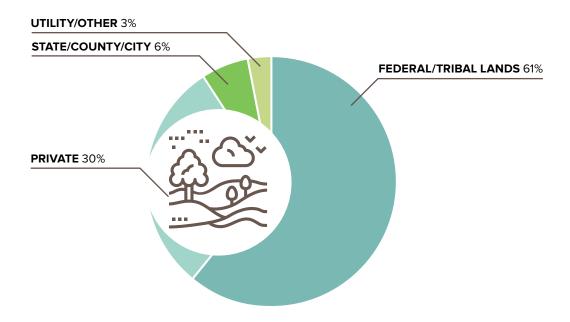
land, which, combined with challenging topography, limits development but provides for ideal recreational opportunities.

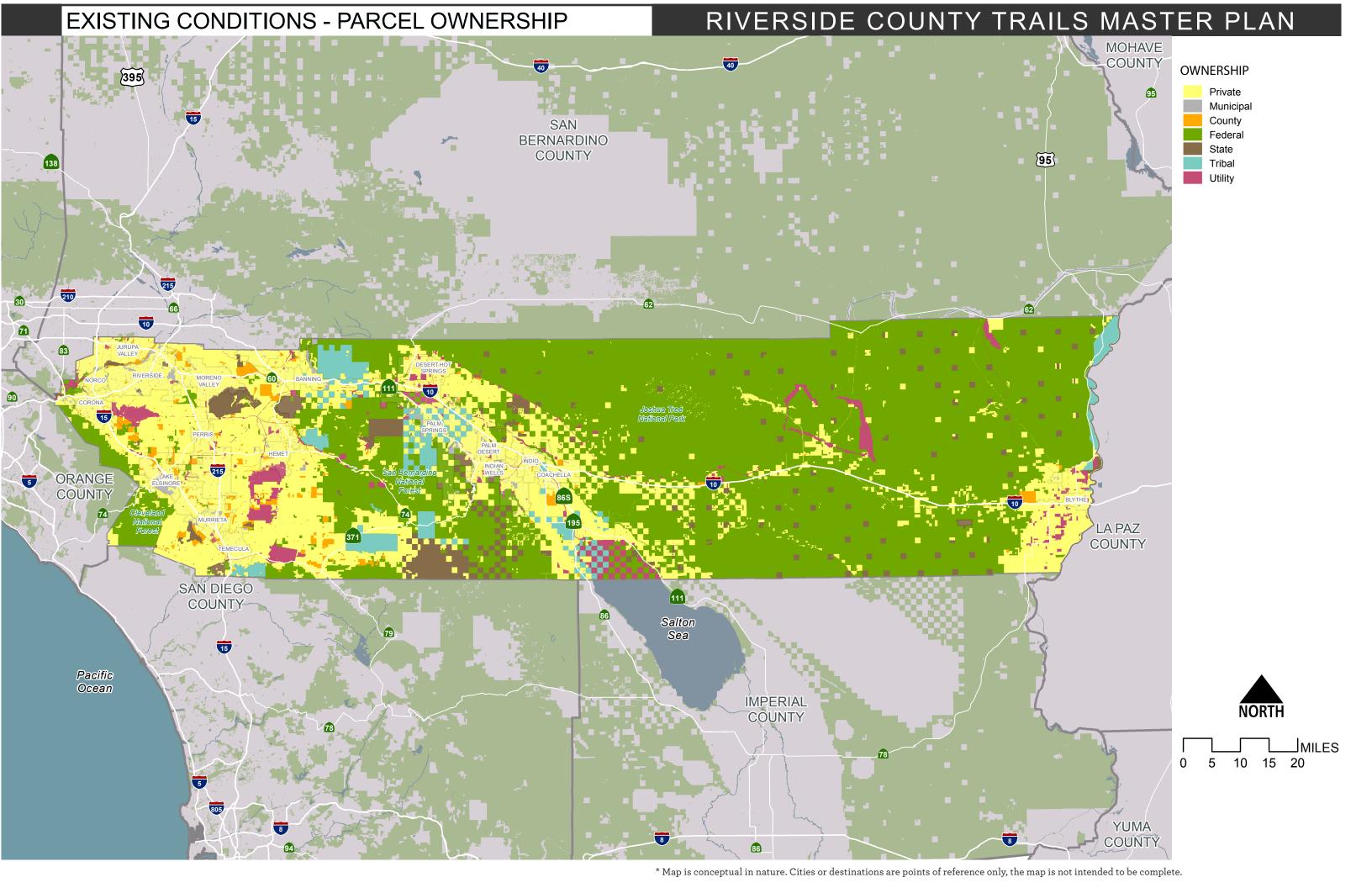
RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

Privately owned lands account for 30% of land in the area, the next largest landowner category in Riverside County. This land could be used for commercial, residential, agricultural, or other purposes. Privately-owned land could be used for trails, though this is not as common as publicly owned and operated trails. Privately owned trails may have more use restrictions or limit public access. All privately owned lands are subject to environmental plans and protections. Additionally, this land could include easements for other purposes that could affect the use of the land.

City, county and state property make up approximately 6% of land in the County. These lands could include trails, but also often have smaller parcels to utilize when compared to the federal government. 3% of the land in the County is owned by utilities, land conservation agencies and trusts, and other landowners that are not readily categorized.

Figure 3-1: Land Ownership in Riverside County







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#### LAND USE CONTEXT

Riverside County is the fourth largest county in California and has a variety of natural settings and ecosystems. These diverse landscapes impact future land uses and provide unique opportunities to develop trails.

Large swaths of land in the County are owned by public entities. Whereas this presents opportunities for future trail development, it also presents a management concern as maintaining trails over a large area can be difficult.

The western portion of the County is the most densely populated. This area borders the Santa Ana Mountains, a natural area which provides for a significant amount of land classified as open space or conservation. Some tribal lands are also located adjacent to these communities in rural areas.

Closer to the center of Riverside County lies the San Jacinto Mountain Range. This range divides western from central Riverside County and also encloses the municipalities located between this range and the Joshua Tree National Forest. This area is home to the Coachella Valley, a national destination for golfers and other recreationalists. The population residing in this area often own second homes or are in retirement; leisurely lifestyles being the focal point of the area. Land uses here are typically low density residential areas with commercial centers.



## **Planning Context**

Regional planning for trail network connectivity is a major goal for accomplishing 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 community to regionally maintained systems.

The county trail system also is geared toward the integration of multiple types of trails for users of all abilities. The County has a substantial amount of surface types and improvements that have been made to accommodate users of various abilities. Riverside County lends itself well to all types of users (feet, hoof, wheel, or other devices).

There are numerous City, County and Federal plans relevant to trails system in Riverside County. The County is home to regional and federally recognized trails and locally significant trails which connect multiple communities. Given the large amount of lands in public ownership (over 65%), stakeholders should continue to carefully coordinate and implement trails in a collaborative manner.

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

A number of trail plans have been identified and relevant elements have been incorporated into this plan to further the goal of delivering a high-quality trail system to residents and visitors of Riverside County. The related plans, policies, and design standards have been summarized in the following pages.



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## RIVERSIDE COUNTY PLANS & STANDARDS

Riverside County maintains several plans with trail-related policies and guidelines. These plans primarily hold jurisdiction over land that does not fall into a municipality or is owned by the state or federal government. However, these other jurisdictions may defer to County trail planning standards where more specific planning documents do not exist.

#### Riverside County General Plan (2015)

The Riverside County General Plan was updated on December 8, 2015, as the County's main policy document to guide future development. Within the General Plan, there are six required Chapters or "Elements": Land Use, Circulation, Multipurpose Open Space, Safety, Noise, and Housing. There are also three additional Elements in the plan: Air Quality, Healthy Communities, and Administration. The Circulation and Healthy Communities Elements provide guidance on trail planning in the county.

The Plan's Circulation Element is intended to guide the development of the County's circulation system in a manner compatible with the General Plan's Land Use Element. It also aims to provide the County a circulation system that is safe, sensible, and provides efficient movement of people and goods throughout the county. The Circulation Element makes reference to trails and trail infrastructure in the Non-Motorized Transportation and Multipurpose Recreational Trails sections of this Element.

In the Circulation Element, trails are classified into the following categories:

 Regional Trails: primary, long-distance trails, designed to link communities,



regional parks, and open spaces;

- Community Trails: trails linking areas of a community to the regional trail system;
- Historic Trails: designated historic routes that recognize the history of Riverside County;
- Non-County Public Lands Trails: trails within the San Bernardino and Cleveland Nation Forests, Joshua Tree National Park, Santa Rosa and San Jacinto Mountains National Monument, etc.

The General Plan also contains policies regarding pedestrian and bikeway safety and infrastructure, and encouragement of walking and cycling (see Table 3-2, p. 27). Bikeways are classified as Class I (separated right-of-way for bicycles and pedestrians), Class II (bike lanes), Class III (bike routes), and Class I/Regional Trails (which link urban and rural communities).

Policies pertaining to pedestrians encourage:

- Providing safe pedestrian environments
- Maximizing pedestrian visibility and access
- Connecting pedestrians to transit routes and facilities
- Assuring that school children have safe and adequate routes to school (busing, biking, walking)
- Making accommodations for Americans with Disabilities Act (ADA) requirements (including access to transit routes/facilities)

The Plan's Healthy Communities Element provides a framework for translating the General Plan vision for a healthy Riverside County into reality by identifying policies to achieve that vision. Policies referencing trails in the Healthy Communities Element are included in the *Parks, Trails, and Open Space* section, calling for:

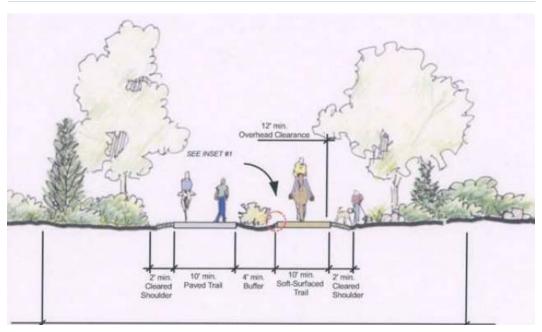
- Increase of access to open space, in part by requiring the development of trail facilities
- Coordination with public entities to allow easements to be used as trails, where feasible

#### Trail Development Standards (2009)

The Riverside County Trail Development Standards classify trails into five categories: Class I Bikeway, Combination Class I/Regional Trail, Regional Trail, Regional Trail/Open Space Area, and Community Trail. Table 3-2 below discusses these standards more in depth.

Table 3-2. Trail Development Standards

BIKEWAY/TRAIL CATEGORIZATION	PAVING	TYPICAL EASEMENT WIDTH	MAINTENANCE ENTITY
Class I Bikeway	4-inch Rubberized Asphalt	20 to 30 feet	Riverside County Regional Park and Open-Space District
Combination Class I Bikeway / Regional Trails	Rubberized Asphalt, four inches thick	30 to 40 feet	Riverside County Regional Park and Open-Space District
Regional Trail	4-6 inch Stabilized Decomposed Granite	20 feet	Riverside County Regional Park and Open-Space District or TLMA Transportation Landscape & Lighting Maintenance District (L&LMD)
Regional Trail Open-Space Area	None; cleared native earthen material	6 to 10 feet	Riverside County Regional Park and Open-Space District
Community Trail Non-CSA or Non- Local Park District Jurisdiction	4-6 inch Stabilized Decomposed Granite	14 feet	Riverside County Regional Park and Open-Space District



## Comprehensive Park, Resources and Recreation Service Plan (2013)

This document identified a selection of 10 trails as a subset of the County's larger planned regional trail network to serve as the backbone of the system. This network was analyzed at a macro scale, and specific routes were not identified for several of the trails. This network has, however, informed the backbone network presented in this document, and where feasible, those alignments have been maintained. The primary routes identified are below (routes primarily use names provided in the 2013 plan; some have been assigned new names in this planning document as noted in "proposed trails" on p.95):

- Santa Ana River Trail, 32.5 miles, Status: Planning/Construction
- Salt Creek Channel Trail, 16.5 miles, Status: Planning
- Pines to Vines Trail, 26 miles, Status: Planning
- Hurkey Creek/McCall and May Valley Trail Network, 40 miles, Status: Construction
- Harford Springs to Mockingbird Canyon Trail,
   5 miles, Status: Design Development
- Temescal Canyon Trail, 15 miles, Status: Not Active
- San Jacinto River Trail, 25 miles, Status: Not Active
- Whitewater River Trail, 35 miles, Status: Phased Design Development
- All American Channel, 38 miles, Status: Pending
- Dillon Road Corridor, 7 miles, Status: Pending

#### Development Impact Fees Study (2013)

This study proposed a fee to generate revenue to fund the share of planned improvements to these region-serving trails attributed to new development in unincorporated areas. The subsequent Development Impact Fee (DIF) program provides a revenue source to help fund facilities that will benefit development in unincorporated areas.

- Each developed mile of trail right-of-way is worth \$500,000 and each natural mile in Riverside County is worth \$300,000.
- The total value of regional trail facilities in Eastern Riverside County is approximately \$41.2 million. The total value of regional trail facilities in Western Riverside County is estimated to be approximately \$112.8 million
- Regional trail facility impact fee revenue
  in Eastern Riverside County is anticipated
  to reach approximately \$5.9 million. This
  amount is expected to offset the total cost
  of planned facilities for this portion of the
  county, leaving no amount of planned
  facilities unfunded. Trail facility impact fee
  revenue for Western Riverside County
  totals an estimated \$5.7 million, leaving
  approximately \$14.6 million worth of facility
  costs to be funded by non-fee sources.

#### Countywide Design Standards (2004)

The 2004 Countywide Design Standards were implemented to incorporate the physical character of a community with the values they respect. These values manifest themselves in development decisions of the institutions of their time. In these guidelines, development applications required certain elements of the applicant. Some of these guidelines related to trails, specifically those mentioned below.

- Reverse Frontage Treatments: Equestrian
  or hiking trails and bikeways and other
  recreational facilities shall be integrated
  into such treatments wherever required by
  current adopted local and regional trails
  system plans.
- Additional streets facing common landscape planters should be encouraged in subdivision design for bikeways, recreational trails, neighborhood entry statements and noise buffering.



#### **REGIONAL PLANS**

Regional plans are multi-jurisdictional, covering a range of land owners and large areas of the County. These include federal plans, plans for trail systems in regional parks, community plans, and plans for multi-jurisdictional trail projects.

#### Box Springs Mountain Reserve Comprehensive Trails Master Plan (2015)

This plan focuses on the Box Springs Mountain Reserve in the City of Moreno Valley in northwestern Riverside County. The plan seeks to improve trail quality and connections within the 3,400 acre open space preserve.

The plan dedicates an entire section to trail design guidelines. Subsections include highly detailed descriptive guidance for shared-use paved paths, open space natural surface trails, and railroad crossing design. The plan references Caltrans and FHWA standards, but does not provide plans or cross sections.

#### **Butterfield Overland Trail Project (2015)**

This plan analyzes a proposed alignment for a portion of the historical Butterfield Overland Trail through Temescal valley from Lake Elsinore to Corona. The historical Butterfield Overland Stage route was a critical transcontinental route for people and mail to move across the country in the mid 1800's.

The plan provides a descriptive table for three types of trails within the Temescal Valley corridor: Regional Open Space Trail, Community Trail, and Combination Class I Bikeway/Regional Trail. For each, a general definition, location, trail and easement width, and surface material is provided.

## Coachella Valley Association of Governments Non-Motorized Transportation Plan (2010)

This plan is an update to a 2001 plan which proposed off-road trails and bikeways established for cities within the Coachella Valley. The plan seeks to make jurisdictions within the Coachella Valley eligible for funding related to trails and biking and to help guide future development within those cities.

The plan provides a section on design and maintenance guidelines, including descriptions of Class I, II, and III facilities with references to Caltrans and AASHTO standards. It also includes descriptions and plans for wayfinding, striping, and bike parking.

#### Murrieta Creek Regional Trail Project (2015)

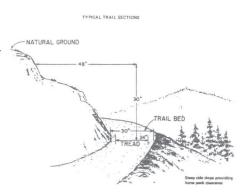
This project, which aims to create a multi-use trail system linking Temecula, Murrieta, Wildomar and Lake Elsinore would also be a component of the larger Southern Emigrant/Butterfield Overland Trail project (See Appendix E).

A section on development considerations provides standards for regional and shared-use class 1 trails. Additionally, loose trail character guidelines, suggested amenities, generic hand-drawn sections, and plans for specific conditions are provided.

## Pacific Crest National Scenic Trail (PCT) Comprehensive Plan (1982)

The Comprehensive Plan seeks to establish plans for the development, management, and use of the Pacific Crest Trail which was one of the first scenic trails to be established, in 1968. The hiking and equestrian trail extends from the southern border of the United States north along the Sierra Nevada and Cascade mountain ranges to its northern terminus at the US-Canada border.

The PCT includes guidelines for the design of the trail and surrounding corridor





The plan provides a broad overview of the entire PCT. It provides descriptions for trail design, grades, signage, and trailhead amenities. It is accompanied by simple sections / plans and character sketches.

#### Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

The plan was created to protect a large number of species of plants, birds and animals native to Riverside County. To do so the plan preserves a half-million acres of native habitat. There are two types of trails that are expected within the MSHCP Conservation Area. The first type is existing community trails, which are primarily used by equestrian users. No impacts will be covered and no improvements will be allowed on any of these existing community trails under the MSHCP. The second type of trail is existing adopted regional trails and future proposed regional trails. Covered uses on these existing and proposed regional trails will include hiking, mountain biking, and equestrian use.

#### Santa Ana River Trail Master Plan (2011)

This plan aimed to develop a trail along the Santa Ana River within the Corona -Norco - Eastvale segment. The plan calls for two parallel trails with a soft surface trail for equestrian and hikers, and a paved trail for pedestrians and bicyclists.

The plan provides three alternatives and recommends one final alignment for the river trail. It includes specific design goals, designation of trail types, cross sections, plans, trailheads, amenities, initial engineering drawings and environmental documentation. The document provides guidance through the design and construction phases of the project.

#### Temescal Valley Design Guidelines (2007)

These design guidelines intend to identify a consistent design language for development within the Temescal Valley based off of the unique landscape and historical context of the region.

The design guidelines provide a section on trails, which include general character descriptions for Class I Bikeways, Regional Trails, Community Trails, and Historic Trails. A single generic trail / roadway section is provided, as well as descriptions / plans for historic and interpretive sites.

## Temecula Valley Wine Country Community Plan (2017)

The Southwest Area Plan includes twelve specialized policy areas and thirteen specific plans. Of these plans, the Wine County Community Plan (2017) aims to protect the equestrian rural lifestyle of the Temecula Valley.

The plan includes specific recommendations beyond those present in the area plan, which did not provide multi-use trail connections to wineries and other tourist destinations, such as Lake Skinner and Vail Lake. A trails subcommittee was formed to work with County staff to develop a trails network that addresses the community's needs and provides greater destination linkages. These recommendations have been incorporated into the trails shown in this document.



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#### **AREA PLANS**

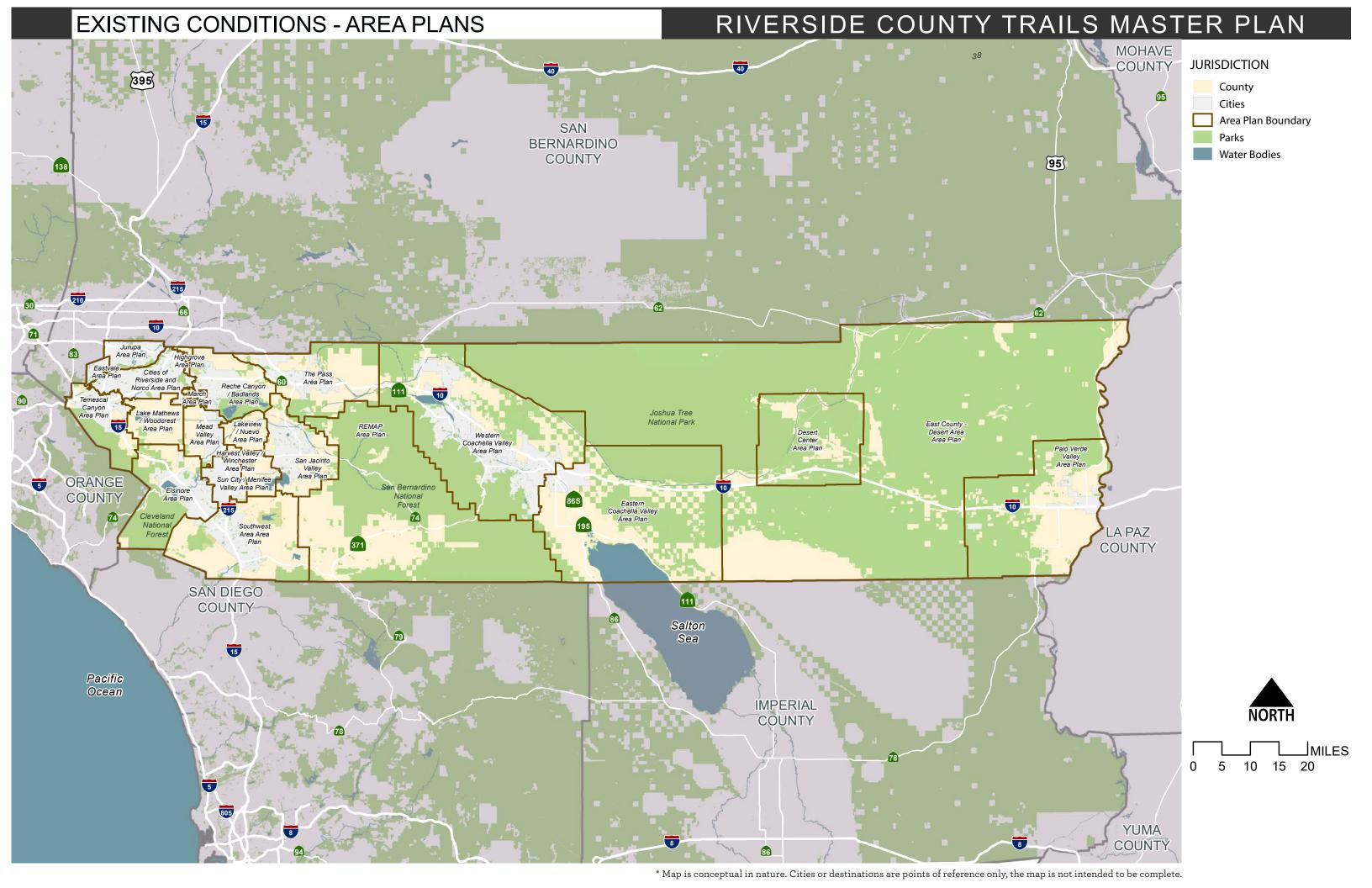
The Riverside County General Plan covers the entire unincorporated portion of the County of Riverside and is supplemented by 19 Area Plans covering Riverside County. Area Plans are identified geographically but not prepared as planning documents for the Cities of Riverside and Norco, East County/Desert Area, and March Air Reserve Base (see Table 3-1). The purpose of the General Plan is to manage the overall pattern of development more effectively. The Area Plans provide a clear and more focused opportunity to enhance community identity within the County of Riverside and stimulate quality of life at the community level.

Area plans help to guide and complement the Riverside General Plan and Vision Statement at a more specific geographical scale. The 19 area plans help identify areas where the County continues to grow, with many area plans noting the need to balance population growth, land development and maintaining community character. Many plans also directly establish guidance for the development of parks and trails.

The Santa Ana River Trail is identified within area plans as a component of the County's multipurpose open space system. Beyond the County's context, this trail is a designated national recreational trail that will connect 110 miles of trail system from San Bernardino County in the North to Orange County in the South. Area plans recognize the need for trail planning, and primarily defer to the Trails and Bikeway System in the Non-motorized Transportation and Multipurpose Recreational Trails sections of the General Plan Circulation Element.

Table 3-1.

AREA PLAN	SQ. MILES	MILES OF PLANNED TRAILS	CITIES/COMMUNITIES
Cities of Riverside and Norco	95.51	34.45	Riverside, Norco (a dedicated area plan is not maintained by the County)
Desert Center	291.94	12.43	Desert Center
East County/Desert Area	2,774.01	283.69	(a dedicated area plan is not maintained by the County)
Eastern Coachella Valley	712.10	706.52	Coachella, Mecca
Eastvale	12.72	34.42	Eastvale, southwestern edge of Jurupa Valley
Elsinore	197.40	231.02	Lake Elsinore, Wildomar, Canyon Lake, Temescal Valley
Harvest Valley/Winchester	50.28	123.75	Northeast corner of Menifee, Winchester, Homeland
Highgrove	6.38	229.21	Highgrove, University City
Jurupa Valley	45.13	157.41	Jurupa, northeastern edge of Eastvale
Lake Mathews/Woodcrest	77.68	168.28	Lake Mathews, Woodcrest
Lakeview/Nuevo	43.35	173.01	Lakeview, Nuevo
March Air Reserve Base	6.93	3.93	(a dedicated area plan is not maintained by the County)
Mead Valley	63.64	91.65	Perris, Mead Valley
Palo Verde Valley	468.81	157.80	Blythe
Reche Canyon-Badlands	129.88	190.72	Moreno Valley
Riverside Extended Mountain (REMAP)	857.13	553.91	Anza, Idyllwild, Cahuilla, Castile Canyon, Pinyon Pines, Lake Riverside, Aguanga
San Jacinto Valley	144.62	133.65	San Jacinto, Hemet
Southwest Area	285.70	378.66	Temecula, Murrieta
Sun City/Menifee Valley	47.84	23.46	Menifee, Sun City
Temescal Canyon	107.55	122.70	Corona, Temescal Valley, El Cerrito
The Pass	218.97	133.97	Calimesa, Beaumont, Banning,
Western Coachella Valley	658.03	419.31	Desert Hot Springs, Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, Indio Hills





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#### **Desert Center Area Plan**



The Desert Center Area Plan contains no urban areas and is characterized by undisturbed wilderness, distinctive flora such as Joshua trees, sand dunes, mountainous terrain with large rock outcroppings, and high summertime temperatures. The area plan captures unique features in the Chuckwalla Valley and Colorado River Aqueduct. Outside of a number of communities located along roadways, a majority of the area's land uses are designated as rural open space.

## The Desert Center Area Plan provides policies that seek to:

- Implement the Trails and Bikeway System as discussed in the Non-Motorized Transportation section of the General Plan Circulation Element.
- Continue to explore opportunities for developing additional trails to serve the Desert Center area.

#### East County Desert Area Plan



East County Desert Area Plan is the largest area plan but does not have a dedicated planning document. It covers an area that stretches from the northern to the southern borders of the County and includes the Coachella Valley and Blythe. It is primarily comprised of Joshua Tree National Park and surrounding federal lands. The Desert Center Area Plan lies entirely within its borders.

#### Eastern Coachella Valley Area Plan



The Eastern Coachella Valley Area Plan covers a large portion of central Riverside County including a large number of unincorporated communities, Joshua Tree National Park, and the City of Coachella, It borders the City of Indio and the City La Quinta, and contains a portion of the Salton Sea and Chocolate Mountain Aerial Gunnery Range. The setting includes mountains, hills, open space and an abundance of agricultural lands.

## Policies related to trails contained within the Eastern Coachella Valley Area Plan are:

- All development proposals within the
   Vista Santa Rosa Policy Area shall include
   multi-purpose recreational trails and shall
   provide for potential linkages of such trails to
   Riverside County's planned trail system as
   shown in the Non-Motorized Transportation
   section of the Circulation Element.
- Notwithstanding the Agriculture and Open Space Rural designations of properties in this area, any proposal to establish a planned community not less than 450 acres in size in the area bordered by Avenue 72 on the north, Avenue 80 on the south, Polk Street and its southerly extension on the east, and the Santa Rosa Mountains on the north shall be exempt (County of Riverside General Plan 26 December 8, 2015) from the eight-year limit and other procedural requirements applicable to Foundation Component amendments provided that:
  - » The project provides for riding and hiking trails along the base of the Santa Rosa Mountains or at other locations as determined to meet the needs of the equestrian community in the Eastern Coachella Valley.

- Implement the Trails and Bikeway System as discussed in the Non-Motorized Transportation section of the General Plan Circulation Element.
- At signalized intersections, special equestrian push buttons (located at heights usable by persons riding on horseback) will be considered and installed where appropriate. Priority shall be given to those signalized intersections identified as trail crossings.
- As resources permit, consideration should be given to the placement of signs along those public rights-of-way identified as regional or community trail alignments alerting motorists to the possible presence of equestrian, bicycle and pedestrian (i.e., non-motorized) traffic.

#### Eastvale Area Plan



The Eastvale Area is located at a gateway between the counties of Riverside and San Bernardino. Consequently, it plays a pivotal role in the access to and first impressions of Riverside County. Eastvale is facing rapid population and development growth, and is striving to balance environmental protection, land development, and community character. Most of the Eastvale Area is incorporated, with only a few pockets remaining unincorporated. A majority of this area's land uses is classified as low density, which could be an indicator of a bedroom community for adjacent jurisdictions.

#### The Eastvale Area Plan provides policies that seek to:

Establish trails and related facilities for riding, hiking, and bicycling for the entirety of the Santa Ana River connecting to the Orange County and San Bernardino Santa Ana River Trails and the countywide system of trails.

Provide for recreational trail use under bridge structures crossing the river, where feasible.

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- Require private development along the river to provide for riding, hiking and biking trails and for connection to the countywide system of trails.
- Encourage the formation of equestrian trail, landscape, and lighting assessment districts in lieu of homeowners' associations whenever feasible to ensure continuity of landscape and trail maintenance throughout the community, and to distribute the cost of such maintenance more equally throughout the community which benefits from landscaping or lighting construction.
- Develop a system of local trails that enhance Eastvale's recreational opportunities, link activity centers, and connect with the Riverside County regional trails system.
- Consider the installation of special signalized multi-modal trail push-buttons at signalized intersections.
- Encourage trail overpasses or undercrossings where trails intersect arterials, urban arterials, expressways, or freeways, where feasible.

#### Elsinore Area Plan



The Elsinore Area Plan contains a number of unincorporated areas including Alberhill, parts of the Cleveland National Forest and the Temescal Valley, and the Cities of Lake Elsinore, Canyon Lake, and Wildomar. Lake Elsinore is entirely contained within this area plan and is the largest natural lake in Southern California. The plan identifies a substantial amount of open space or rural areas, with residential housing primarily located near the aforementioned cities.

## The Elsinore Area Plan provides policies that seek to:

- Encourage the maintenance of Temescal Wash, the main drainage within the Temescal Valley, in its natural state, with its ultimate use for recreational and open space purposes such as trails, habitat preservation, and groundwater recharge.
- Implement the Trails and Bikeway System through such means as dedication or purchase, as discussed in the Nonmotorized Transportation section of the General Plan Circulation Element.
- Implement the Butterfield Overland Trail Project (see page 35).

#### Harvest Valley/Winchester Area Plan



The Harvest Valley/Winchester Area Plan contains mountains, lakes, and a system of wide sweeping valleys. The area plan contains a portion of Diamond Valley Lake and a portion of the City of Perris and borders the City of Menifee and Hemet. The land uses contained within this area include medium and low density residential, open space, and recreation areas.

The Harvest Valley/Winchester Area Plan provides for various environmental settings with one trail-related policy, to:

 Maintain and improve the trails and bikeways system as it is discussed in the Non-Motorized Transportation section of the General Plan Circulation Element.



#### Highgrove Area Plan

The Highgrove Area Plan includes the community of Highgrove, Box Springs Mountain Park, and areas south of the park. The setting contains a number of different ecosystems and types of development, including mountains, hills, and flatlands with agricultural and residential developments. The plan area is surrounded by mountains to the east, San Bernardino County to the north, the City of San Moreno Valley and Reche Canyon/Badlands Area to the east and southeast, and the City of Riverside to the west. There are several land use designations for the plan area with Box Springs Mountain Park in the center.

## Policies related to trails contained within the Highgrove Area Plan includes the following:

- Development applications shall include strategies for minimizing vehicle trips generated within a project's boundaries.
  - » Wherever possible, the developer shall provide onsite amenities which will provide pedestrian, equestrian or bicycling options for making local trips of up to 2 miles (one-way) distance.
  - » The developer shall link these amenities to scenic recreational and transportation corridors in an effort to connect to known existing and planned area trip generators.
  - » In order to implement scenic recreational and transportation corridors and any regional trails proposed to connect thereto, development applicants shall provide easements for public access along a project's perimeter or within or along areas of the project otherwise traversed by rights-of-way dedicated to the public use.

- Designate the following as scenic recreational and transportation corridors:
  - Pigeon Pass Road, from Mount Vernon Avenue to its terminus in the vicinity of the closed Highgrove Landfill.
- Development applications that designated scenic recreational and transportation corridors within their project boundaries shall construct or cause to be constructed the following recreational and transportation amenities for the use and enjoyment of the general public, according to current applicable Riverside County standards:
  - A combination Class I bikeway and jogging trail,
  - An equestrian path
- The precise alignment of a trail shall be based on the physical characteristics of the area. Where practical, trails have been aligned along road rights-of-way and flood control and utility easements.
- Trails will be developed in accordance with current Riverside County design criteria, standards, and practices found in the Non-Motorized Transportation section of the Riverside County General Plan Circulation Element. Function, safety, and scenic quality are the main criteria for their location and design.
- Riverside County's Regional Park and Open-Space District will be responsible for the development and maintenance of such trails. Proposed new non-motorized regional multi-purpose trails for Highgrove include the following:
  - Along Spring Street, from Michigan Avenue easterly to near the terminus of its publicly dedicated right-of-way, turning northerly to connect to Center Street near its easterly terminus, and continuing generally easterly to the Box Springs Mountains.
  - From the Box Springs Mountains, at a point of connection with the facility

- cited in the policy above, continuing generally southerly, crossing Pigeon Pass Road, and connecting to Box Springs Mountain Park.
- Along Mount Vernon Avenue, from Main Street to its intersection with Pigeon Pass Road.
- From the Gage Canal, within or along the Springbrook Wash to Mount Vernon Avenue, continuing through or along the wash to a point of connection with the current terminus of Serpentine Road.
- Diamond-shaped warning signage indicating "Warning: Horse Crossing" or depicting the equivalent international graphic symbol shall be installed where practicable at locations where regional or community trails as described in these policies cross public roads with relatively high amounts of traffic. At signalized intersections, special equestrian push buttons (located at heights usable by persons riding on horseback) will be considered and installed where appropriate. As resources permit, consideration should be given to the placement of signs along those public rights-of-way identified as regional or community trail alignments alerting motorists to the possible presence of equestrian, bicycle, and pedestrian (i.e., non-motorized) traffic.
- Develop a system of local trails that enhance the Highgrove area's recreational opportunities and connects with the Riverside County regional trails system.

#### Jurupa Area Plan



The Jurupa Area Plan covers the Jurupa Valley, a growing municipality. Jurupa is bordered by San Bernardino County to the north and is divided from its southerly neighbors, the

cities of Riverside and Norco, by the Santa Ana River. Distant mountain views, watercourses, and rolling hills appear throughout the area, and are provide both quality ecosystems and development opportunities. Most of the Jurupa Area is incorporated, with only a few pockets remaining unincorporated. A large portion of the land use designations in Jurupa Valley is considered low density residential, with increasing commercial and denser residential located in the eastern portion of the county. There are also sizeable tracts of lands identified as open space or agriculture areas that serve as buffers to the Santa Ana River.

## The Jurupa Area Plan provides policies that seek to:

- Establish an assessment district or other funding mechanism for the acquisition of rights-of-way and the construction and maintenance of multi-purpose trails within the Policy Area.
- Establish traffic control along those streets designated as part of the multi-purpose trail system within the Policy Area.
- Establish trails and related facilities for equestrian, hiking, and bicycling for the entire reach of the river connecting to the state- and nationally-designated Orange County and San Bernardino Santa Ana River Trail segments and connected with the countywide system of trails.
- Provide for recreational trail use under bridge structures crossing the river, where feasible.
- Require private development along the river to provide for riding, hiking, and biking trails and for connection to the countywide system of trails.
- Develop a system of local trails that enhances Jurupa's recreational opportunities, links activity centers, and connects with the Riverside County regional trails system.

#### Lake Mathews/Woodcrest Area Plan



The Lake Mathews/Woodcrest Area Plan includes several unincorporated communities around Lake Mathews and the Lake Mathews Estelle Mountain Reserve. The plan area lies to the south of the City of Riverside, east of the City of Corona, and is bounded by the Temescal Valley. The northern and eastern sections of the plan contain predominately rural and low or very low density residential areas. The northwestern area has pockets of conservation areas.

## Policies related to trails contained within the Lake Mathews/Woodcrest Area Plan are:

- Any proposal to increase the residential density such that the total number of dwelling units allowable on the westerly 880 acres exceeds what would be allowed by the mapped densities within that area shall be accompanied with a proposal to increase the size of Harford Springs Park by no less than 200 acres through addition of lands to the east, northeast, and/or south at no cost to the County of Riverside. Such proposals shall be subject to the following requirements:
  - The proponent shall develop a trail plan for the entire Policy Area in coordination with the Riverside County Park and Open-Space District (RCRPOSD) Trails Planner. The trail plan shall depict the locations of trails, bridges, and trail kiosks. The plan shall also depict trail construction details and trail signage and phasing of improvements. The trail plan shall be subject to RCRPOSD approval.
  - » The proponent shall design a trailhead/day-use parking area at the Harford Springs facility in coordination with the RCRPOSD Park Planner. The parking area shall be designed to

accommodate 25 automobiles and 25 car/truck and trailer combinations, and to include the following elements: decorative post and rail fencing; hitching rails; trail informational kiosk; water service for a drinking fountain and hose bibs for water troughs; a shade shelter; and an enclosure to accommodate two portable restrooms. The final design shall include an implementation and phasing plan, as well as all details necessary for construction, and shall be subject to RCRPOSD approval in coordination with the District Parks Planner. The parking area shall be designed to handle both automobile and car/ truck and trailer combinations. An implementation and phasing plan will be developed for future drinking fountains, hose bibs.

- » The proponent shall develop a fencing plan for the perimeter boundary of the area to be added to Harford Springs Park using "T" posts and five strands of smooth wire. The location of the fence and openings for equestrian and trail use are to be coordinated with and approved by the RCRPOSD Trails Planner. The fencing plan shall include a phasing and implementation component
- The development shall provide trails in conformance with Riverside County's regional trails plan and the Circulation and Trails Maps of the Lake Mathews/ Woodcrest and Mead Valley Area Plans.
- A small equestrian park and a north-south trail connecting to the trail system in the surrounding community shall be provided on the most southerly 80 acres of the plan area. The remainder of the 80 acres shall be conserved in conformance with Western Riverside County Multiple Species Habitat Conservation Plan (WRC MSHCP) policies.
- As Regional and Community Trails are acquired by the County of Riverside within the Lake Mathews Drainage Basin,

- appropriate specific mitigation measures shall be prepared and implemented prior to the construction or implementation of any of these trails so that the water quality of Lake Mathews will be fully preserved and protected.
- Develop a system of local trails that enhances recreational opportunities in the Lake Mathews/Woodcrest area and connects with the Riverside County regional trails system.

#### Lakeview/Nuevo Area Plan



The Lakeview Nuevo Area Plan contains an area largely formed by the San Jacinto River, containing numerous agricultural and developed lands. A number of notable hills and mountain ranges form the eastern boundary of the area, with the San Jacinto Wildlife Area to the north, and the Colorado Aqueduct running east-to-west through the planning area. The land uses consist of more open and rural areas on the eastern side, with a gradual move towards denser commercial and residential uses to the west.

## Policies related to trails contained within the Lakeview/Nuevo Area Plan are:

- New development shall incorporate a community trail linkage in concert with other trails objectives,
- Develop, maintain and/or improve the trails and bikeways within the Lakeview/Nuevo Area Plan, Trails and Bikeway System, and as discussed in the Non-Motorized Transportation section of the General Plan Circulation Element.

#### Mead Valley Area Plan



The Mead Valley Area Plan represents an area in western central Riverside County. The three major land uses are open space, rural communities, and some light industrial. The area plan includes a portion of the San Jacinto River. A number of institutional areas surround the planning area, potentially influencing the area's development.

## Policies related to trails contained within the Mead Valley Area Plan are:

- The development shall provide trails in conformance with Riverside County's regional trails plan and the Circulation and Trails Maps of the Lake Mathews/ Woodcrest and Mead Valley Area Plans.
  - » A small equestrian park and a northsouth trail connecting to the trail system in the surrounding community shall be provided on the most southerly 80 acres of the plan area. The remainder of the 80 acres shall be conserved in conformance with WRC MSHCP policies.
- Maintain and improve the trails and bikeways system as discussed in the Non-Motorized Transportation section of the General Plan Circulation Element.
- Install diamond-shaped warning signs indicating "Warning: Trail Crossing" or signage depicting the equivalent international graphic symbol at locations where regional or community trails cross public roads with high amounts of traffic, such as Cajalco Road.

#### Palo Verde Valley Area Plan



The Palo Verde Area Plan covers the southeastern most area of Riverside County. It contains the City of Blythe and features desert and mountain terrain. A majority of the land uses outside of Blythe are rural residential and open space rural, with some tribal lands in the northeast portion of the planning area. A portion of the Colorado River is also located in the planning area.

## The Palo Verde Valley Area Plan provides policies that seek to:

- Notwithstanding the agriculture and rural designations of properties in this area, any proposal to establish planned communities in this area pursuant to a Specific Plan of Land Use shall be exempt from the eight-year limit and other procedural requirements applicable to Foundation Component amendments as described in the Administrative Element, provided that:
  - » The project provides for a riverside scenic roadway and/or pedestrian and bike trail system.
- Develop a system of multi-purpose trails that enhances the Colorado River's recreational values and connects with the adopted trails system of Riverside County.

#### Reche Canyon/Badlands Area Plan



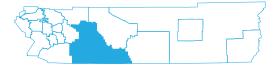
The Reche Canyon/Badlands Area Plan covers an area in the northwest of Riverside County. It contains the City of Moreno Valley, and borders the Cities of Riverside, Perris and Beaumont and the County of San Bernardino, There are a few residential land use designations

with most areas classified as open space, agriculture or conservation. Due to the large number of natural areas, there are numerous trails located throughout this planning area.

#### The Reche Canyon/Badlands Area Plan provides policies that seek to:

- Ensure the provision and/or preservation of equestrian trails and related facilities in the Reche Canyon/Badlands area.
- Develop a system of local trails that enhances recreational opportunities and connects with the Riverside County regional trails system.
- Ensure connectivity between local trails and the adjacent San Bernardino County trails system.

#### Riverside Extended Mountain Area Plan (REMAP)



The REMAP area contains no cities, only unincorporated areas. The planning area is one of the more picturesque areas, with wide rolling hills, numerous mountain ranges, and views of urban areas. A majority of the planning area's land uses are classified as conservation habitat, with open space rural areas located throughout and some ruralresidential developments and tribal lands in the southwest. The Pacific Crest National Scenic Trail (PCT) is also partially located in the REMAP area along the San Jacinto Mountains through the San Bernardino National Forest. Other more localized trails are found throughout the planning area.

#### The Riverside Extended Mountain Area Plan seeks to:

Promote an overall rural agricultural and ranching "small town" character for the community, and promote a high-quality rural-oriented quality of life for its residents.

- Provide for parks, equestrian trails, and other recreation facilities that improve the quality of rural living in the community, and that attract visitors and encourage tourism in the area.
- Encourage developers to provide public easements by means of streets, walkways, or trails to open space corridors.
- Prepare a trails plan for this region, by integrating the existing network of local, state and federal trails and places of interest.
- Implement the Trails and Bikeway System, as discussed in the Non-Motorized Transportation section of the General Plan Circulation Element.

#### San Jacinto Valley Area Plan



Covering a portion of western central Riverside County, the San Jacinto Valley Area Plan includes a portion of Diamond Valley Lake, and the Cities of Hemet and San Jacinto. A number of unincorporated communities fall outside of these jurisdictions, but within the planning area. Outside of the aforementioned cities, hills and agricultural lands are predominate, with a small amount of residential and rural residential land uses east and south of the City of Hemet, and a substantial amount of tribal lands, conservation or other open space lands, and agriculture comprising most of the remaining area. Notable trails in this area include a Class I Bike Path/Regional Trail System that runs through the southern part of the plan area near the Diamond Valley Recreation Area. The path connects with another regional trail system that runs both in the southern half of the area plan and along the San Jacinto River. The trail capitalizes on the natural features of the area and creates access to the river for area residents. The regional trail also connects with another bike path that follows State Route 79.

## The San Jacinto Valley Area Plan provides policies that seek to:

- Require private development along the River to provide for riding, hiking and biking trails and for connections to the countywide system of trails.
- Develop, maintain and/or improve the trails and bikeways within the San Jacinto Valley Area Plan, and as discussed in the Non-Motorized Transportation section of the General Plan Circulation Element.

#### Southwest Area Plan



The Southwest Area Plan covers a planning area in southwest Riverside County. The area includes the City of Murrieta, the City of Temecula, and several other communities. Geographic features in the area include Lake Skinner, Vail Lake, a portion of the Santa Ana Mountains. The land use classifications in the area consist of predominantly open space or rural residential communities, with the exception of east of Murrieta, where a mixture of dense residential communities exists. Of note, a designated equestrian community resides east of Murrieta with aims to provide and protect a way of life that incorporates equestrian activities.

## The Southwest Area Plan provides for a number of policies related to trails that seek to:

- Develop and implement an integrated trails network that carefully considers equestrian uses, incidental commercial activities and agricultural operations, and includes, but is not limited to, regional trails, combination trails, bike paths, open space trails, historic trails, etc.
- Provide for recreation access to Vail Lake and other recreational opportunities including a network of equestrian and foot trails available for public use, as described in the Open Space, Parks and Recreation

- section of the General Plan Multipurpose Open Space Element.
- Provide for recreational opportunities including a network of multipurpose trails available for public use.
- Implement the Butterfield Overland Trail Project (see page 35).

#### Sun City/Menifee Valley Area Plan



The Sun City/Menifee Valley planning area is located in western central Riverside County and predominantly includes the City of Menifee and some unincorporated areas. Generally, the land use classifications outside the city boundaries are rural residential, medium density residential, rural mountain and agriculture land.

## The Sun City/Menifee Area Plan contains one trail-related policy:

 Implement the Trails and Bikeway System, as discussed in the Non-Motorized Transportation section of the General Plan Circulation Element.

#### Temescal Canyon Area Plan



The Temescal Canyon Area Plan contains several communities and natural areas, including the Temescal Valley. It contains areas of the City of Corona, smaller communities, Cleveland National Forest, the Prado Dam and the Santa Ana River. The plan area is bounded by Orange and San Bernardino Counties, and the cities of Norco and Riverside. The designated land uses for the areas outside of the aforementioned cities are numerous, including various rural characterizations, natural

resources and open space designations. A substantial number of trails are located in the Cleveland National Forest and connect with community trails in other jurisdictions.

## The Temescal Canyon Area Plan provides policies that seek to:

- Establish trails and related facilities for riding, hiking, and bicycling for the entire reach of the Temescal Wash connecting to the Orange County and San Bernardino Santa Ana River trails and with the countywide system of trails.
- Provide for recreational trail use under bridge structures crossing the wash.
- Require private development along the wash to provide for riding, hiking and biking trails and for connections to the countywide system of trails.
- Encourage the maintenance of Temescal Wash, the main drainage within the Temescal Valley, in its natural state, with its ultimate use for recreational and open space purposes such as trails, habitat preservation, and groundwater recharge.
- Implement the Butterfield Overland Trail Project (see page 35).

#### The Pass Area Plan



The Pass Planning Area lays within northwest Riverside County, bordering San Bernardino County and consist of three cities, numerous communities and a part of the San Bernardino Mountains. The planning area's land use classifications contain a significant amount of tribal lands, conservation and other open space areas, and rural designations. A part of the PCT is located in the San Bernardino Mountains.

The Pass Area Plan provides policies that seek to:

- Encourage the creation and maintenance of multi-purpose trails through the Cherry Valley area by using existing flood control easements and underutilized road rightsof-way.
- Implement the Trails and Bikeway System as discussed in the Non-Motorized Transportation section of the General Plan Circulation Element.

#### Western Coachella Valley Area Plan



The Western Coachella Valley Area Plan is located in central Riverside County and ringed by the San Jacinto, Santa Rosa, and Little San Bernardino Mountains, making for a rugged setting that surrounds desert flatlands, dunes and foothills. There are eight cities located within the planning area and numerous communities sprinkled throughout. Land use classifications for the areas adjacent to the cities are generally consistent with those found on the urban fringe, such as medium or low density residential, commercial, and industrial uses. In the remainder of the planning area, rural and conserved habitat can be found, with some tribal areas located near the San Jacinto Mountains.

## The Western Coachella Valley Area Plan seeks to:

- Require that wind turbines consider their impacts on the PCT alignment.
- Develop a system of local trails that enhances the Western Coachella Valley's recreational opportunities and connects with the Riverside County regional trails system and the Eastern Coachella Valley Area Plan trails system.
- Implement the Trails and Bikeway System,
   Figure 8, as discussed in the Non-Motorized
   Transportation section of the General Plan
   Circulation Element.



#### City Trail Planning

Operating outside the jurisdiction of the County General Plan, cities within Riverside County have taken a variety of approaches to trail planning and design. City policies and guidelines related to trail planning and design follow.

#### City of Blythe General Plan (2007)

The plan minimally discusses trail or bikeway design, but references Caltrans standards and provides a table describing Class I, II, and III trails and basic design standards. No plans or cross sections are included.

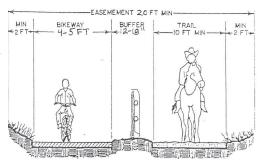
#### City of Blythe Colorado River Corridor Plan (2007)

Guidelines are focused on character and with limited details. Goals are to maintain a small-town atmosphere and create a unique sense of place. Spatial goals include creating a well-balanced transportation system as well as East-West and North-South linkages to Downtown.

## City of Calimesa Multi-Use Trail Manual (2006)

Includes detailed standards, broken into five sections. Section 1 includes general trail design, materials, and standard sections; Section 2 includes fencing standards; Section 3 includes landscaping and plant material; Section 4 includes drainage and stormwater; Section 5 includes signage and wayfinding.

Calimesa's Multi-Use Trail Manual includes design sections for trails and bikeways



TRAIL AND BIKEWAY COMBINATION

#### City of Coachella La Entrada Specific Plan (2013)

Though there is not a section focused on detailed trail design standards, the design guidelines describe the character of a variety of trails to be located throughout the development. Plans and sections of parks provide a minimal understanding of widths/materials/locations.

#### City of Desert Hot Springs Bicycle Plan (2016)

The plan provides character descriptions and dimensions for a variety of on- and off-street facilities/trail types while referencing Caltrans nomenclature. A series of generic trail renderings provide a sense of facility design. The plan includes no dimensioned plans or cross sections.

#### City of Hemet General Plan (2012)

Guidelines are largely descriptive, providing conceptual intent for opens space, multi-use, and equestrian trails. A table is provided that provides information on minimum and maximum widths, surfaces, and shoulders for trails.

## City of Lake Elsinore Bicycle and Trails Master Plan (2017)

The City of Lake Elsinore is, as of 2017, creating a bicycle and trails master plan that will address planning for trails within the city. Prior to this effort, trails were addressed through the city's Parks and Recreation Master Plan, which includes design guidelines for trails, general goals and recommendations for the development of new trails and the management of existing trails, and a map of proposed trails.

#### City of Menifee Landscape Standards (2015)

The recreational trail design standards appendix provides an overview of street crossings and trail standards, including detailed requirements for clearances, grades, surfaces, and construction standards. No construction drawings or cross sections are provided.

#### City of Moreno Valley Bicycle Master Plan (2014)

The plan defines three classes of bicycle facilities: multi-use paths, bicycle lanes, and bicycle routes. Extensive requirements and sections/axonometric drawings/ plans are provided, largely drawing from NACTO guidelines. Additional information regarding bicycle parking and traffic calming measures are included as well.

#### City of Murrieta General Plan 2035 Circulation Element (2011)

This plan sets goals and policies for multiuse trails within the city and for connections to a regional trail network. The plan also provides conceptual local trail alignments for multi-use trails within the city.

#### City of Palm Desert Comprehensive General Plan / Parks and Recreation Element (2014)

The plan includes a table of trail standards for both urban and open space conditions, including sub-categories for different combinations of modes. The table includes guidance for trail widths, cross-slopes, and grades, but does not discuss surfacing or character. No cross sections are provided.

#### City of Palm Springs General Plan (2007)

The general plan provides descriptions for three classes of bikeway: Bike Trails, Bike Lanes, and Bike Routes with a minimal amount of description and dimensions and no plans or sections.

#### City of Palm Springs Downtown Urban Design Plan (2005)

The plan provides a vague description of trails, focusing more on character and large-scale integration than detailed design standards. It provides precedent images and general descriptions of the types of amenities to be included.

#### City of Perris General Plan (2008)

The plan provides character descriptions of basic trail and bikeway classes with limited design detail.

#### City of Perris Trail Master Plan (2013)

Chapter Seven of the plan is dedicated to trail design guidelines. Extensive design details for a variety of conditions are outlined, including dimensions, materials, crossings, standard plans, precedent photos, and wayfinding concepts.

#### City of Riverside Bicycle Master Plan (2013)

The plan provides an appendix of Bikeway Design Guidelines with standard plans and sections for trail classes. Additional subsections include details for intersections, signage, wayfinding, and bike racks. Many of the standards are pulled directly from Caltrans Highway Design Manual and FHWA MUTCD.

#### City of Riverside Parks and Recreation Plan (2003)

The plan is largely a planning and policy document, providing brief descriptions for Urban Trails and Open Space and Natural Trails. There are no detailed design guidelines or plans / sections.

#### City of Riverside General Plan (2003)

The Circulation and Community Mobility Element provides a subsection on trails. It is limited to descriptions of trail classes and an overview map of the trails plan. There are no detailed design guidelines or plans / sections.

#### City of Temecula Multi-use Trails and Bikeways Master Plan (2016)

This plan provides thorough planning for trails in the city of Temecula. The plan includes alignments, guidelines and policies as well as graphics, with sections and drawings of different trail classifications.

#### Table 3-2.

Table 3-2.						
Design Guidelines Summary						
Plan	Trail Policies	Design Guidelines	Graphic Guidelines	Trail Alignments	Trail Amenities	Construction Details
County						
Riverside County General Plan (2008)						
Riverside County Trail Development Standards (2009)						
Riverside County Countywide Design Standards (2004)						
Riverside County Development Impact Fees Study (2013)						
Riverside County Comprehensive Park, Resources and Recreation Service Plan (2013)						
Regional						
Box Springs Mountain Reserve Comprehensive Trails Master Plan (2015)						
Butterfield Overland Trail Project (2015)						
Coachella Valley Association of Governments Non-Motorized Transportation Plan (2010)						
May Valley Non-Motorized Trail Project Scoping Project (2012)						
Murrieta Creek Regional Trail Project (2015)						
Pacific Crest National Scenic Trail Comprehensive Plan (1982)						
Santa Ana River Trail Master Plan (2011)						
Temescal Valley Design Guidelines (2007)						
Area Plans						T
Desert Center Area Plan						
Eastern Coachella Valley Area Plan						
Eastvale Area Plan						
Elsinore Area Plan						
Harvest Valley/Winchester Area Plan						
Highgrove Area Plan						
Jurupa Area Plan						
Lake Mathews/Woodcrest Area Plan						
Lakeview/Nuevo Area Plan						
Mead Valley Area Plan						

Design Guidelines Summary							
Plan	Trail Policies	Design Guidelines	Graphic Guidelines	Trail Alignments	Trail Amenities	Construction Details	
Area Plans (cont'd)							
Palo Verde Valley Area Plan							
Reche Canyon/Badlands Area Plan							
Riverside Extended Mountain Area Plan (REMAP)							
San Jacinto Valley Area Plan							
Southwest Area Plan							
Sun City/Menifee Valley Area Plan							
Temescal Canyon Area Plan							
The Pass Area Plan							
Western Coachella Valley Area Plan							
City Plans	T				Г		
City of Blythe Colorado River Corridor Plan (2007)							
City of Blythe General Plan (2007)							
City of Calimesa Multi Use Trail Manual (2006)							
City of Coachella La Entrada Specific Plan (2013)							
City of Desert Hot Springs Bicycle Plan (2016)							
City of Hemet General Plan (2012)							
City of Lake Elsinore Bicycle and Trail Master Plan (2017)							
City of Menifee Landscape Standards (2015)							
City of Moreno Valley Bicycle Master Plan (2014)							
City of Murrieta General Plan 2035 (2011)							
City of Palm Springs General Plan (2007)							
City of Palm Springs Downtown Urban Design Plan (2005)							
City of Perris General Plan (2008)							
City of Perris Trail Master Plan (2013)							
City of Riverside Bicycle Master Plan (2013)							
City of Riverside General Plan (2003)							
City of Riverside Parks and Recreation Plan (2003)							
City of Temecula Multi-use Trails and Bikeways Master Plan (2016)							

## OTHER AGENCIES, POLICIES, AND DESIGN STANDARDS

The plans, policies, and design standards for Federal, State and other organizations have contributed to thousands of miles of trails being planned in Riverside County. Each stakeholder is responsible for implementing visions through plans, developing policies to align efforts and adhering to a set of design standards to create high quality facilities. The overall goal is to provide a seamless transition from one trail system to another, through the use of standards and plans established from one organization to one another.



#### Federal Stakeholders

The Federal Government owns 61% of the land in Riverside County. Thus, it is one of the area's most important stakeholders for the planning, implementation, and management of trails.

Federally owned land includes land managed by the US Forest Service, National Parks Service, Bureau of Land Management, and March Air Reserve Base, among others, though some federally owned land is operated and maintained by county entities.

Relevant trails and federal lands located within the County include:

- Juan Bautista de Anza National Historic Trail
- The Pacific Crest National Scenic Trail
- The Butterfield Overland and Southern Emigrant Trails
- May Valley Non-Motorized Trails
- Joshua Tree National Park
- Cleveland and San Bernardino National Forests

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#### **US Department of the Interior: National Park**

Service (NPS): The NPS operates Joshua Tree National Park, which offers numerous recreational facilities. The park serves as a preserve to the Colorado and Mojave Deserts, rare ecosystems that provide for scientific study and interpretation. Due to the park's remote location, it is generally unable to connect to outside recreational facilities as part of a trail network. The park is home to a number of different trails, with over twenty miles of hiking trails and long distance equestrian trails.

The NPS has, in the past, provided the County with funds to develop local parks and historic places. The NPS administers a number of grant programs for communities and natural areas to develop trails. These grant programs vary in scope, but are generally focused on preservation, interpretation, and development of natural areas for recreation.

**US Department of Agriculture: US Forest** Service (USFS): The purpose of the USFS is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations. In Riverside County, the USFS manages the San Bernardino and Cleveland National Forest operations. These operations include the Front Country Ranger and San Jacinto Ranger Districts. On USFS lands, hiking, mountain biking and equestrian trails are present.

US Department of the Interior: Bureau of Land Management (BLM): The BLM's mission is to sustain the health, diversity, and productivity of America's public lands for the use and enjoyment of present and future generations.

In Riverside County, the BLM manages the Dos Palmas Preserve, which has multiple types of natural surface trails, although the BLM's mission is not recreational in nature.

The BLM oversees federal funding assistance to communities for the development of recreational spaces. The BLM provides right-of-way for specific projects and manages the Oregon and California Lands Appropriation and other initiatives passed by the federal government.

Military Installations and Bases: The US Army Corps of Engineers is responsible for the administration of the Prado Dam, while the dam and its recreational facilities are managed by San Bernardino County.

The US Military has a presence in and around Riverside County. The March Air Reserve Base provides limited recreational activities in the County (access is only available during specific times and after having a acquiring a ticket).



#### State Stakeholders

The two state agencies with responsibilities for trails in Riverside County are the CA Departments of Parks and Recreation and Fish and Wildlife. These departments are able to support projects through grants and technical assistance.

Other partners include universities, major employers, and other institutions.

The institutions listed here are highly valuable program partners and likely to provide mission-based assistance to the overall planning effort in Riverside County. This could be in the form of interpretive events or as a funding partner. Similar to Federal partners, creating alignments through state facilities may be difficult due to the protections placed on habitats, administrative procedures and/or ecological protections.

#### California Department of Parks and

**Recreation:** The California Department of Parks and Recreation provides recreational areas on tracts of land that may also help to protect natural and cultural resources. This partner is able to provide valuable funding assistance and is able to assist in making trail connections. The State operates the following parks within Riverside County,

- Anza-Borrego Desert State Park
- California Citrus State Historic Park
- Chino Hills State Park
- Indio Hills Palms
- Lake Perris State Recreation Area
- Mount San Jacinto State Park
- Salton Sea State Recreation Area
- San Timoteo Canyon State Park

#### California Department of Fish and Wildlife:

The California Department of Fish and Wildlife serves a similar function as the US Fish and Wildlife Service, but at a state-level. Whereas it has limited infrastructure management capacity, it is a funding resource. The Department operates the San Jacinto Wildlife Area, covering 19,000 acres, 9,000 of which are restored wetlands. The western edge of the area abuts Lake Perris State Recreation Area.

#### University of California (UC) at Riverside:

The University of California is a statewide system of higher institutions with the purpose of postsecondary education.

The UC Riverside campus is home to a 40-acre botanical garden with several hiking trails which the campus maintains.

#### California Coastal Conservancy: The California

Coastal Conservancy is state agency tasked with protecting the coast of California and its wetlands and watersheds. The conservancy has interest in the Santa Ana River which flows from the San Gabriel Mountains through Riverside County to the Pacific Ocean.



#### Regional and Countywide Stakeholders

Partners at the regional level are often best suited to assist in implementing trails across jurisdictions. These organizations often have relationships with multiple agencies and can bring the right staff and technical knowledge to the table to ensure projects are implemented.

#### **Coachella Valley Association of Governments**

(CVAG): CVAG is the regional planning agency, responsible for intergovernmental coordination, in eastern and central Riverside County. Focused on a better quality of life and balanced growth in the area, it provides resources on community, energy, environmental and transportation issues.

CVAG is able to coordinate multiple entities through its committees, such as the Transportation Committee. The Transportation Department of CVAG also manages the regional transportation program including overseeing grants which could be used for the development of the trail system.

Desert, Jurupa Area and Valley-Wide
Recreation and Park Districts: Recreation
districts have been established in these
areas to provide for parks and recreational
facilities in the respective places. Having these
districts in place creates a special incentive
for local users to have access to parks, trails
and other facilities funding through special
provisions. Riverside County has a special
district for its parks and open space.

#### Jurupa Community Services District

(Eastvale): The Jurupa Community Service District was established to provide quality water to the Jurupa Valley. The district is responsible for other infrastructural, recreational and maintenance programs such as the sewer system, parks, and graffiti abatement.

#### **Riverside Community Health Foundation:**

The Riverside Community Health Foundation aims to improve the health of Riverside County residents. The foundation provides grants, organizes community groups, and utilizes educational programs to improve community health. It also supports trails as a community health tool.

#### **Riverside County Economic Development**

**Agency:** This agency is in place to enhance the economic position of the County and county residents, improve quality of life, and provide cultural and entertainment activities. Many communities experience economic benefits when they invest in trail systems and many economic development agencies fund design, construction, planning and marketing of trails.

Riverside County Habitat Conservation
Agency (RCHCA): The RCHCA was formed in
1990 for the purpose of planning, acquiring,
and managing habitat for the Stephens'
Kangaroo Rat and other endangered,
threatened, and candidate species.
The RCHCA provides for management
of many different preserves within the
county, but does not necessarily provide
for direct trail resources in the area. The
RCHCA can support coalitions around the
development of natural surface trails.

Riverside County Healthy Coalition: The coalition was formed to promote, improve and sustain social and physical environments for healthy eating behaviors and active lifestyles for wellness through policy development and advocacy, environment change and community empowerment in Riverside County. The coalition has been providing grants, organizing meetings, and conducting environmental health programs which all are in line with trail efforts.

Riverside County Sheriff: Safety is a significant concern for many trail users and adjacent property owners. The Sheriff's Department is responsible for many areas that have trails and utilizes non-automotive means to patrol these areas. Careful coordination with law enforcement and other emergency responders is key to ensuring the overall safety of trail users in rural areas. The Sheriff's Department has mapped off-highway vehicle trails to support this initiative, but it could be expanded to future regional trails.

#### **Riverside County Transportation**

Commission: The Riverside County
Transportation Commission is responsible
for planning and implementing transportation
and transit improvements, assisting local
governments with money for local streets
and roads, helping to smooth the way for
commuters and goods movement, and
ensuring that everyone has access to
transportation. The commission is largely
responsible for coordinating investments in the
transportation system and is the lead agency
on the Santa Ana River Trail. The commission
could serve as a resource in coordinating
trail investments and maintenance efforts.

#### **Riverside County Transportation Department:**

The County Transportation Department is the lead agency for maintenance of roadways, contract services, land development and other functions within the unincorporated area of Riverside County. This department is integral to the development of the transportation system, including future trail development.

Riverside-Corona Resource Conservation
District (RCRCD): Similar to recreation districts,
The RCRCD special district established in
San Bernardino and Riverside County aims to
conserve the natural resources of the area.
The RCRCD provides technical advice to land
users, educational programs for the community,
and conducts on-the-land conservation
projects. The focus on this district is centered
on resource preservation and education.

# Southern California Association of Governments (SCAG): SCAG develops long range regional transportation goals. In addition, it promotes sustainable communities and improved air quality and forecasts population and transportation growth and housing needs. This organization can help with communication across the region.

Western Riverside Council of Governments (WRCOG): WRCOG enables the County west of the Coachella Valley to speak with a collective voice on important issues. This entity focuses on collective governance and collaboration in transportation, environment, energy, economy and health.

Western Riverside County Regional
Conservation Authority: The Western
Riverside County Regional Conservation
Authority acquires land for conservation
and habitat protection purposes. The
organization also reviews development
applications and has some trails on reserves.
The primary role of the organization is
to provide land management, facilities
maintenance, ecological monitoring,
and control for unauthorized access.

#### **PRIVATE**

Many private groups operate within Riverside County and support individual trails, trail systems or parks containing trails. These groups include friends groups, health foundations, environmental protection groups, among others.

Greater Riverside Chamber of Commerce:
 The Greater Riverside Chamber is committed to helping local companies grow their business by taking the lead in programs and efforts that help create a strong local economy and make their community a great place to do business.

This non-conventional trail partner could be approached to assist with the marketing and promotion of Riverside County Trails. Other chambers have been very helpful in promoting businesses and places to live in areas with established trail systems.

Inland Empire Waterkeeper: Inland Empire Waterkeeper's mission is to protect and enhance the water quality of the Upper Santa Ana River Watershed of San Bernardino and Riverside Counties through advocacy, education, research, restoration projects, and enforcement.

The Inland Empire Waterkeeper's small staff have worked to mobilize community efforts since 2005. They are a grassroots environmental movement that supports the restoration and enjoyment of the Santa Ana River by its neighbors. The group collects samples water, conducts research, restores habitats and conducts outreach efforts. The group hosts corporate cleanups and other volunteer days.

Wildlands Conservancy: The Wildlands Conservancy (TWC) is the largest nonprofit nature preserve system in the state. TWC provides outdoor education opportunities, has provided support to complete the Santa Ana River Trail, and continues to provide an important leadership and advocacy role.



#### **Environmental Protection**

Center for Natural Lands Management: The Center for Natural Lands Management (CNLM) manages preserves throughout Washington and California. Their focus is to protect threatened, endangered or rare species and habitats throughout these areas. Each preserve is given its own stewardship staff, who provides for the care of the land and species. In Riverside County, the CNLM manages the following preserves: Bogart Wash, CVAG I-10, Dos Palmas, Four Seasons, Johnson Ranch, Lincoln Ranch, Mockingbird Canyon, Roripaugh Ranch, Skunk Hollow, Smoke Tree, Summerhill, Thousand Palms Oasis, Warm Springs, Wilson Creek and Wilson Valley. Since the focus of these tracts is preservation, it is unlikely that a diverse range of trail uses would be provided in the areas managed by the CNLM.

In western Riverside County, the CNLM works to provide for trail maintenance, cleanup and landscaping, and some habitat restoration through seed planting. The organization frequently works with local schools who wish to expose primarily school-aged students to the outdoors. In the Thousand Palms Oasis Preserve, the CNLM also provides for similar activities, along with docents in the visitor's center. Volunteers in this preserve also help to lead trail hikes.



#### **Friends Groups**

Friends groups typically provide trails with a diverse range of support. This support can come in the means of providing for ongoing trail cleanup, constructing trail facilities such as restrooms, improving the character of the trail, volunteer work days, fundraisers, and other activities. These groups provide trail managers with much needed capacity to ensure a trail or park facility is maintained. Generally, friends groups align with a geographic area or specific facility.

Friends of Hidden Valley Preserve: This friends group's mission is to maintain and protect the Hidden Valley Wildlife Preserve and enhance the educational opportunities it provides for present and future generations. The group accomplishes its goals through providing advocacy, operational support, educational programming, resource management and technological support. For example, it helps to staff the Hidden Valley Nature Center from which community members can access over 25 miles of equestrian and hiking trails.

Friends of Riverside Hills: The Friends of Riverside Hills mission is to support the protection, expansion and preservation of open spaces and natural habitats. This group is focused on providing Box Springs Mountain Park with needed amenities for multiple types of paths. The group has also lobbied extensively to enhance the park.

Friends of the Coachella Valley Link Trail: The Friends of the Coachella Valley (CV) Link has organized around the mission of encouraging a healthy lifestyle and building the CV Link Trail, located in eastern Riverside County. This trail is a fifty-mile facility that will incorporate multiple new technologies to encourage an active lifestyle. The group organizes trail cleanups; provides maintenance, operational and educational support, and resource management; and advocates for the trail. It

also raises funds, provides office support, creates web resources, and conducts events to ensure that the trail is built and utilized. It also frequently works with the County to establish partnerships between groups.

#### Friends of the San Jacinto Mountain County

**Parks:** This friends group supports the work of the Riverside County Regional Parks & Open-Space District in the San Jacinto Mountain Area. The group directs equipment purchases, educational and interpretive programming and provides other assistance to the parks.

Inland Valley Mountain Bike Association: The Inland Valley Mountain Bike Association aims to develop and care for sustainable, multipleuse trails while fostering a community that participates in healthful activity, preserves the environment and stimulates the local economy through advocacy, education, and participation. The group volunteers on the development of the trail system, at community meetings and bicycling encouragement events.

Riverside Recreational Trails: Founded in 1987 by a group of trail enthusiasts, this group is dedicated to protecting the local trail system and offers many activities throughout the year. The organization provides both equestrian and non-equestrian events. The organization has adopted trail segments for management, constructed facilities and donated money to parks for maintenance and equipment purchases.

#### Santa Rosa Plateau Nature Education

Foundation: This foundation was created to support the Santa Rosa Plateau and to educate and empower youth to appreciate, preserve and protect nature. The organization hosts events, provides interpretive services, and contributes to the ongoing activities of the Santa Rose Plateau.



## Existing and Planned Trail Networks

Multiple trail systems can be found throughout Riverside County (see map: Existing Conditions - Regional Trails). This system includes a number of trails at different classification levels that intersect one another, and connect major districts within communities. Countywide, the emphasis should be to connect adjacent communities, places of interest, and destinations. The County envisions a system of trails managed by a diverse set of stakeholders to ensure that the overall connectivity provides for a high quality, and diversity of experiences for its users.

## EXISTING CLASS 1 AND REGIONAL COUNTY TRAILS: THE SANTA ANA RIVER TRAIL

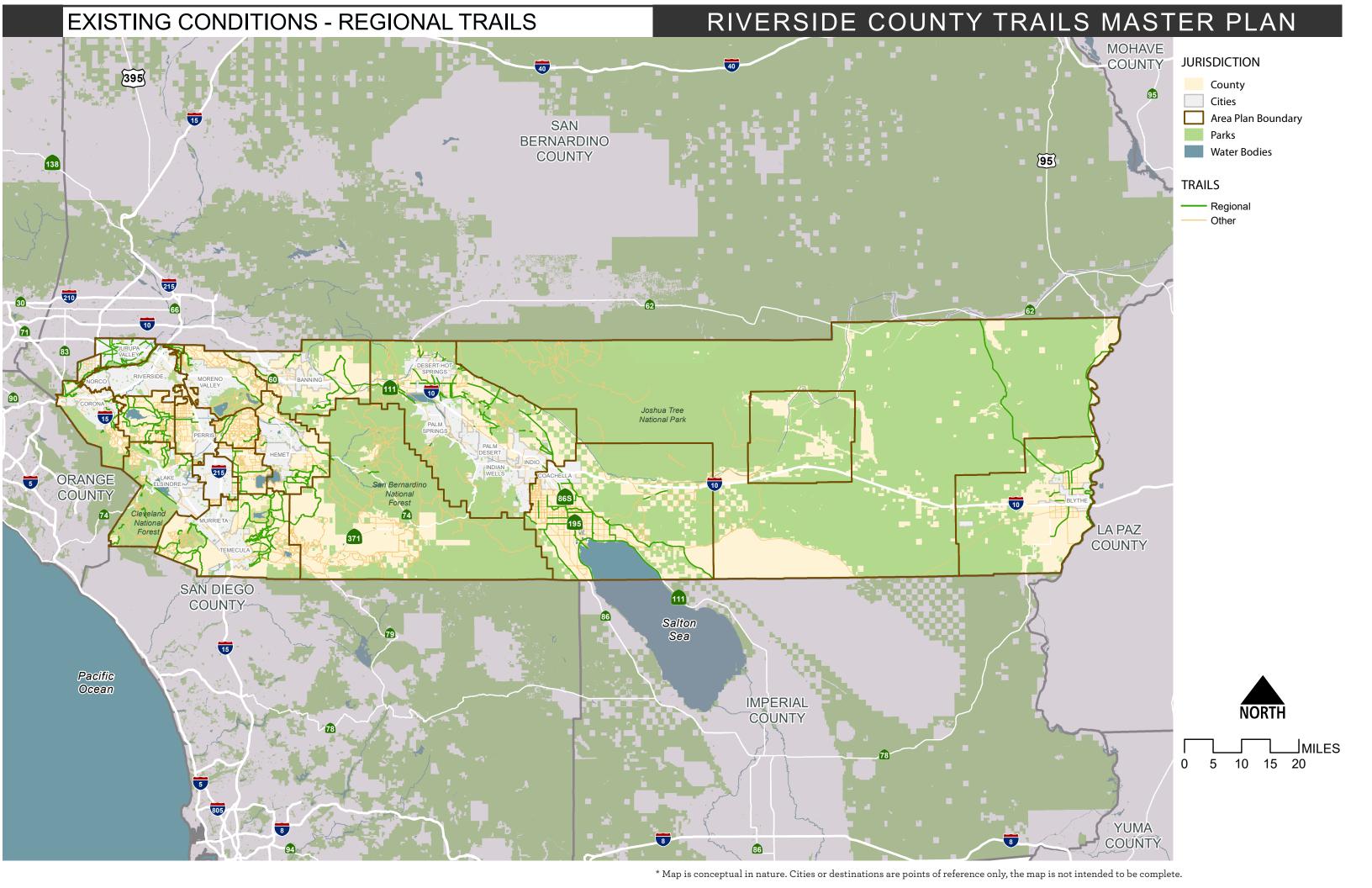
Riverside County provides a high-quality trail experience on the Santa Ana River Trail. The County provides the operations and maintenance and a number of activities throughout the County.

The operation of this trail requires careful coordination with law enforcement officers, emergency responders, event coordinators, and neighboring jurisdictions that connect outside of the County. The County must provide for amenities and cleanup along the trail. A volunteer friends-of group assists with the trail by organizing cleanup days, encouragement days, and other events.

#### PLANNED TRAILS

A large number of planned trails in Riverside County are considered Class 1 Bike Paths, regional trails or a combination of these types. There are over 2,300 miles of planned trails in this category within Riverside County. The County must leverage assets and investments in strategic areas rather than wide, sweeping developments of trails that may not be as successful. The county will benefit from trail connections made in areas that will ensure well-used, high quality trail system components within the county.

Previously-planned trails from the County's General Plan show a desire for a farreaching trail network and an increase in County responsibility while County policy and funding structures make a large-scale expansion of the trail network a challenge.





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## **Opportunities and Constraints**

## COUNTYWIDE OPPORTUNITIES

The County's greatest opportunity is also its greatest challenge: vast open spaces. Joshua Tree National Park and the Cleveland and San Bernardino National Forests provide many popular and pre-existing recreational activities that could link into a countywide trail system. Several reservoirs and lakes also provide recreational activities. However, Joshua Tree National Park is over 100 miles from the City of Riverside. Creating a trail network that can make such long-distance connections will require strong coordination between agencies.

#### Regional and Historic Trails

Riverside County is home to several regional and historic trails, in varying degrees of implementation. While these trails are not necessarily under County jurisdiction, they form important connections for a regional trail system, and provide opportunities for the County to leverage other trail efforts to create a more extensive trail network.

#### Coachella Valley Link (CV Link)

The CV Link is a transportation alternative project created to encourage less vehicular use on Highway 111. This 50 mile trail project will provide for improved air quality, relieve traffic congestion, and provide \$1.47 billion in economic benefits to the area. The trail is innovative, in that it will allow for the use of low speed electric vehicles on a separated path adjacent to the constructed multi-use path. The trail will also utilize shade structures with solar panels, and provide Wi-Fi to connect users to the Internet. The trail will also use drought-resistant landscaping, public art, and provide for a number of spectacular views.

#### Juan Bautista de Anza National Historic Trail

The Juan Bautista de Anza National Historic Trail commemorates the story of the 1665-1776 Spanish Expedition. The trail is a 1,210-mile historic corridor and footpath that documents the travel of 30 families from southwest Arizona to upper California. The trail contains a rich history of cultures and provides users with various types of trails throughout the corridor.

#### Butterfield Overland Trail

In 2013, a multi-agency team began exploring opportunities for development of a multi-use recreational trail following the historic alignment of the Butterfield Overland Stage route through Temescal Valley along the Temescal Wash corridor, from the City of Lake Elsinore to the City of Corona. The planning team envisioned a trail that would connect to the Murrieta Creek Regional Trail at its southern end (and, ultimately, to the Temecula Wine Country Trails) and at its northern end to the 100+ mile Santa Ana River Trail, which travels from the San Bernardino Mountains to Huntington Beach.

The "Butterfield Overland Trail Project: Temescal Valley Alignment Analysis" (See Appendix E) was developed with the intent of serving as a starting point for future trail development.

#### Box Springs Mountain Reserve

In November 2015, a Box Springs Mountain Reserve Comprehensive Trails Master Plan was completed by the Riverside County Park District which consisted of an analysis of existing conditions and proposed an extensive trail network and new staging areas. Any trail connections to the reserve from outside the area can leverage this internal trail system, both as a destination into itself and as a way to pass through the reserve.

#### Salt Creek Trail

The Salt Creek Trail is a 16-mile corridor that is currently being analyzed and designed by the Riverside County Park District. Construction is anticipated to begin in 2018. This trail is a combination hard surface Class 1 bike path and soft surface pedestrian path, and will be one of the County's first long-distance multi-jurisdictional regional trail projects.

#### California Riding and Hiking Trail

This statewide historical trail has been planned and underway since the early twentieth century. California State Parks partners with counties throughout the state to identify opportunities to rebuild and/ or construct the trail in order to restore its historical connectivity. In Riverside County, property along the trail corridor was analyzed in 2008, and meetings were held between State Parks and District staff in 2009. Portions of the corridor are being considered by the County for inclusion in the General Plan.

#### Pacific Crest National Scenic Trail

Connecting the San Gorgonio Mountain Range to Mt. San Jacinto lies the natural surface Pacific Crest National Scenic Trail (PCT). This trail connects Mexico to Canada via California, Oregon, and Washington. The trail brings users through pristine desert settings, old growth forest, and beautiful view sheds of the Sierra Nevada and Cascade Mountain Ranges. The trail represents many of the most attractive areas in the Western United States. The trail is supported by a number of active volunteer groups, with some assistance provided on official trails by land managers who maintain the land in their tracts. The trail is approximately 2,650 miles in length. The southern segment of this trail is also known as the California Riding and Hiking Trail.

#### Rosanna Scott Memorial Bicycle Trail

The City of Riverside is home to the Rosanna Scott Memorial Bicycle Trail. This six-mile path along Victoria Avenue, known for its palm trees, meanders through some of Riverside's most notable neighborhoods. The path is listed on the National Register of Historic Places and connects multiple schools and neighborhoods, serving as a Safe Route to School. The path gives way to orange groves as it exits the neighborhoods. The path connects with multiple on-street bicycle facilities.

#### **Destinations**

Each area of Riverside County has its own unique characteristics. Within these areas also lie specific destinations that are helpful to better understanding user relationships and willingness to travel to major destinations. For example, a system user who is traveling to a major employer who offers showers, or other facilities for people who bike, may be willing to travel further than a user whose end destination is a school or coffee shop. These destinations have been classified in the graphic on page 68 to illustrate typical users willingness to travel to certain destinations. The map on page 66 illustrates the density of destinations at the countywide scale. Areas in red have higher concentrations of destinations, while those in yellow have fewer, and those without shading have the least. Parks and public lands are shown separately, in green.

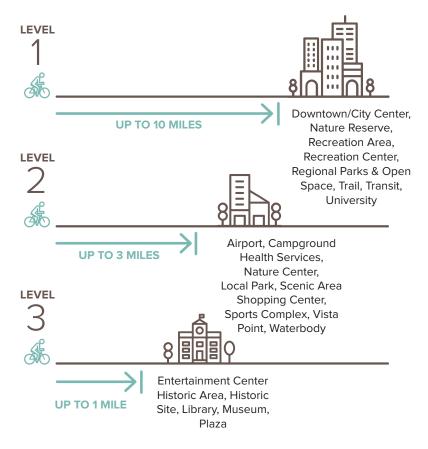
#### **Level 1 Destinations**

These destinations include downtowns and city centers, nature reserves, recreation areas, recreation centers, regional parks and open space areas, trails, transit, and universities. Generally, people who are traveling to these destinations are willing to travel approximately ten miles. This mileage can increase for recreational riders who enjoy long rides. Some examples of these Level 1 Destinations in Riverside County include:

- Salton Sea State Recreational Area
- Joshua Tree National Park
- · University of California, Riverside
- The Santa Ana River Trail
- The Coachella Valley Link Trail (CV Link)
- Box Springs Mountain Reserve Park

- Hidden Valley Nature Center
- Mount San Jacinto
- Lakes Matthews, Perris, Elsinore, Skinner, Hemet, and Diamond Valley
- Temecula Valley Wineries
- Bogart Park
- Hurkey Creek Park
- Idyllwild Park
- Lake Cahuilla
- Lake Skinner
- Mayflower Park
- Rancho Jurupa Park
- Santa Rosa Plateau
- Western Riverside Multi Species Reserve
- Hidden Valley Wildlife Area
- Crossroads Riverview Park

#### Destination Classifications



- McCall Memorial Park
- McIntyre Park
- The Cove RV Resort
- Rocky Mountain Recreation
- Santa Ana River Trail
- Hidden Valley Nature Center
- · Idyllwild Nature Center
- Louis Rubidoux Nature Center
- Santa Rosa Plateau Nature Center
- Boxing Club
- Fishing Parks and Lakes
- · Rancho Jurupa Regional Sports Park
- Gilman Historic Ranch & Wagon Museum
- · Jensen Alvarado Ranch
- San Timoteo Canyon Schoolhouse

#### **Level 2 Destinations**

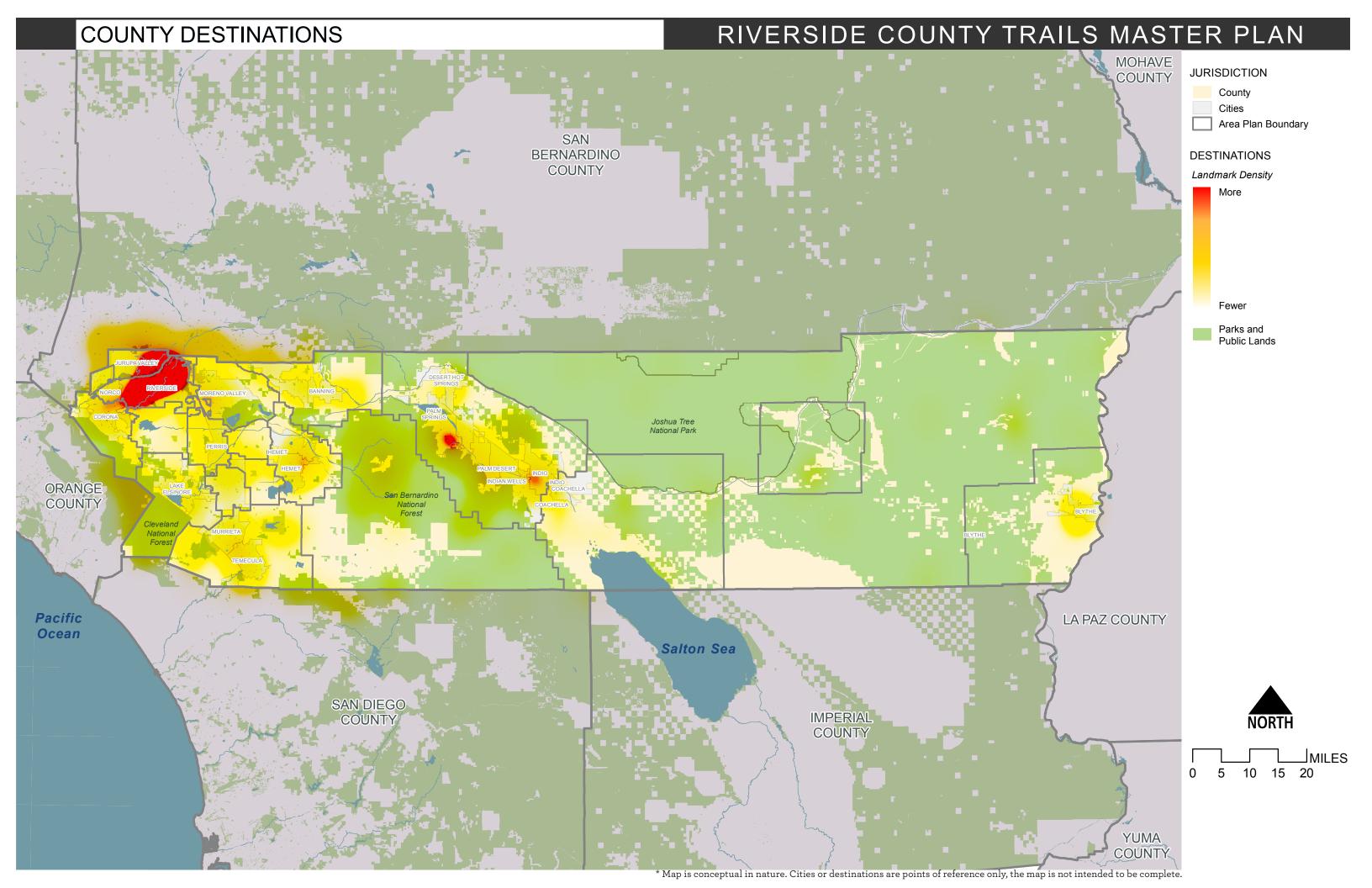
Level 2 destinations typically capture riders who are interested in services, commuting, and leisurely activities. Destinations generally found in this classification include airports, campgrounds, health services, nature centers, local parks, scenic areas, shopping centers, sports complexes, vista points, and water bodies. Users are typically willing to travel up to three miles to reach their destination, or connect to transit systems that will help them reach their final destination. Examples of this destination classification include:

- Mount Rubidoux
- Downtown Riverside
- Palm Springs Art Museum
- Santana Regional Park

#### Level 3 Destinations

These destinations include local landmarks that are easily accessible to multiple people of differing abilities. These places are typically within a mile riding distance. Examples include entertainment centers, historic areas, historic sites, libraries, museums, and plazas. These destinations should give special consideration to the short term needs of cyclists, such as parking, rest areas, and amenities. These destinations have the potential to encourage higher ridership through the stimulation of demand for cycling safe places. Oftentimes, these destinations are clustered together in urban areas due to their distance from one place to another. Example destinations in the classification include:

- The Living Desert Zoo and Gardens
- Riverside Metropolitan Museum
- Local parks in Western Riverside County





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Chapter 3 EXISTING CONDITIONS 70

#### **COUNTYWIDE CONSTRAINTS**

A number of conditions are present that enable the County to develop a world class trail system. However, these conditions are contrasted with constraints that prohibit opportunities from becoming realized. These restraints can be classified as geographic and programmatic.

#### **Geographic Constraints**

Riverside County is a large county whose size does not lend itself well to connecting communities with regional or Class 1 trails since maintenance of these facilities would incur substantial costs. Trails that span outside of areas where urban or suburban populations reside generally require managers to have larger budgets to consider transportation of equipment and personnel.

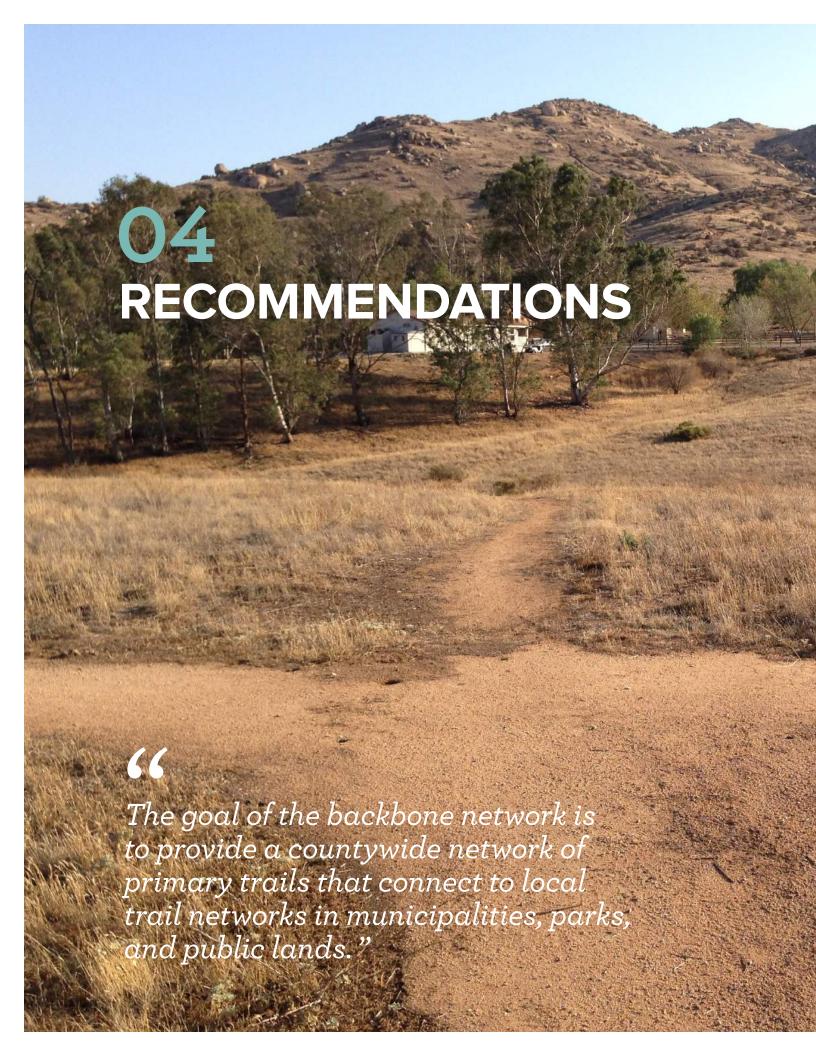
Additionally, the County contains many different natural settings, including mountains, lakes, rolling hills and deserts. These wide geographic areas make a great setting for the location of a regional trail, yet make for difficult operations and maintenance activities. Significant distances from population centers also place a burden on emergency services when attempting to respond to emergencies. Thus, many trails may be co-located with roadway projects.

#### **Programmatic Constraints**

The county has also faced a lack of dedicated personnel to implement a fully functional countywide system. Personnel are vital to the ongoing cleanup of trails, maintenance of rest areas, facilities, and conditioning the trail surface. This personnel constraint has also been exacerbated by a funding constraint.

Adequately funding a trail system is vital to the ongoing programming, staff, and improvements made to a trail. A system in development without a streamlined funding source, or numerous sources from individual organizations is likely to suffer in long term implementation phases. Currently, the only development fees available for funding trails are those from residential development. Other land uses were removed as trail funding sources with the assumption that trails are only used recreationally, and not for commuting purposes. In a white paper produced as part of this master plan "Non-Recreational Trail Usage in Riverside County," surveys conducted of trail users indicated that trails were being used as a means to get to work and also for shopping. The same white paper also conducted research into other development fee programs in California, and found that many other cities and counties around the state do not exclude specific land uses from trail development fees.







### Introduction

Recommendations for the Comprehensive Trails Plan include three focus areas: policy, the backbone trail network, and design guidelines by which trails within the network are to be constructed. This section details these three sets of recommendations and bases its findings on the existing conditions discussed in Chapter 3 of this document.

### **Trail Policy Update**

Riverside County has implemented a policy to recognize the importance of trails and govern their management, maintenance, and implementation (Policy # J-11, Riverside Board of Supervisors Policy). This policy includes mandates on trail fees and charges, use of existing right-of-way, regional trail planning, trails in sensitive cultural and biological areas, adopt-a-trail, use of volunteers, signs, repair and maintenance, trail acceptance, trail accessibility, and trailhead standards.

This chapter summarizes other policies and plans adopted from areas throughout the nation, relevant sources of information, and a case study in how policy effects trail management. This information will be relevant for consideration by Riverside County in their aim for a thorough trail policy and comprehensive trails plan.

#### NATIONAL BEST PRACTICES: TRAIL RELATED POLICIES AND CONSIDERATIONS

The nature of trail development requires careful attention to detail and proactive efforts by stakeholders to ensure a high-quality trail system is ensured through policy. Trail policies should encourage private involvement in trail efforts, community stewardship of trails, ensure ease in managing the trail, and long term public support, with all of these goals aimed towards the implementation and encourages active transportation and recreation. Thus, a number of trail related policies have been identified as potential examples and best practices to provide guidance on updating the Riverside County Trails Plan.



#### **Greenway Planning**

Riverside County contains many parks, conservation areas, protected areas, and other green spaces. Where appropriate, the County could plan new transportation passages using greenways to connect these ecological corridors for wildlife and human movement.



#### Accessibility

Accessibility on trails ensures that access is provided for all trail users with special attention for users with mobility, auditory, visual, respiratory, and other impairments. Creating a truly accessible trail means thought is given to the construction, interpretive resources, and other components. Advances in technology have spurred developments in accessibility policy, especially regarding the implementation of Other Power-Driven Mobility Device (OPDMD) policies, and providing trails with specific treatments where high populations of people living with disabilities may reside. Additional information can be found on the US Access Board website<sup>1</sup>. In some instances, jurisdictions have adopted a policy to create trails that will serve as many users as possible, depending on the context, terrain, and other variables.





#### Land Use and Land Rights

Acquisition Strategies

Many agencies acquire land and all rights contained therein through fee simple land purchases. Fee simple acquisition refers to the outright purchase of the land and rights to the land by an entity. Many public agencies at the state and federal level often have recurring budgets which utilize this type of land acquisition strategy.

Less than fee acquisition refers to the acquisition of land rights for a particular purpose. Generally, this is completed by public entities with a desire to either protect the land from development, or utilize the land for a given purpose. Government entities often acquire land rights for trails to help close small gaps within a trail system. Private sector entities who own utility, railroad or other corridors sometimes prefer less than fee acquisitions of trail projects. This is frequently referred to as purchasing an "easement".

Other acquisition strategies can include the option to ask the owner for "right of first refusal" wherein the landowner allows an entity to make an offer on the land without guaranteeing the right of sale.

Developer contributions result in land undergoing development be required to be used in some way for a trail; this can often be completed through zoning and development regulations.

#### Development and Transportation Regulations

The development that occurs in previously undeveloped lands has the potential to include trails. Additionally, transportation projects should consider the context of the area and the addition of multi-use paths or sidepaths within the right-of-way to accommodate safe trail connections. Multiple jurisdictions throughout the country have gone about adopting this form of transportation and recreation project into area plans, ordinances and land uses, while some have instituted policies that encourage the consideration in various contexts. In Riverside County, the General Plan references requirements for constructing trails in various elements of the plan.

#### Trail Protection Ordinance

Some counties have adopted ordinances to ensure the integrity and safety of the trail. These ordinances often provide for standards in the permitting, construction and maintenance of trail crossings, provides standards for review in permitting of areas adjacent to the trail, infractions for violators of the ordinance, and other means to protect trail areas. Other county level trail ordinances identify specific trails and ecosystems for preservation and require a management plan to ensure native plant community protection. These ordinances are often served by trail, bicycle or pedestrian citizen committees.

#### Adjacent Landowner Trail Liability Programs and Policies

Trail-related liability is an important concern. This frequently extends to property owners near trails, as fear of trespassing trail users who could be injured on private property could lead to litigation. Some institutions have adopted programs or policies which encourage private individuals and organizations to become a partner in trail development. Programs adopted at state and county levels provide landowners who provide easements to trail developing organizations with liability protection in the instance that trail users are injured on adjoining or traversing private property owner's lands. Frequently, entities that own or manage lands will extend public liability insurance to private land owners to ensure protection for individuals or organizations that are willing to provide multimodal connections and close gaps in systems. These types of programs could be useful for areas with large landowning companies, such as timber companies, real estate developers on undeveloped tracts of land, or others.

#### Rail-with-Trail Policy

In areas where rail corridors are frequently abandoned or other opportunity corridors are present, it has become pertinent to adopt policies that would ensure that abandoned corridors are utilized for active transportation purposes in the future. These types of policies are commonly adopted for railroad corridors to ensure the integrity of the property for acquisition, and to ensure the stability of the property remains intact, but can also be applied to other linear corridors of similar nature such as utility or roadway corridors.



#### Maintenance

Maintenance of trails refers to the long-term well-being of the trail and its facilities. Generally, considerations of the trail and amenities life cycles are considered in the construction, but this also refers to inspection schedules to detect defective pieces in a system. This could be as simple as monitoring and avoiding potentially hazardous situations on the trail as risk becomes more apparent to trail users, or generating a repaving schedule as a paved trail's life cycle ends. Generally, maintenance is completed by trail managers or planners.

As of 2011, funding for maintenance of trails was removed from the District budget.



#### Management

Trail management relates to ongoing efforts to ensure a safe, user friendly facility. This is an ongoing task. Trails require not only managers who will serve as the "boots on the ground" but also administrators who can perform managerial tasks behind the scenes.

#### Consistent Management Practices

In a survey of trail managers, it was noted that trail management varied. The adoption of uniform standards can create consistencies in management and coordination. However, it is also important to allow management flexibility to address the variety of communities, landscapes, and users a large trail network would serve.

While not all agencies surveyed were in California, the results between the entities are informative. All agencies surveyed have completed at least one trail planning document. Nine out of ten agencies indicated they had a park master plan, six indicated they had a regional park/open-space district master plan, and five agencies indicated they had a trail master plan. A full list of planning documents is found in the table below.

Table 4-1. Trail Agency Planning Documents

DOCUMENT TYPE	% OF RESPONDENTS
Park Master Plan	90%
Regional Park/Open-Space District Master Plan	60%
Trail Master Plan	50%
Trail Maintenance Plan	30%
Trail Use Survey Report	30%
Bicycle Master Plan	20%
Trail Operations Study	10%
Trail Wayfinding Sign Plan	10%
Trails Development Handbook	10%

#### Stewardship

Trails are meant to provide people with access to nature and places. These places are sometimes environmentally sensitive lands, creating the risk of exposure to damage ecosystems through overuse, pollution or other human factors. To remove this risk, managers should develop policies that encourage trail stewardship so that all users can enjoy the same experience and not disturb the ecosystem. Policies and programs can be implemented to protect lands and provide educational resources. Frequently these are implemented with the assistance of friends or volunteer groups. (Tahoe Donner Association, 2013, pp. 1-3).

#### Trail Type and Sharing the Trail

Trail managers sometimes must balance the often-political decision of selecting the appropriate trail use or uses on a given piece of property. In an optimal setting, managers could selectively place trail uses in strategic locations to reduce user conflict and protect the environment, while creating a high-quality experience for all user types. This is rarely the case, and decisions made by trail administrators and managers can sometimes result in users feeling not represented in trail systems.

Selecting where trails should be located is no easy task, but it must be done to reduce user conflict. The location of a trail or trail system will also help determine the appropriate uses. Trails located in environmentally sensitive lands should consider the environmental impacts of trail users for both environmental degradation and wildlife behavior.



#### User Conflict and Etiquette

User conflict reduction policies aim to ensure that conflict is mitigated before it raises to the point of being an issue between user groups or management. A number of policies and programs can be adopted to ensure that the risk of conflict can be reduced. These policies can be geared towards reducing conflicts between groups, provide education on appropriate use, and assist with self-regulation of trails. While policies geared towards reducing conflict can be put in place and signs implemented to the same effort, trails can often generate more demand than supply and this can frequently impact user experience (City of Des Moines, 2011, p. 192).

#### Youth Engagement

Youth are spending an increasing amount of time indoors. According to the National Parks and Recreation Association, children today spend less time outdoors than any other generation, devoting only four to seven minutes to unstructured outdoor play per day while spending an average of seven and a half hours in front of electronic media<sup>1</sup>. The Nature Conservancy conducted a poll where respondents noted lack of access to natural areas and discomfort with the outdoors as the two primary factors for not spending time in nature.

Riverside County is in an excellent position because of its abundance of publicly-owned natural areas to re-engage youth with the outdoors. Programming could be implemented to ensure children have access to and become comfortable with playing in natural areas.



## Regional Trails – Connectivity and Coordination

Some entities around the country have opted to create a requirement that, where feasible, trails should create regional networks or paths that are intertwined with similar facilities. This type of network or regional connectivity would support regional networks, spur economic development along longer trails and provide more transportation and recreation options to users.

Nonetheless, the creation of large scale trail networks requires the coordination of stakeholders and leadership by entities willing to invest financial and technical resources. Typically, this happens at a regional level with support from many stakeholders.

#### **BEST PRACTICES IN TRAIL** RELATIONSHIP TO THE PLAN

A number of best practices have been identified as guidance for the County's development of trail related policies. Examples of best practices come from neighboring counties, states, and nationally.

#### Accessibility

The county should strive to create trails that are accessible to all users, regardless of abilities, considering environmental limitations. Accessibility policies generally provide information on what is an accessible trail, how to construct or design the appropriate trail in a given context, and what types of assistance devices are allowable on trails.

Lancaster County, PA has adopted a trail accessibility policy, shown below:

> Access to trails and the use of devices as set forth below is limited to individuals with mobility disabilities and this policy does not authorize the use of these devices by others. Lancaster County Park trails are available to individuals with a mobility disability as follows:

> Wheelchairs: Wheelchairs, as defined by 28 CFR § 35.104, are permitted on all Lancaster County Park trails approved for pedestrian access.

Other power-driven mobility devices (OPDMDs): OPDMDs, as defined by 28 CFR \$ 35.104, are permitted on multiuse County Park rail trails including the Conewago Recreation Trail, the Lancaster Junction Recreation Trail, the Conestoga Greenway Trail and the Iron Horse Trail as follows:



- 1. The OPDMD must be electricpowered. Internal combustion engines are not permitted.
- 2. The OPDMD must have an electrical output of no more than 300 watts.
- The OPDMD must be no more than 36" in width.

Please note that electric bikes (e-bikes) meeting the above criteria, and which allow the user to pedal or alternatively run on battery power, are permitted on all Lancaster County Park Trails approved for bicycle use. User discretion is advised as some approved bicycle trails may not be suitable for all types of e-bikes.

- A. Users of an OPDMD or wheelchair must operate the device at a safe speed considering the condition of the trail and the other users traveling on the trail.
- B. The adoption of this Policy does not represent an endorsement that the Park trails or other Park properties are safe for the use of an OPDMD or wheelchair. Users must exercise reasonable caution and care while operating such devices within the Lancaster County Park System (American Trails, 2016).

Boise, ID has also adopted an access policy for assistance devices that focuses on OPDMDs, while also going into detail on the type of trail and the types of devices allowed. This policy also ensures staff are not allowed to ask about whether a person has or does not have a disability, or the nature of said disabilities (City of Boise Parks & Recreation Department, ID).

Other places have strived to create trails with sensory assistance devices. For example, stakeholders came together to create the Watertown Riverfront Park and Braille Trail Project. This project placed special emphasis on the use of sensory assistance devices such as braille and auditory assistance devices to ensure all users could effectively use the trail (Massachusetts EPA: Office of Energy and Environmental Affairs, 2016).

#### **Greenway Planning**

Greenway planning can occur at the city, county, regional, state and national level. Countywide Master Plans should take into consideration the actions, plans and efforts of other stakeholders to ensure connectivity between greenways to benefit ecological and human systems.

Greenville, South Carolina implemented a plan to develop a broader framework for an interconnected system of pathways that will link together the various municipalities (Greenville County, South Carolina, 2010). This plan incorporated numerous action steps to build upon existing greenways and policies for collaboration between institutions.



#### Land Use and Land Rights

Acquisition Policies

The discussion of acquisition policies above provided an overview of some of the strategies utilized by trail development organizations throughout the country from a broad point of view, other key considerations and specific policies are provided below.

The Town of Williston, Vermont has implemented an acquisition policy that encourages the donation or purchase of land through many different processes. The policy enables the government to require developers to donate land where trails have been identified in planning documents, accept easements on behalf of the city, and other methods (City of Williston, VT., 1998).

Monroe, North Carolina requires that residential developments contained within a recreational master plan dedicate a certain percentage of land to the development of the trail network (City of Monroe, NC, 2003). A developer would often be required to dedicate open space, or it can be acquired through other means. The text of this ordinance is as follows:



#### \$ 156.150 DEDICATION OF OPEN SPACE.

- (A) If any portion of the lot proposed for residential development lies within an area designated on the officially adopted recreation master plan as a neighborhood park or part of the greenway system or bikeway system, the area so designated (not exceeding 5% of the total lot area) shall be included as part of the area set aside to satisfy the requirement of Section 198. This area shall be dedicated to public use.
- (B) If more than 5% of a lot proposed for residential development lies within an area designated as provided in

Subsection (A), the city may attempt to acquire the additional land in the following manner:

- (1) The developer may be encouraged to resort to the procedures authorized in Section 156.148 and 156.149 and to dedicate the common open space thereby created; or
- (2) The city may purchase or condemn the land. (Ord. O-2003-63, passed 12-16-03)

Florida Statutes 260.015 provides for the guidance of the State of Florida's Greenways and Trails Acquisition Program. This program utilizes many different tools that are capable of being applied to county level policies that are useful in program development of an acquisition program (The Florida Legislature, 2010). This program is further discussed in the case study later in this section.

## Development Regulations and Transportation Policies

Throughout the country, many trails have been constructed using policy and development approaches. These means to create paths typically have required close collaboration with developers and larger trail master plans, and between stakeholders to ensure policies are applied appropriately.

The Riverside County General Plan already ensures that trails will be considered in area plans. The Circulation, Open Space, and Healthy Communities Elements of this plan all consider the relevant policies in relationship to trails, bikeways and sidewalks. Still, consideration should be given to more staunch language and goals related to new development within the County. An example policy from Valley County, Idaho Pathways Concept Master Plan states:

Goal 3. The Valley County Planning and Zoning Department should require individuals and developers who propose new developments and subdivisions to blend their proposals into the vision for a valley-wide pathways system (Valley County Pathways Committee, 2015).

Additional language could be directly related to the development of specific trails and systems. This gives developers a clear sense of what benefits they could also market to new home or commercial business owners as development occurs. This approach was utilized in the Guadalupe River Trail in San Jose, California. In this project, numerous funding sources, including developer's fees and redevelopment funds were used to construct a new trail along this waterway (Rails-to-Trails Conservancy).

Other innovative transportation projects have also begun to be designed and constructed in the County. This includes the Coachella Valley Link, which is utilizing a mixture of funding to develop over 50 miles of shared transportation systems, including those for transit, biking, walking, and low speed electric vehicles. As additional funding or maintenance needs arise, the CV Link could take up funding from other, private sources to fill in gaps.

The identification of priority trail projects within Riverside County could help direct resources. Priority trail projects could be identified in area plans and have greater potential to have fees tied to their development, attributable funding sources, and protection ordinances to guarantee their perpetuity.

#### Trail Protection Ordinance

In some areas, county governments have instituted protection ordinances for trails to ensure that new development or communities do not encroach or damage a trail. This has created both institutional capacity to respond to issues with existing trails and for community based review teams to ensure that trails are considered in new developments and crossings. Seminole County, FL passed an ordinance in 2002 reflecting such a policy (Seminole County, FL, 2002). Indian River County, FL has also established a protection ordinance specifically for the protection of one trail, and the habitat that has formed the trail (Indian River County, FL, 1990).

Riverside County is home to a number of historic trails located throughout the county. These historic routes enrich the cultural experience of visitors and residents in the county. The County could consider the development of protection ordinances that guarantee the long-term feasibility of safe, removed paths from roadways and encourage interpretive opportunities are utilized in local jurisdictions. Additionally, this would provide assurances that changes at various levels of governance won't affect trail projects without significant alternative evaluation.

Since many of these historic trails are not exact, buffer zones would need to be created to ensure that multiple routes could be used as part of the system. Trails would serve as one of the major components and have driving routes tied to the system. This would also provide a means to ensuring that funds typically used for commuters could contribute to trail systems. This type of system in Riverside County could also help to prioritize historical route development and guide trail resources towards routes that would benefit multiple user groups.

## Adjacent Landowner Trail Liability Programs and Policies

Numerous counties and states have adopted policies which provide relief to landowners who are adjacent to public lands or trails, or allow the use of their land to connect public lands without the use of an easement. This often provides landowners who would typically be averse to trails developing in their area with peace of mind when new trails are being studied or examined for development.

San Diego County, CA, has an implementation strategy geared towards encouraging private landowner involvement in the development of local and regional trail systems. This is found in the following implementation policy (San Diego County, CA):

Countywide Implementation Strategy 3.2: Continue to provide indemnity (as currently provided by County Code Section 812.101) to persons granting trail easements and landowners adjacent to trails in order to encourage voluntary dedications and landowner support for efforts to implement regional and community trails

Washington established a marine program similar to those throughout the country that encourages private landowners to open their lands to public use while removing liability from the property owners. This is established in state law and implemented by various agencies (Washington State Legislature, 1967).

The Florida Greenways and Trails Designation Program also provides for protections of landowners who are adjacent to public property that allow trail users to utilize their private property. This program is created under Florida Statutes 260.0125 (The Florida Legislature, 2010). This program is also discussed in the case study below.

#### Rail-with-Trail Policy

In Mendocino County, CA the government has put in place a policy regarding the abandonment of rail corridors that could be converted to other uses. This policy is applicable and reflected in many ways around the country through other policies and has been provided if the opportunity for rails to trails are high within the area.

Policy DE-159: Preserve abandoned railroad rightof-way for trail use and investigate the feasibility of collocating bicycle paths on unused portions of existing rights-of-way (Mendocino Council of Governments, 2012).

#### Maintenance

A well-developed maintenance plan and schedule stems from a policy that places a higher level of importance on the necessity to consider the long-term sustainability facilities. Maintenance policies should be considered with management policies, as these policies generally influence one another, yet have a different implementation role depending on agency classifications. The Tahoe Donner Trails Master Plan provides an excellent example of maintenance and management policies (Tahoe Donner Association, 2013, pp. 1-2).

#### Tahoe Donner Trails Master Plan:

Goal 4: Maintenance. Provide for standardization of trail system maintenance.

Policy 4.1: Asset Preservation. Tahoe Donner will strive to maintain the trail system, ancillary structures, and the surrounding recreation space for sustainability.

Policy 4.2: Regular Maintenance. This Plan will serve as strategic guidance for the standard and type of maintenance to occur on the trail system.

Policy 4.3: Inspection. Regular systematic inspections of the trail system will occur to prevent and mitigate degradation of use, minimize hazards and risk, and promote general trail activity and feedback through trail presence by staff and the membership.



#### Management

A strong trail policy will enable those responsible for the day to day oversight of the trail to enforce rules, policies and regulations related to the trail. Many different jurisdictions have enacted strong overall trail policies. Example policies of these plans in relationship to trail type, etiquette and stewardship can be found below.

A notable example of policy planning for trails and management comes from the Tahoe Donner Trails Master Plan. This plan outlines policies for the jurisdiction to follow and provides guidance for future management and trail implementation strategies (Tahoe Donner Association, 2013, pp. 1-2).

#### Tahoe Donner Trails Master Plan:

Goal 1: Management. Establish management practices and protocol for a comprehensive trail system utilized by a diverse population.

Policy 1.1: Benefit and Opportunities. The trail system in Tahoe Donner will be managed to benefit the community and provide a variety of recreational opportunities for all user types.

Policy 1.2: Multi-Use Trail System. Tahoe Donner will provide a system of trails to accommodate a variety of users including hikers, joggers, bicyclists, equestrians, cross country skiers, snowshoers, and dog owners.



Policy 1.3: Trail System Rules. Management will work to establish and communicate trail system rules to reduce user conflict, effectively manage risk, and improve user experience.

Policy 1.4: User Conflict. Management will work to reduce user conflict through trail design and maintenance, as well as working with users to establish and promote communication for trail sharing.

Policy 1.5: Stewardship. Management of the trail system will make every effort to sustain the trail system and the surrounding environment through sound management practices and community involvement.

Policy 1.6: Resource Conservation. Tahoe Donner will strive to practice resource conservation through its trail system, future development, and programs established for the trail system.

Policy 1.7: Communication. Tahoe Donner will effectively communicate this Plan, projects and programs, and welcome user feedback.

Additional trail policies contained within this document can contribute to the overall cohesiveness of the trail system locally. These policies generally fall under the categories of Planning and Development.

Policy 2.3: Trail Type. The trail system should include multi-use and user-preferred trails of varying levels of difficulty and provide the opportunity to connect to other trail systems which may offer more trail class types.

Policy 3.5: Project Management Best Practices. Every effort will be made to plan, implement, and execute each project thoroughly.

#### Consistent Management

In Florida, the State Park System has streamlined the management process to be consistent across the 250-mile trail system between nine state trails. This process is consistently laid out in statute at the state level, and also in rules at the agency level to ensure consistency between different ecological zones in the various areas of the state.

Implementing a uniform process for managing trails would enable Riverside County to save in planning costs, but may inhibit creativity in the development of more specific plans for the area. Consideration should be given to the overall need for planning in each area, for each major trail corridor, and how much level of detail will be required to create a high-quality experience. Ensuring high value in the system is a key means to making the system's use a normal activity for residents and attractive amenity for tourists.

#### Youth Engagement

Riverside County can engage youth in outdoor recreation, especially via trails. Partnerships should be created between landholding agencies and not for profits to ensure that youth have equitable access to lands. Programming between partnerships can take the form of maintaining natural lands and trails, hikes and camping events, interpretive seminars in strategic urban areas and places of interest, and many other means.

## Regional Trails – Connectivity and Coordination

Generally, trails that are interconnected with similar facilities support multiple objectives of county policies. In San Diego County, CA an implementation strategy guides future trail development. These policies are important to the development of trail network systems and creating a network of recreation and transportation facilities.

Countywide Policy 2.3: Participate in completing missing segments of regional trails to satisfy the need for long range trail opportunities (San Diego County, CA, p. 133).

Due to the size of Riverside County, planning efforts should occur between area plans, specific plans and other plans. This has the potential to increase the number of trails in areas that may be deprived of recreational or transportation facilities. Additionally, requiring that coordination occur during planning updates ensures continued collaboration between county and sub-county level stakeholders.

There are many policies related to developing trails as components of local transportation systems and as contributors to the recreation system. In Portland, Oregon, the city has taken up numerous policies that require the coordination of trail efforts with stakeholders.

Policy 8.52 Trail coordination. Coordinate planning, design, improvement, and maintenance of the trail system among City agencies, other public agencies, non-governmental partners, and adjacent landowners (City of Portland, Oregon, 2015).



This policy also contains similar language for creating a diverse, publicly accessible, and ecologically friendly system of trails that have numerous other social, environmental and cultural benefits.

There are many entities that have created trail coordination policies, institutionalized coordination within their plans or instituted coordination projects. Most notably, the National Park Service created the Santa Monica Mountains Area Recreation Trails, which is a process for improving and enhancing coordination between stakeholders in the area (National Park Service, 1997). This plan is undergoing an update, initiated in 2014.

# Recommended Policies, Goals, and Objectives

Guiding Principle: The interconnectedness of trails, regional trails and supporting bikeways and pedestrian infrastructure is integral to the liveliness of Riverside County. Connecting area communities through safe, interconnected, vibrant trails ensure a high quality of life for residents and visitors to the culturally and environmentally rich area. The County will provide a vision for establishing the trail system through a series of regional and local connections, while guiding the implementation of management activities by municipalities, and other willing partners in the area.

#### **GOAL**

# PLAN FOR REGIONAL AND LOCAL TRAIL CONNECTIVITY

The County shall envision a comprehensive network of regional and non-regional trails that interconnect with other systems in private areas, cities and federal lands. This network shall be developed in coordination with, yet not necessarily managed entirely by the County.

#### Regional Trail Planning Policies

Policy 1. Diversified Planning: The Riverside County Parks and Open-Space District will retain staff who manage the planning of regional trails countywide. This staff will work with Riverside County Regional Planning to incorporate trail planning into community plans wherever possible, and ensure that updated trail planning efforts are incorporated into the General Plan on the regular update schedule. Partnership opportunities shall be explored during trail planning processes, following the guidance of the Trail Partners section of this plan.

**Policy 2. Plan Regionally:** The County shall identify regional trails that connect

communities, destinations, downtowns, districts, and other areas over longer distances than trails located in individual tracts of managed lands. Regional trails are encouraged to be managed by multiple public or private organizations, with the intent of trails being collaboratively, creatively and consistently managed between areas with the intent being to equitably distribute workloads between stakeholders.

**Objective 1.** Create a Regional Trails Map that classifies management, existing and opportunity trail alignments, and local trails managed by the County.

**Objective 2.** Update the Regional Trails Map every three years, or as deemed necessary by County Staff or Board of Supervisors.

Policy 3. Interconnect Local Trail Systems: The County shall also work with municipalities and other special areas within the County to ensure that local trails that are owned, operated, or maintained by areas other than the County. Wherever feasible, plans shall identify connections between Local and Regional Trails.

**Objective 1.** Produce an Existing and Opportunity Trails Map in coordination with municipalities, private developers, significant right-of-way owners, and others to identify areas of opportunity local trails that support or connect to the regional trail system.

**Objective 2.** Updates to the Existing and Opportunity Trails may either coincide with General Plan updates or at the discretion of and necessity as indicated by County Staff or the Board of Supervisors.

**Objective 3**. Provide access points with wayfinding at intersections and within communities wherever feasible.

Policy 4. Facilitate a Supportive Trail System: A map of the identified regional and local trails facilities (parking, water, restrooms, etc.) shall be produced at a minimum of every three years that identifies

regional trails, local trails, and other existing facilities relevant to the trail system.

**Objective 1.** Generate an Existing and Desired Support Facilities Map that supports local and regional trails in coordination with municipalities, private developers, significant right-of-way owners, and others to identify gaps in service, access and other areas.

Updates to The Existing and Desired Support Facilities Map Trails may either coincide with General Plan updates or at the discretion of and necessity as indicated by County Staff or the Board of Supervisors.

**Objective 2.** The County may form a partnership to maintain a widely distributed map of existing trail amenities, updating the map on an as needed basis depending on the conditions and construction of new facilities.

#### **Policy 5. Require Trail Planning:**

Regional Trails may be identified in the County's Comprehensive Plan as an asset to the community that improves circulation, health, safety, and recreation. Planning Areas and Municipalities are strongly encouraged to include regional trails as a component of their planning efforts, with the intent of tying development projects to the Regional Trail System. Areas are also encouraged to consider the long-term viability of connecting routes using sidewalks, bikeways or transit in limited instances.

**Objective i.** During each General Plan Update, Area Plan Update, and Municipality General Plan may reflect a strong, interconnected system of Regional Trails as a component of the circulation, health, safety, and recreation elements of the plan.

#### GOAL

#### PROVIDE ACCESSIBLE TRAILS

The County shall create a trail system that is accessible to all users, whenever feasible, is enhanced for users with different abilities, and promotes a safe system.

#### Access and Accessibility Policies

Policy 1. Access to Trails: The County may consider constructing and promoting the use of additional trail access points near neighborhoods, downtowns, commercial districts, and other areas.

**Policy 2. Accessibility:** Riverside County could, where feasible, trails improvements or construction will consider all federal, state and other laws and guidance for the development of accessible trails and trail support facilities.

**Objective 1.** All new County maintained trails or reconstruction of trails shall consider the construction that provides access to users that utilize an electronic or other non-electric mobility assistance device, so long as the construction does not negatively impact the natural environment.

Objective 2. The County shall maintain all Class 1 Bikeways and Regional Trails in a manner that is accessible to all users, regardless of ability, to the extent feasible, based upon site conditions and budget. This includes adequate crossings, delineation of space, and other assistance that can enhance the experience for different users. The County shall also provide improvements to other trail classifications whenever possible to ensure continual improvements in the system for all users.

Policy 3. Allowable Mobility Assistance
Devices: Electric personal assistive mobility
device as defined by the California Statutes.
2007, Ch. 106, Sec. 1 shall be allowed
to operate on trails so long as they are
operated in a safe and courteous manner.

Policy 4. County Liability: Users should exercise reasonable caution and care while operating such devices while on trails and facilities. The adoption of this policy does not represent an endorsement that the County's facilities and properties are safe for the use of mobility assistance devices.

Policy 5. Informed and Empowered Trail Users: Riverside County may post information

on the expected condition, difficulty, slope, length, and other relevant seasonal conditions of the trail at all county maintained trailheads and online to empower trail users with the information needed to understand if they will be able to safely use the trail.

**Objective 1.** The County, to the extent feasible, should resolve to maintain information on trail condition, difficulty, slope, length, and other relevant seasonal conditions at trailheads and online through maintenance cycles, or as funding becomes available.

#### **Policy 6. Prohibited Mobility Devices:**

Internal combustion engines are not considered a mobility assistance device. Nor are devices where engine power (wattage) output contributes to unsafe speeds for a given trail's conditions, and will impact others reasonable enjoyment of the trail.

#### **Policy 7. Sensory Assistance Devices:**

Wherever possible and feasible, the County shall provide for a multitude of trails, access points, signs, and other assistance devices oriented towards providing people with auditory, visual, cognitive, physical, and other disabilities with the use of the trail.

**Objective 1.** The County will identify opportunities to provide outdoor experiences to areas where population may not have access to trails, such as those located near assisted living facilities or other areas.

#### GOAL

# STRATEGICALLY CLOSE TRAIL SYSTEM GAPS

The County will be an advocate, leading coordinator and supporter for closing gaps in the regional trail system. The County will facilitate public private partnerships to co-locate facilities and services in public and non-public right-of-way. It will also acquire and manage lands, and when appropriate, transfer lands to other entities for management purposes.

#### **Trail System Policies**

Policy 1. Acquisition Policy: The County will pursue the acquisition of lands for development of the countywide trail system and its support facilities. The County shall prioritize acquisition projects, identify appropriate strategies and approaches for acquisition, and utilize partnerships as necessary to acquire lands for development of the regional and local trail system.

**Objective 1.** Prioritize trail acquisition projects: The County Trails Technical Advisory Committee will develop acquisition criteria, ranking procedures and preferred acquisition characteristics for projects every fiscal year where funds are readily available to acquire land.

**Objective 2.** Acquisition needs: The County shall utilize various acquisition strategies that combine a long-term strategy of fee simple purchases, purchase of acquisition rights, with that of short-term acquisition strategies such as easements to ensure trail connectivity. This policy shall be used to:

- Create Regional Trail Corridors managed by the County;
- Reduce In-holdings and potentially hazardous adjacent properties;
- Increase access to natural areas access or create new trails;
- Trails under the management, leadership, guidance and promotion by external stakeholders; and
- · Maintenance and administrative facilities.

**Objective 3.** Acquisition Strategies: The County may utilize a diverse set of strategies to acquire rights to develop lands or acquire development rights including, but not limited to:

- Fee Simple Purchases and Donations;
- Easements which allow for the construction of Trail and associated facilities through developer contributions or zoning and development regulations;

- Duel easements in collaboration with other agencies, such as the School Board, Public Utilities, and others;
- Right of first refusal purchases where lands are not currently for sale; and
- Transportation, railroads, utility, or other public and private linear rights-of-ways.

Policy 2. County Liability: Consideration shall be given to public safety and to protecting the County of Riverside, County Board of Supervisors, Regional Park and Open-Space District and its Board of Directors, agents and employees against claims for injury and/or property damage arising from/out of the use of trails.

#### Policy 3. Co-location of Trails and Other

Services: Where desirable and practical, trails shall use public owned right-of-way such as flood control channels, levees, roadway corridors, and public utility corridors if these facilities provide for a high-quality user experience. Consideration should be given to areas with high vehicular traffic, landscaping and shade, ensuring scenic view sheds, and ecosystem protection shall be considered in utilizing public right-of-way.

#### **Policy 4. Landowner Liability Program:**

The County may develop an adjacent Landowner Trail Liability Program that will approach landowners who may provide easements or other securities for the development of the trail system. This program will expand upon indemnity as provided in CA Gov't Code § 831.4. Other considerations may be considered as part of this program.

#### **Policy 5. Non-County Trail Management:**

The County shall make resources available for the purchase of lands that will develop municipal trails that clearly contribute to a regional trail corridor. Where purchases or funds are made, management of the constructed facility will be turned over to the municipal area receiving the trail. Coordination and additional resources for these land purchases may include that of the County's Councils of Governments, special districts and other prospective public agencies.

Policy 6. Rail-to-Trail and Rail-with-Trail Considerations: Special emphasis is placed on the preservation of abandoned railroad right-of-way for trail use and investigate the feasibility of collocating bicycle paths on unused portions of existing rights-of-way. Additional consideration should be given to the development of facilities along railroad right-of-way.

**Objective 1.** The County will maintain an inventory of potential Rail-to-Trail and Rail-with-Trail Projects that can be used for potential trail connectivity. This inventory should also include a list of relevant resources, both financial and technical that can be used to implement projects.

Policy 7. Trail Acceptance: Agencies with the capacity to manage trails will review proposed development projects for impacts to the Regional Trail System. If a project crosses or is next to a planned regional trail alignment, the County shall request that the project be conditioned to dedication of a regional trail easement as defined in the adopted County Trail Guidelines or Master Plan. Dedication of such easement may be accepted and conveyed to the County. When the easement is accepted, it will then be conveyed to the County and the County will be lead agency for development and maintenance of the recreation trail. Trails that are developed or funded as part of a Specific Plan may be accepted for maintenance into the Countymaintained trail system, if they provide for linkage into the regional system, possess special conditions, available funding, and warrant early acceptance as determined by the General Manager. The County shall work with the Planning Department to ensure that the conditions are met and shall notify Risk Management when trails are accepted.

#### GOAL

#### ADMINISTER THE TRAIL SYSTEM IN AN ECONOMICALLY SUSTAINABLE MANNER

The management of the system shall be supported through the development of Riverside County, users in the system, and other means.

#### **Trail Administration Policies**

Policy 1. Trail Assessment Fee: It is recommended that the County implement an annual assessment in the support of trail maintenance and development. This fee is to be included as an assessment on annual property taxes. The amount of this assessment is subject to Board of Supervisors approval, and is recommended to be a minimum of \$25.00. The assessment may require a vote as a measure to be scheduled during the County's election cycle.

#### Policy 2. Development to Support

Trails: Fees collected under the authority of Ordinance 659, Development Mitigation, shall be distributed at the discretion of the Board of Supervisors as part of the annual County budget or through direct allocation authorized by the Board. No more than 10% of each trail project should be used for administrative expenses and/or project management, excepting projects of high complexity and those requiring the use of consultant services. Commercial and Industrial properties have previously been excluded from these fees. Based upon findings on trail use within the County, as well as best practices exercised by neighboring jurisdictions (see Appendices) It is recommended that these development types are subject to developer impact fees for trails.

Policy 3. Trail Reinvestment: Fees collected at County trail facilities shall be reinvested by the Board of Supervisors into the maintenance and management of Regional Trail facilities managed by the County.

Policy 4. Use Fees: The County shall consider usage fees for trails, trailheads, and associated amenities annually by the Riverside County Regional Park and Open-Space District Advisory Commission (DAC) in accordance with Policy J-5 and in conformance with Government Code 54001.

**Objective i.** The County shall investigate the use of development support for trails, fee waivers, trail reinvestment and use fees as an overall measure of developing the system. The County will create an annual report showing how these fees and programs support the overall County Trails Plan.

**Objective ii.** The County may review, on an annual basis, the need to develop and maintain an annual user pass for County maintained facilities. This will also include the provisions for rate increases to maintain pace with a developing trails system, changes in the local economy, and other measures. An assessment fee should be considered in these analyses.

#### GOAL

# ENFORCE TRAIL SAFETY, USE, AND JURISDICTION

The County shall identify the appropriate area under which it is authorized to enforce uses, work with external agencies to ensure collaborative enforcement, and work within its jurisdiction to ensure a safe, high-quality user experience.

#### Trail Safety and Enforcement Policies

Policy 1. Authorization: Riverside County shall be responsible for the enforcement of recreation areas and trails, and other areas deemed necessary through agreements with partner agencies. The County may enforce speed, user type, openings and closures, and other restrictions as deemed necessary to provide for a sustainable, safe and comfortable trail system.

**Objective 1.** Riverside County shall produce an Enforcement Jurisdiction Map to illustrate the County's enforcement authority. This enforcement area will be the governing document related to the regulation, monitoring and use of trails and recreational areas under the jurisdiction of the County.

Objective 2. The County shall make a concerted effort to identify appropriate management of the areas outside of the County's enforcement area. The enforcement authorities within Riverside County shall meet on a twice-per-year basis to ensure the safety of Riverside's residents and visitors.

#### **Policy 2. Collaborative Enforcement:**

The County shall forward concerns related to hazardous trail conditions and unsafe trail users to the appropriate managing entity where a substantial amount of complaints received are outside of the established enforcement. The County shall also take measures to provide information on the risks of users to the managing authority and take other measures, as deemed appropriate by county administration. The County may also provide information on how to mitigate enforcement need to managing entities, such as best management practices in reducing access to restricted areas, signage, and enforcement of trespassing provisions. These efforts can be accomplished through trainings, meetings with appropriate agencies, and other measures.

#### GOAL

#### SIMULTANEOUSLY DEVELOP LAND, TRANSPORTATION AND TRAIL IMPROVEMENTS

Development in Riverside County will blend development and transportation impacts into the considerations and needs of the Countywide Trail System. The County will identify trail alignments to be incorporated into plans and to market potential return on investment to developers and commercial areas.

#### **Development Policies**

Policy 1. Blend Developers Plans with Trail Plans: The identification of alignments and trail concepts shall be illustrated and promoted as an amenity and considered a requirement to connect Regional Trails as a component of new developments in the County.

**Objective 1.** The County may consider maintaining a map, updated in perpetuity of development proposals, and planned regional trails and municipal trails connecting with county facilities and approved through a formal planning process. The map will better guide improvements in the County and focus on where new trail development is imminent, with an emphasis on managing entities.

#### **Policy 2. Regional Trail Connectivity:**

Development located on an identified Regional Trail on The Regional Trails Map shall be required to provide a trail, open to the public that provides seamless connectivity between areas adjacent to the development.

#### **Policy 3. Development Bonus Program:**

The County shall consider implementing a program that provides development with density bonuses when trail facilities beyond those identified in County adopted Regional Trail Facilities maps are constructed as a component of new development or redevelopment. Facilities must be regional in nature, or connect with local trails identified in the County Trails Master Plan.

#### Policy 4. Development Impact Fee

Bank: A program may be developed within the County that allows developers to place funds for mitigation of impacts specific to Regional Trails identified by the County into a fund for the development of trails outside of the planned project. The developer must have the option to enter into this program and not provide funding for a local trail system over a planned regional trail project.

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#### **Policy 5. Easements and Mitigation:**

The County may consider receiving easements or funds in-lieu of easements from development projects, within the plan area, to acquire, plan, study, design, construct, or manage the trail system.

#### Policy 6. Incorporation into **Comprehensive Plan and Area Plans:**

Riverside County shall identify and ensure that trail connectivity is encouraged in the appropriate elements of the Comprehensive Plan. This includes references to regional trail plans, and alignments where feasible in the following elements, not excluding others:

- Circulation Element to consider co-location of trails with transportation facilities;
- Multipurpose Open Space Element to consider the internal and intra-connectivity potential of parks and natural areas using trails and greenways;
- Noise Element to evaluate the relationship of trails and reduction of noise pollution from reduced automotive traffic, addition of vegetative buffers through the use of trails,
- · Air Quality Element to consider the improvements in air quality through the development of facilities that will remove vehicles from the transportation system; and
- Healthy Communities Element; The use of trails in communities as a tool to improve community health.

Policy 7. Trails Master Plan: The County shall work with Federal, State, adjacent County, and Riverside's Municipal governments, and with special districts to identify regional trail alignments throughout a Master Plan at the County Level. The County may provide technical assistance to external entities to when regional trails would be connected. The adopted plan may be incorporated into the Comprehensive General Plan of Riverside County and distributed through the County's Geographic Information System for planning purposes. The County may require an amendment process once a plan is adopted if

an area is inconsistent with the Comprehensive General Plan of Riverside County. The Plan shall emphasize Regional Planning at its core, with other smaller trails identified in municipalities, specific parks, and natural areas.

Objective 1. As a component of the Trails Master Plan, the County shall maintain a prioritized list of trail projects to be published and advertised for departments, external agencies and other groups.

#### GOAL

#### **DEVELOP HISTORICAL TRAIL** ROUTES, THEMES AND RESOURCES

Historical and cultural routes located within Riverside County which establish regional connectivity shall be identified and include trail facilities to improve the trail experience along the routes. The Identification and listing of these routes will provide for additional funding opportunities by external stakeholders, and opportunities for the County to increase tourism.

#### **History Policies**

Policy 1. Identify Alignments: The County shall identify relevant historical alignments of trails and cultural routes which promote regional connectivity, and highlight places of historical significance along the routes.

Objective 1. The County shall map relevant historical routes, existing trails in the nearby vicinity, and other relevant information every three years.

Policy 2. Route Co-location: Where historical trails are located and offer regional connectivity, the County, municipalities and other managing and implementing agencies shall work towards the development of the system along the corridor, and highlight historical sites as necessary.

Policy 3. Pursue Unique Funding
Opportunities: Wherever feasible,
designation of historical routes providing
regional connectivity shall be promoted
to encourage the application of funding
sources to develop routes, interpretation
opportunities and other trail enhancements.

#### GOAL

# ACTIVELY FUND TRAIL PROJECTS

The County shall identify a funding approach and strategies for the long term and short term investment in the trail system. This includes the evaluation of past policy changes and the potential creation of new funding sources towards the development of the trail system.

#### **Funding Policies**

Policy 1. Funding Approach: The County shall aggressively pursue and encourage partners to utilize diverse funding sources to develop County's component of the regional trail system. This includes utilizing public-private partnerships for the overall development of the system in a long and short term framework for funding projects.

# **Policy 2. Funding Strategies:** With funding budgets inaccessible for trail projects, the County may utilize funds from various sources, including but not limited to:

- Fees: User fees, congestion fees, or other fees programs provide an opportunity to generate revenue to fund infrastructure projects, such as construction, programs, and other needs.
- Grants: Competitive grants through public agencies or through private or non-profit foundations can generate additional resources for projects and programs.
- Fundraising campaigns: Fundraising through neighborhood groups, advocacy groups, or even crowd-funding can help generate additional resources for specific trail rehabilitation, other projects, and trail-

related programs.

#### **Policy 3. Evaluate Past Policy Decisions:**

The County shall evaluate the findings of the trail user and agency surveys conducted as part of this planning effort (see Appendices for full reports), and make recommendations on reinstating trail-related development fees on commercial and industrial land uses. The County will additionally study the impact of a twelve-dollar County Assessment Parcel Tax and its potential funding impacts on the trail system.

Policy 4. Highway System investment Requirement: The County will advocate for a percentage of all new highway expansion projects to include development of trail systems. The County shall work with other partners to pursue a 1% to 5% funding allocation toward regional trails with all highway construction projects.

# Policy 5. Roadway System Facility Connectivity: All new roadway projects in Riverside County shall consider the potential to connect on-street bikeways and pedestrian facilities with trails, or construct an appropriate mix of facilities to accommodate expected trail user types as a component of the roadway.

# Policy 6. Create Public-Private Partnerships: The County shall consider the use of Public-Private Partnerships to entice various agencies, organizations, and enterprises to managed, develop and maintain the trail system. Partnerships should especially be considered between partners aligned with the mission of the County, such as health providers, schools,

#### **Policy 7. Endowments and Other Funds:**

businesses, and other private ventures.

The County may consider the implementation of a program that receives endowments, private donations, and other private funding sources geared towards the management and maintenance of County trails and trail amenities.

#### GOAL

# COORDINATE THE MAINTENANCE AND MANAGEMENT OF THE COUNTYWIDE SYSTEM IN A COLLABORATIVE AND CONSISTENT MANNER

The County shall coordinate management strategies between agencies and other potential partners to ensure an efficiently managed, countywide trail system. The County shall encourage structures of management that enable the County to more efficiently manage the workload in the trail system.

#### **Trail Coordination Policies**

#### **Policy 1. Diversified Management:**

The Riverside County Parks and Open Space District will continue to develop and manage regional trails which fall within District parks. Where regional trails are implemented outside of parks but within County jurisdiction, the District shall defer management of the trail to the following agencies, based upon trail conditions:

- Along utility and/or drainage rights-of-way: Riverside County Flood Control District;
- Adjacent to or following roadway; corridors: Riverside County Department of Transportation;
- In either of the above scenarios or in other situations: Riverside County Transportation Commission.

The District shall coordinate with and communicate the planned intent of regional trails to the above entities, and seek funding and additional planning support from WRCOG, SCAG, and CVAG. Additional partnership opportunities shall be explored prior to the development of any new trail segment, following the guidance of the Trail Partners section of this plan.

**Policy 2. Collaboration Strategy:** The County will actively seek out partnerships

neighboring trail managing entities to ensure consistent trail management and maintenance, reduce user conflict, and transitions between types of trails and other non-trail facilities. The County will also utilize these relationships to leverage funding for projects.

**Policy 3. Conserve Resources:** The County will strive to practice resource conservation through its trail system, future development, and programs established for the trail system.

#### **Policy 4. Habitat Conservation Plans:**

The County shall evaluate each trail plan where the intent is to cross specific areas of environmental protection. Buffers will be considered for the protection of listed species to ensure overall sustainability of the system, while meeting the demands of trail users in Riverside County.

Policy 5. Identify Benefits and Opportunities: The County will make efforts to highlight opportunities to connect developments into the Trail System. This will be performed by meeting with developers and discussing opportunities in collaboration with other trail managing stakeholders. The County will consider all types of trails in related discussions.

Objective 1. Produce a benefits report: Whenever feasible and at a reasonable timeframe between documentation, the County shall work with volunteers, area stakeholders and the appropriate entities to produce a benefits report of the jurisdiction's trail system. This report will emphasize the health, social, cultural, economic, transportation and other quality of life impacts the systems development has contributed to the County's residents and visitors.

#### Policy 6. Proactive Communication: The

County shall undertake a proactive strategy to update stakeholders on the development of the trail system by providing an annual update on capital improvements, and user needs and trends, and other issues.

Policy 7. Promote Stewardship: Trail management will make every effort to sustain the system and the surrounding environment through sound management practices and community involvement. Stewardship workshops shall be offered by the County and other with the appropriate authority to speak to trail operations, maintenance and other procedures.

#### Policy 8. Risk Management: The

County shall create, in cooperation with trail maintenance and planning, a trail condition classification system based on their location and anticipated use. The standard for repair and level of maintenance will be associated with each individual trail type, dependent upon its terrain, use and location, and thresholds for closure will be established. Reasonable effort will be made to eliminate trail hazards in a timely manner. Signs and notices may be posted if hazards are severe and, if necessary, trail closure may be required until corrective measures can be completed.

**Policy 9. Uniform Procedures:** The County shall produce a management practices and protocol manual to promote consistent management and maintenance practices between facilities.

# Policy 10. Unit Management Plans: The County will develop a Unit Management Plan for tracts of land or trails that suffer from excessive or over-capacity uses within the system, management needs based off

from excessive or over-capacity uses within the system, management needs based off trail related issues, user group conflict and other management related concerns.

#### **GOAL**

# DELIVER AN ACCESSIBLE SYSTEM OF TRAILS

Riverside County will work toward bringing a unique visitor experience to every trail user by providing safe, scenic, and high-quality outdoor opportunities. Riverside shall identify the appropriate experience for each trail corridor context and desired outcomes. The County shall produce rules

and expectations for users to provide for a predictable trail that accommodates as much experience as possible for a diversity of uses.

#### **Trail User Policies**

Policy 1. Trail System Uses: The County shall identify the appropriate locations for multiple modes of trail users, including people walking and running, bicycling, horseback riding, and other users identified in strategic planning efforts. Where feasible, trail uses shall be conceptualized as individual experiences within the same right-of-way. Where limited right-of-way does not allow a separation of trail uses, buffers, appropriate signage, and other measures shall be taken to enhance the overall trail experience.

Policy 2. Prohibited Uses: When necessary, the County may deem necessary to permanently or temporarily close a trail to particular uses or all uses along the trail. In this instance, the County shall publish information on the reason for the closure, expected re-opening of the trail and desired improvements or conditions the trail will need to be maintained to ensure the appropriate uses within an area.

**Objective 1.** The County will identify the appropriate user type for each trail and post restrictions as necessary, in the appropriate locations.

Policy 3. Equitability Analysis: The County may consider conducting an equity analysis that identifies areas of consideration for future investments. The analysis shall look at areas within the County that do not have access to trails, or are unable to use trails due to extenuating systemic circumstances.

**Objective 1.** Create an Equity Analysis Map in coordination with municipalities, private developers, significant right-ofway owners, and others to identify areas of opportunity local trails that support or connect to the regional trail system.

**Objective 2.** Update the Equity Analysis Map every three years, or as deemed necessary by County Staff or Board of Supervisors.

Objective 3. Generate additional policies.

#### Policy 4. Innovative Technologies and

Uses: The County may consider the use of low-speed electric vehicles, autonomous low-speed electric vehicles and other uses on County-maintained trails if the appropriate right-of-way is located within the corridor, uses will be appropriately separated, and the system is maintained in a safe manner.

**Objective 1.** The County is strongly encouraged to review the design speed of facilities and post appropriate speeds for facilities to create a safe, comfortable trail experience for all users.

Policy 5. Trail System Rules: The County may produce a set of rules consistent with the design guidelines, adopted plans, and other documents to protect and maintain natural

and human environments while encouraging a courteous, safe and consistent trail system.

#### GOAL

# PROMOTE THE SAFE USE OF ELECTRIC BICYCLES ON TRAILS

The County shall allow for certain electric bicycles on trails, providing they are consistent with state rules and the desired user experience on each individual trail.

#### **Electric Bicycle Policies**

#### 1. Consistency with California Law:

The County shall abide by the State of California's Electric Bicycle Laws and Regulations (Assembly Bill No. 1096, amending relevant statutes and sections). The State has adopted the following classification system for bikeway access by classification of facility levels 1, 2, 3, and 4.

#### CALIFORNIA ELECTRIC BICYCLE POLICY



bosa



2. Off-roadway Trail Restrictions: The County may enforce speed restrictions for electric bicycles on facilities not listed in state law such as natural surface paths with equestrian and mountain bicycling trails to improve the overall trail experience if deemed necessary by the County.

#### GOAL

#### LEVERAGE VOLUNTEER GROUPS AND COMMUNITY SUPPORT

1. Adopt-a-Trail Program: The County may continue its Adopt-a-Trail Program, to support the County in the maintenance, management and ongoing operations of the existing trail system. The County will also consider the expansion of the program to include sponsorships from organizations that choose to enter into agreements as a welcomed component in the County's mission to manage a high-quality trail system. Funds collected from this program shall be exclusively available to the County for programming, maintenance, management and other activities directly related to the trail.

#### 2. Community Support Organizations:

The County may investigate the implementation of partnerships with individual not-for-profit organizations that will serve as a voluntary organization as an extension of the County. These organizations shall receive training, offer indemnity to volunteers within the system meeting proper qualifications and certifications to perform functions on behalf of staff.

- 3. Trail Ranger Program: The County may consider the use of Trail Rangers as a means to encourage trail etiquette, work with law enforcement to improve safety conditions, and ensure areas where persistent issues arise are addressed in an efficient manner.
- **4. Youth Engagement:** The County may enter into agreements with partners in the area to provide area youth, especially youth in areas with deficient access to the outdoors with programs to expose children to the County's natural areas and trails.



#### The Backbone Trail Network

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

#### **COUNTYWIDE TRAIL PLANNING**

The current planning effort undertakes primarily a reductive process, refining previous trail planning efforts in the service of creating a regional trail network that can be prioritized and is feasible for implementation by the County. In order to preserve previous planning work while giving a path forward, trails have been classified into three tiers.

**Tier 1** trails form the backbone trail network and represent the highest priority and greatest connectivity for the County. It incorporates historical alignments, regional trails with dedicated plans, those currently existing or under construction, and those with long-distance connectivity. Tier 1 trails proposed in this document do not enter MSHCP areas. These trails are intended to be major thoroughfares and are not appropriate for sensitive ecological areas. Where possible, backbone trails provide connections to trails within MSHCP areas.

Additional criteria used to evaluate backbone trails include:

- Population adjacency;
- Connection to destinations;
- Connection to other jurisdictions;
- Available right-of-way;
- Land ownership;
- Ability of the trail to close gaps in the regional network.
- Historic/cultural significance

The tier 1 backbone trail network is depicted in the map on the opposite page.

Tier 2 trails are those which the County has previously identified as regional but do not provide regional connectivity. Many of these trails are destinations unto themselves, but often form networks internal to parks. without providing external connectivity.

Tier 3 trails are local and community trails, which generally either fall outside County jurisdiction or are comprised of trail networks with only local connectivity. These trails are important as connections to local destinations, and often must be relied upon for connection between regional trails.

#### THE UPDATED BACKBONE TRAIL NETWORK

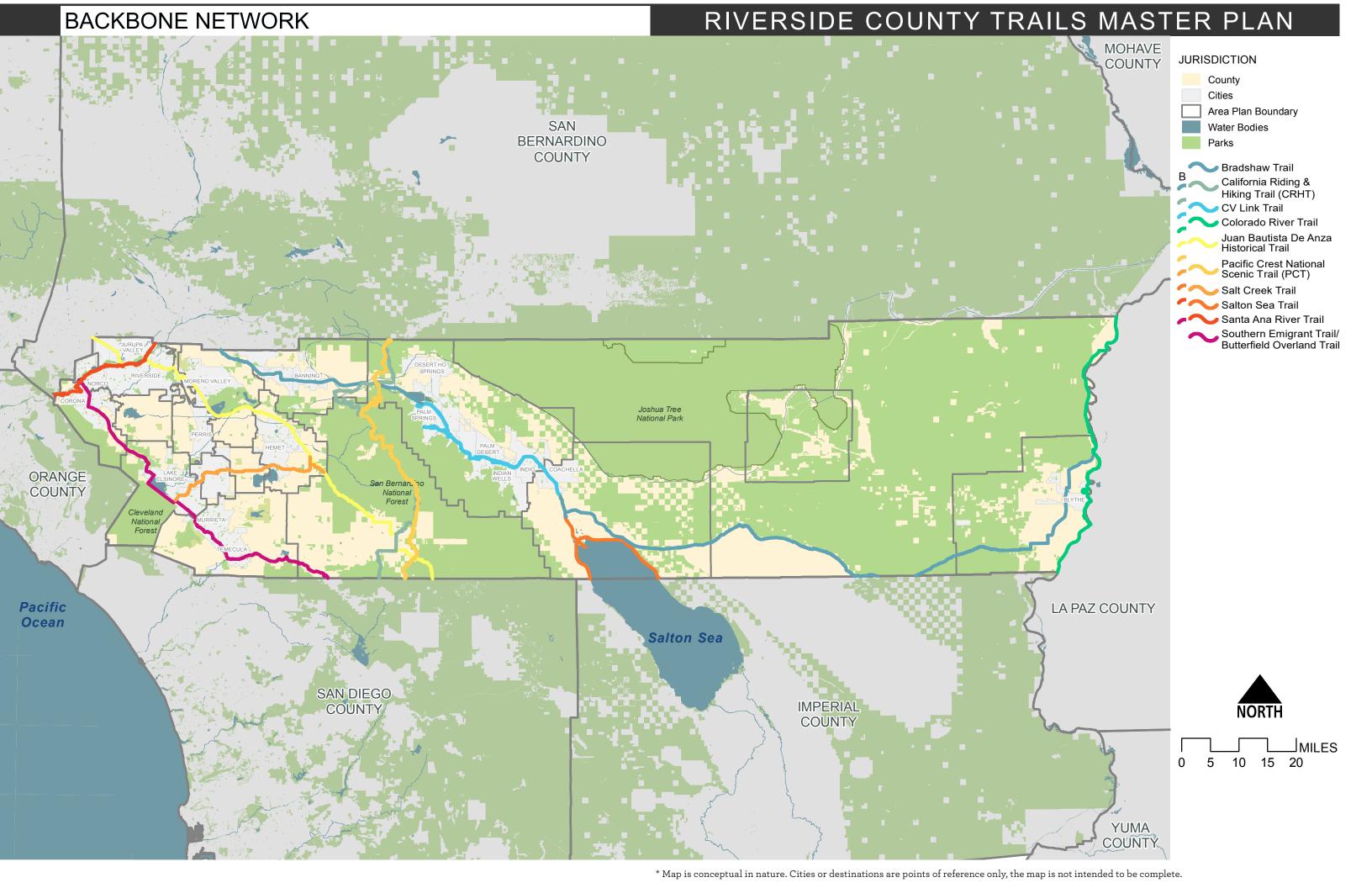
The current planning effort undertakes a reductive process, emphasizing trails previously classified as regional and/or historic, those existing as part of a previous plan or currently on-the-ground, those with long-distance connectivity, and those providing connections to smaller-scale trail networks (See Table 4-1). Additional criteria used to evaluate backbone trails include:

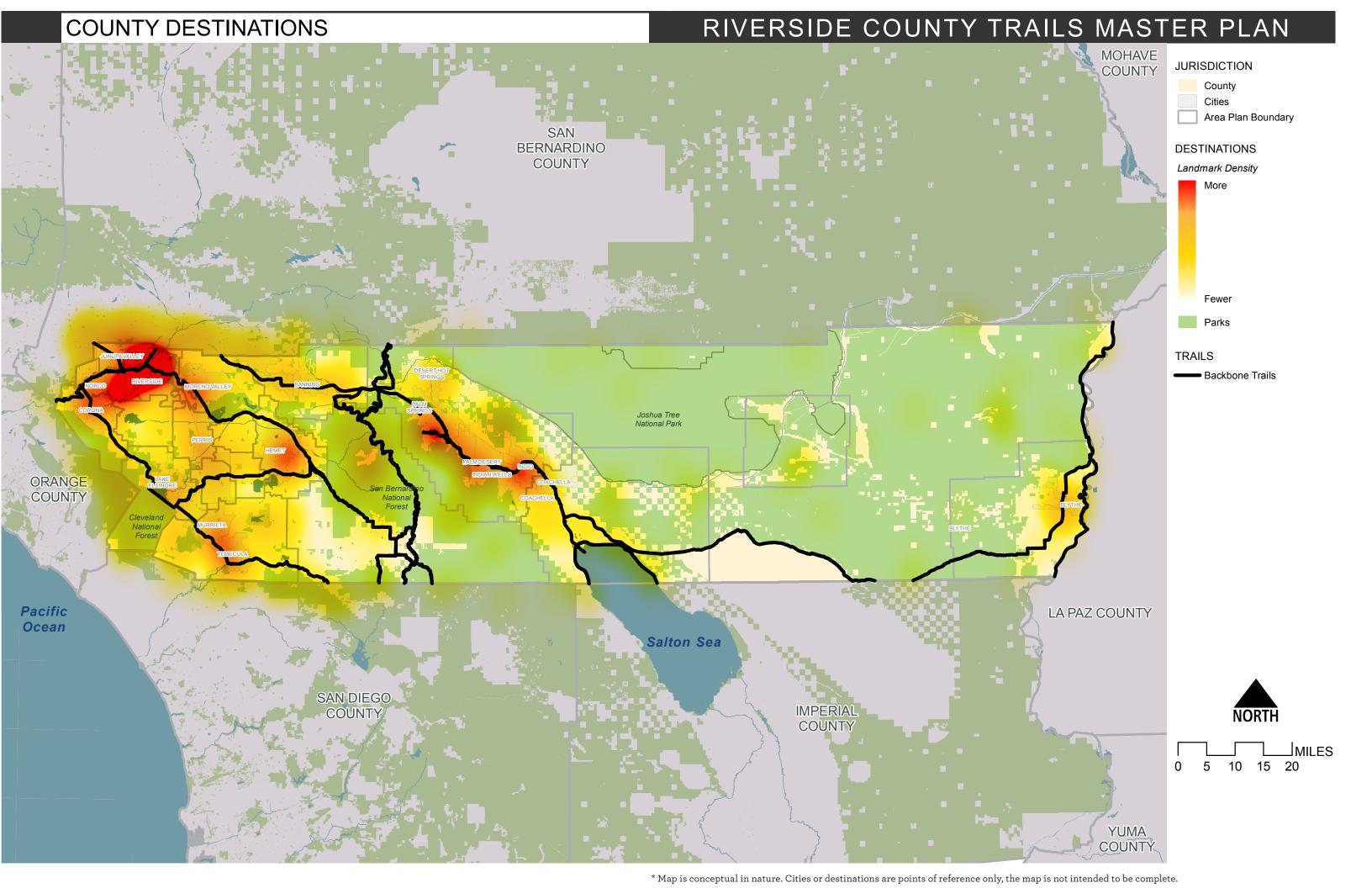
- Population adjacency;
- Connection to destinations;
- Connection to other jurisdictions;
- Available right-of-way;
- Adjacent and underlying land-owners;
- Ability of the trail to close gaps in the regional network.

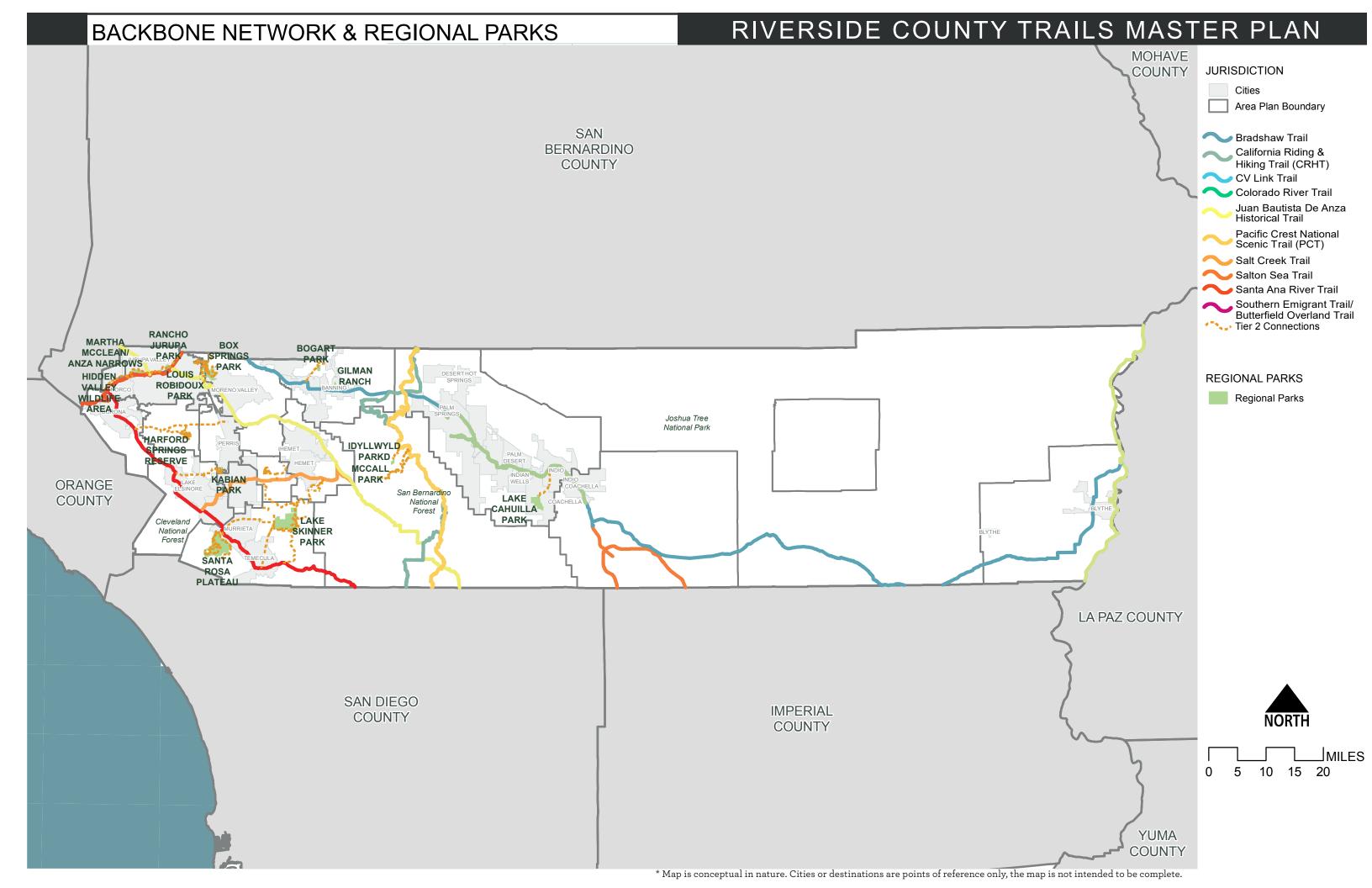
The following pages detail each of these backbone trails.

Table 4-1.

Backbone Trail Mileage				
Backbone	Miles			
Bradshaw Trail	129.5			
California Riding & Hiking Trail (CRHT)	89.0			
Colorado River Trail	37.5			
CV Link	50.0			
Juan Bautista de Anza Historical Trail	84.9			
Pacific Crest National Scenic Trail (PCT)	82.2			
Salt Creek Trail	37.8			
Salton Sea Trail	32.4			
Santa Ana River Trail	25.7			
Southern Emigrant Trail/Butterfield Overland Trail	66.8			
Tota	635.8			









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# Backbone Network and Regional Park Connectivity

The backbone trail network is intended to serve both transportation and recreation purposes, and must strike a balance between these two goals. Wherever feasible, backbone trails connect directly to regional parks. As large regional parks tend to be in somewhat remote, undeveloped areas, connecting to them does not always provide for desirable regional connectivity (see Table 4-2). In these cases, Tier 2 trails are identified which make

connections from backbone trails to regional parks. A listing of regional parks that feature trails is below. The table includes the primary backbone trail serving the park, how direct access to the park is achieved if the backbone does not directly connect, and how far the park is from the backbone alignment.



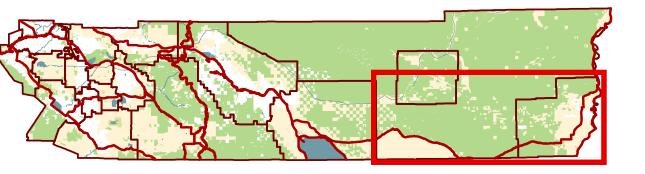
Bogart Park has over 400 acres of open space in the foothills below Mt. San Gorgonio.



McCall
Memorial Park
near Idyllwild
has many
trails and open
space areas
with equestrian
specific
campgrounds.

Table 4-2.

Table 4-2.				
Regional Parks and	Backbone	e Connections		
PARK_NAME	Acres	Primary Backbone(s)	Access to Backbone Via	Miles from Backbone
BOGART PARK	387.0	Bradshaw Trail	Noble Creek: partially existing Class 1 Bike Path in City of Beaumont	1.4 Miles
BOX SPRINGS PARK	3320.0	Juan Bautista de Anza	From de Anza: Morton Rd/Gemert Rd/Poarch Rd/Rail ROW	From de Anza: 4.2 Miles to center of park
GILMAN HISTORIC RANCH AND WAGON MUSEUM	170.2	Bradshaw Trail	N 16th St (on-street connection)	0.5 Miles
HARFORD SPRINGS RESERVE	528.6	Butterfield/Southern Emigrant Trail	Cajalco Rd (WRCGOG Project)/Gavilan Rd	11 Miles
HIDDEN VALLEY WILDLIFE AREA	1510.1	Santa Ana River Trail	Direct Access	0 Miles
HURKEY CREEK PARK	120.3	PCT/CRHT	San Bernardino National Forest Trails	6.6 Miles
IDYLLWILD PARK	183.6	PCT/CRHT	San Bernardino National Forest Trails	3.6 Miles
KABIAN PARK	640.4	Butterfield/Southern Emigrant Trail	Riverside St/Mauricio Ave/San Jacinto River	9.1 Miles
LAKE CAHUILLA PARK	1887.9	CV Link	Proposed Class 1 Bike Path along drainage channel through City of La Quinta	6.1 Miles
LAKE SKINNER PARK	6817.5	Butterfield/Southern Emigrant Trail and Salt Creek Trail	Multiple routes, proposed by WRCOG and County Planning	Approximately 8 Miles (multiple routes)
LOUIS ROBIDOUX PARK	63.8	Santa Ana River Trail	Proposed Class 1 along north bank. Within City of Jurupa.	2.5 Miles from south bank SART backbone
MARTHA MCLEAN/ ANZA NARROWS	296.8	Santa Ana River Trail	Direct Access	0 Miles
MCCALL PARK	88.3	PCT/CRHT	San Bernardino National Forest Trails	10.4 Miles
RANCHO JURUPA PARK	350.5	Santa Ana River Trail	Proposed Class 1 along north bank. Within City of Jurupa.	2.3 Miles
SANTA ROSA PLATEAU	6929.5	Butterfield/Southern Emigrant Trail	Murrieta Creek Trail	1.9 Miles



# THE BRADSHAW (ROAD, TRAIL, ROUTE)

Length: 129.5 miles

**Area Plans:** Palo Verde Valley, East County – Desert Area, Eastern Coachella Valley, Western Coachella Valley, The Pass, Reche Canyon/Badlands

**Jurisdictions:** Riverside County, BLM, Cities of Indian Wells, Banning, Indio, Palm Springs, Palm Desert, and Coachella **Destinations:** Salton Sea, Coachella

Valley, Banning, Blythe

**Nearby Significant Trails:** Vista Santa Rosa, Morongo Wash, Bogart County Regional Park

**Percent Existing:** 50%

Management Status: Partially maintained

The Bradshaw would follow an historic trail extending from southeast to northwest Riverside County. There is an existing trail functional for over 100 miles, in mostly in the Eastern portion of the County, from Blythe to the Coachella Canal, near the Salton Sea. Heading west from the Coachella Canal there is no existing functional trail. The trail would need to develop a connection to the CV Link trail as it heads north towards Palm Springs.

Heading east from the Coachella Canal to the trail's proposed terminus in Palo Verde Valley, the trail would use a well-defined dirt road for nearly 70 miles. This well maintained road is periodically graded by the Riverside County Transportation Department. Due to soft sand portions of the road it is primarily for

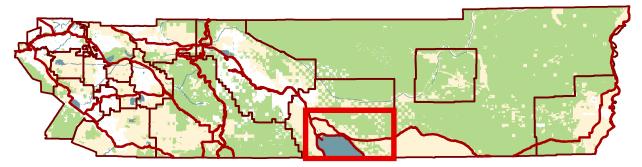




# Trail Network Tier 1 (Backbone) Tier 2 Tier 3 Boundaries Water Bodies County Jurisdiction Parks and Public Lands Area Plan Boundary



#### THE BRADSHAW (ROAD, TRAIL, ROUTE) (CONT'D)



RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

four-wheel drive or off-highway vehicles. It is quite isolated, with no nearby populated areas, traveling through mostly public land half of which is on county land (right at the edge of BLM land), and the other half on BLM land. spectacular views of the Chuckwalla Bench and the Orocopia, Chuckwalla and Mule Mountains.

Note that within the Palo Verde Valley Area Plan boundary, the existing trail diverges

from the mapped regional trail (labeled as Bradshaw). At this point the regional trail angles northeast and connects to Blythe. In actuality, the existing Bradshaw runs nearly straight east and is not continuous into Blythe.

West of the Coachella Canal there is a 23-mile gap—all on county land—as the proposed trail passes north of the Salton Sea (inset 2). From there it would connect to an

2.75

Miles

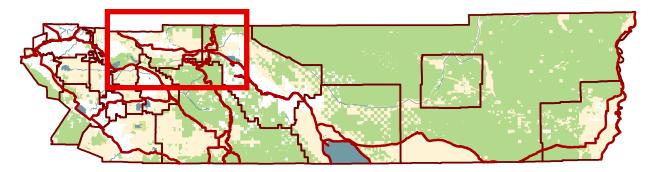
The Bradshaw Inset 2



#### **Trail Network** Tier 1 (Backbone) Tier 2 Tier 3



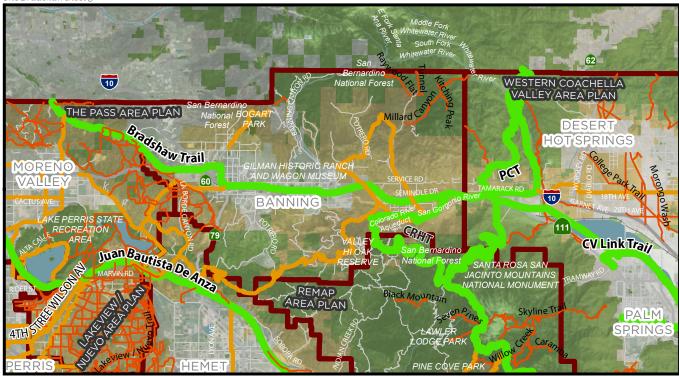
# THE BRADSHAW (ROAD, TRAIL, ROUTE) (CONT'D)



existing, though unmaintained, trail along the Whitewater River. After approximately 4 miles along the Whitewater River, the proposed CV Link Trail begins. CV Link is within various city jurisdictions, and represents the most feasible route. As such, it will constitute 60 miles of the Bradshaw alignment.

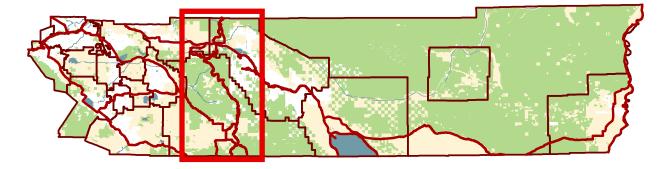
At the northwest terminus of CV Link, the proposed Bradshaw continues. At this stage the proposed trail traverses County Jurisdiction, as well as the City of Banning. The proposed route does not align with any unmaintained trails and no plans exist to define a feasible alignment.

The Bradshaw Inset 3



# Trail Network Boundaries Tier 1 (Backbone) Tier 2 County Jurisdiction Parks and Public Lands Area Plan Boundary





### CALIFORNIA RIDING & HIKING TRAIL (CRHT)

Length: 89.0 miles

**Area Plans:** The Pass, REMAP, Western Coachella Valley

Jurisdictions: Riverside County, BLM, Cities (Palm Springs), National Forest, State Park Destinations: San Bernardino National Forest, Anza-Borrego Desert State Park, San Jacinto Mountains

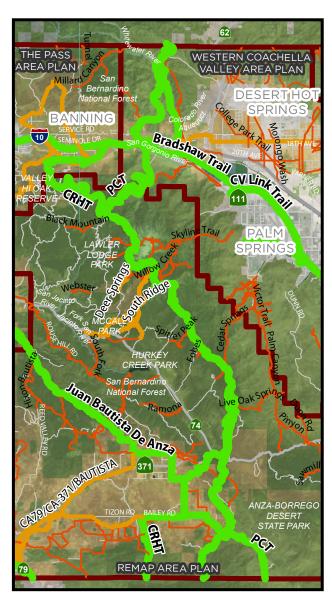
**Nearby Significant Trails:** Southern Emigrant Trail, Juan Bautista de Anza Historical Trail, Pacific Crest National Trail, Bradshaw **Trail** 

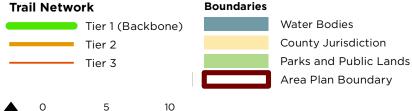
**Percent Existing:** 90%

**Management Status:** Unmaintained, state-planned. Some easements in place.

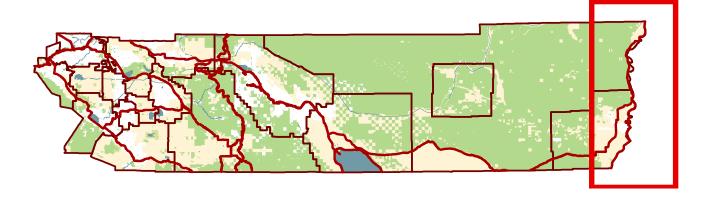
The Proposed California Riding & Hiking Trail (CRHT) would extend nearly 90 miles along dirt roads and backcountry trails. The CRHT alignment shown here is a combination of state and county sources. It primarily follows easements and alignments recorded by California State Parks. Where gaps exist, alignments previously recorded by Riverside County Planning are used. In many areas it runs parallel and near the Pacific Crest Trail. These trails are not interchangeable, however, as the PCT does not allow the use of bicycles, while the CRHT does.

California State Parks has expressed interest in divesting its easements within Riverside County. This provides the Riverside County Parks and Open Space District with an opportunity to help fill in missing pieces of this statewide trail. As much of the alignment falls onto National Forest land, it also presents an opportunity to form partnerships in the development of the trail. At the northern and southern ends of the CRHT in Riverside County, opportunities exist to connect the trail to other backbone and local trails.





Miles



#### **COLORADO RIVER TRAIL**

Length: 37.5 miles

**Area Plans:** Palo Verde Valley, East County – Desert Area

**Jurisdictions:** Riverside County, BLM **Destinations:** Colorado River, Blythe **Nearby Significant Trails:** N/A

Percent Existing: 15%

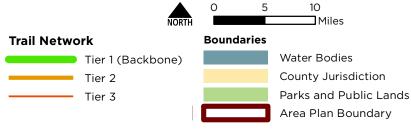
**Management Status:** Only dirt roads along the alignment are maintained.

The proposed Colorado River Trail would extend from Imperial County to San Bernardino County. For most of the route, the trail would be within unincorporated County jurisdiction.

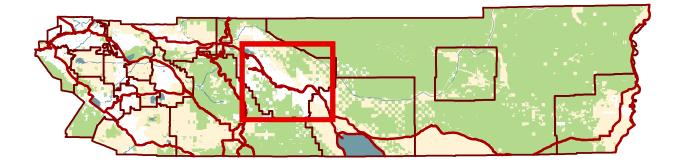
Within Blythe, the proposed trail would follow a dirt road adjacent to the Colorado River. Mayflower County Park, with extensive camping, recreation, and picnic opportunities, abuts the river, and has great potential to serve as a regional trailhead. From there, the trail would follow available right-of-way alongside the river and canal. Satellite imagery indicates the possibility of using Rancho Not So Grande Road and other dirt roads such as Cotton Tail Lane, for a potentially continuous trail to Aha Quin.

North of Blythe, the trail passes through a series of agricultural areas with minimal populations before reaching the San Bernardino County line. At the Lost Lake Resort there is a greater opportunity for a path within the public right-of-way.





5.5



#### **CV LINK**

Length: 50 Miles

Area Plans: Eastern Coachella Valley,

Western Coachella Valley

Jurisdictions: Riverside County, Cities of Indian Wells, Indio, Palm Springs, Palm Desert, and Coachella

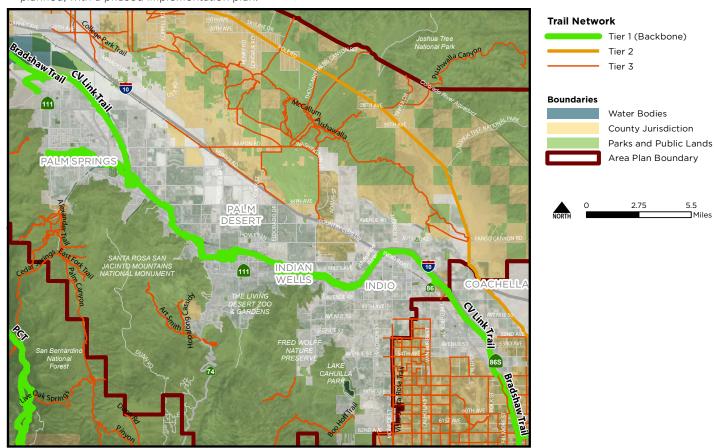
**Destinations:** Coachella Valley Nearby Significant Trails: Vista Santa Rosa, Morongo Wash

**Percent Existing:** 0% (portions under construction) Management Status: The entire corridor is

planned, with a phased implementation plan.

The proposed CV Link will be a 50 mile long Class I (paved) path. It will operate primarily within urban areas, connecting to destinations in Palm Desert, Indio, and Palm Springs. Much of the route will follow a dry creek bed, and will, once constructed, serve a wide range of users, including hikers, bicyclists, equestrians, and neighborhood electric vehicles (NEVs).

See the project fact sheet on the following page for more information.



Informational flyer for CVLink







total length



in funding secured



permanent jobs created



vehicle miles saved



in economic benefits

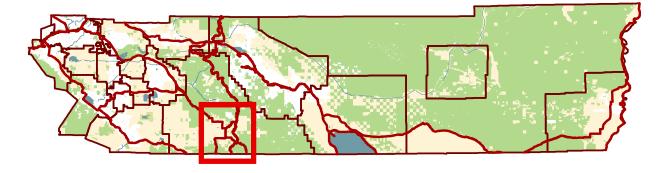
# promotes Active and Healthy Lifestyles • Stimulates Tourism • Creates a Safe Environment

CV Link is a transformative, multi-modal facility that creates a new spine for alternative transportation through the entire Coachella Valley. It will provide significant environmental, health, and economic benefits to generations of current and future residents and visitors.

The route largely follows the Whitewater River Channel. Future paths are planned to extend CV Link to Desert Hot Springs, the Salton Sea and other destinations throughout the desert. Ultimately spanning more than 50 miles across nine cities and three tribal governments, CV Link is the largest, most ambitious project of its kind in the region, the state and the nation.

CV Link will connect users to employment centers, shopping, schools, friends and recreational opportunities. Dual paths are planned to accommodate bicycles and low-speed electric vehicles, and pedestrians. Low-speed electric vehicles include golf carts and neighborhood electric vehicles (NEVs).

This alternative transportation corridor will enable healthier lifestyles, spur economic innovation, and make the Coachella Valley a more sustainable and appealing place to live, work and play. It will bring national recognition to the Coachella Valley as a leader in environmentally friendly transportation.



#### JUAN BAUTISTA DE ANZA HISTORICAL TRAIL

Length: 84.9 miles

Area Plans: REMAP, San Jacinto Valley, Reche Canyon/Badlands, Cities of Riverside and Norco, Jurupa, March, Mead Valley, Lake Mathews/Woodcrest

Jurisdictions: County, BLM

Destinations: Riverside, Perris, Moreno Valley, Jurupa Valley, Anza-Borrego State Desert Park

Nearby Significant Trails: Pacific Crest National Scenic Trail, Alessandro Trail, Lakeview/Nuevo Trails, Santa Ana River Trail

**Percent Existing:** 50%

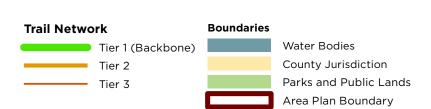
Management Status: Portions within Moreno Valley existing. Planned at a high level by NPS.

The Juan Bautista de Anza Historical Trail would run northwest from the southern border of the Riverside County along the western side of the San Bernardino National Forest, towards Jurupa Valley in the northwestern corner of the county.

At the southern county border, there are two routes labeled as the Juan Bautista de Anza Historical Trail. The western route would use Cooper Cienega Truck Road (dirt road) within BLM land. After descending the Iron Spring Mountain range, the route would run directly east, either on or parallel to Bailey Road. The eastern of the two would use Coyote Canyon Road and a series of minor trails through the canyons (Anza-Borrego State Desert Park land) to Borrego Springs. The trails connect to each other in the Cahuilla area. From there, the proposed trail is unbuilt, and follows roads (inset 1).

Juan Bautista de Anza Trail Inset 1

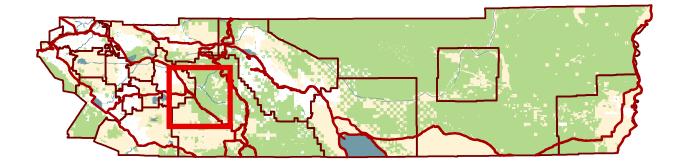




5.5

Miles

2.75



From Cahuilla, the trail would follow Bautista Road through a series of canyons. The trail could either use the dirt road, or a poorly-maintained canyon trail parallel to Bautista Road (inset 2). Along this segment, the trail would pass to the Alessandro Arroyo Trail. As the trail emerges from the canyons into Hemet, it would follow the Bautista Creek alignment. Bautista Creek is a paved culvert, without a proper trail, and is largely within County jurisdiction.

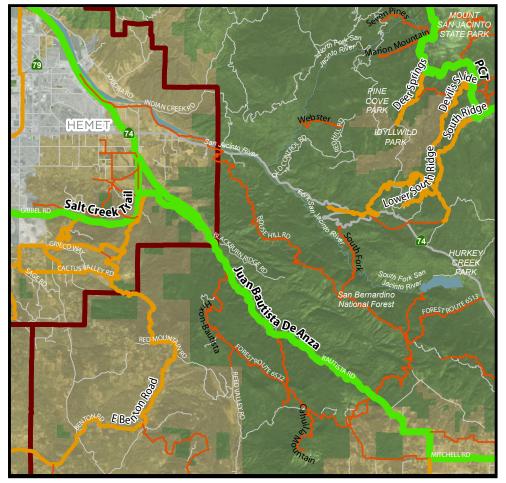
#### **Trail Network**

Tier 1 (Backbone)
Tier 2
Tier 3

#### **Boundaries**

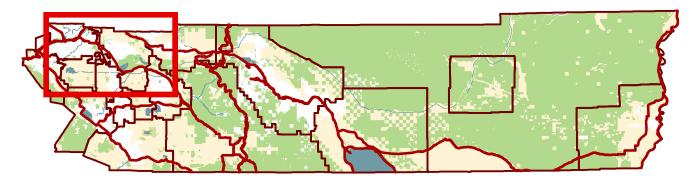
Water Bodies
County Jurisdiction
Parks and Public Lands
Area Plan Boundary







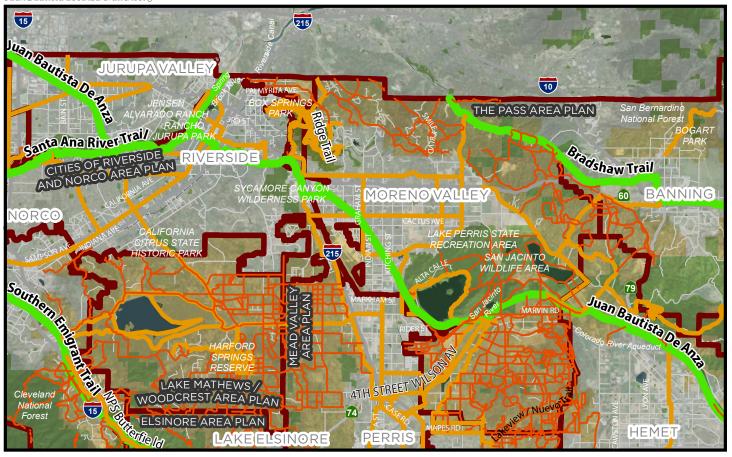
7.5 ⊐ Miles



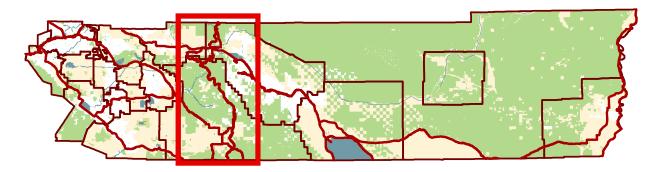
Northwest of Hemet, the de Anza trail would connect to the northern edges of the Lakeview/Nuevo trail network, and the southern edges of the trail network around Lake Perris (Upland Game Hunting Area) (inset 3). The trail would wraps tightly around the south shore of Lake Perris, and from there follow an aqueduct through Perris, Moreno Valley, and Riverside. The map alignment is an approximation of the aqueduct, and will

require further review to determine the precise alignment and to fill in gaps. Between Perris and Riverside, the trail would pass through the Sycamore Canyon Wilderness Park, which contains a small network of existing trails. The trail would use a portion of the Sana Ana River Trail within the city of Riverside before turning north into Jurupa Valley and following Van Buren Blvd to the county line.

Juan Bautista de Anza Trail Inset 3







# PACIFIC CREST NATIONAL SCENIC TRAIL (PCT)

Length: 82.2 miles within Riverside County
Area Plans: Western Coachella Valley, REMAP
Jurisdictions: Riverside County, BLM, City of
Palm Springs, National Forest, State Park
Destinations: San Bernardino National
Forest, Anza-Borrego Desert State Park,
Nearby Significant Trails: Juan Bautista
de Anza Historic Trail, Mission Creek
Trail, Little Morongo Canyon Trail,

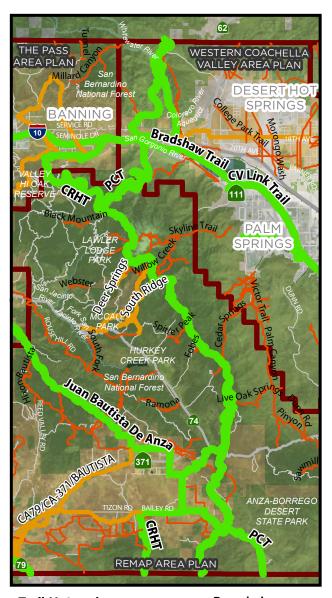
Percent Existing: 100%

Management Status: Maintained

California Riding and Hiking Trail

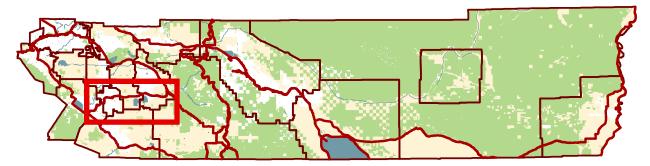
The PCT runs north/south near the center of Riverside County, primarily within the San Bernardino National Forest. It does not pass directly through populated areas. It runs parallel to much of the California Riding and Hiking Trail, and intersects the Juan Bautista de Anza Historical Trail and the Bradshaw Trail.

The PCT is maintained by the Pacific Crest Trails Association (PCTA), and does not currently require intervention by the County for maintenance or operations. However, the County should maintain contact with the PCTA as future trails are developed, in order to provide connectivity between new trails and the PCT.



# Trail Network Tier 1 (Backbone) Tier 2 County Jurisdiction Parks and Public Lands Area Plan Boundary





#### SALT CREEK TRAIL

Length: 37.8 miles

Area Plans: Elsinore, Sun City/Menifee Valley, Harvest Valley/Winchester, San Jacinto Valley Jurisdictions: Riverside County, Cities of Hemet, Lake Elsinore, and Menifee Destinations: Diamond Valley Lake, Menifee Lakes Country Club
Nearby Significant Trails:

Nearby Significant Trails: Percent Existing: 70%

**Management Status:** Planned (with unplanned gap closures). 16 miles undergoing design.

The Salt Creek Trail, when complete, will run east/west adjacent to the Domenigoni Parkway north of Diamond Valley Lake Reservoir. The trail will provide a connection between two backbone trails: Juan Bautista de Anza Historic Trail at the east, and Southern Emigrant Trail / Butterfield Overland Trail at the west.

While the alignment of the Salt Creek Trail has been fully planned (and will utilize an existing dirt road that runs along a dry creek bed), the route as planned does not connect with the two backbone

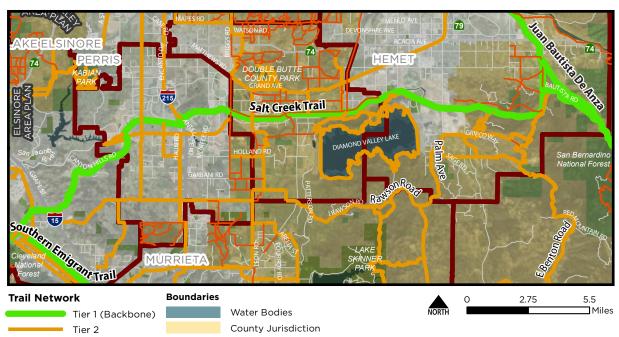
Tier 3

trails mentioned above. These gaps can be filled using other proposed and existing trails.

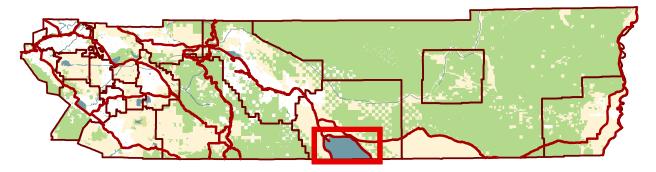
On the east end of Salt Creek, the gap can be partially filled with the proposed Fairview/Gibbel Class I Bike Path. This proposed path would be partially within county jurisdiction. While not within county jurisdiction, the proposed alignment would be on the Parkway. East of South State Street, it would utilize Gibbel Road through Avery Canyon, and then Avery Canyon Road (which dwindles to a dubiously-maintained trail). After that, the proposed trail would connect to a dirt road, which is possibly private, and head north to the de Anza Trail.

On the west end of Salt Creek, the planned trail has two alternate routes through the Menifee Country Club. West of the country club, there is potential for the trail to utilize a newly-built Class I bike path, then a Class II bike lane (Canyon Hills development), before connecting to a dirt road (Lost Road). Additional planning is needed to finalize the proposed routes.

The western half of the Salt Creek backbone would not be within county jurisdiction, passing through Menifee.



Parks and Public Lands Area Plan Boundary



#### **SALTON SEA TRAIL**

Length: 32.4 miles

Area Plans: Eastern Coachella Valley
Jurisdictions: Riverside County,
BLM, US Bureau of Reclamation
Destinations: Salton Sea,
Mecca, The Bradshaw
Nearby Significant Trails: N/A

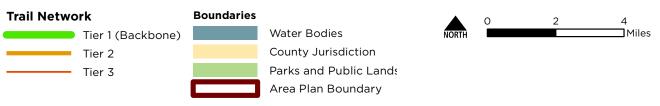
**Percent Existing: 0%** 

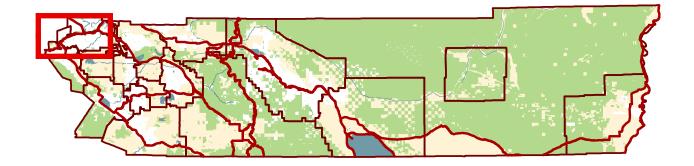
**Management Status:** No active management or detailed plans.

The Salton Sea Trail is a proposed trail that would run along the northern perimeter of the Salton Sea from the county boundary on the east side of the sea to that on the west. As such, it would connect to campgrounds and a number of small populated areas of North Shore and Oasis, and provide recreational access to the Salton Sea. The trail would extend north from the Salton Sea to intersect with the The Bradshaw and CV Link.

The land is a mix of federal and county holdings, and is generally flat and undeveloped.







#### SANTA ANA RIVER TRAIL

Length: 25.7 miles

Area Plans: Cities of Riverside and Norco, Jurupa, Eastvale, Temescal Canyon Jurisdictions: Riverside County, Cities of Norco, Riverside, Corona, and Jurupa Valley

Destinations: Riverside, Corona

Nearby Significant Trails: Southern Emigrant Trail, Juan Bautista de Anza Historic Trail

**Percent Existing: 57%** 

Tier 3

**Management Status**: Portions existing and operated by RCPOSD. Extensions to existing portions are planned.

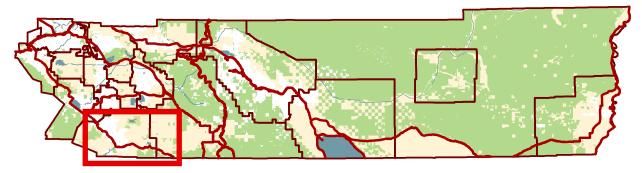
The Santa Ana River Trail is a partially-completed Class I Bike Path that runs adjacent to the Santa Ana River (on the south side). It extends beyond Riverside into Orange and San Bernardino Counties as well. The proposed trail will connect to two other proposed backbone trails: Southern Emigrant and de Anza. At present, 13 miles of the Santa Ana River Trail have been completed, with additional segments being constructed regularly. The trail will have parallel trails: a soft surface trail for equestrians and hikers, and a paved trail for pedestrians and bicyclists.

Segments of the unbuilt western portion of the planned route can use adjacent roadways until the river path is complete. When fully completed, the Santa Ana River Trail will be nearly 100 miles long, connecting from Huntington Beach to the San Bernardino Mountains.



Parks and Public Lands

Area Plan Boundary



## SOUTHERN EMIGRANT TRAIL / BUTTERFIELD OVERLAND TRAIL

Length: 66.8 miles

Area Plans: Elsinore, Temescal Canyon,

Southwest Area, REMAP

Jurisdictions: Riverside County, Cities of Corona,

Murrieta, Lake Elsinore, and Temecula

**Destinations:** Corona, Murrieta, Lake Elsinore, Temecula, Cleveland National Forest, Salt Creek Trail

**Nearby Significant Trails:** Temecula Wine Country, Santa Rosa Plateau Walking Trails, Santa Ana River Trail, Murrieta Creek Trail

Percent Existing: 0.5%

**Management Status:** Portions planned in detail by the National Parks Service (Butterfield and Murrieta Creek).

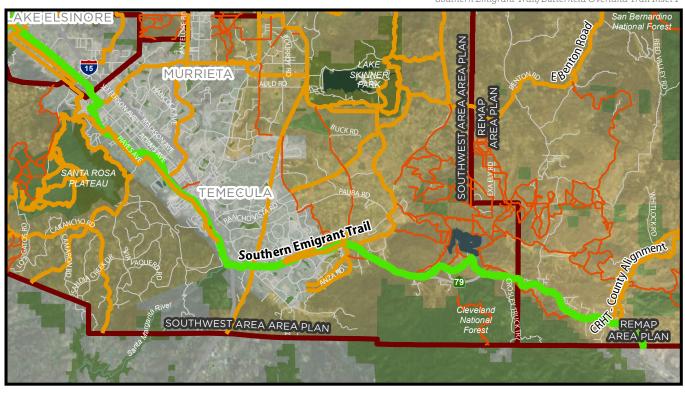
The Southern Emigrant Trail and Butterfield Overland Trail are historical corridors without existing current trails. Through Riverside County, both proposed trails generally follow the same alignment. The Butterfield Overland Trail recently underwent a thorough planning process (see Appendix E). The result is the most reasonable alignment for the planned trail. For most of the route, it is within populated areas, and largely follows existing roads. Through the city of Murrieta, a portion of this trail will be comprised of the Murrieta Creek Regional Trail. The southern end of the route is in county land, as is the area around Lake Elsinore.

Southern Emigrant Trail/Butterfield Overland Trail Inset 1

2.75

5.5

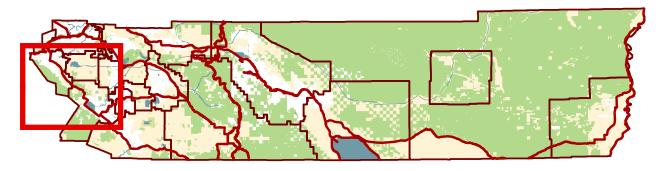
**☐**Miles



# Trail Network Tier 1 (Backbone) Tier 2 Tier 3

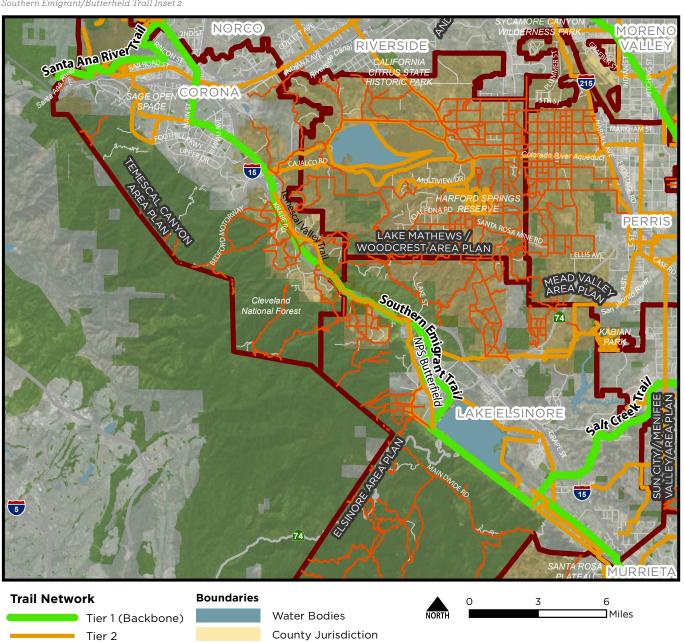


#### SOUTHERN EMIGRANT TRAIL / BUTTERFIELD OVERLAND TRAIL (CONT'D)



Southern Emigrant/Butterfield Trail Inset 2

Tier 3



Parks and Public Lands

Area Plan Boundary

### Backbone Trails Mapped by Area Plan Boundary

The current planning effort undertakes primarily a reductive process, refining previous trail planning efforts in the service of creating a regional trail network that can be prioritized and is feasible for implementation by the County. In order to preserve previous planning work while giving a path forward, trails have been classified into three tiers. These three tiers of trails are described below and presented by Area Plan in the following maps.

**Tier 1** trails form the backbone trail network, and represent the highest priority and greatest connectivity for the County. It incorporates historical alignments, regional trails with dedicated plans, those currently existing or under construction, and those with long-distance connectivity.

Additional criteria used to evaluate backbone trails include:

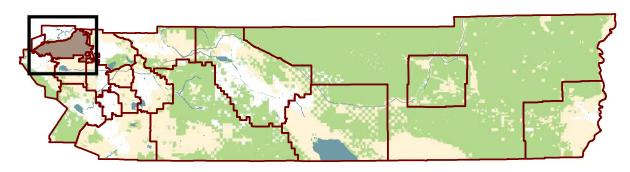
- · Population adjacency;
- · Connection to destinations;
- Connection to other jurisdictions;
- Available right-of-way;
- Land ownership;
- Ability of the trail to close gaps in the regional network.
- Historic/cultural significance

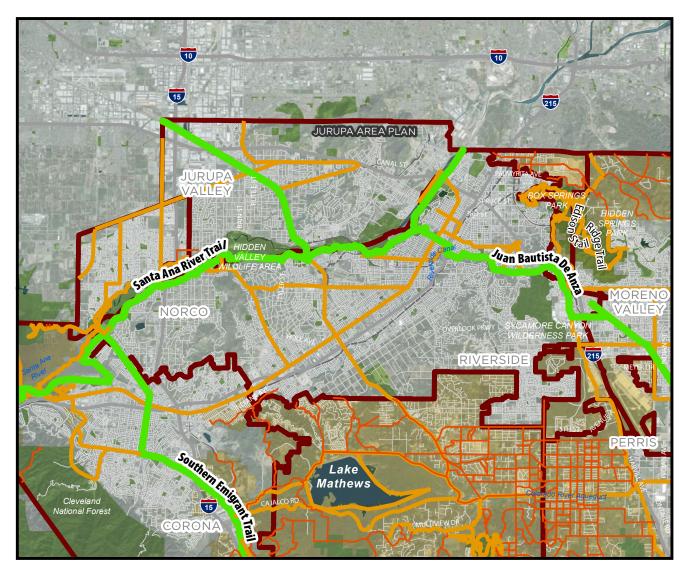
**Tier 2** trails are those which the County has previously identified as regional, but do not provide regional connectivity. Many of these trails are destinations unto themselves, but often form networks internal to parks, without providing external connectivity.

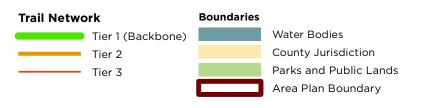
**Tier 3** trails are local and community trails, which generally either fall outside County jurisdiction, or are comprised of trail networks with only local connectivity. These trails are important as connections to local destinations, and often must be relied upon for connection between regional trails.



#### AREA PLAN: CITIES OF RIVERSIDE AND NORCO

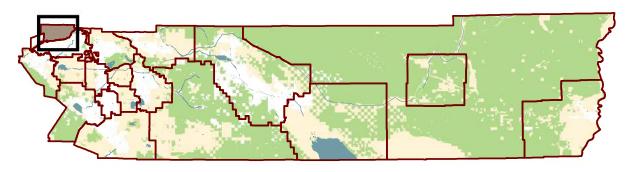




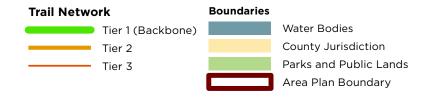




#### AREA PLAN: JURUPA

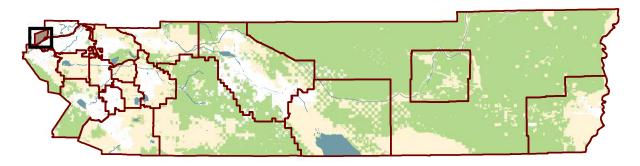


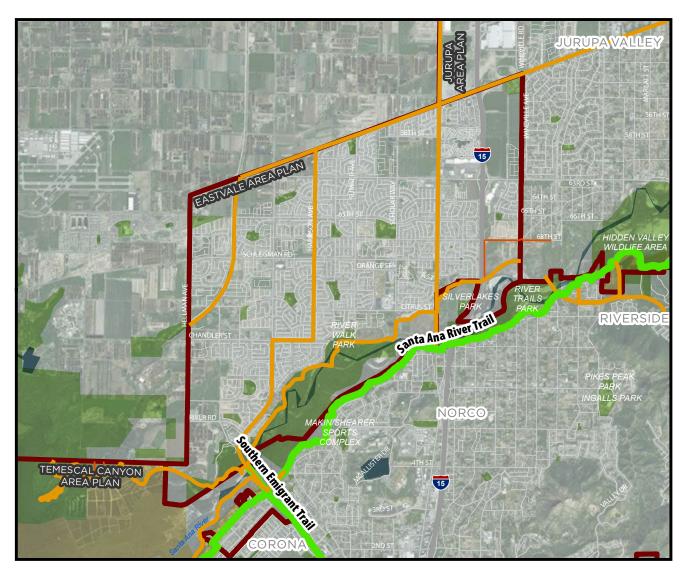




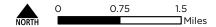


#### **AREA PLAN: EASTVALE**

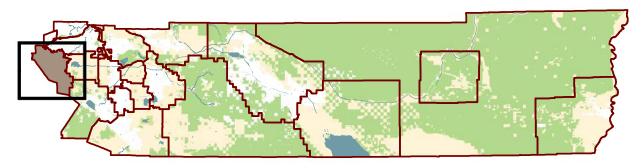


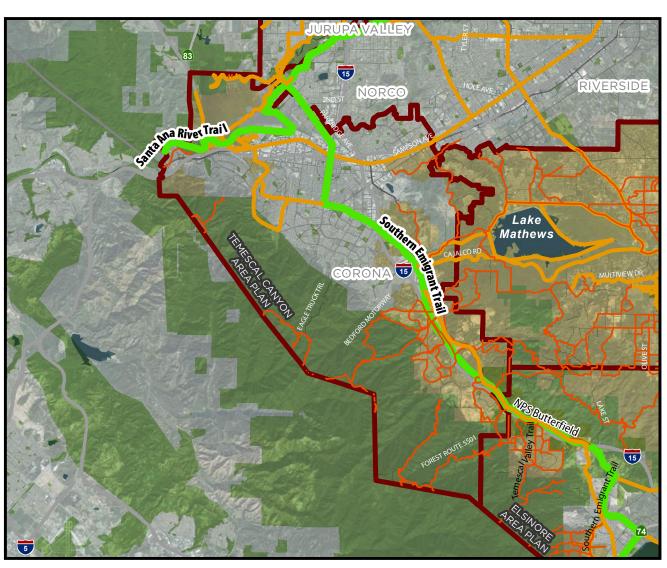


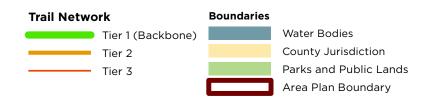




#### AREA PLAN: TEMESCAL CANYON

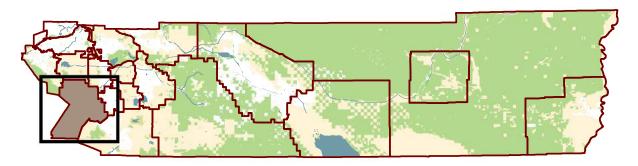


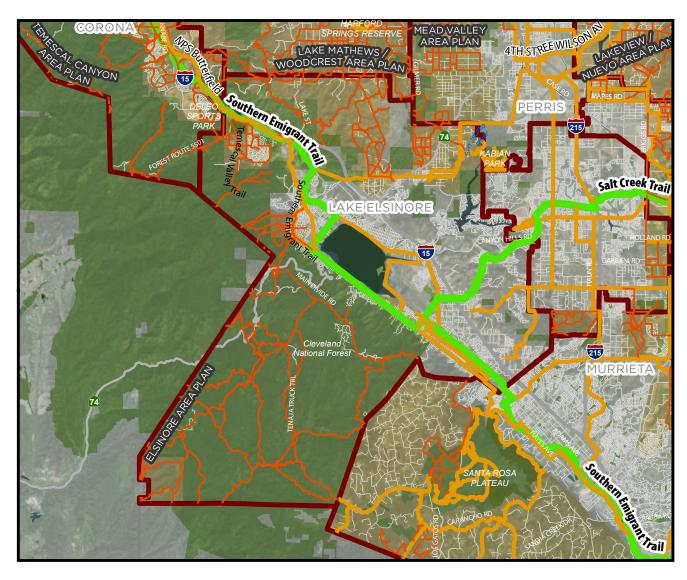






#### **AREA PLAN: ELSINORE**

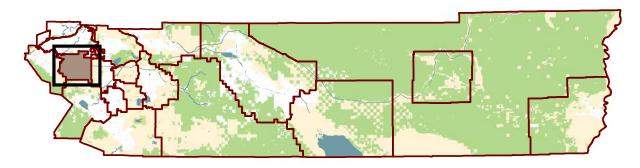


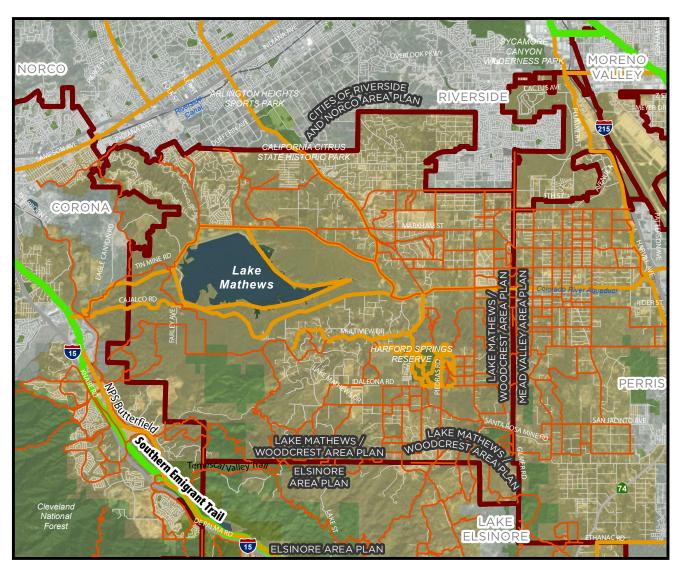






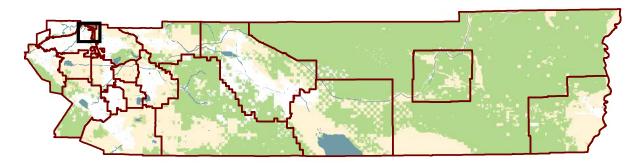
#### AREA PLAN: LAKE MATHEWS/WOODCREST

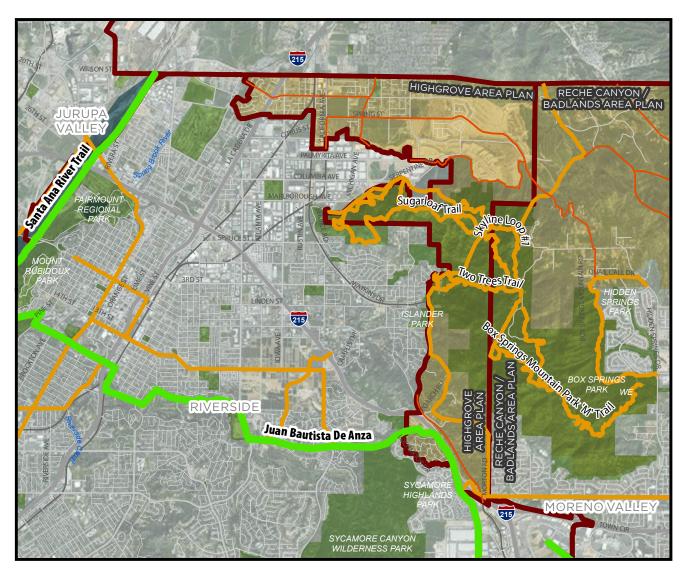


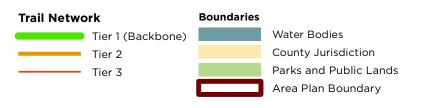


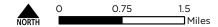


#### AREA PLAN: HIGHGROVE

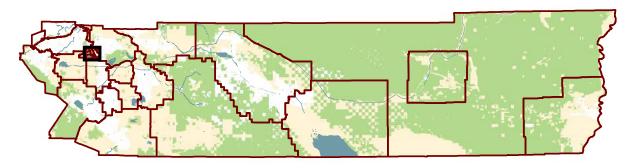


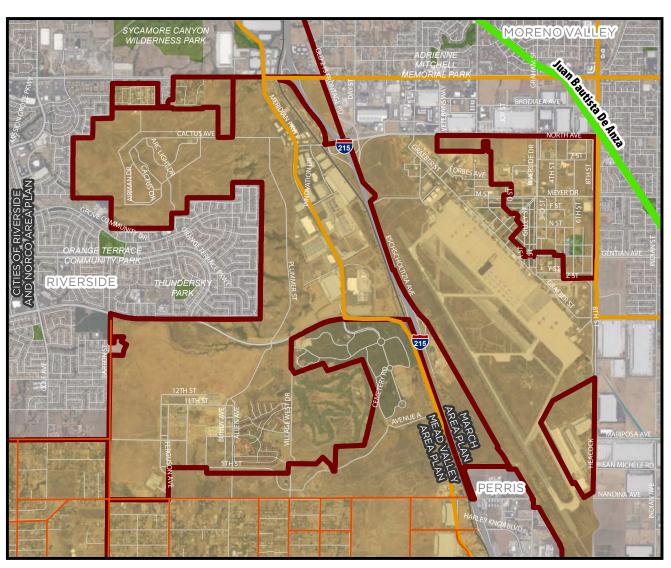


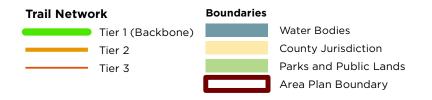


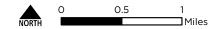


#### **AREA PLAN: MARCH**

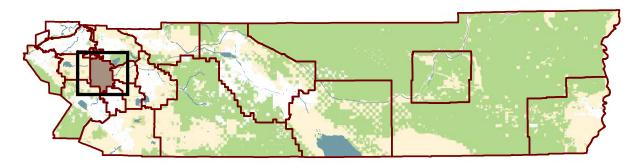


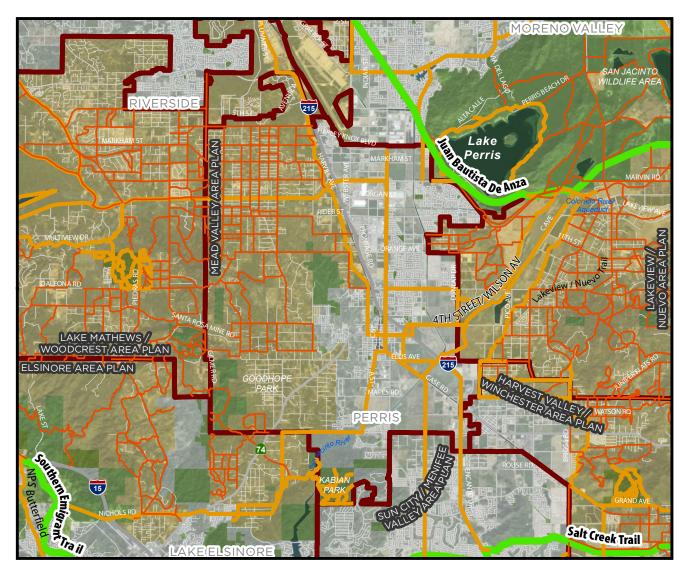


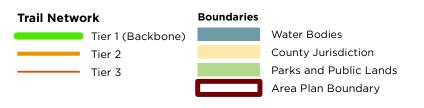




#### AREA PLAN: MEAD VALLEY

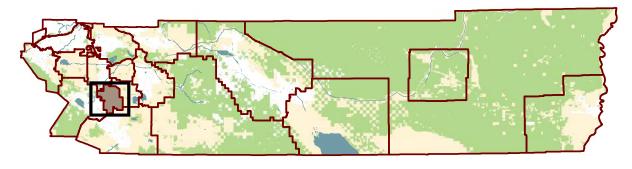


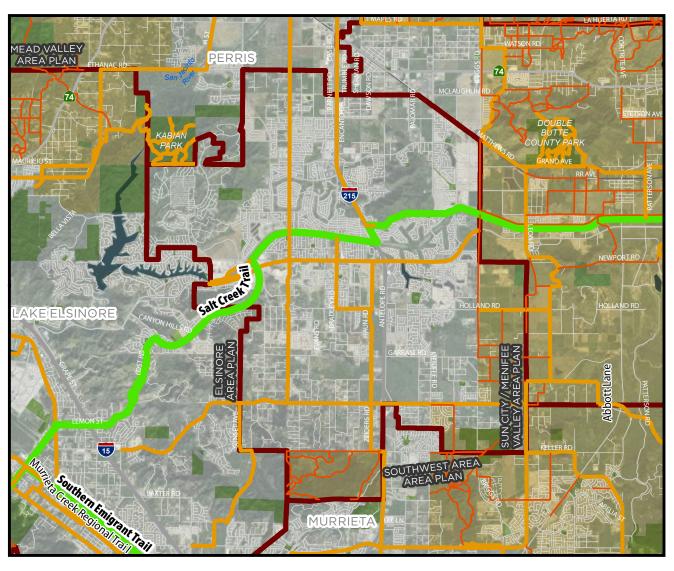


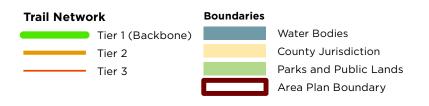




#### AREA PLAN: SUN CITY/MENIFEE

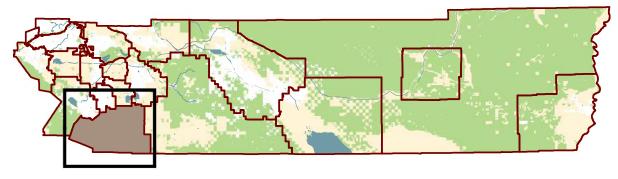


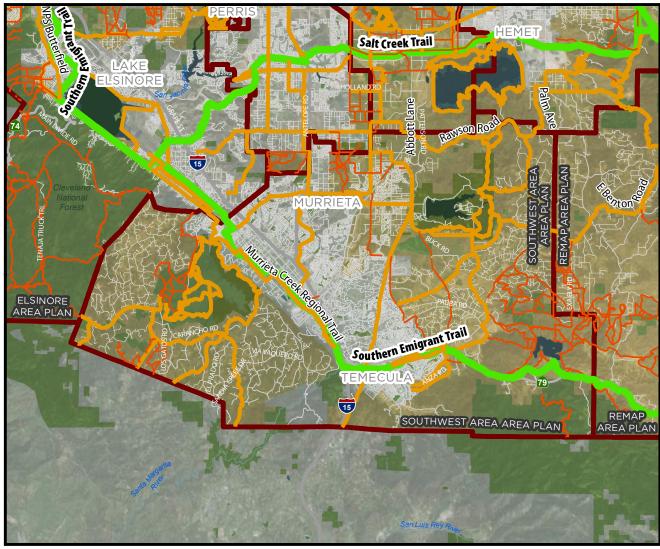


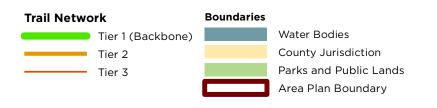




#### **AREA PLAN: SOUTHWEST**

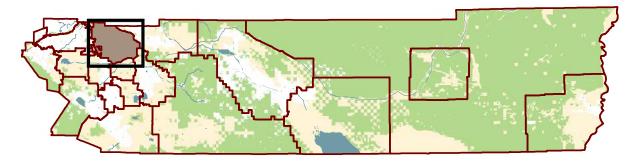


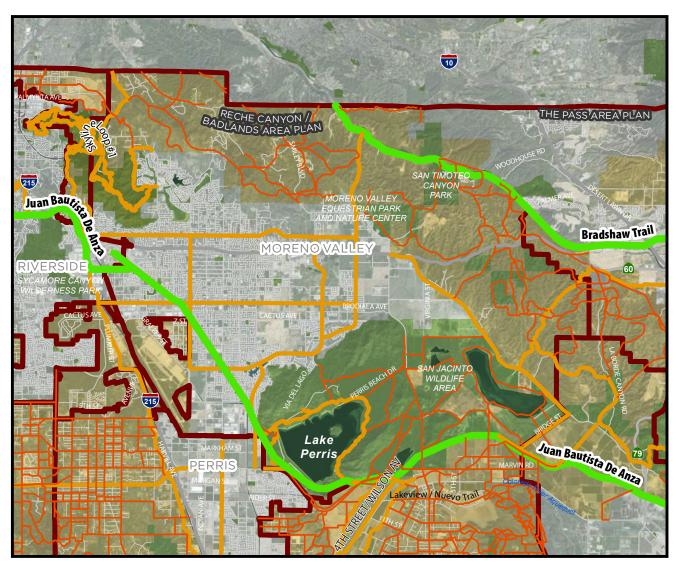


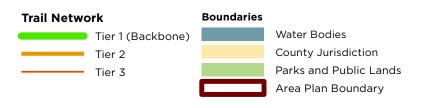




#### AREA PLAN: RECHE CANYON/BADLANDS

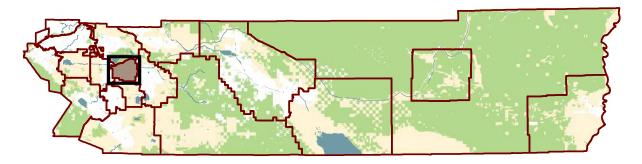


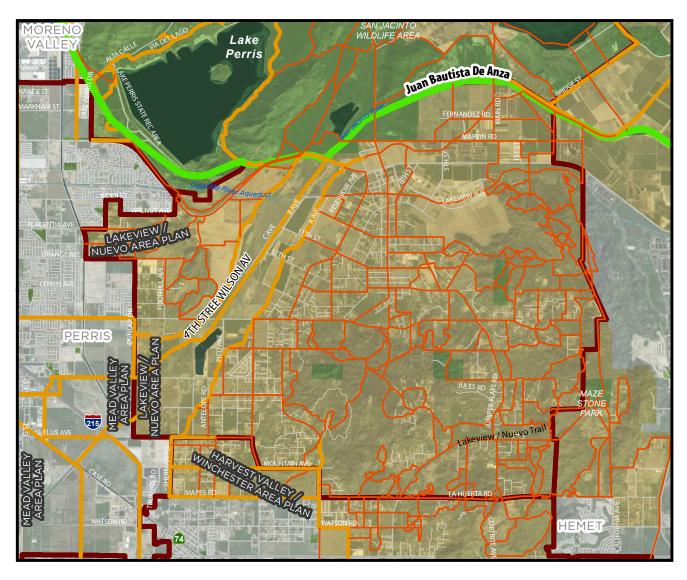






#### AREA PLAN: LAKE VIEW/NUEVO

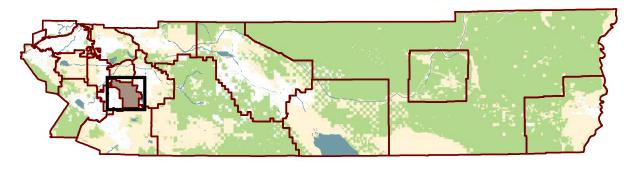


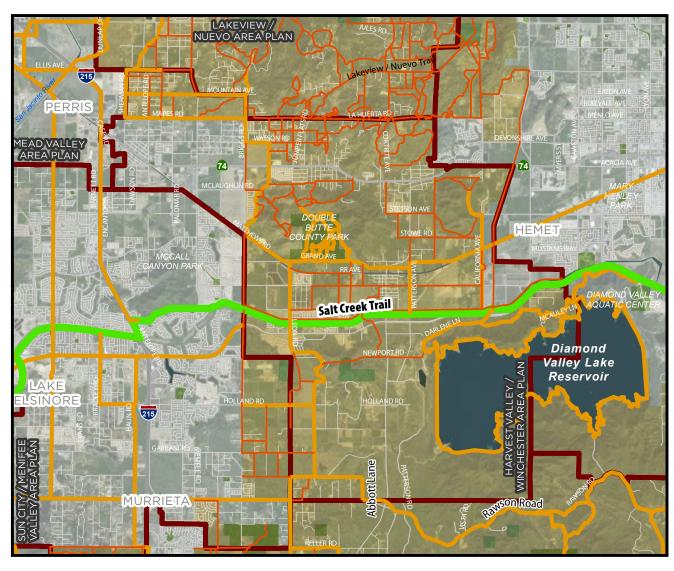


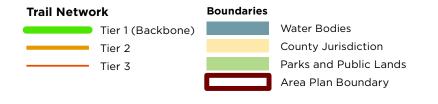




#### AREA PLAN: HARVEST VALLEY/WINCHESTER

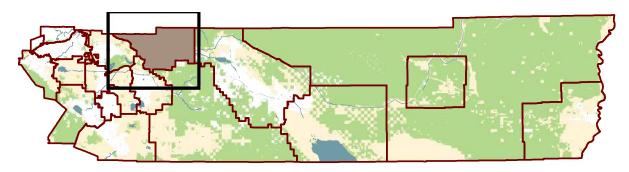


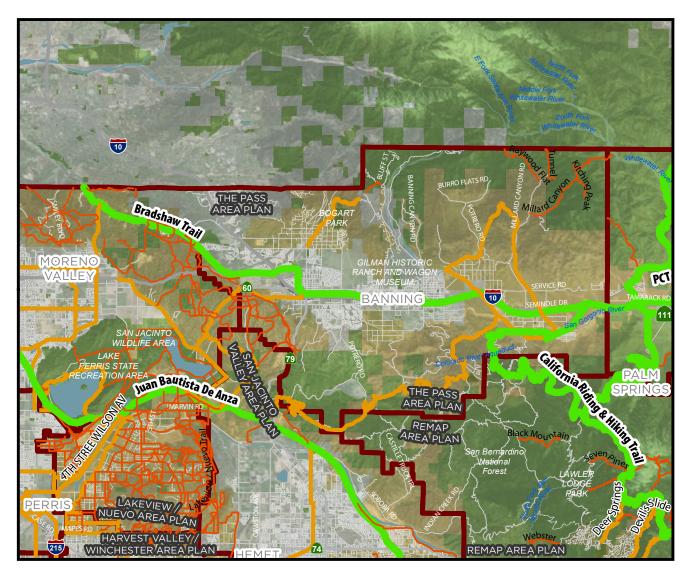


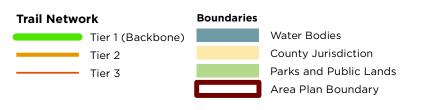




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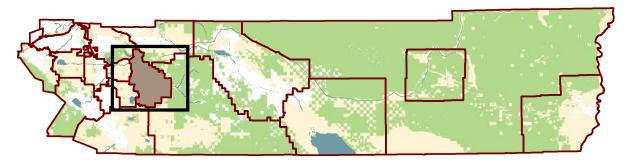


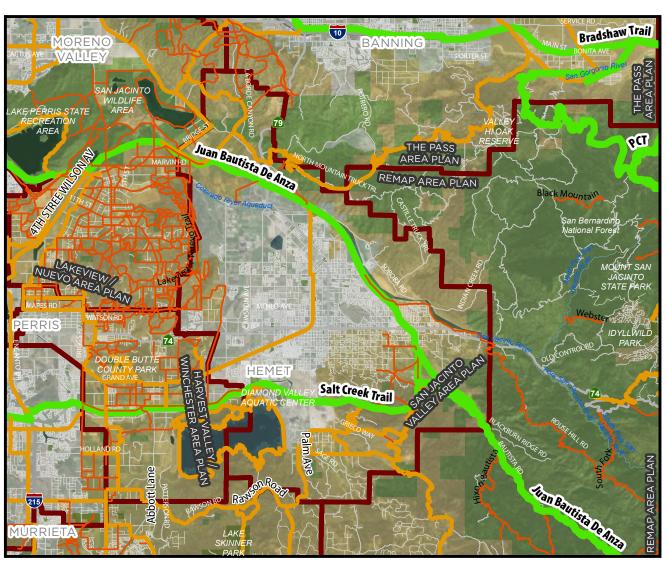


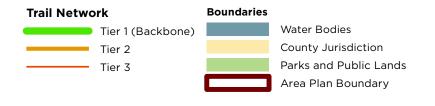




#### AREA PLAN: SAN JACINTO VALLEY

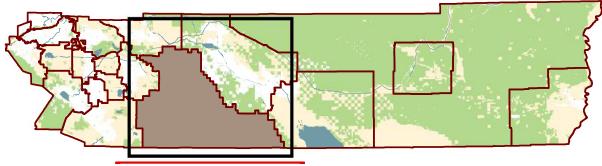


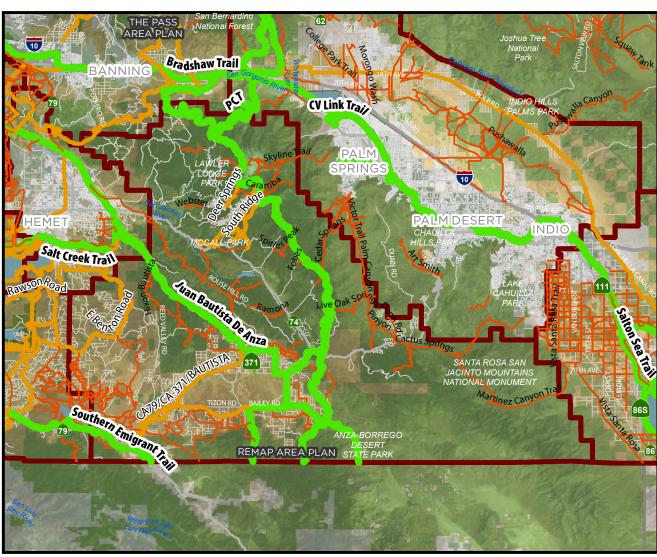


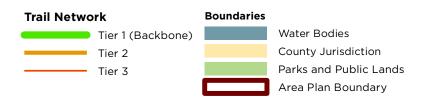




#### **AREA PLAN: REMAP**

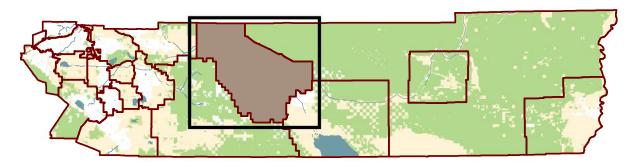


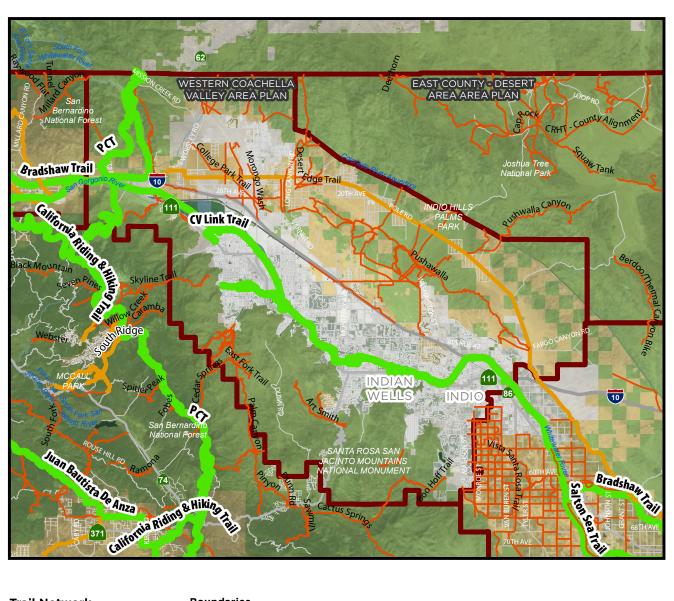


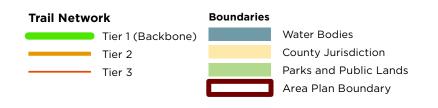




#### AREA PLAN: WESTERN COACHELLA VALLEY

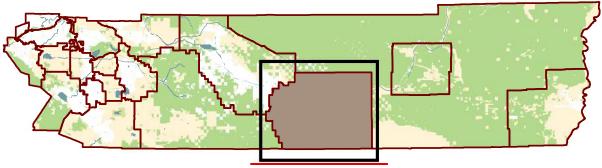




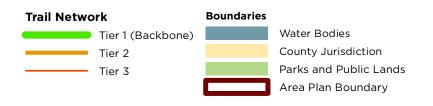




#### AREA PLAN: EASTERN COACHELLA VALLEY

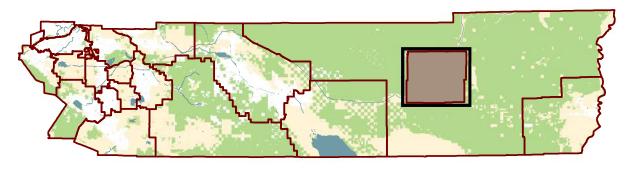




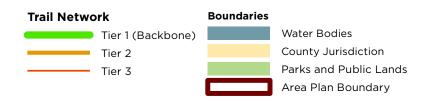


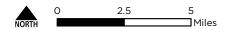


## **AREA PLAN: DESERT CENTER**

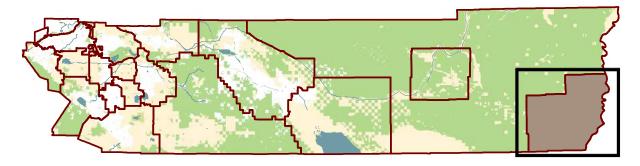


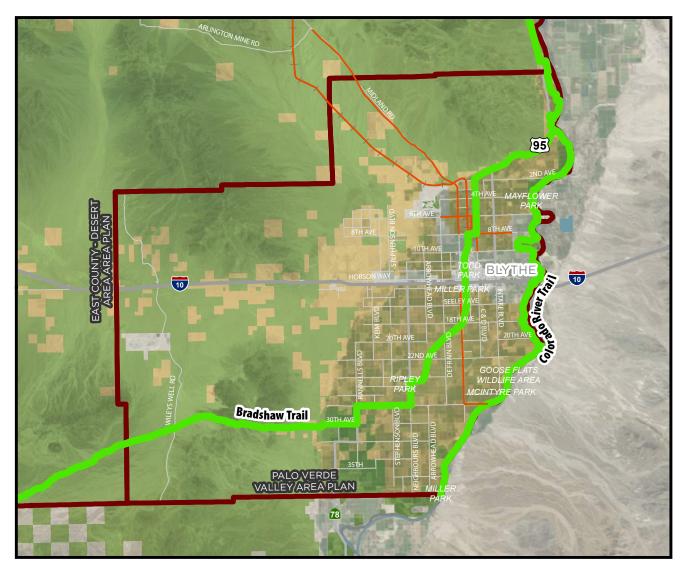


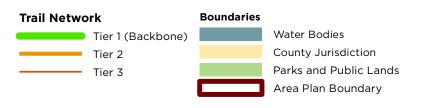




## AREA PLAN: PALO VERDE VALLEY

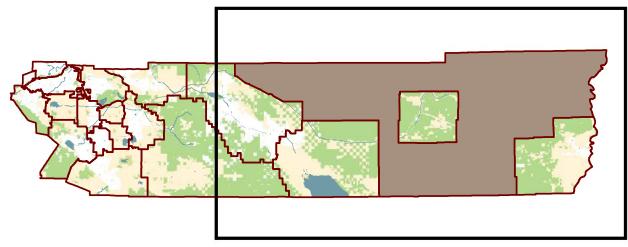




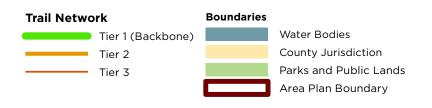




## AREA PLAN: EAST COUNTY/DESERT









## **Design Guidelines**

The following guidelines and cross sections are recommended as updates to the County's existing trail design standards. These sections cover a variety of available easement widths and are intended to serve as the standards upon which the backbone trail network is built. These guidelines will serve as standards for all backbone trails within the County's jurisdiction and are not all-inclusive for every trail-type within the county. Trails which are not backbone trails will continue to be guided by the General Plan when in the County's jurisdiction, or otherwise by the guidelines of the local jurisdiction. The County recommends backbone trails in local jurisdictions adhere to these guidelines but cannot require them to do so. When ROW is too narrow to meet these guidelines, the default option is to use a natural trail. Where trails enter MSHCP areas, trail design is to follow the guidelines developed by MSHCP.

Wherever a backbone trail crosses the county border, compatibility between the County and other jurisdiction's trail design must be evaluated. If the other trail is currently existing, the County should blend from the backbone section into the standard to which the other trail was built. Where possible, the County should recommend the abutting trail is upgraded to match the backbone standard. When meeting another jurisdiction without an existing trail, the County should confer with that jurisdiction on the applicable design standards and encourage the jurisdiction to acquire adequate easements and funding to construct a trail which meets the backbone standards.

## TRAIL FACILITIES

## Type 1: Class I Bikeway & Side Trail

This facility provides two parallel trails. The Class I bikeway provides bi-directional, off-street bicycle use. It may also be used by electric bikes, rollerbladers, skateboarders, and other modes that require a paved surface. The side trail provides unmarked bi-directional space for pedestrians, wheelchair users, equestrians, and other non-motorized users that may not require a paved trail.

Off-street parallel facilities for bikes and pedestrians provide a high-quality off-street experience for both transportation and recreation, accommodating multiple modes, abilities, and skill levels. A separated bikeway it minimizes potential conflicts between bicyclists and pedestrians / equestrians.

The parallel trails move in tandem and include the following features:

- Frequent access points from the local road network.
- Directional signs to direct users to and from the path.
- User signs to clarify the appropriate modes for each path.
- A limited number of at-grade crossings with streets or driveways.

- Amenity areas located adjacent to the side trail
- Planting or stormwater buffers between the trails

## Type 2: Shared-Use Path

A shared use path allows for bi-directional, off-street bicycle use and may also be used by pedestrians, skaters, wheelchair users, and other non-motorized users The shared-use path is less desirable than a Class I bikeway & side trail, but may be appropriate where demand is low or easement is limited. Shared use paths provide a safe off-street facility for recreation and users of all skill levels preferring separation from traffic.

These facilities are frequently found in parks, along rivers, beaches, and in greenbelts or utility corridors where there are few conflicts with motorized vehicles. Path facilities may also include amenities such as lighting, signage, and fencing (where appropriate). Key features of shared use paths include:

- Frequent access points from the local road network.
- Directional signs to direct users to and from the path.
- A limited number of at-grade crossings with streets or driveways.

## Guidance

## Width

Shared-use path / Class I bikeway

- 8 feet is the minimum allowed for a two-way shared use path and is only recommended for low traffic situations.
- 10 feet is recommended in most situations.
- 12 feet is recommended for heavy use situations with high concentrations of users.

#### Side Path

- 4 feet is the minimum allowed for a side path and is only recommended in situations with low traffic and only pedestrian use.
- 10 feet is recommended in most situations and will be adequate for moderate to heavy use. It is wide enough to accommodate equestrian use as well.

## **Lateral Clearance**

 A 2 foot or greater shoulder on both sides of all paths should be provided. An additional two foot of lateral clearance to the edge of any vertical object and 5 foot shoulder are recommended by the MUTCD for the installation of signage or other furnishings.

## **Overhead Clearance**

 Clearance to overhead obstructions should be 10 feet minimum for non-equestrian trails and 12 feet minimum for equestrian trails

## **Striping**

- When striping is required, use a 4-inch dashed yellow centerline stripe with 4-inch solid white edge lines.
- Solid centerlines can be provided on tight or blind corners, and on the approaches to roadway crossings, curb cuts, and ramps

## **Materials and Maintenance**

Shared-use path / Class I bikeway

 Asphalt is the most common surface for bicycle paths. The use of concrete for paths has proven to be more durable over the long term. Saw cut rather than troweled joints improve the user experience.

#### Side Path

 Compacted native soil or decomposed granite are both low-impact materials suitable for most non-bicycle trails.
 Decomposed granite is the preferred surface for trails with high activity and equestrian activity.

## **Amenity Areas**

 Where easement width allows, amenity areas may include seating, picnic tables, water fountains, interpretive signage, shade structures, and bike racks and repair stations

## Separations

- Fencing should be used between the paved and unpaved portions of a trail wherever the unpaved portion of trail falls below 10' or where the trail is adjacent to a roadway.
- Vinyl rail or split rail lodgepole fencing should be used where needed, and as fitting the context. Vinyl rail tends to be better suited to developed areas, while lodgepole is more suitable for remote and natural areas.

#### Discussion

 Terminate the path where it is easily accessible to and from the street system, preferably at a controlled intersection or at the beginning of a dead-end street.

Facility		Easement	Path Width			Path Materials
		Min	Min	Typical	High-use	
Class I Bikeway &	Bikeway	20'	8'	10'	12'	Asphalt / concrete
Side Trail	Side Trail	20	4'	10'		Compacted native soil / decomposed granite
Shared Use Path		12'	8'	10'	12'	Asphalt / concrete



Typical Section: Class I Bikeway w/ Adjacent Side Trail

Minimum Easement: 28'

**Bikeway Surface:** Asphalt Concrete or

Portland Cement/ Aggregate Mixture

Bikeway Width: 10'

**Bikeway Shoulders:** 2' Min

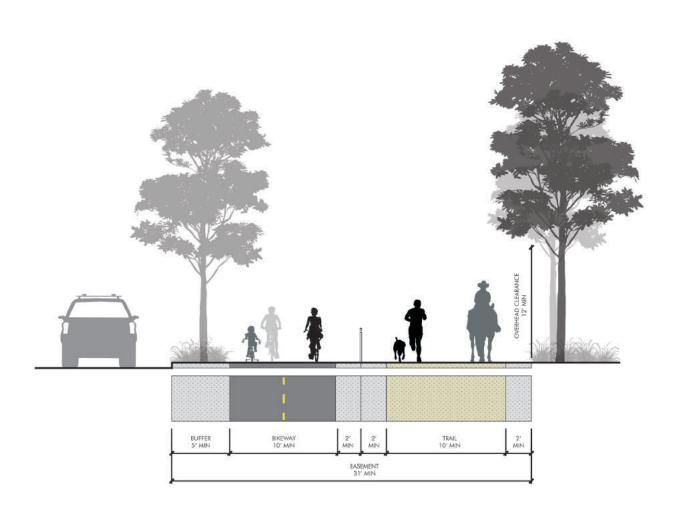
 $\textbf{Bikeway/Trail Separation:} \ \ \, \textbf{4' Min, Unpaved}$ 

**Trail Surface:** Compacted native

soil or decomposed

granite

Trail Width: 10'



Typical Section: Class I Bikeway w/ Adjacent Side Trail, Roadway Adjacent

Minimum Easement: 31'

**Bikeway Surface**: Asphalt Concrete or

Portland Cement/ Aggregate Mixture

Bikeway Width: 10'

**Bikeway/Road Separation**: 5' Min

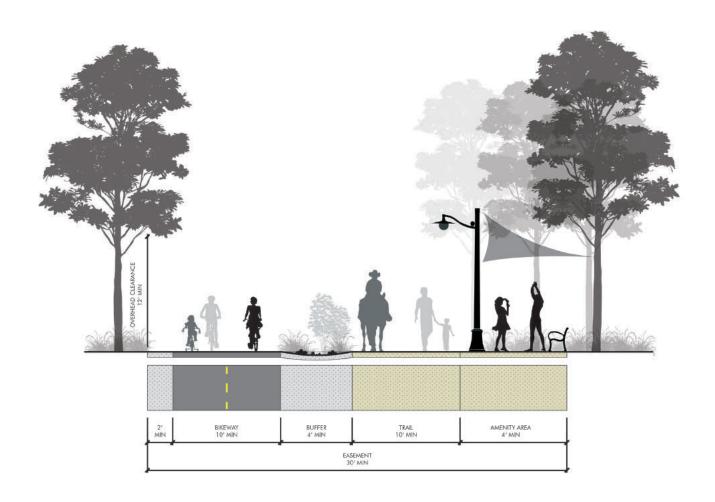
**Bikeway/Trail Separation**: 4' Min, Unpaved **Trail Surface**: Compacted native

soil or decomposed

granite

Trail Width: 10'

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Section: Class I Bikeway w/ Buffered Side Trail, Wide Easement

Minimum Easement: 30'

Asphalt Concrete or Bikeway Surface:

Portland Cement/ Aggregate Mixture

10' Bikeway Width:

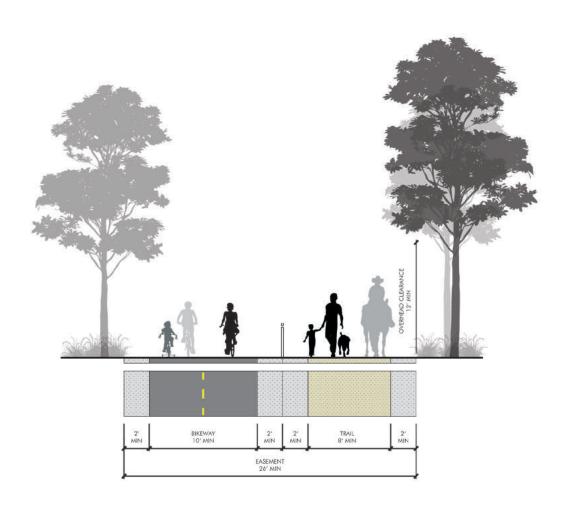
Bikeway/Trail Separation: 4' Min, Unpaved

Trail Surface: Compacted native

soil or decomposed

granite

Trail Width: 10' Amenity Area: 4' Min



Typical Section: Class I Bikeway w/ Side Trail and Fence

Minimum Easement: 26'

**Bikeway Surface**: Asphalt Concrete or

Portland Cement/ Aggregate Mixture

Bikeway Width: 10'

**Bikeway/Trail Separation**: 2' Minimum with

split rail fence

Trail Surface: Compacted native

soil or decomposed

granite

Trail Width: 10'



Typical Section: Class I Bikeway w/ Side Trail and Fence, Constrained

Minimum Easement: 20'

Bikeway Surface: Asphalt Concrete or

Portland Cement/ Aggregate Mixture

Bikeway Width:

Bikeway/Trail Separation: 4' Min, with split

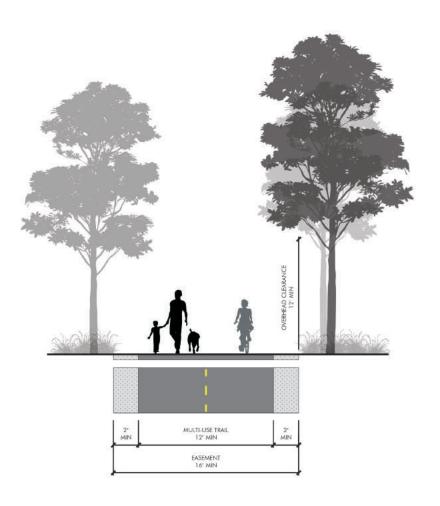
rail fence

Trail Surface: Compacted native

soil or decomposed

granite

Trail Width: 4' Min



Typical Section: Shared-Use Path, Constrained

Minimum Easement: 14'

**Bikeway Surface**: Asphalt Concrete or

Portland Cement/ Aggregate Mixture

Bikeway Width: 10'

Bikeway Shoulders: 2' Minimum

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## INTERSECTIONS AND CROSSINGS

At-grade roadway crossings can create potential conflicts between trail users and motorists. However, well-designed crossings can mitigate many operational issues and provide a higher degree of safety and comfort. In most cases, at-grade trail crossings can be properly designed to provide a reasonable degree of safety and can meet existing traffic and safety standards. Typically, trail facilities for bicyclists require additional considerations due to the higher travel speed of bicyclists versus other trail users.

Special consideration must be given when delineating at-grade trail crossings. The sign types, pavement markings, and treatments will vary based on the roadway type. Proper signage and pavement markings alerting trail users of at-grade crossings must also be utilized.

#### At grade crossings:

- Type 1: Marked/Unsignalized Unprotected crossings include trail crossings of residential, collector, and sometimes major arterial streets or railroad tracks.
- Type 1+: Marked/Enhanced Flashing beacons and other treatments can provide additional visibility at unsignalized crossings.
- Type 2: Direct Users to Existing Intersection - Trails that emerge near existing intersections may be routed through those intersections, provided that the crossing provides sufficient protection for nonmotorized users.
- Type 3: Signalized/Controlled Trail crossings that require signals or other control measures due to traffic volumes and speeds.

## **Grade-separated crossings:**

Bridges or under-crossings provide the maximum level of safety but also generally are the most expensive and have right-ofway, maintenance, ADA accessibility, and other public safety considerations.

#### Discussion

While at-grade crossings create a potentially high level of conflict between path users and motorists, well designed crossings have not historically posed a safety problem for path users. This is evidenced by the thousands of successful paths around the United States with at-grade crossings.

Evaluation of path crossings involves analysis of vehicular and anticipated path user traffic patterns, including:

- Vehicle speeds.
- Street width.
- Sight distance.
- Traffic volumes (average daily traffic and peak hour traffic).
- Path user profile (age distribution, destinations served).

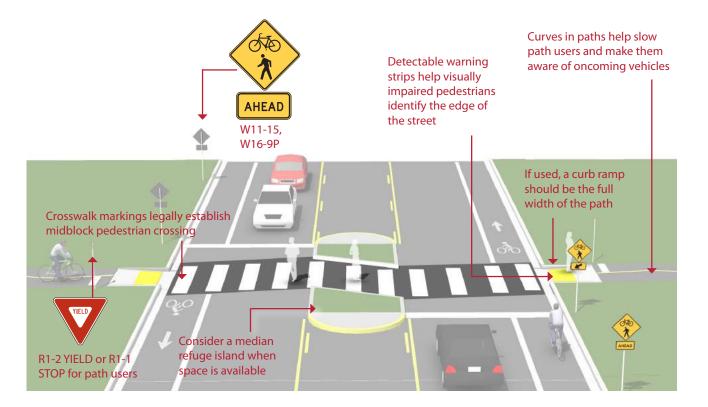
Crossing features for all roadways include warning signs both for vehicles and path users.

Consideration must be given for adequate warning distance based on vehicle speeds and line of sight. Catching the attention of motorists may require additional alerting devices such as a flashing light, roadway striping or changes in pavement texture. Signing for path users may include a "STOP" or "YIELD" sign and pavement markings, Care must be taken not to place too many signs at crossings lest they begin to lose their visual impact.

A number of striping patterns have emerged over the years to delineate path crossings. A median stripe on the path approach will help to organize and warn path users.

Crosswalk striping is typically a matter of local and State guidelines, and may be accompanied by pavement treatments to help warn and slow motorists.

Additional Reference: Highway Administration (FHWA) Report, "Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations."



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## Wayfinding

Comprehensive and innovative map, marking, and signing systems (collectively "wayfinding") helps to make trail networks more accessible and desirable. An overarching signage and directional system for the Riverside County trails system will inform and educate users to help them find their way to, from, and along trails. A good wayfinding plan requires an accurate understanding of the regional trail system: its routes, trail types, jurisdictions, destinations, origins, users, and the needs and abilities of those who maintain, manage, and provide emergency services for the trail.

The benefits of a county-wide wayfinding system include:

- Improved awareness of the trail networks
- Enhanced legibility for the public to find and follow the trail
- A greater sense of security and comfort
- Increased numbers of bicycle and walking trips for transportation and recreation
- Better agency and inter-agency planning, coordination and management

## An Inter-jurisdictional Approach

The wayfinding system for Riverside County does not replace or superseded local or regional trail wayfinding systems. Instead, it is generic enough to serve as an overarching framework that can be adopted by local municipalities. The design of the signage is intended to provide space for both county-wide and local branding.



In this Section:

- **Principles**: overarching fundamentals to a strong wayfinding network
- Existing Plans & Signage: an inventory of existing wayfinding signage within Riverside County
- Precedents: a review of California systems to provide guidance
- Elements: type of signs that comprise the wayfinding network
- Design: mock-ups and discussion of graphic design elements for signage

## **PRINCIPLES**



1: COHESION. Though county-wide trails pass through numerous jurisdictions, the user experience needs to feel continuous and cohesive. The county wayfinding system should be reliable and predictable with a standardized format that transcends municipal boundaries. The signage and approach should be adaptable enough to integrate the many local and regional trail systems that already exist. It should serve as a guide for all local municipalities to follow or as a template to adopt.



2: CONNECT PLACES. The fundamental function of the wayfinding system is to connect people to routes and destinations. Without the use of the Internet, visitors and locals should be able to navigate to major regions, cities, trails, destinations, businesses, and neighborhoods, along the trails. The wayfinding needs to properly communicate current locations, entry into new areas, distances, directions, amenities, and historical/cultural information (where appropriate). Effective wayfinding has the added ability to improve local economic well-being by increasing visitor traffic to key business areas.



3: IDENTITY. By being a reflection of local community values, wayfinding elements can cultivate a sense of pride in one's community resulting in a deeper connection to place. A strong wayfinding identity makes the trail system more recognizable and memorable to locals and visitors alike. The wayfinding system should include custom designs and graphics that celebrate and differentiate the Riverside County trails system.



4: BE PREDICTABLE. When information is predictable, it can be quickly understood. Predictability should relate to all aspects of wayfinding information, from the placement of a sign, to the design and its contents. This allows users to quickly understand new situations. Once users trust that they will encounter consistent and predictable information, their level of comfort is raised. This helps promote an arrival and navigational experience that is welcoming and low-stress.



5: KEEP IT SIMPLE. Information should be presented in a clear and logical form. Wayfinding signage should be both universal and usable for the widest possible demographic. The use of branded trails or color coded districts and destination specific symbology is encouraged. Too much information can become challenging to interpret and can unnecessarily complicate a journey. The longer it takes a user to interpret the information presented, the less likely it is that they will use or rely on the system in the future. Wayfinding in Municipal Plans

# EXISTING WAYFINDING ANALYSIS

A county-wide wayfinding plan does not supersede or replace local jurisdictional wayfinding plans. It serves to complement, integrate, or (when no wayfinding plan is provided) provide local guidance.

A survey of general, transportation, parks, and trails plans in Riverside County illuminates a minimal consensus and a general lack of guidance when it comes to wayfinding. Aside from select larger cities (such as Riverside and Perris), most municipalities do not provide any specifics. Those that do focus on internal trails and do not provide guidance for interjurisdictional wayfinding. They also tend not to stray too far from MUTCD standards, though some provide a bit of local flair.

The following municipal / regional trail plans contain brief sections on wayfinding:

- Box Springs Mountain Reserve
   Comprehensive Trails Master Plan (2015)
- Coachella Valley Association of Governments Non-Motorized Transportation Plan (2010)
- Pacific Crest National Scenic Trail Comprehensive Plan (1981)
- Santa Ana River Parkway Minimum Sign Guidelines (2011)
- City of Calimesa Multi Use Trail Manual (2006)
- City of Moreno Valley Bicycle Master Plan (2014)
- City of Perris Trail Master Plan (2013)
- City of Riverside Bicycle Master Plan (2013)

The county plans identify the need for cohesive trail signage and wayfinding, but lack concrete details. The most comprehensive regional wayfinding plan within the County is for the Santa Ana Trail, which provides a basic strategy, types of signs, and some design / graphics.





Some jurisdictions incorporate extensive local "branding" in their signage design. Shown: wayfinding concepts for City of Perris

## PRECEDENT ANALYSIS

## **Ventura County Regional Bikeway Wayfinding**

Similar to Riverside County, Ventura County trails cross a variety of jurisdictional boundaries. In order to maintain a consistent wayfinding language, the plan proposes that each sign feature a bike symbol with the County name. On top of each sign, "supplemental plagues" with names and logos of specific routes may be added to add clarity. Though predominantly for on-road use, the plan proposes types of signs: decision (destination) signs, confirmation signs, and turn signs. Each sign is a slightly modified MUTCD standard.

## **Best Practices:**

- Based upon MUTCD standards with the addition of the County logo
- A hierarchal system with three types of signs: decision, confirmation and turn signs
- Supplemental plaques allow each sign to have local identifiers as well

## San Diego Regional Bike Network Wayfinding

The San Diego Regional Bike Network Wayfinding system covers all on-street bikeways and four major regional trails i. It uses a heavily modified MUTCD standard, with a custom purple color, fonts, and iconography specific to San Diego County. All signs feature a central circular graphic. General bikeway signs feature a SANDAG "Go by Bike" emblem while specific trails have their own circular icon and label. All icons share a color scheme and graphic style.

#### **Best Practices:**

- Use of color scheme (only five) that is both simple and recognizable
- Strong identity through playful and engaging icons and graphics
- Simple sign layout that allows for specific trail designation within a family of signs



The Ventura County Regional Bikeway  $signage\ is\ simple\ and\ affordable, but\ still$ provides inter-jurisdictional customization



The San Diego County bike wayfinding system has a simple but unique color scheme and unique graphics logos

## Razorback Greenway, Arkansas Wayfinding

The Razorback Greenway sign family creates a custom and cohesive identity for a 32-mile trail system. The colors, fonts, symbology, and design of each sign improve navigation, encourage use, and enhance identity for the trail. Sign types include regulatory information, regional and cultural details, identification markers, walk and bike timing, and geographical references. The large sign family is adaptable and suitable to a wide range of unique trail conditions in order to provide access and comfort to the diversity of people who use the trail system.

## **Best Practices:**

- Hierarchical system with eight types of signs: trailhead identification, mile marker, maps, destination, interpretive, kiosk, and community guide signs
- Strong identity through region-specific colors and branding

## Santa Barbara County Bicycle Sign System

The Regional Bikeway Signage Program for Southern Santa Barbara County was created in 1996. Two yeas later, 500 bicycle wayfinding signs were installed. The sign system functions by guiding bicyclists along named primary routes and supplemental north/south connectors. The custom sign shape is successfully branded with a simple logo of a bike rider centered in a yellow sun. Supplemental directional signs provide arrows and mileage to local destinations.

#### **Best Practices:**

- Custom shape
- Simple design with identifiable branding and graphics
- Decision and distance information is combined, reducing the number of signage types needed

The blue color, simple graphics, and unique form of the Razorback Greenway mile markers dot the 32 mile trail system



## WAYFINDING ELEMENTS

## **Gateway/Monument Sign**

Gateway signs serve as trail landmarks, placed at with major trail access points. They enhance the visibility of the trail network for both current and prospective users. The trail name is the focus of the sign content and is supported with local destinations that can be reached along that particular trail.

## **Trailhead Kiosk**

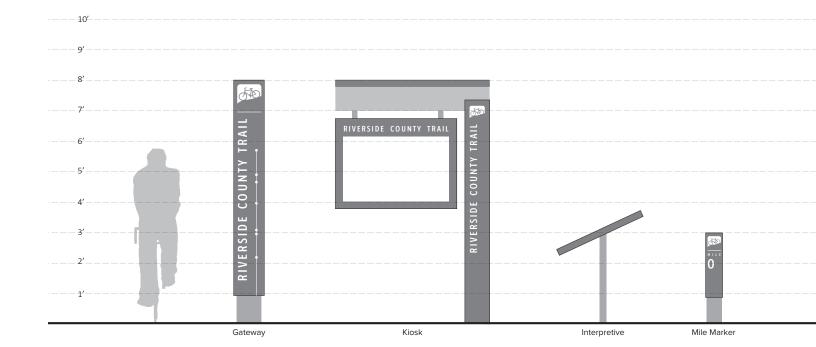
Trailhead kiosks are placed at access points. They are the first point of orientation and the large scale provides space for a trail map and regulatory information. The kiosk sign also provides riding and walking times to local destinations. When adding travel time to signs, a pace of 10 mph or six minutes per mile is typically used for bicyclists and 20 minutes per mile for walking pedestrians.

## Interpretive Sign

Interpretive signs provide information at key natural, historic, or cultural sites along trails. They are typically larger signs angled towards a point of interest. They typically include large graphic material.

#### Mile Marker

Mile markers are a small feature with large significance and are an important element of wayfinding along trails. They allow users to track how far they have traveled and help people put their location in context by matching the marker to a map. Most trail users identify strongly with distance from home, distance from their favorite place, or simply with knowing a certain location based on its relationship to a mile point. Knowing one's location on a trail is critical to assisting emergency responders trying to locate a person in distress. Mile markers should be placed every ¼ to ½ mile along a trail network.



## **Confirmation Marker**

Confirmation markers provide en route reassurance of trail identity and inform users they are on a designated Riverside County trail system route. They display the Riverside County brand and trail name. The confirmation markers also provide space for supplemental directional arrows, use icons, and can double as mile markers.

## **Direction Sign**

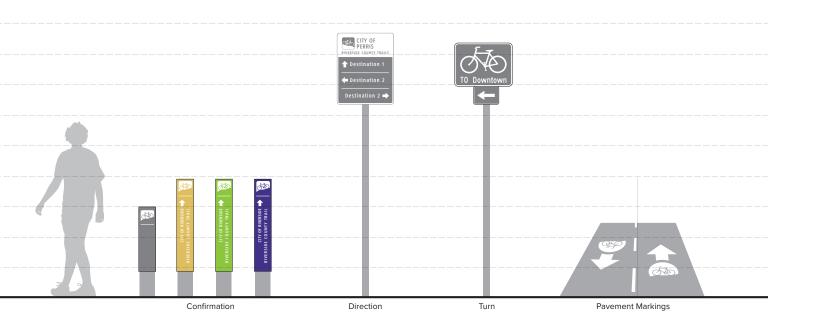
Direction signs provide directional and distance information to major destinations and trail amenities. Direction signs contain the local trail name in the header plaque and list destinations. They should be placed along trails to indicate upcoming destinations and junctures.

## Turn Sign

Turn signs inform riders about an upcoming intersection. They contain the destination or alternate route name and an arrow. They should be placed along trails shortly before trail junctures. Utilized off-route, they can help get cyclists to the trails.

## **Pavement Markings**

Pavement markings are a cost effective and low profile way to supplement or replace aspects of confirmation markers, mile markers, direction signs, and turn signs. They may also include interpretive elements, such as call-outs to views or points of interest.



## **DESIGN**

This document provides conceptual wayfinding design guidelines. Additional levels of input and outreach are required to develop a final design.

Though the signage elements have different scales and dimensions, they should be instantly recognizable as part of the same wayfinding family. This is achieved through a uniform design style, including graphics and icons, colors, fonts, materials, shapes, and proportions.

## **Accessible Design**

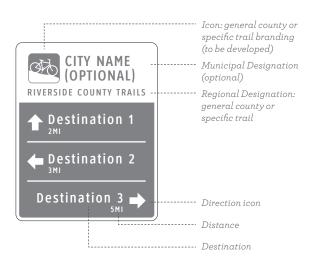
Wayfinding should be highly accessible, regardless of spoken language or cognitive ability. In areas with high concentrations of non-English speakers, consider having multi-lingual signs. Avoid relying exclusively on text, and utilize consistent icons and colors throughout.

## Fonts & Text Hierarchy

Aside from fonts used in logos, a single sansserif font family should be used across all wayfinding. A hierarchy of size, bold, and italics should be used to communicate tiers of detail. This font hierarchy includes (from big/bold to small) municipal designations, general county designations, trail specific designations, destinations, and distances.

#### Color

A small color palette should be used across all signs. Utilize no more than five colors with a wide range of contrast. Consider colors that reflect the character of Riverside County, drawing from the natural landscape, existing trail system signage, and municipal colors. As a general rule, maintain standard background / logo / text colors across the County trails. Emphasize wayfinding with specific municipalities or along specific regional trails by modifying background or logo colors.



A conceptual mock-up of design elements for

a typical destination sign





## **Branding & Iconography**

Successful wayfinding systems utilize branding to create an identity for the entire system as well as for specific trails. Creating a family of icons could include an overall "Riverside County Trails" icon as well as specific icons for each of the backbone trails. Strong icons feature the following characteristics:

- Consistency: Most times a single icon will not work. Consistent styles, sizes, fonts, colors, and shapes should be used for destination, trail, municipal, or county icons.
- Simple & Reproducible: Icons should be easy on the eyes and perceivable from the speed of a bike. They need to scale from a mile marker to a gateway sign, and should be legible as a stencil or gray-scale graphic.

## **Signing Distances**

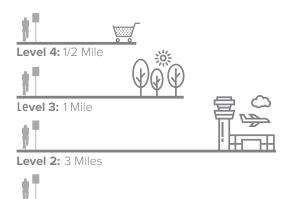
Signing distances suggest the maximum distance that destinations should appear on directional signs. This process ensures that information is spread along the journey in manageable amounts according to a cyclist's immediate needs.

Level 1 destinations include downtowns, cities, towns, and national parks. These areas typically have a well-defined edge and thus should be measured to boundary lines. They provide navigational guidance to the widest spectrum of system users and should be prioritized on signs. As a priority, Level 1 destinations should appear on signs up to ten miles away.

Level 2 destinations include transportation centers, airports, neighborhoods, colleges, regional landmarks, and state parks. They are less defined in terms of their boundaries and thus should be measured to their centers. They appeal to a broad spectrum of users and should be included on signs up to three miles away.

Level 3 destinations include other trails, high schools, hospitals, and regional parks. They are places of regional interest and should be signed up to one mile away.

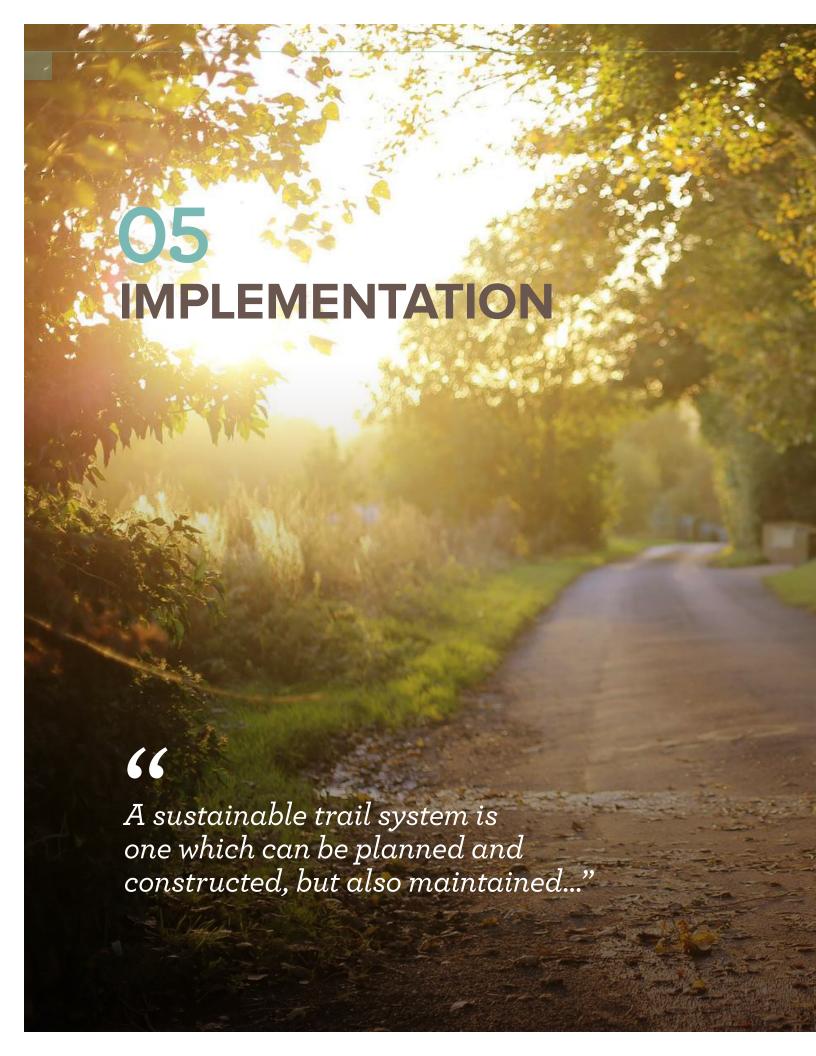
Level 4 destinations include other trails, community centers, and local parks. They are places of local interest and should be signed up to a half mile away.





Level 1: 10 Miles

Levels dictate how far from a destination that it needs to appear on a destination sign.





Implementation of a countywide trail system requires extensive planning and coordination, and multiple stages of effort, from initial corridor feasibility through funding, design, construction, and eventually maintenance. This chapter details these steps, and makes recommendations for a trail system that is sustainable financially and maintainable.

## **Implementation** Framework

There are a number of steps related to the implementation of a countywide trail system. This framework outlines the necessary components for trail development and leadership within Riverside County. The framework is provided based on the practices of numerous external agencies, including cities, counties, regional and other plans of greater scale.

The primary steps involved with trail development are:

## **Planning**

Concepts

Trail Corridor Master Plan

Coordination

Technical leadership

Regional corridor integration

## **ENVIRONMENTAL REVIEW**

Initial Study

Negative Declaration/Negative Declaration with Mitgation Measures/ Environmental Impact Report (EIR)

Mitigation Monitoring

## **Design and Construction**

Engineering and Landscaping Plan

Construction

Inspection

## Management and Maintenance

Maintenance of trail amenities and surface

Management of trail as a public asset

## Promotion

Event Planning

Marketing

## **Enforcement**

Ranger Programs

Safety and Law Enforcement

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## **PLANNING**

Riverside County is well positioned with many potential leadership organizations able to plan trail projects and corridors. Activities related to this implementation phase include the identification of a project sponsor or and lead agency, conceptual development of trail systems, and planning the remaining segments within the system.

The geographic and demographic context of Riverside County requires an entity to manage an overall regional trail vision, provide technical leadership and coordination, and ensure that conceptual development of corridors is fulfilled to a certain standard. Planning entities such as the Riverside County Regional Park and Open Space District (RCRPOSD) should continue to play a strong role in planning the regional trail system and identifying leadership to maintain and carry projects through to implementation and management.

## Planning related activities in this role typically include:

- Planning overall trail and regional trail systems
- Coordinating between area stakeholders
  - » WRCOG, CVAG, Riverside County Department of Transportation, Riverside County Transportation Commission (RCTC), Flood Control, County Departments
- Identifying project sponsoring agency, project leadership, management
- Facilitating and plan parks and trails capital and non-capital improvements
- Identifying partners and funding mechanisms for all trail and park related improvements
- Creating and updating plans for backbone trails, implements plans.

# Potential Planning Leadership Organizations

RCRPOSD (Including Advisory Committees)

- Trails within regional parks, trails outside of parks and outside incorporated cities, federally- and state-managed lands.
- » Riverside County Planning Department
- » Trails within community and specific plans.
- Riverside County Transportation Commission
  - » Regional Class 1 trails and on-street facilities.
- Riverside County Department of Transportation
  - » On-street facilities that fill gaps within and provide connections to regional routes.
- Western Riverside, Southern California and Coachella Valley Councils of Governments
  - » Trail projects specifically within the coalition's boundaries
  - » Trail projects in the Desert and Jurupa Valley Recreation District
  - » Trail projects within recreation district boundaries
- State and Federal agencies
  - » Any project concerning the use of federal or state lands, respectively

## **ENVIRONMENTAL REVIEW**

Building trails in Riverside County will require environmental reviews through the California Environmental Quality Act (CEQA). The review will identify potential significant environmental impacts that may arise as a result of the project and how to mitigate those impacts. The process will include the following:

- Initial Study
- Negative Declaration/ Negative Declaration with Mitgation Measures/ Environmental Impact Report (EIR)
- Mitigation Monitoring

## **DESIGN AND CONSTRUCTION**

The proper design and construction of trails is paramount to the development of long lasting facilities. The design and construction of trail facilities is more of a technical exercise on an identified route that has been established through the identification of a route, acquisition of right-of-way, and appropriate permitting. Various entities must undertake this that have proficient staffing capabilities and certifications to build these facilities.

# Potential Design Leadership Organizations

- Desert, Jurupa Area, and Valley-Wide Recreation and Park Districts
- Riverside County Habitat Conservation Agency
- RCRPOSD
- · Riverside County Planning Department
- Riverside County Transportation Commission
- Riverside County Department of Transportation
- Western Riverside, Southern California and Coachella Valley of Governments
- State and federal agencies

# MANAGEMENT AND MAINTENANCE

Trail maintenance refers to the long-term well-being of the trail and its facilities. Generally, trails and trail amenities have a life cycle considered during design and construction. If well maintained, facilities should meet this life cycle. Thus, care should be given to the facilities maintenance and inspection activities to detect defective pieces in a system. This could be as simple as monitoring potentially hazardous situations on the trail as risk becomes more apparent to trail users, or generating a repaving schedule as a paved trail's life cycle ends. Generally, maintenance is completed by trail managers or planners.

Trail management relates to the ongoing efforts of an entity to ensure a safe, user-friendly facility. Management and maintenance are closely related, but management refers to the operational context and necessity associated with keeping a trail in good working order. This is an ongoing technical and resource based task from the outset of a trails design. Trails require not only managers who will serve as the "boots on the ground" but also administrators who can perform managerial tasks behind the scenes. Managers often help assist with the maintenance of facilities, ensuring the life-cycle of the facility is maintained.

# Potential Management and Maintenance Leadership

- Western Riverside, Southern California and Coachella Valley of Governments
- Desert, Jurupa Area, and Valley-Wide Recreation and Park Districts
- Riverside County Habitat Conservation Agency
- Riverside County Parks and Open Space District
- Riverside County Department of Transportation
- Riverside-Corona Habitat Conservation District
- Riverside Land Conservancy
- US Fish and Wildlife Service
- Western RC Regional Conservation Authority
- Wildlands Conservancy
- Center for Natural Lands Management
- State and federal agencies

## PROMOTION AND ADVOCACY

The promotion and advocacy of trails in the county becomes increasingly important as the user base and system expands. As demand grows on a trail system, so too must the operations, management and maintenance of

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a system. Advocacy plays an important role through informing individuals with decision making authority about the role the system plays. Promotion of the system is more directly related to the advertisement and education of the system's users. Some user groups participate in promotion and advocacy efforts while others focus their efforts on one task.

While it is not the County role to advocate for the trail system, they are responsible for reporting accurate information to different groups. The County must also ensure the proper use of the system in collaboration with private groups through public-private partnerships.

# List of potential Advocacy and Promotion Leadership

- Inland Valley Mountain Bike Association
- · Wildlands Conservancy
- Friends of the CV Link
- Friends of the San Jacinto Mountain County Parks
- Inland Empire Waterkeeper
- · Friends of Hidden Valley
- Friends of Riverside Hills
- Riverside Community Health Foundation
- Riverside County Health Coalition

## **ENFORCEMENT**

Enforcement on trails relates to the overall safety and welfare of users. Crime prevention falls on the jurisdiction in which the crime may be taking place: municipalities, federal and state lands, and county land. Within county jurisdiction, law enforcement will be the responsibility of the county sheriffs department. Within parks, rangers often take on preliminary law enforcement roles, and are responsible for regular patrols, issuing warnings, citations, and enlisting the assistance of other law enforcement agencies when needed. Ranger programs are operated at the county, state, and federal levels.

## **Funding Best Practices**

## SURVEY RESPONDENTS

The Riverside Park and Open-Space District Peer Agency Survey gathered information from county agencies in the Western United States regarding their management of trails. Ten county agencies participated in the survey, representing a mix of rural, suburban, and urban counties (see Figure 5-1). Agencies were asked to provide information related to their trail management practices, including their funding sources, maintenance practices, and usage of their facilities.

The survey was conducted in August and September 2016. The survey, consisting of 24 multiple choice and short answer questions, was administered by Cambridge Systematics using an online survey tool. Participants provided detailed responses to questions, giving valuable insight into trail management practices around the country and in the surrounding region. Respondents indicated a wide range of funding sources for trail construction and maintenance, including federal, state, and local sources. These funding sources are indicated in Table 5-1 on page 168.



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Figure 5-1 Participating Agencies



## **ARIZONA**

 Maricopa County Parks and Recreation



## **NEVADA**

• Washoe County Regional Parks & Open Space



## **CALIFORNIA**

- El Dorado County
- Los Angeles County Department of Public Works



## **NEW MEXICO**

• Los Alamos County Parks Recreation and Open Space



## COLORADO

• Jefferson County Open Space



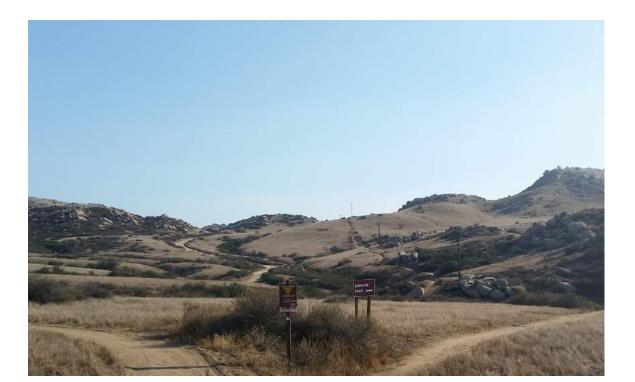
## **OREGON**

- · Lane County Parks
- Metro Parks and Nature Department
- Tualatin Hills Park & Recreation District



## **MONTANA**

 Missoula County Parks, Trails & Open Lands



## **SURVEY RESULTS**

Much of the funding for trail construction comes from federal sources passed through to state agencies or local agencies. These funds are often dispersed through competitive grant programs. At the County or local level, municipal bonding, sales taxes, general funds, and fee programs are common sources for sustained and dedicated trails funding. Often, local agencies are opportunistic about the source of funds available for specific trails. The Missoula County Parks noted that trails that go through property owners associations or special taxing districts may have dedicated funds for on-going maintenance, freeing up general funding sources for other trails.

Six agencies responded that they have a developer impact fee program, or similar. Three of those six agencies indicated their developer fee funds could be used for trail construction, but no agency specified that they could use the developer impact fee funds for maintenance. Jefferson County Open Space clarified that in order to use the developer fee funds for trail construction, the trail would need to be identified as a transportation improvement (eg. a sidewalk along a major roadway). Lane County Parks noted that Community Service Districts "can only be used for projects that increase capacity or planning, not for maintenance."

Funding for capital projects comes from diverse set of federal, state, and local sources. However, funding for trail maintenance is almost exclusively local. As described above, many agencies rely on volunteers to perform maintenance. When local staff performs the work, the funding generally comes from local government sources. In the RTC survey, they found that municipal governments were the leading funder of trail maintenance (42% of respondents). While maintenance is eligible for federal funding under the Recreational Trails Program, trail maintenance often has to compete with capital projects in competitive grant programs. In California, the Recreational Trails Program funding is allocated through two

state run application processes, the Active Transportation Program and Recreational Trails Program. Given the lack of dedicated funding sources, trail maintenance often competes with municipal funding needs, and therefore trail managers have indicated a need for dedicated federal and state funding for trail maintenance.

## Costs & Funding

This section is meant to inform the Riverside County Trails Plan process on trail development and maintenance costs, and provide funding strategies for short and long term solutions. Due to funding source changes some sources are more reliable than others. For example, Safe Routes to Schools at the Federal level was funded from 2005 to 2012, but some states have budgeted for the program at state departments of transportation. Therefore, this snapshot of cost estimates, funding strategies and programs are meant to be updated from time to time to better reflect changes in the market, cost of resources and materials, and organizations.

## SUMMARY OF TRAIL **NETWORK COSTS**

Trail networks are typically created with a number of individual trails that are connected over time, with gaps strategically being closed using innovative methods of funding and design. These networks can connect trails to one another and other supporting facilities such as sidewalks, and on-road bicycle facilities. This section will discuss the development of both paved and unpaved trails, giving information for pre-construction, construction, maintenance and other costs.

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Table 5-1. Capital and Maintenance Funding Sources

FUNDING CLASS	CAPITAL FUNDING SOURCES	MAINTENANCE FUNDING SOURCES	
Federal	Safe Routes to Schools	Youth Conservation Corp	
r cacrar	Congestion Mitigation and Air Quality Improvement (CMAQ) Program	Unspecified grants	
12 Ba	Surface Transportation Program (STP)		
( 007	Regional Surface Transportation Program (RSTP)		
	Recreational Trails Program		
month	Public Lands Highway Discretionary (PLHD)		
4.70	Transportation Investment Generating Economic Recovery (TIGER) Grants		
	Other Federal Grants (unspecified)		
State	Active Transportation Program (ATP)	Transportation Development Act (TDA)	
	State Departments of Transportation		
{ [	Mobile Source Air Pollution Reduction Review Committee (MSRC)		
<b>Y</b>	Oregon Lottery		
	Oregon Recreational Trail Grant		
h.	Metropolitan Transportation Improvement Plan Funds		
	State Grants		
	State Parks Recreational Trail Program		
	Bonds	Dedicated sales tax	
County	County Capital Improvement Program Funds	General Fund Tax	
	Dedicated Sales Tax	Donations	
<b>\</b>	Donations	Parks Department Operating and Maintenance Budget	
	General Fund Tax	County General Fund	
	Parks & Trails Bond Program Funds	User Fees	
	Parks Funds		
	Parks System Development Charge Capital Improvement Program		
	Road Discretionary Fund		
	Regional Parks and Open-Space District Funds		
	User Fees		
	Regional Call for Projects		
Local	Municipal Bonds	Property Taxes	
	Community Service Districts (CSD)	Local Option Levy	
	Developer Impact Fees	Volunteer Labor and Resources	
	Partnerships with Local Jurisdictions	Non Profit Organizations	
	Park System Development Charge		
	Tax Increment Financing		
	Donations		
	Friends-of Groups		

Impact Fee Programs

## TYPICAL TRAIL RELATED PROJECT PHASE COSTS

Paved trails are often referred to as multi-use or shared-use paths. These paths are often used for not only recreation, but also as a commuting alternative to on-street facilities. Paved trails often cost substantially more to construct than natural surface trails due to the materials used and pre-construction permitting and design work. However, the life cycle of paved trails is typically longer than natural surface trails. Conversely, natural surface trails often have smaller budgets to design and construct and often serve more recreational than transportation users.

## Acquisition

Trails can be built on natural lands without much impacts, along roadways, or on abandoned railroad or utility corridors. Acquisition cost will depend on local market conditions, location of the project, and other factors. Establishing a diverse strategy for acquiring trail right-of-way is an important piece of developing an integrated trail network.

## Feasibility Study

A feasibility study for trails aims to find the most feasible alignment for a trail and identify the obstacles to developing a preferred alignment. This type of study

often considers multiple alignments for a potential trail route, environmental and social considerations, right-of-way availability and cost considerations. This part of the study often sets the expectations for other phases of trail development, maintenance, and how the trail has the potential to impact the communities it touches. Economic studies often are considered in feasibility studies as a means to determine economic impacts of the trail.

Feasibility studies for natural surface trails are less intensive than paved trails. Nevertheless, environmental impacts should be considered in this phase, with the inclusion of a biologist and other relevant personnel.

## Feasibility Study Cost

Feasibility studies are often the most cost efficient means of identifying a trail alignment and ensuring feasibility in accomplishing trail construction. Depending on the nature of a feasibility study, costs vary widely for this phase. An example is the Doodle Rail Trail Feasibility Study in South Carolina which cost \$40,000 for a 7.5-mile rail-to-trail project (Sanders, 2016).

## Permitting and Design

Every trail should have professional design incorporated into its development to ensure the longevity of the plan and safety in the ultimate build out for users. The type of



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trail design and complexity of a project will influence the project cost, namely the location of the trail, surface type, and environmental considerations. Organizations have become more able to lend their assistance to create natural surface trails, such as the International Mountain Bike Association, the American Hiking Society or equestrian groups. Natural surface trails often can be designed at lower cost than paved or decomposed granite trails, due to the use of existing on-site materials.

Trail permitting is often required for trail designs. Environmental engineers or landscape architects are able to effectively consider impacts on the environment and complete the permitting process. Local trails that are smaller in length and have minimal environmental and social impacts generally can go through permitting processes faster than longer trails, or those which traverse areas which would trigger greater levels of permitting. For example, a rail-with-trail project that resides on

already disturbed land and is located entirely on city owned land would likely have less permitting than a trail traversing national park lands with wetland impacts. Due to the varying cost of design and permitting from project to project, cost estimates have not been provided. Variables that typically affect design and permitting are ecologically or historically sensitive areas, bridges, typographically variable terrain, and other elements.

#### Construction

Construction costs can vary widely depending on the context and required trail elements. Consideration should be given to any required bridges, tunnels, or other structures, for any potential mitigation for trails in or near sensitive ecosystems, roadway and rail crossings, and the inclusion of elements such as trailheads, rest stops and interpretive materials or signs. Table 5-2 provides insight into a range of national trail construction costs.

Table 5-2. National cost estimates for trail construction on a per-mile basis.

PROJECT NAME	COST PER MILE	NOTES
Doodle Rail Trail	\$283,000	Project located in South Carolina and connects cities of Easley and Pickens.
Florida Park Service, Office of Greenways and Trails	\$500,000	Statewide system consisting of multiple projects with different implementation agencies
Milwaukee County, Wisconsin Trail Construction Cost Estimates	\$149,000 - \$301,000	Milwaukee County Trails Network Plan, 2007
City of Redlands Class I Bike path	\$800,000	Paving, Striping and Signage

Notes: Costs per mile are estimated and based off of best information available at time of writing. Sources for each table available in document bibliography.

Table 5-3. National cost estimates for trail maintenance on a per-mile, per year basis

PROJECT NAME	MILEAGE	COST PER MILE, PER YEAR	NOTES
East Central Regional Rail Trail	50.8	\$3,500	Located in Volusia County, FL
Florida Park Service, Office of Greenways and Trails	Varies	\$5,000-\$6,500	Statewide System, 10 Trails
Memo Attachment 1 cost information	Varies	\$2,000-\$5,000	Many locations throughout the country
City of Redlands, CA (Class I Bike Paths)	33	\$8,500	Estimate provided for Class I Bike Paths in this area
City of Redlands, CA (Class II & III Bikeways)	148	\$2,000	Estimate provided for Class II & III Bike Paths

## Maintenance

In developing a trail system, ongoing maintenance must be considered to ensure the full life cycle of the facility and enjoyment by users. Maintenance cost for trail facilities depend on the trail type, user-features, trail context, and community support. These tenets make the development of a cost estimate for trail system maintenance difficult.

Information is provided above on other trail maintenance costs from around the nation (see Table 5-3). These cost estimates are provided on a per-mile basis. The context and amenities on each trail will vastly impact the cost of trail maintenance.

## **Funding Resources**

This section discusses the types of funding strategies available to the County. To complement this research, a survey of peer agencies' was conducted; many institutions responded that funding sources for trails generally originate through the federal government and are distributed through competitive grant programs.

## SHORT TERM FUNDING

Short term funding strategies typically occur within a narrow timeframe, such as one to three years. In targeting funding resources for trail projects, managers should generally prioritize discretionary or competitive grant programs. However, these funds are distributed nationwide and sometimes only result in marginal gains on an annual basis. Other successful funding pursuits in the near term could come from a diverse set of funding available from not-for-profits, local government funds, and others. Because of the limited timeframe associated with most funding resources, each funding resource may be in a state of flux and requires attention to ensure opportunities are not missed.

To complement these grant and other assistance programs, numerous local and state funding resources have been identified as potential trail development resources. At the county and municipal level, municipal bonding, sales taxes, general funds, and fee programs are common sources for sustained and dedicated trails funding.

While there are substantial capital sources available at the federal, state and local level, for trail design and construction, trail managers often cite the need for dedicated federal and state funding for trail maintenance (Rails-to-Trails Conservancy, 2015).

Of the ten respondents to the survey, six indicated a developer impact fee program was in place. Three of the six respondents had the option to utilize those funds for construction, but none of the respondents indicated these fees could be used for maintenance once the trail is built.

## **Grant Programs**

There are a number of programs throughout the nation which provide discretionary and competitive grants for projects. These resources often require an in-kind donation of capital or labor as part of the project. Grant programs are mostly funded through the federal government, but passed through to states and other organizations to administer, such as State Departments of Transportation. There are also many notfor-profit organizations that provide grants for capital improvement and maintenance.

In the short term, these grants are generally available to applicants on an annual, recurring basis.

Additional information on California specific grants is provided below.

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- California Department of Parks and Recreation: This department oversees a number of grant programs directly relevant to Riverside County. The Office of Grants and Local Services (OGALS) manages a number of grants for consideration in the short term (California Department of Parks and Recreation).
  - » The Recreational Trails Program (RTP): This national program, managed by the aforementioned office is a national program providing funding for trail projects in various phases. This program is an annual funding source that should be frequently utilized to develop trails.
  - » Land and Water Conservation Fund: Similar to the RTP program, this federal program managed by the state provides annual funding for projects that aim to implement projects.
  - » Habitat Conservation Fund: This fund is geared toward habitat conservation, but can still be used toward conservation projects that have trail elements.
- California Department of Transportation (Caltrans): There are numerous programs that are under the Active Transportation Program (ATP) including the State Safe Routes to Schools Program, Bicycle Transportation Account, and Transportation Alternatives Program (California Department of Transportation (Caltrans), 2016). This program combines state and federal funding sources under the jurisdiction of the Office of Active Transportation and Special Programs. While this program is not directly geared towards recreation it can be used for most trail projects.

## Not-for-Profits and "Friends of" Groups

These organizations and collections of individuals often support very localized trail initiatives and take ownership of trails in a meaningful way. In this context, Not-forprofits often have a very specialized desire to develop, maintain, or protect trails. They often take steps to ensure the longevity and community support for trails, funding economic benefits studies, trail collaboration meetings, and other projects. Volunteer or "Friends of" groups often take a more trail or park specific approach in lending their support. These groups are often geared towards action for their community trail or area. Friends groups generally don't have much capital, but often raise funds for smaller capital projects in certain areas to fulfill needs for the overall trail user base. These groups are often relied upon to maintain trails in some areas as local governments often have funding shortfalls in trail maintenance. At the statewide level, the California Trails and Greenways Foundation provides an excellent example of a partner that advocates for trails, provides educational programming, and hosts volunteer events. This organization provides for a number of grants, and volunteer recognition awards, and works frequently with trail managers to better understand needs of the statewide system (California Trails and Greenways Foundations, 2010).

## **Local Funding Sources and Tools**

City, county and other regional governments have a substantial amount of latitude in developing and maintaining trail systems. Not only have governments adopted ordinances, codes and policies to ensure trail funding through tax bases, but can also require developers to construct or turn over land for trail connectivity if undeveloped land is considered for development. This section discusses some of the more prominent strategies available in developing these lands.

#### User Fees

Many parks and trails require users to pay for the use of the facility. In larger parks, there is generally an entry gate which enables the park to collect entry fees. Some parks and trails do not collect user fees, but allow for the local volunteer group to place a donation box at trailheads to raise funds for trail capital projects. User fees are regulated by the managing entity and can be used for the Parks District's general fund, or put back into the County's general fund.

## Community Service Districts (CSDs)

CSDs were developed to provide basic services to populated, yet unincorporated areas of counties within California. These entities often form and are based off of property taxes to provide a wide portfolio of services depending on the district and needs of the communities. These entities report to a local board to respond more



immediately to community needs and services are based directly off of need rather than desire (California Tax Data).

## Capital Improvement Plan (CIP)

CIPs are a short term budgetary process where local jurisdictions identify and prioritize projects. Generally, these plans are geared towards infrastructure improvements rather than maintenance. These plans aim to identify and collate the projects over the next few years.

#### Other Tax Funds

A series of tax funds can be implemented locally to ensure funding for trail projects. This includes sales taxes, income taxes, property taxes, and others. These taxes must often be approved by a referendum, board, commission or state ballot depending on the nature and type of taxation. Some regional organizations base their operations off of taxes, such as the Community Service Districts.

While there are substantial capital sources available at the Federal. State and Local level, trail managers often cite the need for dedicated federal and state funding for trail maintenance (Rails-to-Trails Conservancy, 2015). Of the respondents to the survey, six indicated a developer impact fee program was in place. Three of the six respondents had the option to utilize those funds for construction, but none of the respondents indicated these fees could be used for maintenance once the trail is built. Many strategies are used throughout the country to secure funding, the next two sections of this memo will address long and short term strategies for securing funding.

## LONG TERM STRATEGIES

In developing a long-term plan for funding trail network development, many considerations should be made for contingency planning; who will be the implementing and maintaining agency, and where will additional funding

come from down the road in case of needed capital. These are important questions and are susceptible to change over time.

#### **Assessment Fees**

The County may choose to implement an annual assessment in the support of trail maintenance and development. This fee is to be included as an assessment on annual property taxes. The amount of this assessment is subject to County Council approval, and is recommended to be a minimum of \$25.00. The assessment may require a vote as a measure to be scheduled during the County's election cycle.

### Transportation Uniform Mitigation Fees (TUMF)

Voters approved an innovative program for western Riverside County in 2002: the Transportation Uniform Mitigation Fee or TUMF. Western Riverside County's TUMF was patterned after a program by the same name in the Coachella Valley. Under the TUMF, developers of residential, industrial, and commercial property pay a development fee to fund transportation projects that will be required as a result of the growth the projects create. The Western Riverside Council of Governments administers the TUMF.

The TUMF funds both local and regional arterial projects. Eligible projects include nonmotorized transportation - which includes both on- and off-street bikeways and trails.

#### Trail Master Plan

In the long term, a locally credible trail implementation entity should execute a planning process with the assistance of local stakeholders to define their trail network vision. This vision within a master plan or trail implementation plan ensures that the existing conditions, and desired future conditions align not just with the expectations of the community, but also the realities within a given timeframe.

Trail master plans should contain an implementation component that describes the remaining phases of trail implementation, expected cost of each phase, including annual maintenance costs, and a targeted funding source for such improvements. Without this vital implementation component, many organizations are left wondering where resources should be prioritized, how funding will be acquired, and who the lead agency will be to develop the trail.

#### Parks and Trail Management Plans

Many organizations who manage large units of parks or trails have adopted management plans. These plans vary in timeframe and size, but generally are at set at five to twenty years for trails that transect jurisdictional boundaries, and parks with diverse needs. Management plans often have a number of elements that help to guide how management entities respond to certain needs. Plans are written to understand the current needs of the managed unit from an ecosystem and human systems which are connected by the unit. These plans also identify future needs of the unit, including aging infrastructure that will require capital for repair.



#### **Local Funding Sources and Tools**

In addition to the short-term funding resources available for trails, long term solutions are also available to local implementing jurisdictions.

#### Developer Impact Fee Program

An impact fee program is meant to cover the cost of development and the impacts it has on public services impacted by it. Impact programs are developed only in relationship to new developments and have been identified as an allowable source of funding for trail capital projects. The County currently excludes commercial and industrial development from this program, which has been identified as a missed opportunity for trail funding.

#### Municipal Bonds

Municipal bonds are loans that governments borrow to pay for capital projects over a given period of time. Because of how these debts are incurred, they are typically not able to be used for day to day trail maintenance. These bonds are largely used for capital projects, such as recreational trails and trail elements.

#### **ACQUISITION**

Acquisition of right-of-way for trails requires not only funding, but also a strategic approach to acquiring lands. The best strategy for acquiring right-of-way is to ensure utilize a diverse set of approaches to different pieces of property. The strategies listed below should be considered as practices which could be utilized, rather than one singular approach to each parcel. A combination of strategies may be considered, depending on the parcel of land, market conditions, and other variables.

#### Fee Simple and Easement Purchases, and Donations

Fee simple acquisitions are the purchase of land and all rights therein, while easements are acquisitions of the right to use land for a given purpose, such as developing a trail. Donations are also another form of receiving land through creative means. Donations are provided to governments by individuals or organizations with a philanthropic sense to develop a trail. These acquisition approaches can be taken to acquiring land, but there are also certain measures cities and counties can take to ensure that land will be acquirable, once it is on the market.

#### Zoning and Development Regulations, and Developer Contributions

Cities and counties often require land to be constructed in a certain way, or to have certain elements constructed depending on the nature of a development. These types of regulations can also be used to protect certain types of ecosystems from development, or acquiring land from developers before they are developed. Governments can require that developments incorporate trails into plans and construction, but generally have to have established plans in place to negotiate with the developer. This also benefits the community as it provides a recreational and transportation amenity (City of Monroe Parks and Recreation Dept., NC, 2015).

#### Right of First Refusal

In some instances, land may not be available in the near term and agencies must become creative in their approaches to closing gaps. One of the approaches to closing gaps which is a long-term approach is to enter into a right of first refusal agreement. This type of agreement enables an organization to make the first offer on a tract of land once it becomes available for purchase. Landowners are not required to accept the offer, and it enables the organization in question to have a "first claim" if the offer is acceptable to all parties.

#### **Dual Easements**

Many times, agencies throughout governments are working towards the same goals but not collaborating on projects. Many agencies at the County level, such as school boards, water managers, or other public utilities should consider negotiating easements for water, schools, and other types that also include trail elements. This provides governments and other institutions with the power to negotiate many items, and leverage multiple resources.

#### Condemnation

The use of eminent domain or acquisition of parkland or trail property is used when it cannot be obtained through other means. This is generally a last resort for institutions to take as it can sometimes result in costly litigation, and generally removes the ability to negotiate payment at anything less than full market value.

### Management

# TRAIL MANAGEMENT SURVEY

Trail management practices vary considerably depending on the structure of the agency, regional characteristics, and types of trails that are maintained. This report summarizes the key findings from a survey conducted to support the Riverside Park and Open-Space District's development of a Comprehensive Trails Plan. The purpose of this document is to summarize the trail maintenance, funding, and usage patterns for trail agencies in the Western United States (see Figure 5-2). Findings from the surveys are presented here, and where necessary, data from external best practices surveys was used to fill in the gaps.

#### TRAIL USAGE

Survey respondents were asked if and how they monitor trail users. Most agencies declined to answer this question, likely signifying the lack of available data. Two agencies noted that they use automated counters, and one agency noted the use of manual counts. One agency responded that they estimate their annual users. Of those who responded, most agencies suspected that greater than 70% of the usage was recreational. Weekday and weekend usage was common for most agencies, and while there was some seasonal variation, most agencies see fairly consistent usage throughout the year.

However, quantifiable trail usage data was limited and therefore does not allow for useful comparisons to Riverside County. The limited data on trail usage is a challenge for many agencies nationwide. A 2014 study conducted by the Rails-to-Trails Conservancy (RTC) found that over half of management agencies did not track users, and roughly a quarter simply estimate or guess their trail usage.

#### MANAGEMENT

#### **Trail Planning Documents**

All agencies surveyed have completed at least one trail planning document. Nine out of ten agencies indicated they had a park master plan, six indicated they had a regional park/open-space district master plan, and five agencies indicated they had a trail master plan. A breakdown of planning documents prepared by the responding agencies is shown in Figure 5-2.

## Trail Ownership and Management Responsibilities

Most of the responding agencies are responsible for a maintaining between 35 and 80 miles of trails, though some maintain as little as 10 and as many as 600 trail miles. Most agencies manage trails in a variety of land uses, with the exception of 100% rural (Lane County and El Dorado County) or 100% suburban (Tualatin Hills). Under normal circumstances, the trails are open seven days a week. Half of the agencies noted that their trails are open from dawn until dusk, including one agency that opens their trails and hour before dawn, and closes an hour after dusk.

The other half of the agencies responded that their trails are open twenty-four hours per day.

The responsibility for maintaining a trail depends on the location, the owner of the right-of-way, and the type of trail. Four agencies noted that they maintain trails on land not owned by the agency. Three of those agencies maintain trails on Federal lands and one maintains trails on State land. Ninety percent of the agencies have at least one regional or inter-county trail which intersects the agency's jurisdiction. Depending on the parties involved, there are different interagency agreements for trail management:

- The Los Angeles County Department of Public Works and the Tualatin Hills Park & Recreation District indicated they are solely responsible for maintaining regional trails in their jurisdiction.
- Missoula County Parks Trails & Open Lands noted that for trails or paths on State land, the County has a memorandum of understanding outlining maintenance responsibility. The County's responsibility includes snow sweeping, snow plowing and weed control, and the state is

- responsible for pavement management and maintenance. However, they noted that each trail may have a unique set of circumstances.
- The Metro Parks and Nature Department does not maintain any trails on land owned by other agencies, but other agencies maintain trails on their land.
- Jefferson County Open Space noted that the City and County of Denver owns some land in Jefferson County; Jefferson County builds and maintains the trails on this land. Furthermore, some of regional trails are constructed using County funds, however, ongoing maintenance is the responsibility of local jurisdictions.
- Some agencies mentioned that they share regional trail maintenance responsibilities with the US Forest Service or local home owner's associations.
- Within the Los Alamos County Parks, Recreation, and Open Space Division, the Parks division manages paved trails and the Open Space division manages the unpaved trails.

In some cases, trail management responsibilities vary by trail:

- The Los Angeles County Department of Public Works noted that they maintain paved paths, while unpaved paths are maintained by the Department of Parks and Recreation.
- The Tualatin Hills Park & Recreation
   District specified that soft surface trails
   are maintained by natural area staff, while
   the maintenance for hard surface trails is
   split between park maintenance and trail
   maintenance staff.
- The Metro Parks and Nature Department noted that on-street facilities are managed by the Transportation division, while offstreet paths and trails are under the Parks department purview

- El Dorado county noted that Class II and III bike lanes are maintained by their Transportation Division, while Class I trails are maintained by their Facilities Division and volunteers.
- Jefferson County Open Space shared that the County has a transportation and engineering division charged with maintaining commuter trails.

Trail usage is considered a hazardous sport in only two of the responding counties, and four agencies have liability insurance for trail usage. Metro Parks in Oregon noted they are protected by a recreational immunity clause in their Public Use of Lands Act.

#### **Trail Maintenance Practices**

Trail agency maintenance needs depend on the surrounding land uses, regional climate, and permitted uses. Trail maintenance practices range from physical repair or resurfacing of the trail surface, to surface clearing and vegetation control, to maintenance of parking facilities, restrooms, and other amenities. While resurfacing and repairs are time consuming and costly

Figure 5-2. Trail Agency Planning Documents Completed by Survey Respondents

# 90% of agencies reported



60% REGIONAL PARK/ OPEN SPACE

**MASTER PLAN** 



20%
BICYCLE



50% TRAIL MASTER PLAN



TRAIL OPERATIONS STUDY



30% TRAIL MAINTENANCE PLAN



TRAIL WAYFINDING SIGN PLAN



30%
TRAIL USE
SURVEY REPORT



10%
TRAILS
DEVELOPMENT
HANDBOOK

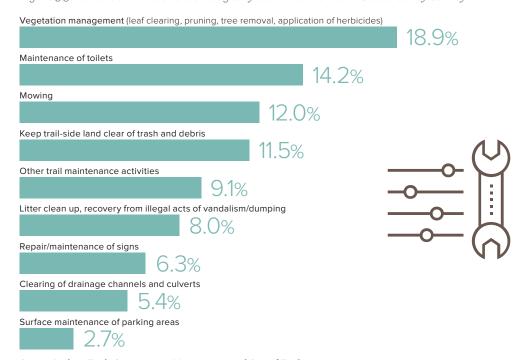
processes, they represent a small amount of what agencies normally spend on trail maintenance. Given the widely different sizes of the surveyed agencies, there was a significant range in the maintenance budgets; annual maintenance budgets ranged from \$2,000 to \$5,000,000. Agencies with limited resources available, such as Washoe County Parks, have no specific funding for trail maintenance in their budget, and therefore rely heavily on the efforts of active volunteer groups to maintain trails. Seven of the ten agencies rely on volunteers or non-profit organizations for some of the trail maintenance, however, many agencies contract with private firms or have paid staff that performs maintenance duties. The importance of volunteers for trail maintenance responsibilities is consistent with national trends; the 2014 RTC study found that 58% of trails benefited from volunteer groups

performing maintenance tasks, up from 46% in their 2005 study, and 43% of agencies utilize paid municipal staff (see Figure 5-3).

Of the responding agencies, vegetation maintenance and surface clearing were the most costly maintenance tasks. This is also consistent with the RTC study, which found that vegetation maintenance, including mowing, makes up about 30% of average maintenance budgets, while litter clean up and clearing the trail and surrounding land clear of debris and trash is close to 20%.

The 2014 RTC survey found that the average annual maintenance costs for paved asphalt trails were \$1,971 per mile and \$1,006 for crushed stone trail, excluding major repairs.

Figure 5-3. Percent of Maintenance Budget by task: Rails-to-Trails Conservancy Survey



Source: Rails-to-Trails Conservancy. Maintenance and Cost of Trails. 2014

# **Trail Partners in Riverside County**

A number of partners throughout Riverside County provide trail users with a high-quality trail experience by operating, maintaining and otherwise supporting trail systems in their respective areas or managed lands. These partners range from the federal to the community level, with varying operational context from each organization. This section describes how each partner can provide support to the development of a comprehensive trail network in Riverside County. The following partner organizations are presented as potential partners for the County and represent opportunities for future partnerships.

A table has been provided at the end of this section that classifies each agency's potential methods of assistance. These categories are, advocacy, design, planning, funding assistance, planning, marketing and promotion, and land or trail management, operations and maintenance.



#### **FEDERAL**

Riverside County consist of approximately 61% federally owned lands (see existing conditions). Thus, federal partners have a heightened sense of importance in creating high quality trails and functional trail systems. While these partners have a large amount of land, they also have heavy environmental restrictions placed on these lands to ensure protection of ecosystems and the most appropriate use of the land. Thus, the use of federal lands to connect trail systems is complicated. Furthermore, the remote location of some of these sites make for connecting and managing trail systems highly inefficient.

Major federal land partners are housed within the US Department of the Interior, National Park Service, and Bureau of Land Management. Each federal land is managed differently according to the manager for each unit of land. For example, federal park lands generally have a more intense recreation or use element than preserves. The major partners in the County include:

National Park Service (NPS): The NPS operates Joshua Tree National Park. This park offers a large amount of recreational facilities within the unit. The park serves as a preserve to the Colorado and Mojave Deserts, both are rare ecosystems that provide for scientific study and interpretation. Due to the park's remote location, it is generally unable to connect to outside recreational facilities as part of a trail network. The park is home to a number of different trails, with over twenty miles of hiking trails and long distance equestrian trails.

Additionally, the NPS has provided assistance to the County in the past. Other grants have been provided to municipalities in the past to develop local parks and historic places. The NPS overall administers a number of grant programs for communities and natural areas that offer significant potential in developing trails. These additional grant programs vary in scope, but are generally focused around preservation, interpretation, and development of natural areas for recreation.

**US Department of the Interior: Bureau of Land Management (BLM):** The BLM is responsible for the oversight of many different land managers at the federal level. The departments mission is to sustain the health, diversity, and productivity of America's public lands for the use and enjoyment of present and future generations. In Riverside County, the BLM manages the Dos Palmas Preserve, which has multiple types of natural surface trails, although the focus for the unit is not recreation in nature.



The BLM is another federal agency responsible for the execution of federal funding assistance to communities that wish to develop land and increase recreational opportunities within communities. The BLM executes right-of-way assistance grants for federal lands, the Oregon and California Lands appropriation, and other initiatives passed down by the federal government.

#### US Fish and Wildlife Service: This

department's mission is focused primarily to conserve, protect and enhance fish, wildlife and plants and their habitats. Thus, the scope of this entity is limited to the Coachella Valley National Wildlife Refuge is fairly limited in the trails that are provided for the County or its visitors. The only trail located on this property allows equestrian use, but does not allow for general parking. The trail is primarily a connection for other trails in the area.

#### **US Department of Agriculture: US Forest Service (USFS):** The purpose of the USFS is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations. In Riverside County, the USFS manages the San Bernardino and Cleveland National Forest operations. These operations include the Front Country Ranger and San Jacinto Ranger District. On USFS lands, hiking, mountain biking and equestrian trails are present.

Military Installations and Bases: The US Military has a presence in and around

Riverside County. The US Army Corps of Engineers is responsible for the administration of the Prado Dam, while the dam and its recreational facilities are managed by San Bernardino County. The March Air Reserve Base provides for some recreational activities in the County, but is limited by operations of the base itself and tickets must be acquired by the Ticket and Tour Office.



#### STATE

The two agencies with responsibilities for trails in Riverside County are the CA Departments of Parks and Recreation, and CA Department of Fish and Wildlife. Similar to the federal partners in the County, these are primarily sources of potential funding for grants and other technical assistance.

#### University of California at Riverside:

The University is a statewide system of higher institutions with the purpose of postsecondary education. The campus is home to the botanical gardens, a 40acre site which is home to hiking trails on the campus. The campus is responsible for the maintenance of the trails.

#### **CA Department of Parks and Recreation:**

The CA Department of Parks and Recreation operates similarly to the NPS, in that they provide for state recreational areas on tracts of land that may also help to protect natural and cultural resources. This partner is able to provide valuable funding assistance and is able to assist in making trail connections.

**CA** Department of Fish and Wildlife: The CA Department of Fish and Wildlife serves a similar function to the US Fish and Wildlife Service, but at a state scale of governance. This partner also has limited capacity to manage infrastructure within the County and has primarily been a funding resource.

#### **PRIVATE**

Many private groups operate within Riverside County that support either individual trails, trail systems or parks containing trails.

These groups range from friend's groups, to health foundations, environmental protection groups, and many others.

#### **Greater Riverside Chamber of Commerce:** The

Greater Riverside Chamber is committed to helping local companies grow their business by taking the lead in programs and efforts that help create a strong local economy and make our community a great place to do business.

This non-conventional trail partner could be approached to assist with the marketing and promotion of Riverside County Trails and Natural Areas. Other chambers have been very helpful in promoting businesses and places to live in areas with established trail systems.

#### **Environmental Protection**

#### **Center for Natural Lands Management**

**(CNLM):** The CNLM manages preserves throughout Washington and California. Their focus is to protect threatened, endangered or rare species and habitats throughout these areas. Each preserve is given its own stewardship staff, who provides for the care of the land and species. In Riverside County, the CNLM manages the following preserves:

Bogart Wash, CVAG I-10, Dos Palmas, Four Seasons, Johnson Ranch, Lincoln Ranch, Mockingbird Canyon, Roripaugh Ranch, Skunk Hollow, Smoke Tree, Summerhill, Thousand Palms Oasis, Warm Springs, Wilson Creek and Wilson Valley. Since the focus of these tracts are preservation, it is unlikely that a diverse range of trail uses would be provided in the areas managed by the CNLM.

In Western Riverside County, the CNLM works to provide for trail maintenance, cleanup and landscaping, and some habitat restoration through seed planting. The organization frequently works with local schools who wish to expose primarily school aged students to the outdoors. In the Thousand Palms Oasis Preserve, the CNLM also provides for similar activities, along with docents in the visitor's center. Volunteers in this preserve also help to lead trail hikes.

Inland Empire Waterkeeper: Inland Empire Waterkeeper's mission is to protect and enhance the water quality of the Upper Santa Ana River Watershed through programs of advocacy, education, research, restoration, and enforcement in San Bernardino and Riverside County.

The Inland Empire Waterkeeper's small staff have worked to mobilize community efforts since 2005. They are a grassroots environmental movement that supports the restoration and enjoyment of the Santa Ana River by its neighbors. The group collects samples water, conducts research, restores habitats and conducts outreach efforts. The group hosts corporate cleanups and other volunteer days.

#### **Riverside County Parks Foundation:**

The Riverside County Parks Foundation is an organization of parks and recreation enthusiasts dedicated to improving lives through parks. The Foundation promotes volunteerism to support parks, advocates on behalf of the parks, and provides educational programming to help connect people to parks and healthy living. Major areas of focus are environmental education, health and recreation, and public lands stewardship.

Sierra Club: The Sierra Club is an environmental non-profit organization whose aim is to protect natural and wild places. In Riverside County the San Gorgonio chapter of the Sierra Club works towards a variety of goals including conservation-oriented land use policy, the partnership of clean energy and conservation in the desert, as well as the preservation of trails and open spaces. This organization also plans and leads hiking and camping excursions as well as clean ups across Riverside County.

#### **Friends Groups**

Friends groups typically provide trails with a diverse range of support. This support can come in the means of providing for ongoing trail and trailside cleanup, constructing trail facilities such as restrooms, improving the character of the trail, volunteer work days, fundraisers, and many other activities. These groups provide trail managers with much needed capacity to ensure a trail or park facility functions well as a recreational facility. Generally, friends groups align with a geographic area or specific facility to ensure that resources are not spread thin.

Friends of Hidden Valley Preserve: This friends group mission is to maintain and protect Hidden Valley Wildlife Preserve and enhance the educational opportunities it provides for present and future generations. The group accomplishes its goals through providing advocacy, operational support, educational programming, resource management and technological support.

This friends group works to fill in resource gaps where the Hidden Valley Nature Center may not have the capacity to fill itself. The site has access to over 25 miles of equestrian and hiking trails. The group helps to staff the center and provide for events.

Friends of Riverside Hills: The Friends of Riverside Hills focus is to support the protection, expansion and preservation of open spaces and natural habitats. This group is focused on providing Box Springs Mountain Park with needed amenities for multiple types of paths. The group has also lobbied extensively to entities to provide necessary elements to the park.

#### Friends of the Coachella Valley (CV) Link

**Trail:** The Friends of the Coachella Valley (CV) Link has organized around the mission of encouraging a healthy lifestyle and building the CV Link Trail. This trail is a fifty-mile facility that will incorporate multiple new technologies to encourage an active lifestyle. The group organizes trail cleanup and maintenance, operational and educational support, resource management, and advocates for the trail. The CV Link is located in eastern Riverside County.

The Friends of the CV Link Trail work to advocate, fundraise, provide office support, create web resources, event planning and other actions to ensure that the trail is built and utilized. The group host numerous events in support of the trail, and frequently work with the County to establish partnerships between groups.

#### Friends of the San Jacinto Mountain County

Parks: The goal of this friends group is to support the work of the Riverside County Regional Parks & Open-Space District in the San Jacinto Mountain Area. In doing so, the group directs equipment purchases, educational and interpretive programming and other assistance to the parks directly.

Inland Valley Mountain Bike Association: The Inland Valley Mountain Bike Association aims to develop and care for sustainable, multipleuse trails while fostering a community that participates in healthful activity, preserving the environment and stimulating the local economy through advocacy, education and participation. The group utilizes volunteer time towards the development of trail systems, community meetings and bicycling encouragement events.

Riverside Recreational Trails: Founded in 1987 by a group of trail enthusiasts, this group is dedicated to protecting the local trail system and offers many activities throughout the year. The organization provides both equestrian and non-equestrian events. The organization has adopted trail segments for management, constructed facilities and donated money to parks for maintenance and equipment purchases.



## REGIONAL AND COUNTYWIDE

Coachella Valley Association of Governments (CVAG): CVAG is responsible for the intergovernmental coordination of governments in eastern and central Riverside County. The regional coalition aims to provide better quality of life and balanced growth by providing for resources across agencies in community, energy and

The County is able to utilize CVAG as a partner in coordinating actions by multiple entities through its committees. The Transportation Department of this group also manages the transportation program for the County, which could act as a funding source for the overall development of the trail system.

environmental, and transportation resources.

Desert, Jurupa Area and Valley-Wide Recreation and Park Districts: Recreation districts have been established in these areas to provide for parks and recreational facilities in the respective places. Having these districts in place creates a special incentive for local users to have access to parks, trails and other facilities funding through special provisions.

#### **Riverside Community Health Foundation:**

The Riverside Community Health Foundation aims to improve the health status of Riverside County. The foundation provides funding, developing and operating partnerships and collaborations that provide expanded



#### Adopt-A-Trail

The RCRPOSD operates an Adopt-A-Trail program (AAT) to engage community members and groups in the maintenance and protection of County trails and playgrounds. The County provides training for trail volunteers as well as the necessary tools to perform work. Currently the County operates the program in 8 parks and open spaces, and for four urban trails.

### **Adoptable Trails**

PARK/OPEN SPACE	ADOPTABLE TRAILS
Bogart Park	Bogart Loop, Meadow Loop, Playground
Box Springs Mountain Preserve	M Trail; Edison Trail; C Trail; Skyline Loop #1; Skyline Loop #2; Sugarloaf Trail; Two Trees Trail; Two Trees Trailhead; Hidden Springs Trailhead
ldyllwild Park	Perimeter Trail, Hillside Trail, Summit Trail
Idyllwild Nature Center	Nature Center Trail, Equestrian Trail
Lake Cahuilla	Cove to Lake Trail
Lake Skinner Recreational Area	Shoreline Trail #1; Shoreline Trail #2; Playground #1; Playground #2
McCall Memorial Equestrian Park	Interior Equestrian Trail
Gilman Historic Ranch & Wagon Museum	Bobcat Trail
Hidden Valley Wildlife Area	Native Plant Gardens
Harford Springs Reserve	Trails #1-6; Mockingbird Trail
Urban Trails	Jim Real Trail; Rider Street Trail; Santa Ana River Trail; Mary Tyo Equestrian Staging Area

access to high quality health care services and education. The foundation provides grants, organizes community groups, and utilizes educational programs to improve community health. As a health foundation, there is likely little direct involvement in the ongoing operations and maintenance of trails, but much support is provided in the support of trails as a community health tool.

#### **Riverside County Economic Development**

Agency: This agency is in place to enhance the economic position of county and county residents, improve quality of life, improve existing communities, provide cultural and entertainment activities, and others. In promoting these activities, many economic development agencies have found that the ability to commute greatly contributes to their goals. Agencies have provided funding for design, construction, planning and other marketing for trails.

Riverside County Healthy Coalition: The coalition was formed to promote, improve and sustain social and physical environments for healthy eating behaviors and active lifestyles for wellness through policy development and advocacy, environment change and community empowerment in Riverside County. The coalition has been providing grants, organizing meetings, and conducting environmental health programs which all are in line with trail efforts.

Riverside County Sheriff: Safety and law enforcement are a large concern for many trail users and adjacent property owners. The Sheriff's Department is responsible for many areas that have trails and utilize nonautomotive means to patrol these areas. Careful coordination with law enforcement and other emergency responders is key to ensuring the overall safety of trail users in rural areas. The Sheriffs department have mapped off-highway vehicle trails to support this initiative, but it could be expanded to future regional trails since enforcement for these facilities contain similar issues.

#### **Riverside County Transportation Commission:**

The Riverside County Transportation Commission is responsible for planning and implementing transportation and transit improvements, assisting local governments with money for local streets and roads, helping to smooth the way for commuters and goods movement, and ensuring that everyone has access to transportation.

The commission is largely responsible for coordinating investments into the transportation system. The commission could serve as a resource in coordinating trail investments and maintenance efforts.

#### **Riverside County Transportation Department:**

The County transportation department is the lead agency for maintenance of roadways, contract services, land development and other typical functions within the unincorporated area of Riverside County. This department is integral to the development of the overall transportation system within the County, including diverse types of transportation leading into the future.

Southern California Association of Governments (SCAG): SCAG aims to provide a high-quality of life for Southern Californians by fostering the realization of regional plans. The organization aims to develop long range regional transportation goals, including sustainable communities, forecast population and transportation growth, housing needs, and improve air quality. This organization will be helpful in the establishment of communications across the region.

**Western Riverside Council of Governments** (WRCOG): WRCOG enables this area to speak with a collective voice on important issues. The focus on this entities collective governance is on transportation, environment, energy, economy and health.

#### **Environmental Protection**

Riverside County Habitat Conservation
Agency (RCHCA): The RCHCA was formed in
1990 for the purpose of planning, acquiring,
and managing habitat for the Stephens'
Kangaroo Rat and other endangered,
threatened, and candidate species. The
RCHCA provides for management of many
different preserves within the County, but
does not necessarily provide for direct
trail resources throughout the area.

The RCHCA provides an opportunity to organize coalitions around the development of natural surface trails in areas within the entities jurisdiction. It also enables entities within the area to identify feasible areas for trail development.

Riverside-Corona Habitat Conservation
District: (RCRCD) Similar to recreation districts, the RCRCD special district established in San Bernardino and Riverside County aims to conserve the natural resources of areas within in southern California. The RCRCD provides technical advice to land users, educational programs for the community, and conducts on-the-land conservation projects. The focus on this district is centered on resource preservation and education.

Western Riverside County Regional
Conservation Authority (RCA): The Western
Riverside County Regional Conservation
Authority acquires land for conservation and
habitat protection purposes. The organization
also reviews development applications and
has some trail space on reserves. The primary
role of the organization is to provide land
management, facilities maintenance, ecological
monitoring, and control for unauthorized access.

## OVERVIEW OF TRAIL PARTNERS

A table of the partners in Riverside County has been provided to illustrate which stakeholder is capable of assisting with certain tasks (see Table 5-4). These stakeholders are categorized by scope of operations and type of tasks conducted. Scope of operations pertains to how large an organization operations from the regional or county level, to the federal level. Types of task are broken down by advocacy, planning, design, management, operations and maintenance, and non-conventional partners. These categories are generalizations and do not reflect the on the ground, every day operations of the organizations.



The RCHCA
offers educational
opportunities to the
local community like
hikes during their
Endangered Species
Day event.

Table 5-4. Trail Partner Applicability Matrix

RIVERSIDE COUNTY (RC) PARTNER NAME	SCOPE OF OPERATIONS	ADVOCACY	DESIGN
CA Department of Parks and Recreation	State	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•
CA Department of Fish and Wildlife	State		•
RC Flood Control and Water Conservation District	County		•
RC Habitat Conservation Agency	County		•
RC Health Coalition	County	•	
RC Parks and Open-Space District	County		•
RC Planning Department	County		•
RC Sheriff	County		
RC Transportation Commission	County		•
Riverside University's Public Health System	County	•	
RC Transportation Department	County		•
Riverside Economic Development Agency	County	•	
Coachella Valley of Governments	Regional		•
Desert Recreation District	Regional		•
Jurupa Recreation and Park District	Regional		•
Valley-Wide Recreation and Park District	Regional		•
Metrolink	Regional		
Riverside Land Conservancy	Regional		
Riverside-Corona Habitat Conservation District	Regional		•
Southern California Association of Governments	Regional		•
Western Riverside Council of Governments	Regional		•
Western RC Regional Conservation Authority	Regional		
Army Corps of Engineers	Federal		
March Air Reserve Base	Federal		
US Department of the Interior: Bureau of Land Management	Federal		•
US Fish and Wildlife Service	Federal		
US Forest Service	Federal		•
Friends of Hidden Valley	Friends Group	•	
Friends of Riverside Hills	Friends Group	•	
Friends of the CV Link	Friends Group	•	
Friends of the San Jacinto Mountain County Parks	Friends Group	•	
Center for Natural Lands Management	Private		
Inland Empire Waterkeeper	Private	•	
Inland Valley Mountain Bike Association	Private	•	•
Riverside Chamber of Commerce	Private		
Riverside Community Health Foundation	Private	•	
Riverside County Parks Foundation	Private	•	
Sierra Club	Private	•	
Wildlands Conservancy	Private	•	
University of California at Riverside	University		

FUNDING ASSISTANCE	PLANNING	MANAGEMENT, OPERATIONS, OR MAINTENANCE	PROMOTION/ MARKETING	NON- CONVENTIONAL PARTNER
•	•	•		
•	•	•		
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Riverside County Regional Park and Open-Space District

# COMPREHENSIVE TRAILS PLAN -APPENDICES



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**Intercept Survey** 

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT



# SUMMARY: LOCATION COUNTS AND INTERCEPT SURVEY



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### **SUMMARY Location Counts and Intercept Survey**

Comprehensive Trails Plan Riverside County Regional Park & Open Space District Trail Use Survey November 30, 2016 | CS Agreement 160063

#### **OVERVIEW**

Location counts and intercept surveys were conducted at nine pre-selected sites throughout Riverside County, between November 2<sup>nd</sup> and November 19<sup>th</sup>. Data were collected on weekday morning and evening peak-periods during daylight hours, as well as in selected off-peak periods. Data collection and counts also were conducted on Saturdays at selected Riverside and Coachella Valley locations. The end of daylight savings on November 6<sup>th</sup> shortened some morning and evening peak data collection periods.

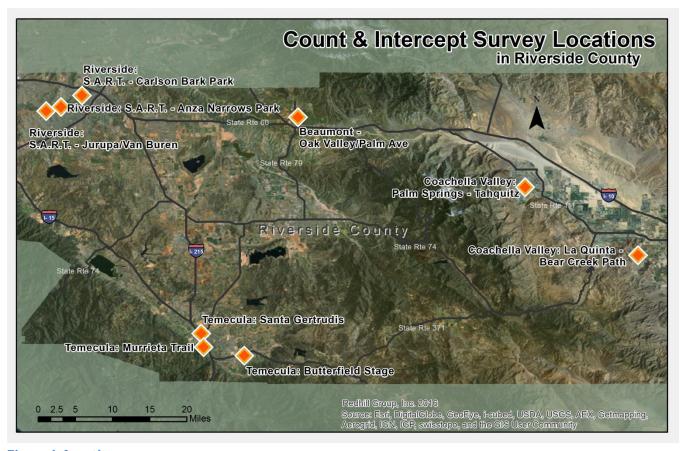
Prior to conducting the counts and intercepts, all locations were visited to plan logistics for the data collection phase. A pre-test for the intercept survey and count methodology were conducted to verify that all data collection instruments were capturing data accurately.

Table 1: Count and Intercept Dates by Location shows details regarding data collection.

**Table 1: Count and Intercept Dates by Location** 

Location	Weekday	Weekend (Saturday)
Beaumont	11/11/2016	
Butterfield Stage	11/10/2016	
La Quinta	11/18/2016	11/19/2016
Murrieta Trail	11/9/2016 ; 11/10/2016	
Santa Gertrudis Trail	11/9/2016	
Palm Springs	11/17/2016 ; 11/18/2016	11/19/2016
SART - Anza Narrows	11/2/16	11/5/2016
SART - Bark Park	11/4/2016	11/5/2016
SART - Jurupa	11/3/2016	





**Figure 1: Locations** 

#### **Counts**

Counts were conducted in peak and off peak periods and tallied by hour using a pre-approved count sheet (Appendix A: Count Sheet). Counts were recorded as individuals crossed a designated "invisible" line and then tallied by mode (pedestrian, bicyclist, skate board, equestrian, etc.) and direction (north, south, east, west). Other attributes were collected as defined by the count sheet. A count tally overview is shown in Table 3: Count Results Summary.

For bicycle counts, supplemental attributes collected included, gender of rider if female, "sidewalk riding," "wrong way riding", and "other." "Sidewalk riding" and "wrong way riding" attributes were only tallied at the Beaumont location because it was the sole location with sidewalks.

For pedestrian counts, supplemental attributes collected include "wheelchair/special needs," "skateboard / scooter / skates," and "child."



#### **Intercept Surveys**

All intercept surveys were collected using tablets at the count locations and in areas adjacent to the count locations. (Table 1: Count and Intercept Dates by Location). A total of 366 complete surveys were collected and overall results can be considered accurate at +/- 5.1% at a 95 percent confidence level. Table 2: Survey Status Summary shows the outcome of all approaches to potential respondents. Surveys were not completed with people who were not using the trails or had already completed the survey.

Prior to data collection a survey instrument was developed jointly by Redhill Group, Cambridge Systematics and Alta (see: Appendix B: Survey Instrument.) The survey instrument was programmed and tested by Redhill Group

prior to data collection and determined to be capturing the required data. Pretest data is included in the final data set. The trail direction that the respondent was traveling was based on the direction of the entire trail length as opposed to the segment surveyed. Distance traveled was self-reported by the respondents and represents the respondents' estimation of their one way trip on the trail. Demographic questions (gender, ethnicity and age) were observed or estimated by the interviewer.

Following data collection, all data was reviewed for completeness and accuracy. If a respondent did not answer all the questions, the survey was marked as incomplete and removed from the final data set.

**Table 2: Survey Status Summary** 

Survey Status	Totals	Percentages
All Approaches	623	
Trail Users	583	93%
Refusals	205	35%
Agreed to Participate	378	64%
Incomplete Surveys	12	3%
Total Completed Surveys	366	

A tally of surveys by location is shown in Table 4: Intercept Survey Results Summary.





**Table 3: Count Results Summary** 

Count Location	Day/Date	6:00 am* - 8:59 AM	9:00 am - 2:59 pm	3 pm - 5:59 pm**	Total	*=Sunrise	**=Sunset
Beaumont	Location Totals:	18	84	14	116		
Weekday	11/11/2016	18	84	14	116	6:19 AM	4:48 PM
<b>Butterfield Stage</b>	Location Totals:	16	19	11	46		
Weekday	11/10/2016	16	19	11	46	6:18 AM	4:49 PM
La Quinta	Location Totals:	65	266	17	348		
Weekday	11/18/2016	65	122	17	204	6:25 AM	4:44 PM
Weekend	11/19/2016		144		144	6:26 AM	4:44 PM
Murrietta	Location Totals:	15	16	11	42		
Weekday	11/9/2016		7	11	18	6:17 AM	4:50 PM
Weekday	11/10/2016	15	9		24	6:18 AM	4:49 PM
Palm Springs	Location Totals:	86	117	33	236		
Weekday	11/17/2016	39	47	33	119	6:24 AM	4:45 PM
Weekday	11/18/2016	47			47	6:25 AM	4:44 PM
Weekend	11/19/2016		70		70	6:26 AM	4:44 PM
Santa Gertrudis	Location Totals:	13	24	2	39		
Weekday	11/9/2016	13	24	2	39	6:17 AM	4:50 PM
SART - Anza Park	Location Totals:	34	204	24	262		
Weekday	11/2/2016		20	24	44	7:10 AM	5:55 PM
Weekend	11/5/2016	34	184		218	7:13 AM	5:53 PM
SART - Bark Park	Location Totals:	138	592	50	780		
Weekday	11/4/2016	56	170	50	276	7:12 AM	5:54 PM
Weekend	11/5/2016	82	422		504	7:13 AM	5:53 PM
SART - Jurupa	Location Totals:	10	43	29	82		
Weekday	11/3/2016	10	43	29	82	7:11 AM	5:54 PM
<b>Grand Total***</b>		395	1365	191	1951		
***Bicyclists and Pec	lestrians combine	ed					

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT



**Table 4: Intercept Survey Results Summary** 

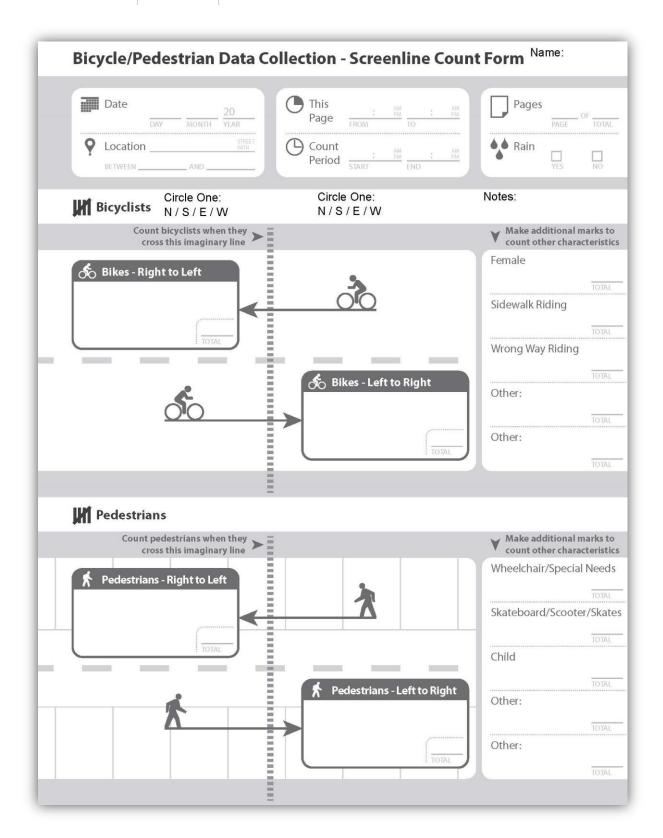
Intercept Location	Day/Date	6:00 am* - 8:59 AM	9:00 am - 2:59 pm	3 pm - 5:59 pm**	Total	*=Sunrise	**=Sunset
Beaumont	Location Totals:	1	2.33 pili 11	2.55 pm	14		
Weekday	11/11/2016	1	11	2	14	6:19 AM	4:48 PM
Butterfield Stage	Location Totals:	7	5	4	16		
Weekday	11/10/2016	7	5	4	16	6:18 AM	4:49 PM
La Quinta	Location Totals:	19	48	5	72		
Weekday	11/18/2016	19	28	5	52	6:25 AM	4:44 PM
Weekend	11/19/2016		20		20	6:26 AM	4:44 PM
Murrietta	Location Totals:	2	6	3	11		
Weekday	11/9/2016		3	3	6	6:17 AM	4:50 PM
Weekday	11/10/2016	2	3		5	6:18 AM	4:49 PM
Palm Springs	Location Totals:	22	22	7	51		
Weekday	11/17/2016	9	13	7	29	6:24 AM	4:45 PM
Weekday	11/18/2016	12			12	6:25 AM	4:44 PM
Weekend	11/19/2016	1	9		10	6:26 AM	4:44 PM
Santa Gertrudis	Location Totals:	1	12		13		
Weekday	11/9/2016	1	12		13	6:17 AM	4:50 PM
SART - Anza Park	Location Totals:	7	35	8	50		
Weekday	10/31/2016***		3		3	7:09 AM	5:57 PM
Weekday	11/2/2016		3	7	10	7:10 AM	5:55 PM
Weekend	11/5/2016	7	29	1	37	7:13 AM	5:53 PM
SART - Bark Park	Location Totals:	26	76	24	126		
Weekday	10/31/2016***			4	4	7:09 AM	5:57 PM
Weekday	11/4/2016	14	41	20	75	7:12 AM	5:54 PM
Weekend	11/5/2016	12	35		47	7:13 AM	5:53 PM
SART - Jurupa	Location Totals:	2	9	2	13		
Weekday	11/3/2016	2	9	2	13	7:11 AM	5:54 PM
<b>Grand Total</b>		87	224	55	366		
***pretest date							



**Appendix A: Count Sheet** 



RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT





### **Appendix B: Survey Instrument**



```
QUESTIONNAIRE = RVTABS
VERSION : 0
*********
     CODE BOX :
* LT = LESS THAN ( < ) *
* GT = GREATER THAN ( > ) *
********************
1. ARE YOU USING THE TRAIL TODAY ?
 1. YES
2. NO
*******************
2. MODE OF RESPONDENT
 1. BIKE
  2. WALK/JOG
  3. HORSEBACK
  4. SKATEBOARD
  5. SCOOTER
  6. SKATES
  7. OTHER (OTHER LINE = 100)
********************
3. WHAT KIND OF BIKE ?
  1. STANDARD/SINGLE
  2. TANDEM
  3. BIKE WITH BABY IN SEAT
  4. BIKE WITH CART (NO PASSENGER)
4. COMPANIONS ?
  1. TRAVELING ALONE
  2. 1 TO 2 PEOPLE
3. 3 OR MORE PEOPLE
  4. ORGANIZED GROUP (OTHER LINE = 101)
*******************
5. DO YOU HAVE A FEW MINUTES TO COMPLETE A SURVEY TO HELP
  IMPROVE RIVERSIDE COUNTY TRAILS AND PATHS ?
  1. YES
```



2. NO

6. N	MAY WE CONTACT YOU AT A LATER TIME TO COMPLETE THE SURVEY ?
2	1. YES 2. NO
* * * *	*************************
	WHAT IS YOUR NAME ? ************************************
	WHAT IS THE BEST PHONE NUMBER TO REACH YOU AT ?
9. I	HOW DID YOU GET TO THIS PATH ?
2	1. CAR/TRUCK/VAN 2. BIKING 3. WALKING/JOGGING 4. PUBLIC TRANSPORTATION 5. EQUESTRIAN 6. OTHER (OTHER LINE = 102) ************************************
10.	WHAT IS THE PRIMARY PURPOSE OF YOUR TRIP TODAY ?
	1. WORK 2. SCHOOL 3. SHOPPING 4. VISITING FRIENDS/FAMILY 5. EXERCISE/REC 6. OTHER (OTHER LINE = 103)
***	(Multiple Response) ************************************
11.	WILL YOU BE STOPPING ANYWHERE ELSE ON YOUR TRIP TODAY ?
	1. NO 2. WORK 3. SCHOOL 4. SHOPPING 5. VISITING FRIENDS/FAMILY 6. EXERCISE/REC 7. OTHER (OTHER LINE = 104)
***	(Multiple Response) ************************************
12.	HOW OFTEN DO YOU NORMALLY USE THE PATHS ?
***	1. 3+ DAYS/WK 2. 1-2 DAYS/WK 3. ONCE/MONTH 4. SEVERAL TIMES/YEAR 5. LESS THAN ONCE/YEAR 6. FIRST TIME ************************************

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT



13. WHAT ARE ALL THE REASONS YOU USE THE PATHS ?

```
1. EXERCISE
   2. ENJOYMENT
   3. TRAVELING TO WORK
   4. TRAVELING TO SCHOOL
   5. TRAVELING TO SHOP
   6. VISITING FRIENDS/FAMILY
   7. TRAVELING TO RUN ERRANDS
   8. OTHER (OTHER LINE = 105)
   (Multiple Response)
14. HOW OFTEN DO YOU USE PATHS TO TRAVEL TO WORK ?
   1. ONCE/WEEK
   2. 2-3 TIMES/MNTH
   3. ONCE/MNTH
   4. SEVERAL TIMES/YEAR
   5. LESS THAN ONCE/YEAR
   6. FIRST TIME
15. HOW OFTEN DO YOU USE PATHS FOR SHOPPING/ERRANDS, VISITING
   FRIENDS/FAMILY, OR TO GET TO SCHOOL ?
   1. ONCE/WEEK
   2. 2-3 TIMES/MNTH
   3. ONCE/MNTH
   4. SEVERAL TIMES/YEAR
   5. LESS THAN ONCE/YEAR
   6. FIRST TIME
16. WHAT IS YOUR HOME ZIP CODE ?
   ******************
17. WHAT CITY ARE YOU GOING TO ?
   1. BANNING
                        17. MENIFEE
   2. BEAUMONT
                        18. MORENO VALLEY
                        19. MURRIETA
   3. BLYTHE
    4. CALIMESA
                        20. NORCO
   5. CANYON LAKE
                        21. PALM DESERT
   6. CATHEDRAL CITY
                        22. PALM SPRINGS
   7. COACHELLA
                        23. PERRIS
   8. CORONA
                        24. RANCHO MIRAGE
   9. DESERT HOT SPRINGS
                        25. RIVERSIDE
   10. EAST VALE
                        26. SAN JACINTO
   11. HEMET
                        27. TEMECULA
                        28. WILDOMAR
   12. INDIAN WELLS
   13. INDIO
                        29. DON'T KNOW
   14. JURUPA VALLEY
                        30. REFUSED
```

18. HOW MANY MILES ON THE TRAIL ARE YOU TRAVELING, OR DID YOU TRAVEL, TO GET TO WHERE YOU'RE GOING ? (ONE-WAY TRIP)



15. LAKE ELSINORE

16. LA QUINTA

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

31. NO PARTICULAR DEST.
32. OTHER (OTHER LINE = 108)

1. LESS THAN 1 MILE

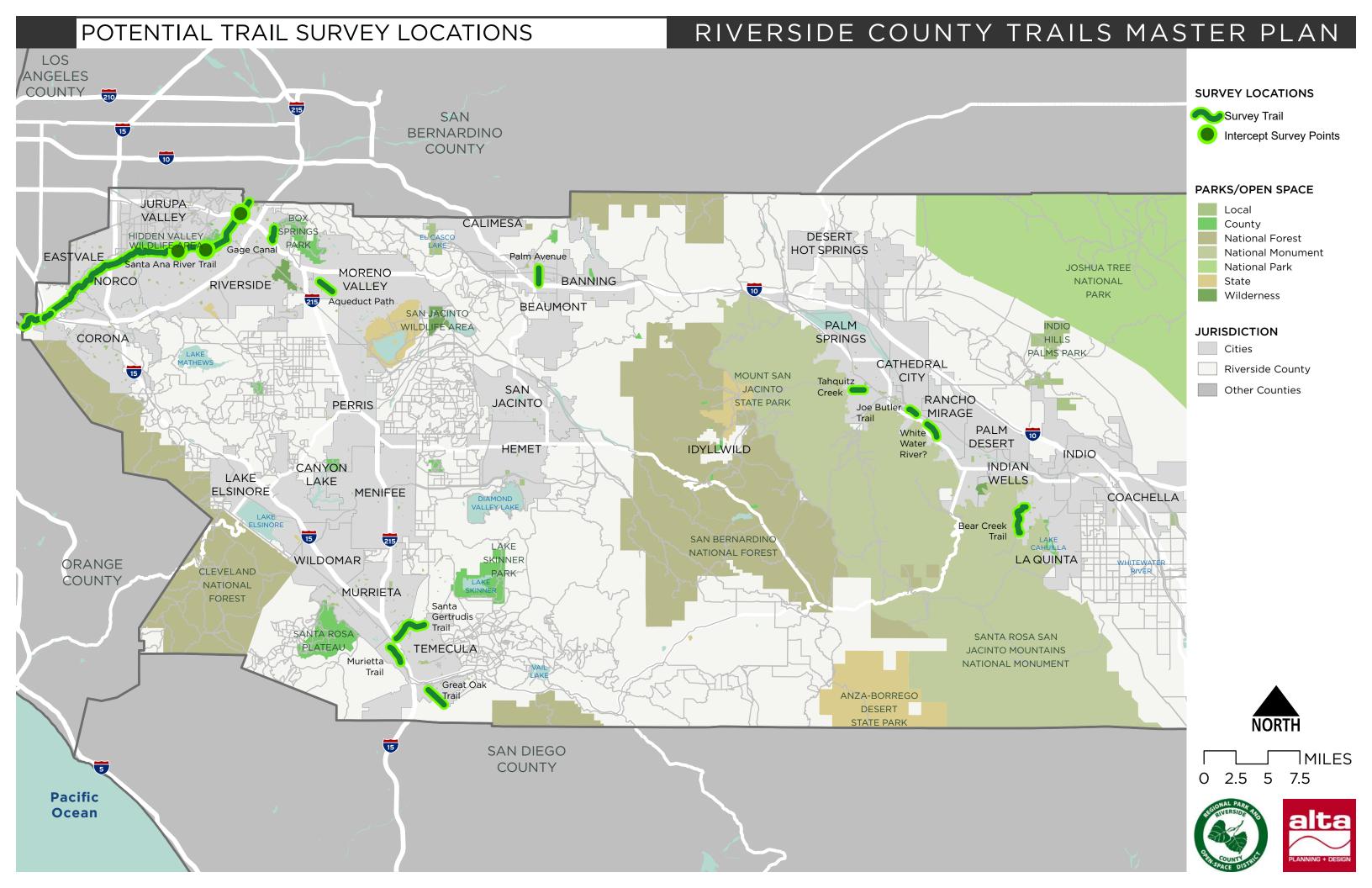
	2. 1 MILE 3. 2 MILES 4. 3 MILES 5. 4 MILES 6. 5 MILES 7. 6 MILES OR MORE, HOW MANY ? (OTHER LINE = 106)
***	******************
19.	WOULD YOU BE WILLING TO SUPPORT AN INITIATIVE TO FUND TRAIL DEVELOPMENT AND MAINTENANCE ?
***	1. YES 2. NO 3. NOT SURE ************************************
	THOSE ARE ALL THE QUESTIONS WE HAVE. THANK YOU FOR HELPING TO IMPROVE THE RIVERSIDE TRAILS! RESPONDENT'S COMMENTS:
21.	ESTIMATED AGE.
	1. 19 OR YOUNGER 2. 20-29 3. 30-39 4. 40-49 5. 50-59 6. 60 OR OLDER
***	6. 60 OR OLDER ************************************
22.	OBSERVED GENDER
***	1. MALE 2. FEMALE ************************************
23.	OBSERVED ETHNICITY
	1. AFRICAN AMERICAN 2. ASIAN OR PACIFIC ISLANDER 3. HISPANIC/LATINO 4. NATIVE AMERICAN/ALASKA NATIVE 5. WHITE, NON-HISPANIC/LATINO 6. MULTIRACIAL 7. OTHER (OTHER LINE = 107)
***	******************
24.	LOCATION OF DATA COLLECTION/SURVEY.
	1. RIVERSIDE: ANZA NARROWS 2. RIVERSIDE: BARK PARK 3. RIVERSIDE: JURUPA/VAN BUREN 4. TEMECULA: MURRIETA TRAIL 5. TEMECULA: SANTA GERTRUDIS 6. LA QUINTA 7. PALM SPRINGS

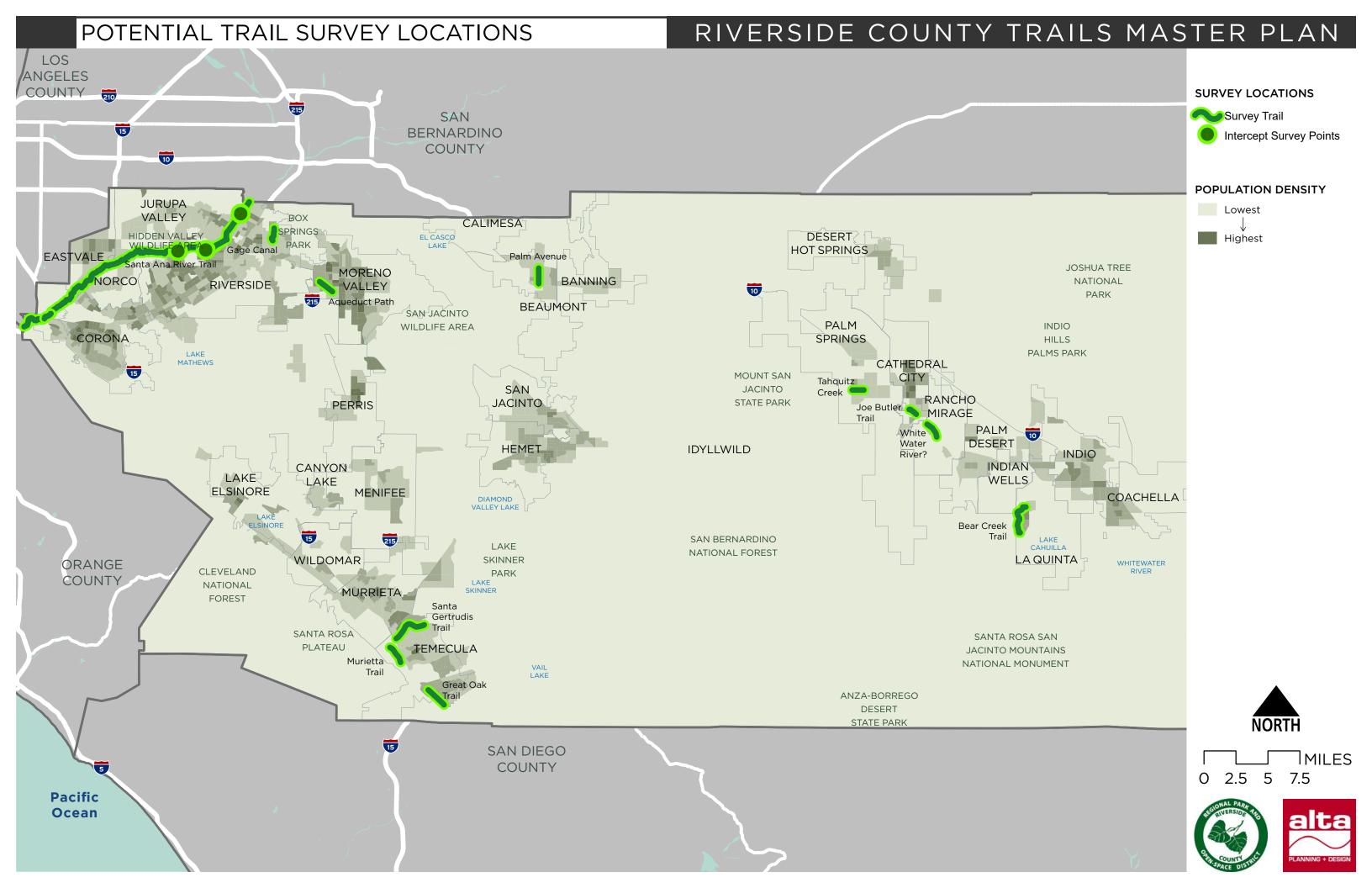
RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT





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### Memorandum

TO: Greg Maher, Alta Planning and Design

FROM: Cambridge Systematics and Redhill Group

DATE: January 6<sup>th</sup>, 2017

This memorandum provides a brief overview of findings from the trail intercept surveys implemented by Redhill Group. The full dataset, frequency of response summary, and crosstab documents are provided separately.

#### **Summary of Survey Respondents**

There were a total of 366 completed intercept surveys collected at 9 different locations. The surveys were collected over 10 days in November, 2016, on Wednesdays, Thursdays, Fridays, and Saturdays. Surveys were collected in the morning, mid-day, afternoon periods.

Figure 1: Trail Count Locations

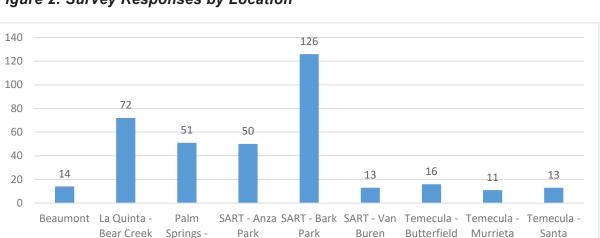
Location Name	Facility Type	Location Description
Beaumont – Oak Valley	On-Street Bike Lane	Oak Valley Pkwy E of Palm Ct
La Quinta – Bear Creek	Off-street Path	Bear Creek Trail E of Eisenhower Dr
Palm Springs – Riverside Dr	Off-street Path	Riverside Drive Path E of Sunrise Wy
SART – Anza Park	Off-street Path	Santa Ana River Trail just W of Martha Mclean-Anza Narrows/Riverbed Park
SART – Bark Park	Off-street Path	Santa Ana River Trail just W of Bark Park
SART – Van Buren	Off-street Path	Santa Ana River Trail E of Van Buren Bl off Jurupa
Temecula - Butterfield Stage	On-Street Bike Lane	Butterfield Stage Rd N of Wolf Store Rd
Temecula - Murrieta Creek	Off-street Path	Murrieta Trail N of Rancho California Rd
Temecula - Santa Gertrudis	Off-street Path	Santa Gertrudis Creek Trail N of Ynez Rd

The majority of the surveys were collected on the Santa Ana River Trail (52% of total between the three locations). However, there were over 50 surveys completed on both the Bear Creek Trail in La Quinta and Riverside Drive Path in Palm Springs.

Trail

Stage

Gertrudis



RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

Figure 2: Survey Responses by Location

Riverside Dr

Half of the respondents were on bicycles and almost half were walking, with a couple skaters and skateboarders. Over 70% traveled alone and an additional 23% traveled with one other person. Surveyors were asked to estimate demographic characteristics of the survey respondents. Of the respondents, almost 75% of those surveyed were male and the majority appeared to be over 40 years old. Roughly 70% were non-Hispanic white and about 20% were Hispanic/Latino.

## **Trail Usage and Trip Purpose**

The trail users who responded to the survey represented common travelers on the paths. Almost 60% of respondents use the paths three or more times a week; 82% of respondents used the paths at least once per week. Survey respondents were asked about the primary purpose of their current trip as well as if they intended to make any additional stops. On the date of survey, the most common use for the paths was for recreation, however, a large percentage of respondents use the paths for utilitarian purposes. For example, 13% of the respondents indicated that their primary purpose of the trip was something other than recreational (See Figure 3 - shopping, work, school, visiting friends, and errands) and 12% of those using the paths for exercise made non-recreational stops. In total, on the date of the survey, 23 percent of all respondents used the paths for a non-recreational trip purpose. There was a slight but not significant difference in trip purpose by mode; close to 13% of bicyclists and 12% of pedestrians indicated a non-recreational primary trip purpose. It should be noted that utilitarian trips were more common on bike lanes and adjacent sidewalks; 26% of those surveyed had a primary purpose that was non-recreational. Excluding bike lanes, the percent of trips with recreation as the primary trip purpose increases from 87% to 89%.

Participants were then asked about all the reasons for using trails. Almost all respondents had used the paths for exercise in the past; however, 16% had also used them for shopping, 12% for visiting friends/families, 8% for other errands, and 6% for work (See Figure 5). In total, of all the respondents, 33% had used paths at some point for a non-



recreational purpose. Or the respondents who used paths to travel to work (6.3% of total), 78% use paths for commuting at least once per week. Additionally, of the respondents who use paths for errands, visiting friends, or to get to school (28% of total), 52% use paths for those purposes at least once per week.



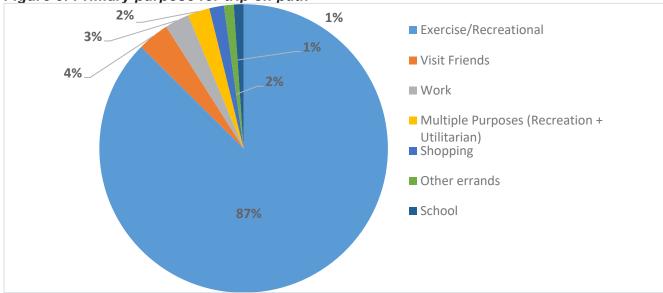
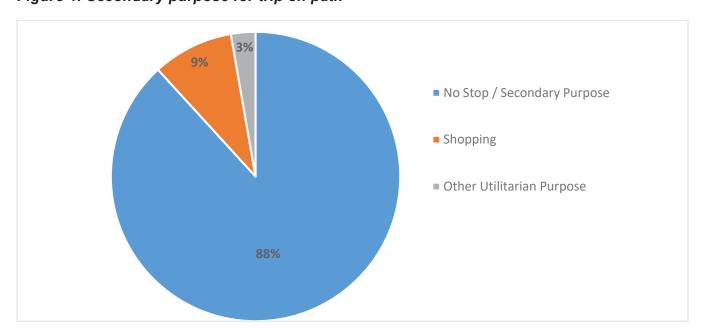


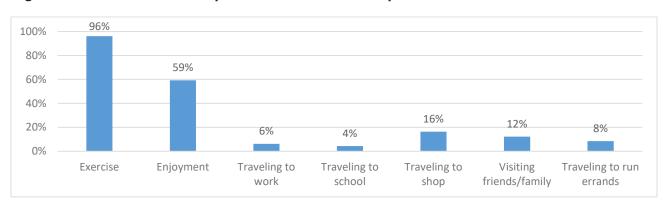
Figure 4: Secondary purpose for trip on path





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Figure 5: All reasons for respondents' utilization of paths



RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT



Appendix B:

**Best Practices Survey** 



Think >> Forward

## **Memorandum**

TO: Greg Maher, Alta Planning and Design

FROM: Jon Overman, Cambridge Systematics

DATE: October 12, 2016

RE: Agency Best Practices - Initial Findings

## Peer Agency Best Practices Survey - Initial Findings

The Riverside Park and Open Space District Peer Agency Survey gathered information from agencies in the Western United States regarding their management of paths and trails. This memo provides a high-level overview of the initial findings from the survey; the full list of results and findings will be provided separately.

Agencies were asked to provide information responses related to their trail management practices, including their funding sources, maintenance practices, and usage of their facilities. As of this writing, the following ten agencies participated in the survey:

- El Dorado County, California
- Jefferson County Open Space, Colorado
- Lane County Parks, Oregon
- Los Alamos County Parks Recreation and Open Space, New Mexico
- Los Angeles County Department of Public Works, California
- Maricopa County Parks and Recreation, Arizona
- Metro Parks and Nature Department, Oregon
- Missoula County Parks, Trails & Open Lands, Montana
- Tualatin Hills Park & Recreation District, Oregon
- Washoe County Regional Parks & Open Space, Nevada

The survey was conducted in August and September 2016. The survey, consisting of 24 multiple choice and short answer questions, was administered by Cambridge Systematics using an online survey tool. Participants filled out the survey on their own. Follow up interviews may be conducted.

## **Trail Planning Documents**

All agencies surveyed have at least one trail planning document. Nine out of ten agencies indicated they had a Park Master Plan, six indicated they had a Regional Park/Open Space District Master Plan, and five agencies indicated they had a Trail Master Plan. Below are the different types of trails planning documents agencies indicated they have produced:

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

- Bicycle Master Plan
- Bicycle Master Plan as part of Mobility Element of County General Plan
- Park Master Plan
- Regional Park/Open Space District Master Plan
- Trail Maintenance Plan
- Trail Master Plan
- Trail Operations Study
- Trail Use Survey Report
- Trail Wayfinding Sign Plan
- Trails Development Handbook

## **Trail Ownership and Maintenance**

Four agencies noted that they maintain trails on land not owned by the agency. Three of the agencies maintain trails on Federal lands and one maintains trails on State land.

All but one of the ten agencies responded that at least one regional or inter-county trail intersects the agency jurisdiction. Depending on the agency, there are different inter-agency agreements for trail management:

- The Los Angeles County Department of Public Works and the Tualatin Hills Park & Recreation District indicated they are solely responsible for maintaining regional trails.
- Most agencies noted that maintenance responsibility varies by jurisdiction, and Missoula County Parks Trails & Open Lands wrote that "each trail may have a unique set of circumstances for maintenance."
- Missoula County Parks Trails & Open Lands also noted that for trails or paths on State land, the County has a memorandum of understanding outlining maintenance responsibility. The county's responsibility includes snow sweeping, snow plowing and weed control, and the state is responsible for pavement management and maintenance.
- Jefferson County Open Space noted that the City and County of Denver owns some land in Jefferson County; Jefferson County builds and maintains the trails on this land.



 Some agencies mentioned that they share regional trail maintenance responsibilities with the US Forest Service or local home owner's associations.

Trail maintenance by facility type varies between agencies. For instance, one agency answered that all trails are maintained by the agency's staff and volunteers. Other agencies answered that the trail type is not a factor, jurisdictional boundaries determine the trail management responsibilities. Moreover, other agencies answered that maintenance responsibility does vary by trial type:

- The Los Angeles County Department of Public Works noted that they maintain paved paths, while unpaved paths are maintained by the Department of Parks and Recreation.
- The Tualatin Hills Park & Recreation District specified that soft surface trails are maintained by natural area staff, while the maintenance for hard surface trails is split between park maintenance and trail maintenance staff.
- El Dorado county noted that Class II and III bike lanes are maintained by their Transportation Division, while Class I trails are maintained by their Facilities Division and volunteers.
- Jefferson County Open Space shared that the County has a transportation and engineering division charged with maintaining commuter trails. Some of regional trails are constructed using County funds, however, ongoing maintenance is the responsibility of local jurisdictions.

Agencies with limited resources available, such as Lane County Parks, have no specific funding for trail maintenance in their budget, and therefore rely heavily on the efforts of active volunteer groups to maintain trails. Seven of the ten agencies rely on volunteers or non-profit organizations for some of the trail maintenance, however, many agencies contract with private firms or have paid staff that performs maintenance duties.





Think >> Forward

## **Funding Sources**

There are various federal, state, and local funding sources that agencies rely on for funding capital projects and on-going maintenance. The survey respondents cited the following sources:

#### Federal Funding Sources:

- Active Transportation Program (ATP)
- Safe Routes to Schools
- Congestion Mitigation and Air Quality Improvement (CMAQ) Program
- Surface Transportation Program (STP)
- Regional Surface Transportation Program (RSTP)
- Metropolitan Transportation Improvement Plan Funds
- Public Lands Highway Discretionary (PLHD)
- Transportation Investment Generating Economic Recovery (TIGER) Grants
- Other Federal grants

#### State Funding Sources:

- Active Transportation Program (ATP)
- Bicycle Transportation Act (BTA)
- State Departments of Transportation
- Mobile Source Air Pollution Reduction Review Committee (MSRC)
- Oregon Lottery
- Oregon Recreational Trail Grant
- Recreational Trails
- State grants
- State Parks Recreational Trail Program
- Transportation Development Act (TDA)

- Bonds
- County Capital Improvement Program Funds
- Dedicated sales tax
- Donations
- General Fund Tax
- Parks & Trails Bond Program Funds
- Parks Funds
- Parks System Development Charge Capital Improvement Program
- Road Discretionary Fund
- Regional Parks and Open Space District Funds
- User fees
- Regional Call for Projects

#### Local Funding Sources:

- Bond measure
- Community Service Districts (CSD)
- Developer Impact Fees
- Partnerships with local jurisdictions
- Property Taxes
- System Development & Change
- Tax increment financing

#### *In-kind Donations/Volunteering:*

- Donations/Donations by private firms
- Friend Groups
- Various local non-profit organizations
- Volunteer labor and resources
- Impact Fee Programs

## County Funding Sources:

Six agencies responded that they have a developer impact fee program, or similar. Three of those six agencies indicated their developer fee funds could be used for trail construction, but no agency specified that they could use the developer impact fee funds for maintenance.

Jefferson County Open Space clarified that in order to use the developer fee funds for trail construction, the trail would need to be identified as a transportation improvement (eg. a sidewalk along a major roadway). Lane County Parks noted that Community Service Districts "can only be used for projects that increase capacity or planning, not for maintenance."

## **Trail Usage**

Half of the agencies noted that their trails are open from dawn until dusk, including one agency that opens their trails and hour before dawn, and closes an hour after dusk. The other half of the agencies responded that their trails are usually open twenty-four hours a day, seven days a week.

Agencies were also asked if and how they track their annual trail users. Most agencies did not answer this question. One agency responded that they estimate their annual users. Two agencies noted that they use automated counters, and one agency noted the use of manual counts. However, trail usage data was limited and therefore will not provide comparisons for Riverside County.





## **Riverside County Comprehensive Trails Plan**

# Trail Agency Management Practices Peer Agency Survey Results – Draft 1

prepared for

Alta Planning & Design

prepared by

**Cambridge Systematics, Inc.** 

## 1.0 Introduction

Trail management practices vary considerably depending on the structure of the agency, regional characteristics, and types of trails that are maintained. This report summarizes the key findings from a survey conducted to support the Riverside Park and Open-Space District's development of a Comprehensive Trails Plan. The purpose of this document is to summarize the trail maintenance, funding, and usage patterns for trail agencies in the Western United States. Findings from the surveys are presented here, and where necessary, data from external best practices surveys was used to fill in the gaps.

This summary of findings is organized by the following sections:

- » Survey Respondents
- » Trail Usage
- » Trail Management
- » Trail Funding

## 2.0 Survey Respondents

The Riverside Park and Open-Space District Peer Agency Survey gathered information from county agencies in the Western United States regarding their management of paths and trails. Ten county agencies participated in the survey, representing a mix of rural, suburban, and urban counties (see Table \_). Agencies were asked to provide information related to their trail management practices, including their funding sources, maintenance practices, and usage of their facilities.

**Table 2.1 Participating Agencies** 

Agency Name	State
Maricopa County Parks and Recreation	Arizona
El Dorado County	California
Los Angeles County Department of Public Works	California
Jefferson County Open Space	Colorado
Missoula County Parks, Trails & Open Lands	Montana
Washoe County Regional Parks & Open Space	Nevada
Los Alamos County Parks Recreation and Open Space	New Mexico
Lane County Parks	Oregon
Metro Parks and Nature Department	Oregon
Tualatin Hills Park & Recreation District	Oregon

The survey was conducted in August and September 2016. The survey, consisting of 24 multiple choice and short answer questions, was administered by Cambridge Systematics using an online survey tool. Participants filled out the survey on their own.

## 3.0 Trail Usage

Survey respondents were asked if and how they monitor trail users. Most agencies declined to answer this question, likely signifying the lack of available data. Two agencies noted that they use automated counters, and one agency noted the use of manual counts. One agency responded that they estimate their annual users. Of those who responded, most agencies suspected that greater than 70% of the usage was recreational. Weekday and weekend usage was common for most agencies, and while there was some seasonal variation, most agencies see fairly consistent usage throughout the year.

However, quantifiable trail usage data was limited and therefore does not allow for useful comparisons to Riverside County. The limited data on trail usage is a challenge for many agencies nationwide. A 2014 study conducted by the Rails-to-Trails Conservancy (RTC) found that over half of management agencies did not track users, and roughly a quarter simply estimate or guess their trail usage.<sup>1</sup>

## 4.0 Trail Management

## 4.1 Trail Planning Documents

All agencies surveyed have completed at least one trail planning document. Nine out of ten agencies indicated they had a Park Master Plan, six indicated they had a Regional Park/Open Space District Master Plan, and five agencies indicated they had a Trail Master Plan. A full list of planning documents is found in Table 4.1.

**Table 4.1 Trail Agency Planning Documents** 

Document Type	% of Respondents
» Park Master Plan	90%
» Regional Park/Open Space District Master Plan	60%
» Trail Master Plan	50%
» Trail Maintenance Plan	30%
» Trail Use Survey Report	30%
» Bicycle Master Plan	20%
» Trail Operations Study	10%
» Trail Wayfinding Sign Plan	10%
» Trails Development Handbook	10%

<sup>1</sup> 2014. Maintenance Practices and Costs of Rail –Trails. Rails-to-Trails Conservancy. http://www.railstotrails.org/resourcehandler.ashx?id=6336

## 4.2 Trail Ownership and Management Responsibilities

Most of the responding agencies are responsible for a maintaining between 35 and 80 miles of trails, though some maintain as little as 10 and as many as 600 trail miles. Most agencies manage trails in a variety of land uses, with the exception of 100% rural (Lane County and El Dorado County) or 100% suburban (Tualatin Hills). Under normal circumstances, the trails are open seven days a week. Half of the agencies noted that their trails are open from dawn until dusk, including one agency that opens their trails and hour before dawn, and closes an hour after dusk. The other half of the agencies responded that their trails are open twenty-four hours per day.

The responsibility for maintaining a trail depends on the location, the owner of the right of way, and the type of trail. Four agencies noted that they maintain trails on land not owned by the agency. Three of those agencies maintain trails on Federal lands and one maintains trails on State land. Ninety percent of the agencies have at least one regional or inter-county trail which intersects the agency's jurisdiction. Depending on the parties involved, there are different inter-agency agreements for trail management:

- The Los Angeles County Department of Public Works and the Tualatin Hills Park & Recreation District indicated they are solely responsible for maintaining regional trails in their jurisdiction.
- Missoula County Parks Trails & Open Lands noted that for trails or paths on State land, the County has a
  memorandum of understanding outlining maintenance responsibility. The county's responsibility includes
  snow sweeping, snow plowing and weed control, and the state is responsible for pavement management
  and maintenance. However, they noted that each trail may have a unique set of circumstances.
- The Metro Parks and Nature Department does not maintain any trails on land owned by other agencies, but other agencies maintain trails on their land.
- Jefferson County Open Space noted that the City and County of Denver owns some land in Jefferson
  County; Jefferson County builds and maintains the trails on this land. Furthermore, some of regional trails
  are constructed using County funds, however, ongoing maintenance is the responsibility of local
  jurisdictions.
- Some agencies mentioned that they share regional trail maintenance responsibilities with the US Forest Service or local home owner's associations.
- Within the Los Alamos County Parks, Recreation, and Open Space Division, the Parks division manages paved trails and the Open Space division manages the unpaved trails.

In some cases, trail management responsibilities vary by trail:

- The Los Angeles County Department of Public Works noted that they maintain paved paths, while unpaved paths are maintained by the Department of Parks and Recreation.
- The Tualatin Hills Park & Recreation District specified that soft surface trails are maintained by natural area staff, while the maintenance for hard surface trails is split between park maintenance and trail maintenance staff.
- The Metro Parks and Nature Department noted that on-street facilities are managed by the Transportation division, while off-street paths and trails are under the Parks department purview
- El Dorado county noted that Class II and III bike lanes are maintained by their Transportation Division, while Class I trails are maintained by their Facilities Division and volunteers.
- Jefferson County Open Space shared that the County has a transportation and engineering division charged with maintaining commuter trails.

Trail usage is considered a hazardous sport in only two of the responding counties, and four agencies have liability insurance for trail usage. Metro Parks in Oregon noted they are protected by a recreational immunity clause in their Public Use of Lands Act.

#### 4.3 Trail Maintenance Practices

Trail agency maintenance needs depend on the surrounding land uses, regional climate, and permitted uses. Trail maintenance practices range from physical repair or resurfacing of the trail surface, to surface clearing and vegetation control, to maintenance of parking facilities, restrooms, and other amenities. While resurfacing and repairs are time consuming and costly processes, they represent a small amount of what agencies normally spend on trail maintenance. Given the widely different sizes of the surveyed agencies, there was a significant range in the maintenance budgets; annual maintenance budgets ranged from \$2,000 to \$5,000,000. Agencies with limited resources available, such as Washoe County Parks, have no specific funding for trail maintenance in their budget, and therefore rely heavily on the efforts of active volunteer groups to maintain trails. Seven of the ten agencies rely on volunteers or non-profit organizations for some of the trail maintenance, however, many agencies contract with private firms or have paid staff that performs maintenance duties. The importance of volunteers for trail maintenance responsibilities is consistent with national trends; the 2014 RTC study found that 58% of trails benefited from volunteer groups performing maintenance tasks, up from 46% in their 2005 study, and 43% of agencies utilize paid municipal staff.<sup>2</sup>

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

Of the responding agencies, vegetation maintenance and surface clearing were the most costly maintenance tasks. This is also consistent with the RTC study, which found that vegetation maintenance, including mowing, makes up about 30% of average maintenance budgets, while litter clean up and clearing the trail and surrounding land clear of debris and trash is close to 20%.3

The 2014 RTC survey found that the average annual maintenance costs for paved asphalt trails were \$1,971 per mile and \$1,006 for crushed stone trail, excluding major repairs.4

**Table 4.2** Percent of Maintenance Budget by task: Rails-to-Trails Conservancy Survey

Maintenance Task	Percent of Budget
Vegetation management (leaf clearing, pruning, tree removal, application of herbicides)	18.9%
Maintenance of toilets	14.2%
Mowing	12.0%
Keep trail-side land clear of trash and debris	11.5%
Other trail maintenance activities	9.1%
Litter clean up, recovery from illegal acts of vandalism/dumping	8.0%
Repair/maintenance of signs	6.3%
Clearing of drainage channels and culverts	5.4%
Surface maintenance of parking areas	2.7%

Rails-to-Trails Conservancy. Maintenance and Cost of Trails. 2014 Source:

<sup>4</sup> Ibid

Cambridge Systematics, Inc.

<sup>&</sup>lt;sup>2</sup> 2014. Maintenance Practices and Costs of Rail –Trails. Rails-to-Trails Conservancy. http://www.railstotrails.org/resourcehandler.ashx?id=6336

<sup>&</sup>lt;sup>3</sup> Ibid

## 5.0 Funding Sources

Funding for trail construction and maintenance comes from a variety of federal, state, and local sources. The survey respondents noted the following funding sources for capital projects and ongoing maintenance.

**Table 5.1 Capital and Maintenance Funding Sources** 

<b>Funding Class</b>	Capital Funding Sources	Maintenance Funding Sources
Federal Funding	Safe Routes to Schools	Youth Conservation Corp
	Congestion Mitigation and Air Quality Improvement (CMAQ) Program	Unspecified grants
	Surface Transportation Program (STP)	
	Regional Surface Transportation Program (RSTP)	
	Recreational Trails Program	
	Public Lands Highway Discretionary (PLHD)	
	Transportation Investment Generating Economic Recovery (TIGER) Grants	
	Other Federal grants (unspecified)	
State Funding	Active Transportation Program (ATP)	Transportation Development Act (TDA)
	Bicycle Transportation Account (BTA)	Unspecified grants
	State Departments of Transportation	
	Mobile Source Air Pollution Reduction Review Committee (MSRC)	
	Oregon Lottery	
	Oregon Recreational Trail Grant	
	Metropolitan Transportation Improvement Plan Funds	
	State grants	
	State Parks Recreational Trail Program	
County Funding	Bonds	Dedicated sales tax
	County Capital Improvement Program Funds	General Fund Tax
	Dedicated sales tax	Donations
	Donations	Parks Department Operating and Maintenance Budget
	General Fund Tax	County General Fund
	Parks & Trails Bond Program Funds	User fees
	Parks Funds	
	Parks System Development Charge Capital Improvement Program	
	Road Discretionary Fund	
	Regional Parks and Open Space District Funds	
	User fees	

	•	
	Regional Call for Projects	
Local Funding	Municipal Bonds	Property Taxes
	Community Service Districts (CSD)	Local Option Levy
	Developer Impact Fees	Volunteer labor and resources
Local Funding cont.	Partnerships with local jurisdictions	Non Profit Organizations
	Park System Development Charge	
	Tax increment financing	
	Donations/Donations by private firms	
	Friend Groups	
	Impact Fee Programs	

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Much of the funding for trail construction comes from federal sources passed through to state agencies or local agencies. These funds are often dispersed through competitive grant programs. At the county or local level, municipal bonding, sales taxes, general funds, and fee programs are common sources for sustained and dedicated trails funding. Often, local agencies are opportunistic about the source of funds available for specific trails. The Missoula County Parks noted that trails that go through property owners associations or special taxing districts may have dedicated funds for on-going maintenance, freeing up general funding sources for other trails.

Six agencies responded that they have a developer impact fee program, or similar. Three of those six agencies indicated their developer fee funds could be used for trail construction, but no agency specified that they could use the developer impact fee funds for maintenance. Jefferson County Open Space clarified that in order to use the developer fee funds for trail construction, the trail would need to be identified as a transportation improvement (eg. a sidewalk along a major roadway). Lane County Parks noted that Community Service Districts "can only be used for projects that increase capacity or planning, not for maintenance."

Funding for capital projects comes from diverse set of federal, state, and local sources. However, funding for trail maintenance is almost exclusively local. As described above, many agencies rely on volunteers to perform maintenance. When local staff performs the work, the funding generally comes from local government sources. In the RTC survey, they found that municipal governments were the leading funder of trail maintenance (42% of respondents). While maintenance is eligible for federal funding under the Recreational Trails Program, trail maintenance often has to compete with capital projects in competitive grant programs. In California, the Recreational Trails Program funding is allocated through two State run application processes, the Active Transportation Program and Recreational Trails Program. Given the lack of dedicated funding sources, trail maintenance often competes with municipal funding needs, and therefore trail managers often cite the need for dedicated federal and state funding for trail maintenance.

<sup>&</sup>lt;sup>5</sup> 2014. Maintenance Practices and Costs of Rail –Trails. Rails-to-Trails Conservancy. http://www.railstotrails.org/resourcehandler.ashx?id=6336

<sup>&</sup>lt;sup>6</sup> Recreational Trails Program: <a href="http://www.fhwa.dot.gov/environment/recreational">http://www.fhwa.dot.gov/environment/recreational</a> trails/

<sup>&</sup>lt;sup>7</sup> 2014. Maintenance Practices and Costs of Rail –Trails. Rails-to-Trails Conservancy. http://www.railstotrails.org/resourcehandler.ashx?id=6336

Appendix C:

**Development Impact Fee** 

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT



## Non-Recreational Trail Usage in Riverside County

Implications for Developer Impact Fee Funding

## **Draft White Paper**

prepared for

Riverside County Regional Parks and Open Space District
Alta Planning and Design

prepared by

Cambridge Systematics, Inc.

January 10, 2017

report

# Non Recreational Trail Usage in Riverside County

Implications for Developer Impact Fee Funding

#### prepared for

**Riverside County Regional Parks and Open Space District** 

**Alta Planning and Design** 

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date

March 7, 2017

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## **Executive Summary**

This white paper was prepared for the Riverside County Regional Parks and Open-Space District's Comprehensive Trails Plan. The purpose of the white paper is to describe the characteristics of non-recreational trail usage in Riverside County and the implications for the County's Developer Impact Fees (DIF) program related to regional parks and trails. The white paper discusses findings from recently completed trail surveys, a review of trail surveys nationally, and a review of innovative DIF programs in California.

The white paper is organized into four sections, for which the key findings are summarized below:

- Results from Riverside County trails surveys. Results from the household survey, trail counts, and intercept surveys demonstrate that a significant portion of trail users utilize the trails for non-recreational purposes, including to access employment or school, visiting friends and family, shopping, and other errands. For the household survey, of all respondents who had used the trails, 30% had used them for a non-recreational purpose in the past. For the intercept survey, 24% of respondents on the date of survey had either a primary or secondary trip purpose that was non-recreational, and regarding historical usage, 33% had used the trails for non-recreational purposes in the past.
- Non-recreational trail usage nationwide. Trail surveys on similar multi-use trails and paths across the
  country reveal that, while recreational trips remain the most common purpose for trails in most regions,
  utilitarian usage is present on all trails, and very common on trails in more urbanized areas and locations
  near employment or retail centers.
- California Development Impact Fees for trail funding. DIFs are widely used in California as a way for
  local agencies to pay for new infrastructure needed from the new residents or employees. The white
  paper reviewed four impact fee programs in California where cities or counties exacted fees from
  commercial development to fund bicycle projects: Los Angeles Metro, City of Santa Monica, City of
  Oakland, and City/County of San Francisco. These programs employ various strategies for determining
  the nexus between the development and the infrastructure improvement as well as determining the fee
  amount.
- Implications for Riverside County Development Impact Fee program. Riverside County's original
  DIF for regional trails included exactions from commercial property developers. However, the 2014
  update to the DIF removed commercial development from the regional parks and trails fee program.
  Findings from this study of the survey data and emerging practices indicate that, if desired, Riverside
  County would be justified in seeking to add commercial developer exactions to a trail impact fee
  program.

## 1.0 Introduction/Overview

As part of their Comprehensive Trails Plan, the Riverside County Regional Parks and Open-Space District (Riverside County Parks) has undergone efforts to determine the characteristics of trail users on Riverside County trails and paths. Riverside County Parks would like to know if residents are using paths and trails for non-recreational purposes and if new commercial development is likely to add new users to the trail system. The practice of funding expansion of regional parks and recreation facilities with development impact fees (DIF) is not uncommon among jurisdictions throughout California. Less common is their application to active transportation investments, including regional trails and charging new non-residential development fees for expanding trails to accommodate non-recreational trail usage. Even more uncommon is persuading cities to collect fees from new development within their jurisdictions for on countywide facilities unless a countywide sales tax measure requires each city must to collect fees in order to receive the sales tax revenues (e.g., the Western Riverside TUMF). Nevertheless, there are a few examples, including recent updates to DIF programs where bicycle commuting is explicitly included in the nexus analysis and new commercial development is charged impact.

This white paper summarizes the experiences of California jurisdictions who have attempted to establish the nexus between new development and their impacts on bicycle infrastructure and county who have persuaded their cities to collect a countywide fee. We focus on efforts to establish a nexus between non-recreational trail usage and new commercial development. Prior to the case studies, this paper presents an overview of the findings from recent household and trail user surveys conducted on Riverside County trails and a review of non-recreational trail usage across the country. Finally, it evaluates the assumptions about trail usage Riverside County's existing impact fee program and makes recommendations to strengthen Riverside County Park's argument for including regional trails in the County's mitigation fees.

The white paper is organized into these four sections:

- Results from Riverside County trails surveys
- Non-recreational trail usage nationwide
- California Development Impact Fees for trail funding
- Implications for Riverside County Development Impact Fee program

## 2.0 Results from Surveys

As part of the Riverside County Comprehensive Trails Plan, a series of surveys were conducted in Riverside County to determine the characteristics of trail usage. The surveys included a general public survey, trail user counts, and trail user intercept surveys. Together, they offer a consistent picture of residents' purpose for using trails. While most trail usage is recreational, many Riverside County residents do use trails for commute or utilitarian purposes.

## 2.1 General Public Survey

A general public survey was administered in Riverside County in July and August of 2016. Of the 419 completed surveys, 61% had used a trail, path, or bike lane in the past year. Most trail usage is for exercise or enjoyment, with 81% of respondents indicating that they have no particular destination. However, almost 30% of trail users have utilized trails or paths for their commute or another utilitarian purpose. For commute trips, 16% of trail users have commuted to work and 12% have accessed school using a trail or path.

In response to questions about bike lane usage (as separate from county bike trails and paths), 22% of the total sample of the household survey respondents have used bike lanes in the last year, 81% use the bike lanes at least once per month and 58% of bike lane users have used the bike lanes for work, shopping, or other utilitarian purposes. While the use of bike lanes is not the focus of this study, bike lane usage helps validate the bicycle commuting habits of Riverside County residents.

## 2.2 Trail Counts and Trail Intercept Surveys

During a 10 day period in November, 2016, trail counts and intercept surveys were conducted at nine locations in Riverside County, including seven locations along off-street multi-use paths and two locations with on-street bike lanes. During 121 hour long count periods, there were a total of 1,951 users counted on paths and bike lanes during the 121 hours of counting. Of the observed users, 1,156 (59%) were bicyclists and 795 were pedestrians (including skating and skateboarding). There were more total users observed on weekday periods (1,015) compared to weekend periods (936); however, there were more weekday count periods. There were a total of 95 count-hours on weekdays and only 26 count-hours on weekends, so average hourly volumes were significantly higher during the weekend count periods. However, only four locations were surveyed on the weekends and were some of the most popular locations.

Figure 2.1 Weekday Bicycle and Pedestrian Average Hourly Volume

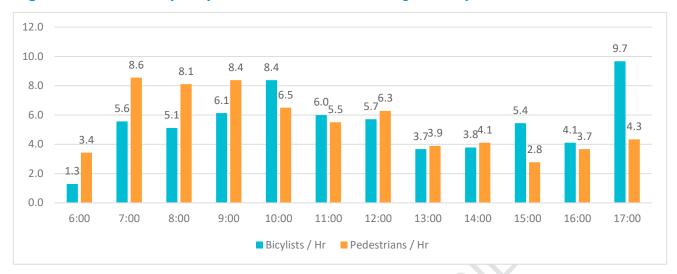
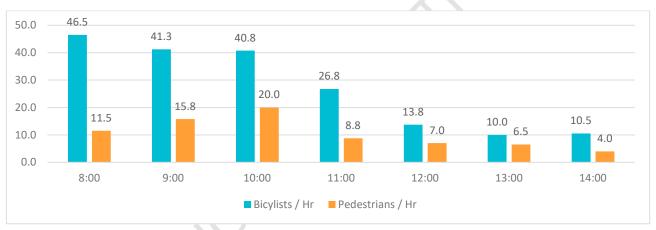


Figure 2.2 Weekend Bicycle and Pedestrian Average Hourly Volume

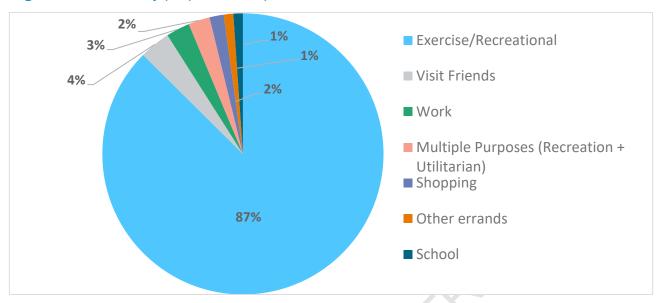


During the same count periods, a total of 366 intercept surveys were completed by participating trail users, of which 92% were collected on off-street paths. The trail users who responded to the survey represented common travelers on the trails. Almost 60% of respondents use the trails three or more times a week; 82% of respondents used the trails at least once per week. Survey respondents were asked about the primary purpose of their current trip as well as if they intended to make any additional stops. On the date of survey, the most common use for the trails was for recreation, however, a large percentage of respondents use the trails for utilitarian purposes. For example, 13% of the respondents indicated that their primary trip purpose was non-recreational (e.g., shopping, work, school, visiting friends, errands) and 12% of those using the trails for exercise made non-recreational stops. In total, on the date of the survey, 23 percent of all respondents used the trails for a non-recreational trip purpose. There was a slight but not significant difference in trip purpose by mode; close to 13% of bicyclists and 12% of pedestrians indicated a non-recreational primary trip purpose.

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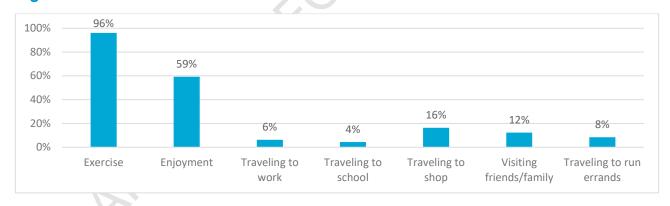
Figure 2.3 Primary purpose for trip on trail

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Of all the reasons that respondents had utilized trails for in the past, 16% had also used them for shopping, 12% for visiting friends/families, 8% for other errands, and 6% for work. In total, of all the respondents, 33% had used trails at some point for a non-recreational purpose. Of the respondents who used trails to travel to work (6.3% of total), 78% use trails for commuting at least once per week. Additionally, of the respondents who use trails for errands, visiting friends, or to get to school (28% of total), 52% use trails for those purposes at least once per week.

Figure 2.4 All reasons for utilization of trails



## 3.0 Non-Recreational Trail Usage Nationwide

Multi-use trails provide cyclists with low-stress transportation options, as they are physically separated from vehicular traffic. Trail-related research relies on intercept surveys to evaluate the trip use of trail users. A review of trail user survey reports conducted by jurisdictions across the country suggests that while cyclists are more likely to use multi-use trails for recreation, these facilities are also being used for utilitarian purposes. Eleven trail survey reports from across the country were reviewed to show the varying trip purposes of multi-use trails.

Overall utilitarian trips on multi-use trails make up anywhere from 4% to 45% of all trips based on intercept surveys conducted across the country in rural and urban areas (see Table 3.1). Multi-use trails in urban areas on the whole, have a higher percentage of cyclists using those facilities for utilitarian purposes compared to trails located in suburban or rural areas, which indicates that trails in urban areas have greater connectivity to job and activity centers. Intercept surveys in more rural and suburban areas generally show a lower percentage of utilitarian riders, indicating minimal connectivity to key destinations and job centers. On the whole cyclists primarily use multi-use trails for recreational purposes, but are increasingly relying on these facilities for social and utility trips.

Table 3.1 National Surveys of Non-Recreational Trail Usage

Location	Relevant Finding
West Lafayette, Indiana	A study of a paved trail found that <b>12.5%</b> of trail users used the trail for transportation or a combination of recreation and transportation. <sup>1</sup>
Silver Comet Trail (Northwest of Atlanta), Georgia	Just under <b>4%</b> of the field survey participants said their trips were for non-recreational purposes such as commuting to work or local trips for shopping or personal business. <sup>2</sup>
Miami Valley, Ohio	Survey of users of multi-use trails showed commuting as the smallest share of use, at about <b>4%</b> of responses. The majority of responses were in the exercise, fitness, and recreation categories. <sup>3</sup>
Central Ohio Trails	The majority of users on the Central Ohio Greenways and Trails Group (COG) trail network reported using the trails principally for recreation and exercise, however, <b>7%</b> use trails as transportation infrastructure for utilitarian purposes, including commuting and shopping. <sup>4</sup>
Tahoe City, California	Tahoe City Public Utility District conducts annual surveys of trail usage; in 2015, <b>26%</b> of the trail use was transportation to access shopping, dining, work, etc. <sup>5</sup>
Greenville County, South Carolina	Approximately <b>6</b> % of Greenville Hospital System Swamp Rabbit Trail users reported using the trail for transportation purposes. <sup>6</sup>
City of Manhattan, Kansas	A key finding of the study showed that <b>12%</b> of trail system users utilize trails for transportation to work or to get to other places. <sup>7</sup>
Jackson County, Oregon	A survey conducted within the Bear Creek Greenway identified that 55% of bicyclists and pedestrians on the segment used the trail for recreation and <b>45%</b> for transportation. <sup>8</sup>
City of Sanibel, Florida	An intercept survey conducted at six trail locations found the most common trip purposes were recreation (45%) and fitness (29%), followed by shopping/errands (19%) and commuting to or from work (3%).
Arlington, Virginia	Automated counter data collecting bicycle and pedestrian volumes on the Custis Trail, a paved multi-use trail, indicated a high percentage of commute trips due to higher usage on weekdays than weekends and distinct morning and afternoon peaks during commute hours.9
New Jersey Statewide Trails	A trail user survey conducted for the New Jersey Trails Plan found that that <b>12%</b> of users use trails for utilitarian purposes. <sup>10</sup>

## 4.0 California Development Impact Fees for Trail Funding

The contemporary usage of DIFs by California jurisdictions are governed by the California Mitigation Fee Act or AB 1600. Passed in 1987 and amended subsequently with a series of Supreme Court rulings, the Mitigation Fee Act allows any local agency in the state (city or county) to enact legislation to exact fees on development under these conditions:

- 1. There must be a nexus between the development project and the impact,
- 2. The fees must be roughly proportional to the impact created, and
- The fees may not be used to fix existing deficiencies, rather they must be used to fund new improvements to any "public facility."

These conditions, sometimes called the "AB 1600 requirements," are fulfilled with a fee study, the quantified basis for imposing the fee that establishes the nexus been the fee and the projected development impact. Additionally, a development project does not need to cause the impact, but rather just contribute to the impact. Finally, a fee exaction is still legal if existing residents receive incidental benefits from the improvements, along with the new developments' residents. 11

California's local jurisdictions were the first to adopt development impact fees extensively, in part due to limits on the ability to raise additional revenue from taxes, and have led the country in their innovative applications. To understand these practices, there are a few factors that differentiate how impact fee programs are structured:

- Nexus methodology: The calculations of fees may be based on a facility standard or performance analysis:
  - A facility standard involves dividing the existing aggregate amount of infrastructure (e.g., miles of bike trails, number of bike lockers) or their value (e.g., the cost of building them in current dollars) divided by the service population (residents or residents plus employees). This produces a maximum standard that new development may be required to sustain. If the agency wants to impose a higher standard, it would need to build the additional facilities with other revenues to increase the current standard.
  - A performance analysis evaluates the impacts of projected development on the level of service (e.g., change in vehicle hours of delay, vehicle miles of travel, bicycle miles of travel) and then determines what projects are needed to mitigate these impacts. The fee amount equals the cost of these projects divided by the service population. This method captures the marginal impacts from new development, which may be more or less than the average per capita increase funded with a facility standard. It may also afford more flexible selection of bicycle network improvements than the proportional increase in trails justified under a facility standard, such as first-mile/last mile improvements, amenities (e.g., bike lockers, showers, and signage). Nevertheless, it would require use of a bicycle model, which adds cost and complexity
- Land Use Types: A fee program may be applied to a single land use type (residential development only)
  or may include multiple development types. Imposing fees on all land uses distributes the cost across a
  lower base. If the amount new facilities included in the fee program is held constant, this can result in a

lower cost per capita, enumerated as new residents and employees and converted into land use the equivalent number of residential dwelling units and square feet of office, retail, industrial and warehousing. This reduction in cost per capita, however, can increase the political tolerance for or economic headroom to increase the fee per capita to a level closer to the maximum justified in the nexus analysis (see the fourth practices below). This increase will generate more revenue.

- **Jurisdictional Coverage**: Fees may be collected from new development *countywide* versus *single jurisdiction* (i.e., city or unincorporated only). Fees imposed by a single jurisdiction within their boundaries (city limits or incorporated county only) are by far the most widespread practice. For a county parks and recreation department, however, a fee collected from new development only in the unincorporated area can miss the portion of new development occurring within incorporated jurisdictions. Countywide fee programs that include improvements to facilities located within incorporated areas and collect from new development within cities would expand the trail network and increase the total fee revenue significantly.
- Agency Control: Fees that funding regional trails may be included within transportation fees or parks and recreations fees. This distinction maybe technical and produce little or no difference in amount of fee revenue generated or the type of land use subject to the fee. Nevertheless, expansion of regional bicycle trails funded through a transportation fee may be developed, programmed, and updated by the public works department or department of transportation. Their inclusion within a parks and recreation fee program would afford control to that county agency, which could program fee revenues to target specific types and locations for regional bike trails. If the overseeing agency has multiple priorities or multiple aims to achieve a goal, there may uncertainty about the availability of funding for bicycle and pedestrian trails.

The following matrix summarized the how each of these practices would be more or less advantageous to the Riverside County Regional Parks and Open-Space District using the following criteria: potential revenue generation, project programming flexibility, and the amount of control by the District.

Practices	Less advantageous	More advantageous
Nexus Methodology	Facility Standard	Performance-Based
Land Use Type	Residential Only	All Land Uses
Jurisdictional Coverage	Local/single jurisdiction*	Countywide
Agency Priority	Multiple Priorities	Focused Priority

<sup>\*</sup>City only or unincorporated county only

### 4.1 California Case Studies

We have selected four California case studies below that demonstrate innovative and advantageous practices and provide practical insights for Riverside County's DIF program. We include a matrix for each case study that summarizes their approach using the four practices described above.

## 4.1.1 Los Angeles County (LA Metro)

Until 2014, Los Angeles County Metropolitan Transportation Authority (LA Metro) had been engaged in a decade-long effort to implement a countywide congestion mitigation fee program that would fund regionally significant local transportation improvements with a countywide congestion mitigation fee (CMF) on new development. Ultimately the CMF was not implemented due to political opposition from the development industry; however, its design was the most innovative attempted for a countywide fee, focusing on a full spectrum of transportation projects, including over 20 percent of the funding going to bicycle improvements. The following practices used for the CMF design:

#### **LA Metro Congestion Mitigation Fee Structure**

Practices	Criteria	
Nexus Methodology	Performance-Based	
Land Use Type	All Land Uses	
Jurisdictional Coverage	Countywide	
Agency Priority	Multiple priorities	

In the final few years of this effort, Metro completed pilot nexus studies for each of its eight subregions to demonstrate the program's feasibility. This involved reaching out to all 89 jurisdictions, nine subregional Councils of Governments, and the stakeholders throughout business community. They found that the CMF Program was feasible and would provide a significant new source of funding for expanding the capacity of multimodal transportation infrastructure, including bicycle lanes and trails. Legal reviews concluded it complied with statutory requirements of the California Mitigation Fee Act (AB1600).

As part of the CMF Study, jurisdictions submitted more than 1,700 transportation projects, including about 600 bicycle related projects. Quantitative analysis measured the aggregate benefit of all transportation projects, estimating a reduction of 25 million vehicle hours of delay and an economic benefit of approximately 60,000 jobs and \$11.2 billion in economic activity over 20 years.

A literature review validated that expanding bicycle infrastructure would mitigate the congestions caused by new development, but was unable to cite analytical methods which could quantify have much these projects would reduce congestion. In an abundance of legal caution, therefore, Metro decided not to incorporate bicycle projects as extensively into the pilot nexus study as many local jurisdictions were petitioning for. Nevertheless, the lack of quantitative tools available to quantify a nexus motivated the Metro Board to directed staff in January 2012 to develop modeling capability to quantify the impact of bicycle projects on travel behavior, health environment, and safety. The Board intended the new tools to demonstrate how much expansion of bicycle facilities could mitigate the increased congestion caused by all types of new development. As a result, Metro commissioned the development of two bicycle demand models that evaluate the effectiveness of bicycle capital improvements to divert commuter (i.e., utilitarian) auto trips to bicycle and also measures changes in recreational bicycle travel.

### 4.1.2 Santa Monica

The Santa Monica Transportation Impact Fee (TIF) program includes funding for a variety of other multi-modal transportation choices, including bicycle facilities, using a performance-based nexus approach for all development types. <sup>12</sup> The performance-based nature of the TIF is based on Santa Monica's travel demand model and their recently adopted Land Use and Circulation Element (LUCE), which calls for no net new PM peak hour vehicle trips by 2030. The fee expenditure plan includes capital projects such as construction of sidewalks, curb extensions, installation of bike racks and bus stops, and signing and striping of new bicycle and transit lanes throughout the City. The fee expenditure plan focuses on cumulative, city-wide impact from new development, and although the program is integrated with demand-side measures designed to achieve its goals, the City has not included any operating costs for the demand-side measures in the fee expenditure plan.

The LUCE provides the framework to integrate land use and transportation to reduce vehicle trips, encourage walking, bicycling and transit use, including specific bike improvements that mitigate congestion caused by new residential and commercial development. The LUCE fee funds a full spectrum of transportation projects, which includes extensive bicycle and pedestrian improvements.

#### Santa Monica Transportation Impact Fee Structure

Practices	Criteria	
Nexus Methodology	Performance-Based	
Land Use Type	All Land Uses	
Jurisdictional Coverage	Single City*	
Agency Priority	Multiple priorities	

<sup>\*</sup>Coordinated with City of Los Angeles.

The LUCE states that "New projects will be required to minimize the trips they generate and contribute fees to mitigate their new trips. To achieve the No Net New Trips goal, developers cannot be expected to have every project generate zero trips by itself. Rather, developers will pay mitigation fees that will fund capital improvement projects citywide, such that the net impact of each development project ultimately is zero. Fees will be used for improvements that benefit the City's transportation system overall, such as additional buses to increase frequency, improved walking routes and new bike lanes."

In addition to Santa Monica's program, Los Angeles Department of Transportation (LADOT) updated its West Los Angeles Transportation Improvement and Mitigation Specific Plan (WLA TIMP).<sup>13</sup> The WLA-TIMP included a developer impact fee to fund bicycle enhancements throughout the eight communities to the east and south of Santa Monica.<sup>14</sup> Although separate from the LUCE program, LADOT and the City of Santa Monica have coordinated their programs to help develop a multi-jurisdictional bicycle network.

### 4.1.3 City of Oakland

The City of Oakland has just adopted a transportation impact fee which includes funding for bicycle facilities based on an innovative asset-based facility standard applied to all development types.<sup>15</sup> Oakland has a

surface transportation network that provides rights-of-way (streets, sidewalks, and off-street pedestrian and bicycle paths) for nearly all types of travel within the City. The City is responsible for maintaining, improving, and expanding this infrastructure to support transportation services for all travel modes: vehicles, including private vehicles and public bus transit, biking and walking.

The fee program applies a novel approach to justify a fee based on maintaining the City's existing level of investment that all types of new development are held accountable for maintaining. This approach monetizes the value of all transportation infrastructure, with the maximum threshold of this asset value-based nexus set to the replacement cost of all the City's transportation assets: roadways, sidewalks, bike lanes and paths, etc. In order to estimate a conservative estimate of the City's current citywide transportation infrastructure, the City choose not to include the value of the underlying land in the replacement cost of city streets and excluded the value of the transit rolling stock, signals, and other ancillary transportation assets. Using this maximum threshold as a ceiling, the City may legally assess fee amounts on new development that falls below the threshold based on its location, land use type, design, etc. The developer fees fund a full spectrum of transportation projects, which includes extensive bicycle and pedestrian improvements.

#### Oakland Transportation and Capital Improvements Impact Fee Structure

Practices	Criteria
Nexus Methodology	Innovative Facility Standard
Land Use Type	All Land Uses
Jurisdictional Coverage	Single City
Agency Priority	Multiple priorities

Although the facility standard does not directly address the impacts of new development of the performance of the bike network, the innovated "asset-value" based approach provides the City with a very flexible funding source for transportation investments throughout the city. The City can use fee revenue for any capital expansion of infrastructure that connects residential neighborhoods, retail and employment centers, and other destinations. This citywide focus avoids funding improvements to infrastructure that only serve a particular neighborhood, which are not be eligible for funding from the fee.

## 4.1.4 City and County of San Francisco

As a Charter City with more discretion than General Law cities, in 1973 the City and County of San Francisco revised its traffic impact fee law by adopting a "Transit First" policy. This policy change encouraged the development of types of land development that have multi modal accessibility and the construction of alternative mode transportation projects. Even with this change, however, the regulations on traffic impact studies still required a traditional traffic impact analysis and did not consider how investments in alternative modes, such as transit and non-motorized travel modes, could expand capacity and mitigate the impacts from the additional trips from new development. Beginning in 2003, the City started revising its laws and practices to support multi-modal mitigations, and in 2011, San Francisco passed a Bicycle Development Impact Fee (BDIF) which applies an innovative asset-based facility standard to all development types. <sup>16</sup>

In 2011, the City completed a nexus study for the Bicycle Impact Development Fee (BIDF) and a Pedestrian Impact Development Fee (PIDF). These impact fees were based on the calculation of facility standards for the bicycle network and components of the pedestrian network and associated traffic calming features, respectively. In 2015, the TIDF was replaced by a Transportation Sustainability Fee (TSF) which included pedestrian infrastructure under a "complete streets" category. The BIDF relies on a *planned* facility standard because the City plans to expand and improve not just maintain the current standard for its bicycle network. The City will fund the expansions needed to reach the planned facility standard from other sources of revenue, thus allowing it to assess a fee on new development for its fair share of the expanded and improved bicycle network. All future residents and workers added by new development will have access to the cycle track network the City plans to complete by 2030. Therefore, new development's share of the cost is equal to its share of the 2030 population. The cost of achieving the planned standard per person (resident or worker) in 2030 is calculated by multiplying the planned facility standard (mileage of cycle track equivalents per capita) by the average unit cost of a facility (cost per mile of cycle track equivalent). The estimated cost borne by new development is equal to the cost per person (resident or worker) multiplied by the expected number of new residents and workers.

While the BIDF was adopted as a separate fee, bicycle facilities are included in allowable expenditures of the "transit capital facilities" component of the TIDF based on (1) transit overcrowding from development, and (2) research indicating that improved bike facilities can shift modes from transit to bikes. San Francisco is unique in that it is both a city and a county so the practices used for its design should take this into account.

#### City of San Francisco Transportation Sustainability Fee Structure

Practices	Criteria	
Nexus Methodology	Facility Standard	
Land Use Type	All Land Uses	
Jurisdictional Coverage	Full City and County	
Agency Priority	Policy Priority	

Although the facility standard does not directly address the impacts of new development of the performance of the bike network, the innovated "asset-value" based approach provides the City with a very flexible funding source for transportation investments throughout the City.

## 4.1.5 Other California Development Impact Fees

We reviewed over a dozen other California DIF programs where parks and recreations facilities included in their funded projects. Our review revealed the common practice of assessing fees for trails and bicycle facilities on residential development only and no mention of bicycle commuting or even the use of municipal or regional recreational facilities by non-residential development. Examples of these practices include updates to DIF programs in the City of Costa Mesa (August 2015), Town of Moraga (January 2016), City of Brentwood (June 2015), Sonoma County (December 2015), Placer County (2014), City of Fresno (2013) and the City of Truckee (December 2015). One exception is the Sacramento County (March 2010) transportation

impact fee, which exacts fees on all types development and funds bicycle and pedestrian projects on congested roadways.<sup>17</sup>

## 5.0 Implications for Riverside County Development Impact Fee program

Riverside County first implemented development impact fees in 2001 and the fee program was renewed in 2006 and again in 2014. The latest update provides the nexus arguments and fee amounts for various public facilities, including regional parks and regional trails.

#### **Existing Riverside County Developer Impact Fee Structure**

Criteria
Facility Standard
Residential Only
Unincorporated Only
Single Priority

## 5.1.1 Land Use Type

In contrast to the 2006 fee program, the 2014 program excludes commercial development from the regional parks and regional trails impact fee program. The nexus study for the 2014 program contends that residents are the primary users of trails, therefore demand for trail facilities should be based on residential population and exclude workers. <sup>18</sup> The study provides little evidence to support the claim that residents are the primary users; however, in a staff report presentation dated June 17, 2014, an explanation is offered for why the updated program sought to exclude commercial development. <sup>19</sup> One slide from the presentation states:

Mainly it's because the original nexus study defined "Residents/Employees" as non-working and working residents. The key consideration to any nexus finding under the Mitigation Fee Act is that new development creates the need or demand for a public facility. By law, impact fees cannot pay for existing deficiencies or a "lack of facilities", only the facilities required as a result of population growth. Commercial development creates demands on roads, traffic signals, and public safety – primarily through the businesses and their employees that occupy commercial development.

13 years later, we have better demographic data and resources, and have completely separated residents from employees because it was important to be clear about who creates the facility demand. Businesses and employees (non-county residents) would not typically create the demand for regional parks in unincorporated Riverside County, although some local neighborhood parks may be used by employees in connection with their employment.

This logic ignores the fact, as stated in the presentation, that employee usage of regional parks is not zero, albeit less than residents. Furthermore, as noted above, almost 30% of trail users from the household survey and 33% of trail users from the intercept survey reported having used the trails or paths for non-recreational purposes in the past. Given findings from the household and intercept surveys, excluding commercial development outright from the regional trail DIF is based on an incorrect assumption that employees who work in a commercial development are not commuting there on bicycle, that residents are not utilizing the trails to access shopping opportunities, and that more would not choose to if facilities were expanded. This demand is sufficient to require new commercial development to pay impact fees to expand the trail infrastructure.

The District could calculate a fee on new nonresidential development using a facilities standard that divides the current assessed value of all trail infrastructure by a service population that includes all residents and employees. This value per person (residents plus employees) would set the maximum threshold for fees on all types of new non-residential development (retail, office, industrial, etc.) based on their total employment. This approach would not necessarily increase the total funding available for regional trails. Rather, it would spread some of the costs from residential to commercial development, which may moderate a burden of new housing costs and may afford some additional headroom to raise fee amounts to cover the maximum amount of mitigation allowed under the nexus analysis.

## 5.1.2 Jurisdictional Coverage

Second, Riverside County's program only exacts fees from development in unincorporated areas, when the majority of users are likely to live in incorporated cities. The nexus study states, "By the nature of the type of facility, trails are almost always located in unincorporated areas. However, trails are provided for and used by all County residents." Data from the intercept survey confirmed that not only are residents who live in Riverside County cities using the trails, but people who reside outside of Riverside County are utilizing the trails for recreation and utilitarian purposes. The origin data from the intercept survey found that 79% of users live in Riverside County and 15% live in San Bernardino County. Users surveyed on the Santa Ana River Trail primarily live in incorporated cities (54% of users) or outside the County (33%), with only 13% of users residing in unincorporated areas in Riverside County.). Furthermore, while most of the regional parks may be in unincorporated areas, trails often cross jurisdictions, and as a transportation facility, connections to other paths, trails, and local routes are essential. Therefore a countywide approach to funding the regional trail system may be warranted and desirable, so in a future DIF update, Riverside County could consider including local jurisdictions in the DIF program, allowing for increased total revenue for regional trail development.

### 5.1.3 Nexus Type

The 2014 update of the nexus study for the regional trails DIF calculates the amount of trails that new development will be charged to sustain the existing inventory standard, which is the ratio of the total value of existing facilities in current dollars divided by the existing service population. The regional trails DIF is based on an *existing inventory* standard for Western Riverside County and a *planned facilities* standard for Eastern Riverside County. The reason for using different standards is that the nexus study projects that the total value of regional trail facilities over the total service population is anticipated to fall in Eastern Riverside County from \$81 per resident in 2010 to \$61 in 2020, thus the findings conclude the a fee of \$81 will generate more revenue than the \$5 million currently planned by the County to invest in new trails. This decline in the future facility standard, however, indicates a need for more aggressive capital investment rather than lowering the standard over time.

The existing standard in Western Riverside County of \$65 per resident calculated by dividing the existing \$18.3 million value of the trails facilities by the 238,000 residents. This existing standard will generate \$5.7 million from the 87,000 new residents expected to move to Western Riverside County between 2010 and 2020. The planned capital investments, however, amount to \$20.3 million, leaving \$14.6 unfunded. The \$65 standard, however, may be increased to \$128 per resident by including the \$17.8 million in anticipated grant funding into the existing asset value of the trail facilities. If this augmented existing standard were applied to the 87,000 new residents, the Regional Trails DIF would generate \$11.1 million in revenues, leaving only \$9.2 million unfunded.

As an alternative to using the existing facility standard, the District could use a bicycle model to evaluate trail usage for utilitarian trips (i.e., non-recreational), which would quantify the bicycle miles of travel (BMT) of new development. The modeling outputs would support a rigorous nexus and forecast where demand for bicycle commuting would justify trail expansion. It is not easy to predict, however, which nexus method would produce the highest fee on new commercial development.

## 5.1.4 Conclusion

In summary, findings from this study of recent survey data and emerging practices indicate that Riverside County would be justified in seeking to add commercial developer exactions to a trail impact fee program. The white paper found that non-recreational trips do occur on Riverside County trails and that there is precedent in California for the inclusion of commercial development in bicycle and pedestrian fee programs. The approach to establishing the nexus and setting the proportional fee depends on the desires of the County.

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<sup>16</sup> San Francisco Transportation Sustainability Fee Nexus Study, 2011 and 2015. <a href="http://default.sfplanning.org/plans-and-programs/emerging">http://default.sfplanning.org/plans-and-programs/emerging</a> issues/tsp/TSF NexusStudy May2015.pdf

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<sup>20</sup> An Overview of the New 2010-2020 Development Impact Fee (DIF) Nexus Study, Riverside County Executive Office Staff Report, June 17, 2014, slide 23. http://rivcocob.org/agenda/2014/06 17 14 files/03-05part7.pdf

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Appendix D:

General Public Survey

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT



## **Memorandum**

TO: Greg Maher, Alta Planning and Design

FROM: Cambridge Systematics and Redhill Group

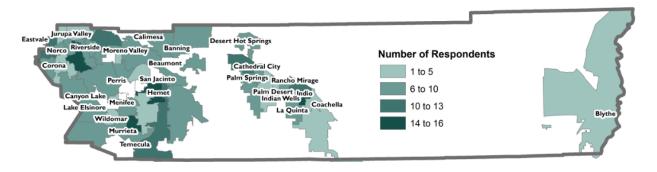
DATE: October 12, 2016

This memorandum provides a brief overview of the public survey implemented by Redhill Group. The full dataset, frequency of response summary, and crosstab documents are provided separately.

## **Demographics**

There were a total of 419 completed surveys from 57 zip codes in Riverside County (see Figure 1 below). Of these respondents, there was equal gender split and roughly half the respondents were under 40, with fairly even splits for each age group. Almost have the respondents work full time, 15% work part time, and 10% are full-time students. The racial composition of the respondents included 44% white (non-Hispanic) and 38% Hispanic, and 5% African American, Asian, and multi-racial.

Figure 1: Survey respondents by zip code



## **Current Trail Awareness and Usage**

Of the respondents, 61% have used a trail, path, or bike lane in the past year. Of the trail users, slightly more respondents had used unpaved trails as compared to paved paths. The ten most commonly used trails include, in order of popularity, include:

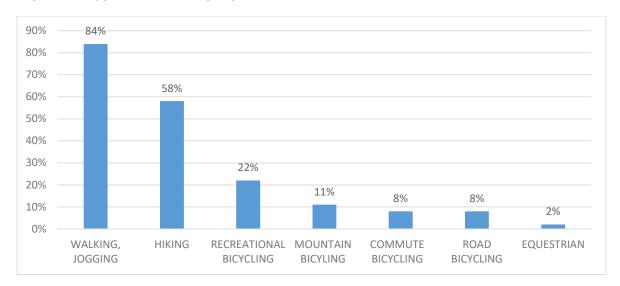
1) Box Springs Mountain

- 2) Santa Ana River Trail
- 3) Hidden Valley
- 4) Sycamore Canyon
- 5) Temescal Canyon
- 6) San Jacinto/ Cleaveland National Forest
- 7) Alessandro Arroyo
- 8) Lake Skinner
- 9) Mission Creek
- 10) Victoria Ave

The majority of trail users walk/run (84%) or hike (58%), though 44% of all trail users (and 27% of all respondents) use the trails for bicycling. Most trail usage is for exercise or enjoyment, with 81% of respondents indicating that they have no particular destination, but almost 30% of trail users have utilized trails or paths for commute or utilitarian purposes. For commute trips, 16% of trail users have commuted to work and 12% have accessed school using a trail or path.

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

Figure 2: Type of trail usage (percent of trail users)





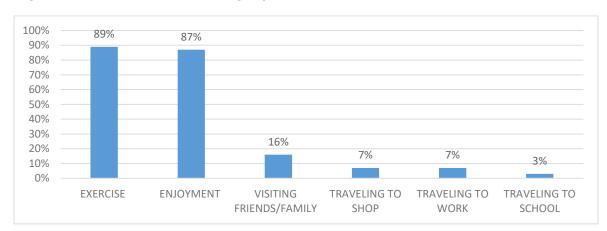


Figure 3: Reasons for trail usage (percent of trail users)

[Placeholder for trail usage crosstabs with gender]

## **Trail Satisfaction**

Trail amenities are widely used by trail users; all trail users used at least one amenity and most amenities were used by more than half of trail users. Almost 90% of the trail users are satisfied with the trail amenities; the remaining 10% felt neutral about trail amenities.

Most users feel that the trails are safe in design (79% safe or very safe) and feel good about their personal security (77% safe or very safe). Of those who responded neutral or negatively about design safety or personal security, respondents had the following things to say about trail design safety: the trails are not wide enough; the trails can be better maintained; the trail lighting is insufficient; and there is a lack of signage, and for personal security, respondents had the following criticisms: trails are not patrolled by officers; there are not enough people on the trails to provide the sense of security; cars are sometimes burglarized; people loiter on certain trails; robberies occur; and off leash dogs exist.

[Placeholder for trail satisfaction crosstabs]

## **Bike Lane Usage**

Of the survey respondents who have use bike lanes in the last year (22% of total), 81% use the bike lanes at least once per month. Similar to trail users, bicyclists who use bike lanes more often cycle for exercise and/or enjoyment. However, 58% of bike lane users have used the bike lanes for work, shopping, or other utilitarian purposes.

[Placeholder for bike lane usage crosstabs]



## **Future Trail Usage**

Of those respondents who had not used trails in the past year, the most common reason for not using the trails was the lack of knowledge of the trail locations. Furthermore, only 20% of non-trail users said they would not consider using a trail in the future.

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

Of the five trails that are in planning or construction phases, roughly a third of all respondents were either likely/very likely, unlikely/very unlikely, or unsure whether they would use the trails.

Survey respondents indicated that they are likely to support an initiative to und trail development and maintenance in the future, with 57% supporting and only 13% opposing.

[Placeholder for funding initiative support crosstab with trail usage]



SURVEY SET MARGINS TO 0.5 AND REMOVE THIS LINE RVTRAILS FREQUENCIES (09/16/16)

1. WHAT COUNTY DO YOU LIVE IN?  1. LOS ANGELES 0% 2. ORANGE 0% 3. RIVERSIDE 100% 4. SAN BERNARDINO 0% 5. VENTURA 0% 6. OPTER 0% 7. FREFER NOT TO ANSWER 2% 7. FREFER TO NOT ANSWER 21% 7. PREFER TO NOT ANSWER 0% 7. MULTITACITE 5% 3. HISPANIC/LAITINO 38% 4. NATIVE AM/ALASKA NATIVE 2% 5. WHITE, NON-HISP./LAT 44% 6. OTHER 0% 7. MULTITACIAL 5% 8. PREFER TO NOT ANSWER 1% 7. PRIOR TO TAKING THIS SURVEY, WERE YOU AWARE THAT RIVERSIDE COUNTY HAS SEVERAL MAINTAINED TRAILS AND PATHS? 1. YES 72% 2. NO 17% 3. NEVER THOUGHT ABOUT IT 11%	TWITTED TREGORNOTED (05/10/10/
1. USA ANGELES 0% 2. ORANGE 0% 3. RIVERSIDE 100% 4. SAN BERNARDINO 0% 5. VENTURA 0% 6. OTHER 0% 7. WHAT IS YOUR GENDER? 1. MALE 48% 2. FEMALE 50% 3. PREFER NOT TO ANSWER 2% 3. WHAT CATEGORY BEST DESCRIBES YOUR AGE? 1. 19 OR YOUNGER 4% 2. 20 - 29 21% 3. 30 - 39 22% 4. 40 - 49 21% 5. 50 - 59 10% 6. 60 OR OLDER 21% 7. PREFER TO NOT ANSWER 0% 7. WHICH CATEGORY DO YOU MOST IDENTIFY WITH? 1. AFRICAN AMERICAN 5% 2. ASIAN/PACIFIC IS 5% 3. HISPANIC/LATINO 38% 4. NATURE AM/ALASKA NATURE 2% 5. WHITE, NON-HISP./LAT 44% 6. OTHER 0% 7. MULTIRACIAL 5% 8. PREFER TO NOT ANSWER 1% 7. WHITE NON-HISP./LAT 44% 6. OTHER 0% 7. MULTIRACIAL 5% 8. PREFER TO NOT ANSWER 1% 7. PRIOR TO TAKING THIS SURVEY, WERE YOU AWARE THAT RIVERSIDE COUNTY HAS SEVERAL MAINTAINED TRAILS AND PATHS? 1. YES 72% 2. NO 17% 3. NEVER THOUGHT ABOUT IT 11%	**************
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SEVERAL MAINTAINED TRAILS AND PATHS?  1. YES	
2. NO	·
	2. NO

6. I	HAVE YOU	USED	ANY (	F THE	FOLLOWING	TYPES	OF	TRAILS	IN	RIVERSIDE	COUNTY
	IN THE PA	AST YE	AR?								
-	1. PAVED	TRAII						39	98		
2	2. UNPAVE	ED/SOF	T SUE	RFACE	TRAIL			41	L %		
(	3. ON ST	REET E	BICYCI	LE LAN	ES			22	2 %		
4	4. HAVE 1	NOT US	ED TE	RAIL/I	ANE IN PAS'	r year		39	98		
***	*****	****	****	****	****	*****	***	*****	***	******	*****
***	***										

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

**COMPREHENSIVE TRAILS PLAN** 

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December 2017

PAGE - 1

7. WHAT ARE THE REASONS YOU HAVE NOT USED A TRAIL IN THE PAST YEAR?
1. DON'T KNOW WHERE 40% 2. TRAILS ARE TOO FAR
*****
8. WHAT WOULD MAKE YOU MORE LIKELY TO USE A TRAIL IN THE FUTURE?
1. KNOWING LOCATION 57% 2. KNOWING AMENITIES 48% 3. KNOWING OPEN HOURS 42% 4. BIKE LANE SAFETY 14% 5. WORK/SCHOOL FACILITIES 6% 6. WOULD NOT CONSIDER USING TRAIL 20% 7. OTHER REASON 9%
****

9. HAVE YOU EVER USED ANY OF THE FOLLOWING TRAILS IN RIVERSIDE COUNTY IN THE

PAST YEAR?

1.	ALESSANDRO ARROYO	14%
2.	BENEDICT WSH	1%
3.	BIG/LTL MORONGO CNYN	9%
4.	BLIND CANYON	3%
5.	BOGARD PARK	3%
6.	BX SPRINGS MNTN PRK/M	19%
7.	DESERT EDGE	3%
8.	DILLON RD	4 %
9	GAGE CANAL	3%
	HARFORD SPRNG/MOCKINGBIRD CNYN	3%
	HIDDEN VALLEY	17%
	JUAN BAUTISTA DE ANZA	3%
	LAKE SKINNER	12%
	LAKEVIEW/NUEVO	9%
	,	
	LONG CANYON	2%
	MISSION CREEK	11%
	MOROGO WASH	48
	PACIFIC CRST	7%
	PRENDA ARROYO	1%
20.	SN JACINTO/CLEAVELAND NTNL FRST	16%
	SANTA ANA RVR	18%
22.	SANTA ROSA PLTU	12%
23.	SPRINGBROOK WSH ARROYO	0%
24.	SYCAMORE CNYN	16%
25.	TEMESCAL CNYN	16%
26.	VICTORIA AVE	10%
27.	VISTA SANTA RSA	2%
28.	WILLIE BOY	0%
	WINE CNTY	8%
	OTHER	12%
	DON'T KNOW NAME	23%
	NONE	08
	*****	3 0
****		
IU. W	HAT IS YOUR HOME ZIP CODE?	
+++++	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * *
****		^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^
		HORD MHE MONTE THE DROW
	N WHICH OF THE FOLLOWING WAYS HAVE YOU	USED THE TRAILS IN THE PAST
YEAR?		
-		0.0
	. COMMUTE BICYCLING	
	. ROAD BICYCLING (PERFORMANCE RIDING)	
	. RECREATIONAL BICYCLING	
	. MOUNTAIN BICYLING	
	. WALKING/JOGGING/ENDURANCE TRAIL RUNN	
	. HIKING	
7	. EQUESTRIAN/ENDURANCE RIDING	
_	OBUED DEAGON	0.0

8. OTHER REASON .....

0%

12. WHAT ARE ALL THE REASONS YOU'VE USED THE TRAILS BEFORE?
1. EXERCISE
13. WHEN USING TRAILS, MY MOST COMMON DESTINATION IS
1. TRAVELING TO WORK
14. HAVE YOU EVER USED A TRAIL AS PART OF YOUR COMMUTE TO WORK OR SCHOOL?
1. TRAVEL TO WORK 10% 2. TRAVEL TO SCHOOL 6% 3. BOTH 6% 4. NEITHER 79% ************************************
*****
15. WHAT IS THE TOTAL ESTIMATED ONE-WAY DISTANCE YOU TRAVEL TO WORK WHEN USEING THE TRAILS?
1. LESS THAN 1 MILE
*****
16. WHAT IS TOTAL ESTIMATED ONE-WAY DISTANCE YOU TRAVEL TO SCHOOL WHEN USING THE TRAILS?
1. 1 - 5 MILES
1. NO VEHICLE

262		December 2017	RIVERSIDE COUNTY REGIONAL PARK AN	ND OPEN-SPACE DISTRICT	COMPREHENSIVE TRAILS PLAN	
	5.	EXCERCISE	84%			
	6. SOCIAL INTERACTION			29%		
	7.	OTHER		1%		
	******************					
	****					

18. WHEN YOU USE THE TRAILS, DO YOU USUALLY USE THEM
1. BY YOURSELF
1. CAR/TRUCK/VAN
******  20. HOW FAR ARE YOU WILLING TO DRIVE TO ACCESS A TRAIL?
1. 0 MILES
*****
21. WHEN DO YOU TYPICALLY USE TRAILS?
1. WEEKENDS 38% 2. WEEKDAYS 12% 3. BOTH 50% ************************************
22. HOW OFTEN DO YOU NORMALLY USE TRAILS?
1. 3+ DAYS A WEEK
23. WHAT ARE THE MOST COMMON TIMES OF DAY YOU USE TRAILS ON WEEKDAYS?
1. BEFORE 7 AM
**************************************

1. BEFORE 7 AM	21%
2. 7:00 - 9:59 AM	47%
3. 10:00 AM - 3:59 PM	37%
4. 4:00 - 6:59 PM	27%
5. AFTER 7 PM	15%
*******	********

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

**COMPREHENSIVE TRAILS PLAN** 

\*\*\*\*\*

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25. WHICH OF THE FOLLOWING TYPES OF FACILITIES OR AMENITIES HAVE YOU USED WHEN USING TRAILS? 1. PARKING ..... 63% 2. TRASH CANS/RECYCLE BINS ..... 69% 3. SHADE/TREES ..... 71% 4. BENCHES ..... 5. DRINKING WATER ..... 41% 6. RESTROOMS ..... 52% 2% 7. OTHER ..... \* \*\*\*\*\* 26. OVERALL SATISFACTION [WITH TRAIL AMENITIES] 1. VERY SATISFIED ...... 2. SATISFIED ...... 43% 3. NEUTRAL ..... 11% 4. DISSATISFIED ..... 0 응 5. VERY DISSATISFIED ..... 0% 6. NA/DON'T KNOW ..... 1% \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*\*\*\* 27. [SATISFACTION WITH] PARKING 1. VERY SATISFIED ...... 31% 2. SATISFIED ..... 43% 3. NEUTRAL ....... 1.5% 4. DISSATISFIED ...... 2% 5. VERY DISSATISFIED ..... 1% 6. NA/DON'T KNOW ..... 8% \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 28. [SATISFACTION WITH] TRASH CANS/RECYCLING BINS 1. VERY SATISFIED ..... 35% 2. SATISFIED ..... 43% 3. NEUTRAL ...... 17% 4. DISSATISFIED ..... 5. VERY DISSATISFIED .... 0 % 6. NA/DON'T KNOW ..... 3% \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*\*\*\* 29. [SATISFACTION WITH] SHADE/TREES 1. VERY SATISFIED ..... 35% 2. SATISFIED ..... 41% 3. NEUTRAL ..... 18% 4. DISSATISFIED ..... 3% 5. VERY DISSATISFIED ..... 0 % 2% 6. NA/DON'T KNOW ..... \* \*\*\*\*\*

30. [SATISFACTION WITH] BENCHES	
2. SATISFIED	26% 39% 24% 6% 0% 5% ********************************
31. [SATISFACTION WITH] DRINKING W	WATER
2. SATISFIED	16% 24% 35% 12% 3% 10% **********************************
*****	
32. [SATISFACTION WITH] RESTROOMS	
2. SATISFIED	15% 27% 30% 12% 6% 11%
	***********
******* 33. [SATISFACTION WITH] EQUESTRIAN	N AMENITIES
2. SATISFIED	11% 19% 29% 1% 1% 39% *************
	23%
3. NEUTRAL	1%
35. [SATISFACTION WITH] BIKE RACKS	
1. VERY SATISFIED	15% 22%

3.	NEUTRAL	26%
4.	DISSATISFIED	4%
5.	VERY DISSATISFIED	1%
6.	NA/DON'T KNOW	32%
*****	******	*********
*****	*	

36.	6. [SATISFACTION WITH] OTHER	
ale ale ale a	1. VERY SATISFIED 100% 2. SATISFIED 0% 3. NEUTRAL 0% 4. DISSATISFIED 0% 5. VERY DISSATISFIED 0% 6. NA/DON'T KNOW 0%	
	*****	
37.	7. IN TERMS OF THE SAFETY OF THE TRAIL DESIGN, FACILITIES ARE?	HOW SAFE DO YOU FEEL THE
	1. VERY SAFE 29% 2. SAFE 52% 3. NEUTRAL 16% 4. UNSAFE 2% 5. VERY UNSAFE 1%	
	**************	********
	***** 8. YOU RATED THE SAFETY OF THE TRAIL AS NEUTRA	AI IINSAFE OR VERY IINSAFE
50.	0. 100 NATED THE SAFETT OF THE TRAIL AS NEOTRE	II, UNSAFE, OR VERT UNSAFE.
***	***********	*******
	*****	
39. WHEN	9. IN TERMS OF YOUR PERSONAL SAFETY AND SECURI	TY, HOW SAFE DO YOU FEEL
VVIIIII	USING THE TRAILS?	
***	1. VERY SAFE 25% 2. SAFE 52% 3. NEUTRAL 20% 4. UNSAFE 2% 5. VERY UNSAFE 0% ************************************	
40.	0. YOU RATED THE PERSONAL SAFETY ON THE TRAIL	AS NEUTRAL, UNSAFE, OR
***	***********	******
***	****	
41.	1. WHEN YOU USE ON-STREET BIKE LANES, WHAT ARE THEM?	THE REASONS YOU HAVE USED
	1. EXCERCISE	
	**********	********
	*****	MEC 2
42.	2. WHEN DO YOU TYPICALLY USE ON-STREET BIKE LA	NLD:
	1. WEEKENDS 26%	

****	*	
****	*****	***********
3.	BOTH	60%
2.	WEEKDAYS	14%

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43. HOW OFTEN DO YOU NORMALLY	USE ON-STREET BIKE LANES?
****	36% 28% 13% 5% ************************************
44. [LIKELINESS TO USE TRAIL:	] MURRIETA CREEK TRAIL
2. LIKELY	
45. [LIKELINESS TO USE TRAIL	:] SAN JANINTO RIVER TRAIL
2. LIKELY	16% 13% 30% 25% 16% **********************************
46. [LIKELINESS TO USE TRAIL:	] SALK CREEK TRAIL
2. LIKELY	10%
**************************************	*************
47. [LIKELINESS TO USE TRAIL: EMEGRANT TRAIL	] TEMESCAL CANYON/BUTTERFIELD STAGE/SOUTHERN
2. LIKELY	17% 11% 34% 24% 14%
**************************************	***********
48. [LIKELINESS TO USE TRAIL:	] WHITE WATER (CV LINK) TRAIL
3. UNSURE	18% 8% 37% 19% 17%

49. DO YOU BELIEVE OR SUPPORT THE CONCEPT OF RESTRICTED USE TRAILS WITHIN THE COUNTY? 1. YES ..... 58% 2. NO ..... 16% 3. DON'T KNOW ..... 26% \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*\*\*\* 50. WOULD YOU... BE WILLING TO SUPPORT AN INITIATIVE TO FUND TRAIL DEVELOPMENT AND MAINTENANCE? 1. YES ..... 57% 2. NO ..... 13% 3. NOT SURE ..... 31% \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*\*\*\* 51. DO YOU WORK? 1. YES - FULL-TIME ..... 46% 2. YES - PART-TIME ..... 15% 3. NO ...... 39% \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*\*\*\* 52. ARE YOU A STUDENT? 1. YES - FULL-TIME ..... 10% 2. YES - PART-TIME ..... 7% 3. NO ...... 83% 53. HOW MANY PEOPLE LIVE IN YOUR HOUSEHOLD 1. 1 PERSON ..... 14% 2. 2 PEOPLE ...... 30% 3. 3 PEOPLE ..... 19% 4. 4 PEOPLE ..... 18% 5. 5 PEOPLE ...... 11% 6. 6 OR MORE PEOPLE ..... 7% \* \*\*\*\*\* 54. WHAT IS YOUR COMBINED TOTAL HOUSEHOLD INCOME? 1. LESS THAN \$20,000 ...... 2. \$20,000-\$34,999 ..... 10% 3. \$35,000-\$49,999 ...... 13% 4. \$50,000-\$74,999 ...... 5. \$75,000-\$100,000 ...... 15% 6. MORE THAN \$100,000 ..... 23% 7. PREFER NOT TO ANSWER ..... 6% \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*\*\*\*

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**Relevant Planning Documents** 

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT

Section 1 Inventory Map



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**Butterfield Overland Trail Project** 

Section 3 Inventory Map

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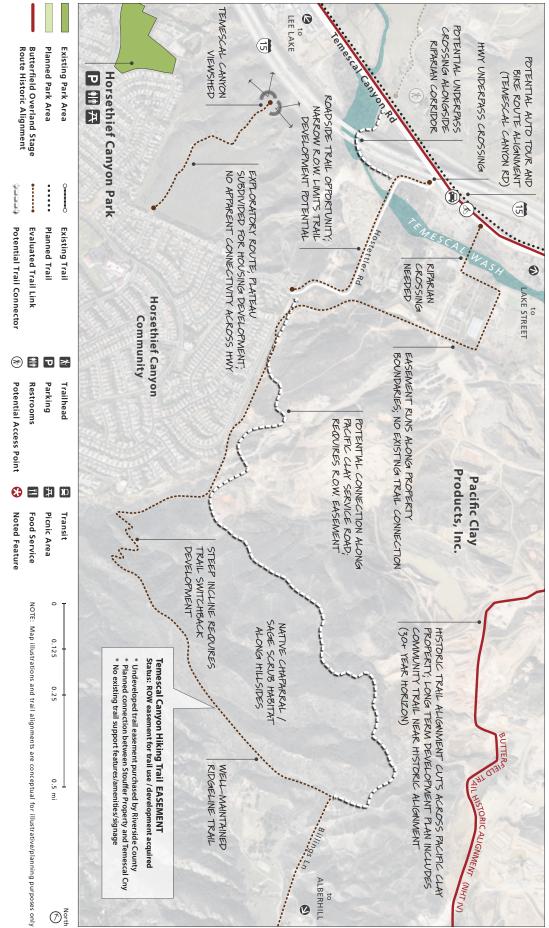
**Potential Trail Connector** 

**Potential Access Point** 

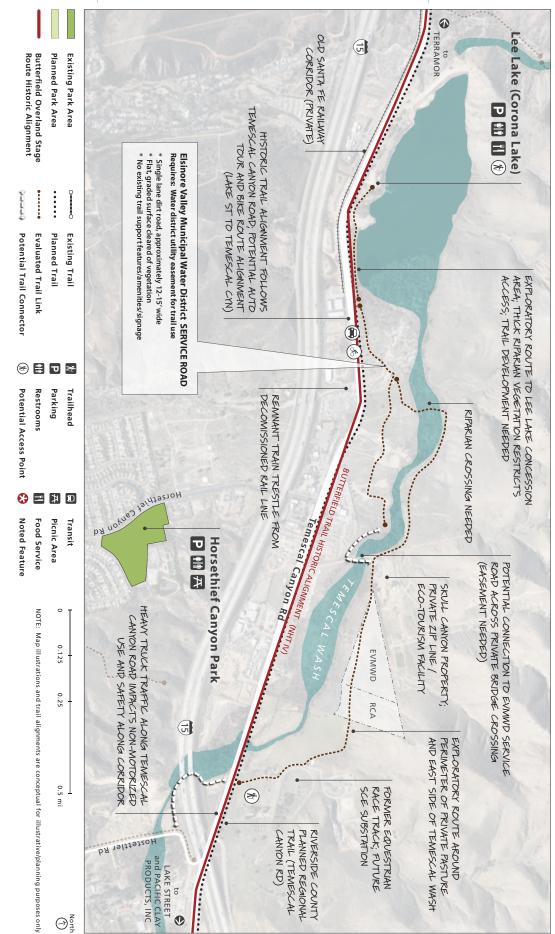
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**Noted Feature** 

## Section 5 Inventory Map



## Section 6 Inventory Map



Planned Park Area

Route Historic Alignment **Butterfield Overland Stage** 

> • :

**Potential Trail Connector Evaluated Trail Link** Planned Trail

**Potential Access Point** 

0

**Noted Feature** Food Service

NOTE: Map illustrations and trail alignments are conceptual for illustrative/planning purposes only

Picnic Area

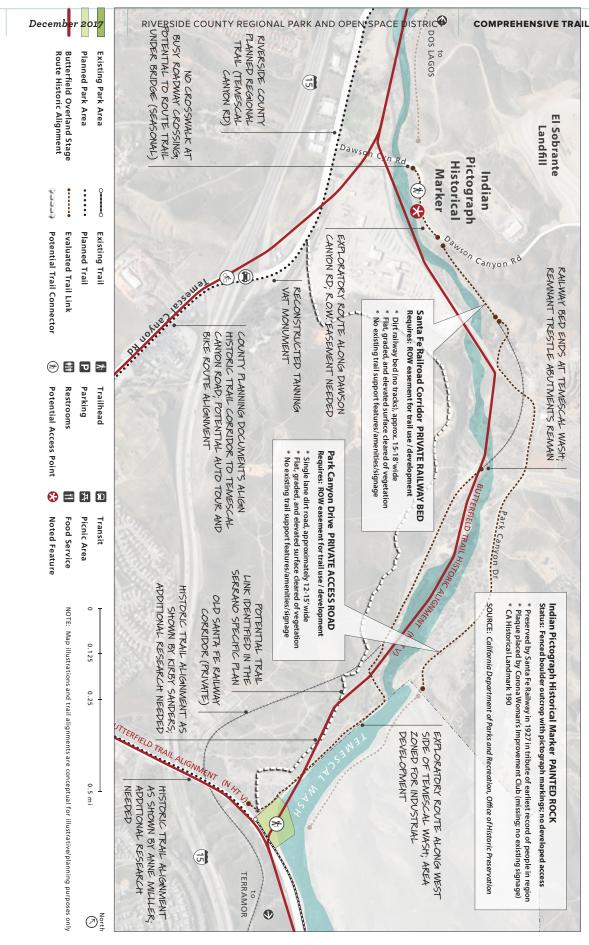
0.125

0.25

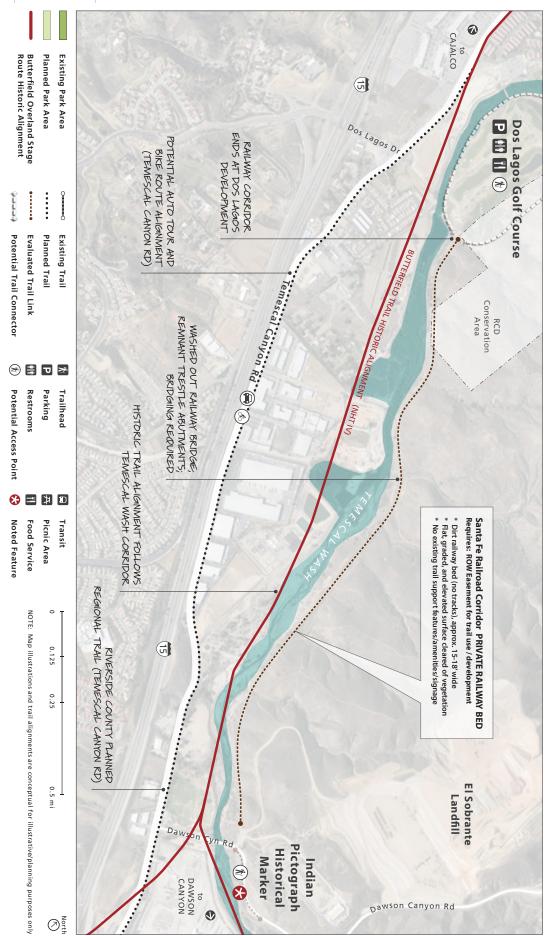
0.5 mi

Restrooms Parking 80

## Saction 8 Inventory Map

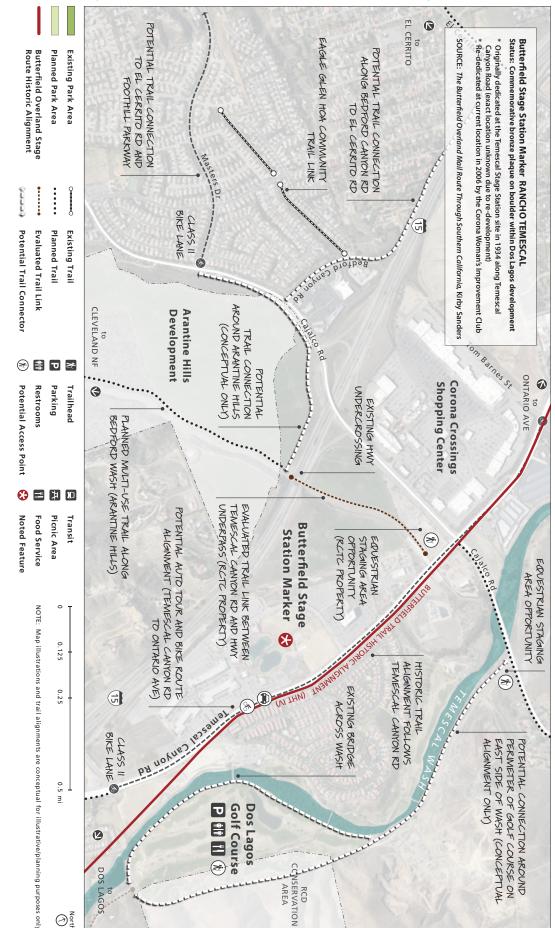


# Section 9 Inventory Map



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**Butterfield Overland Trail Project** 

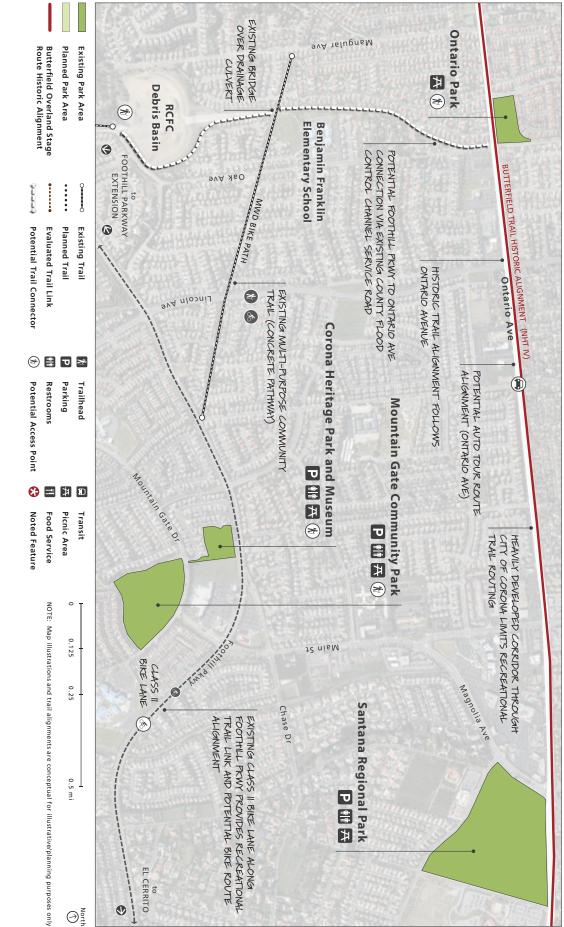


Section 11 Inventory Map

## Appendix FOOTHILL PARKWAY 0 Butterfield Overland Stage Route Historic Alignment Planned Park Area **Existing Park Area** POTENTIAL AUTO TOUR ROUTE ALIGNMENT (ONTARIO AVE) (parking and restrooms to be developed) Ontario Ave HISTORIC TRAIL ALIGNMENT FOLLOWS ONTARIO AVENUE • :::: Jameson Park Fullerton Ave HEAVILY DEVELOPED CORRIDOR THROUGH CITY OF CORONA LIMITS RECREATIONAL TRAIL ROUTING **Potential Trail Connector Evaluated Trail Link** Planned Trail **Existing Trail** 1 **≱** EXISTING CLASS II BIKE LANE ALONG CALIFORNIA AVE PROVIDES CONNECTION BETWEEN FOOTHILLL PKWY AND ONTARIO AVE BUSY ROADWAY AREA DURING SCHOOL PICK UP AND DROP OFF TIMES BUTTERFIELD TRAIL HISTORIC ALIGNMENT (NHT IV) ≥ 🖺 🔻 🔀 Parking **Potential Access Point** Restrooms Trailhead **High School** Santiago MASTERS DR CLASS II 0 California Ave **Noted Feature** Food Service Picnic Area Transit (3) Tamarisk Ln ALONG FOOTHILL PKWY PROVIDES RECREATIONAL TRAIL LINK AND (5) EXISTING CLASS II BIKE LANE ALIGNMENT POTENTIAL BIKE ROUTE NOTE: Map illustrations and trail alignments are conceptual for illustrative/planning purposes only **El Cerrito Sports Park** 15 atets FOOTHILL PARKWAY TO BE WIDENED; PLANNED CLASS II BIKE LANE EXTENDED TO EL CERRITO RD 0.125 POTENTIAL CONNECTION ALONG EL CERRITO RD BETWEEN ONTARIO AVE P ♣ ★ ② Ontario Ave AND FOOTHILL PKWY 0.5 mi Bearing Strains CONNECTION ALONG BEDFORD CANYON RD POTENTIAL TRAIL TO EL CERRITO RD Middle School (3) El Cerrito CAJALCO to 0

Butterfield Overland Trail Project - Temescal Valley Alignment Analysis. 2015. City of Lake Elsinore, City of Corona, R iverside County Regional Park and Open Space District, Riverside County Board of Supervisors, Riverside County Habitat Conservation Agency, and Riverside County Park District Advisory Commission

# Section 12 Inventory Map



Section 13 Inventory Map

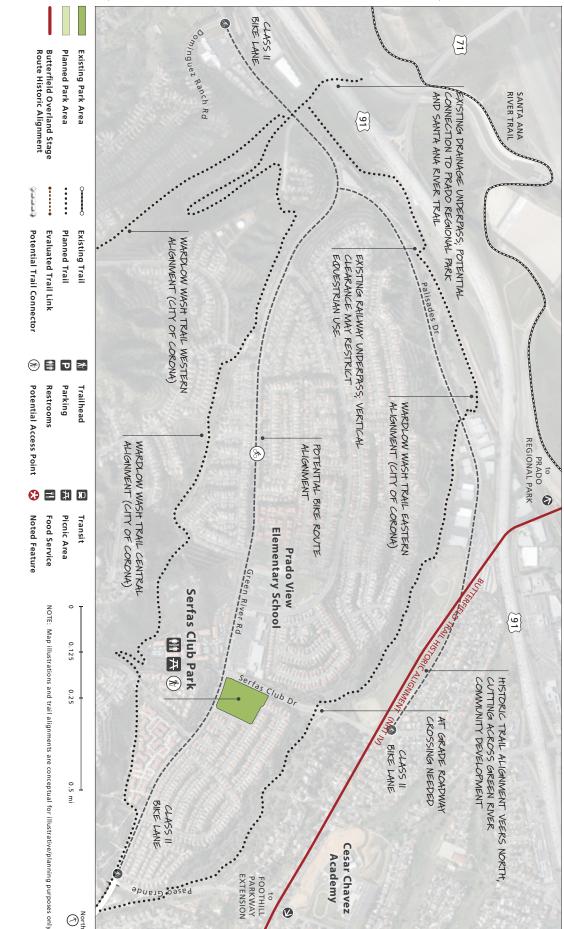
## Appendix • to WARDLOW Cesar Chavez WARDLOW WASH TRAIL CENTRAL ALIGNMENT (CITY OF CORONA) WASH Academy PLANNED TRAILHEAD STAGING AREA (CITY OF CORONA) **Route Historic Alignment Butterfield Overland Stage** Planned Park Area **Existing Park Area** Paseo Grande BIKE LANE 188F HISTORIC TRAIL ALIGNMENT FOLLOWS ONTARIO AVE TO PASEO GRANDE, POTENTIAL AUTO TOUR ROUTE ALIGNMENT (ONTARIO AVE TO PASEO GRANDE) :::: WARDLOW WASH TRAIL EASTERN ALIGNMENT (CITY OF CORONA) Planned Trail **Potential Trail Connector Evaluated Trail Link Existing Trail** ALIGNMENT (CITY OF CORONA) WARDLOW WASH TRAIL WESTERN FOOTHILL PARKWAY EXTENSION INCLUDES **Elementary School** AND CLASS II BIKE LANE, POTENTIAL ROAD-SEPARATED MULTI-USE TRAIL **John Adams** ≥ 🖺 🔻 🔀 **Potential Access Point** Restrooms Parking Trailhead Ontario Ave BIKE ROUTE ALIGNMENT 0 St. J. St. Ullas IA **Noted Feature** Transit Food Service Picnic Area EXISTING BRIDGE OVER DRAINAGE CULVERT PLANNED TRAILHEAD PARKING / STAGING AREA (CITY OF CORONA) NOTE: Map illustrations and trail alignments are conceptual for illustrative/planning purposes only Benjamin Franklin Elementary School 0.125 EXISTING MULTI-USE REGIONAL TRAIL Skyline Trailhead (CONNECTS TO MAIN DIVIDE) 0.25 Debris RCFC Basin (3) **\*** ₹. 0.5 mi SKYLINE TRAIL CONNECTOR 3 FOOTHILL PARKWAY SKYLINE TRAIL Foothill Pkwy 0 CLEVELAND NF 0 to

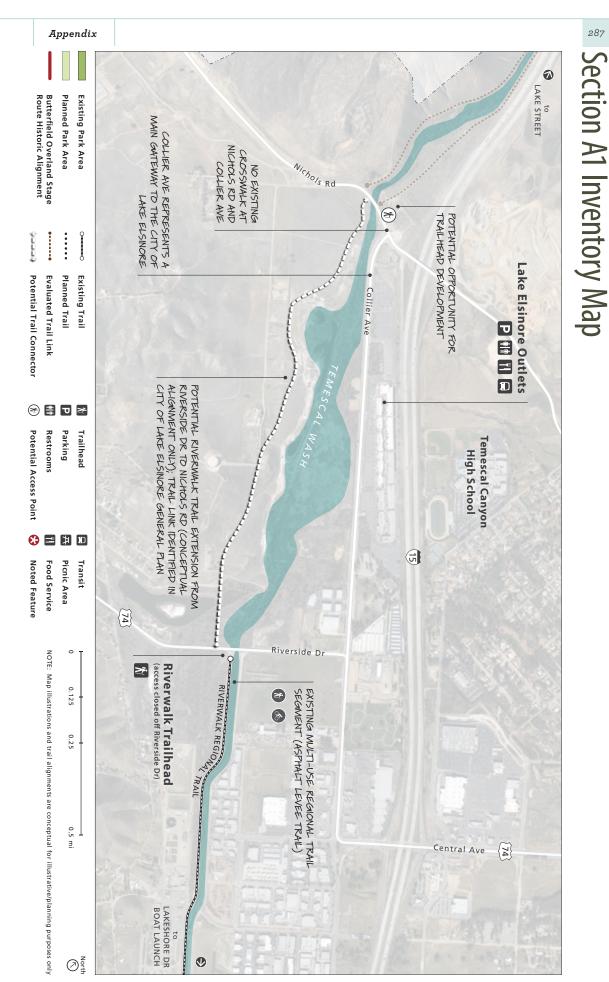
Butterfield Overland Trail Project - Temescal Valley Alignment Analysis. 2015. City of Lake Elsinore, City of Corona, R iverside County Regional Park and Open Space District, Riverside County Board of Supervisors, Riverside County Habitat Conservation Agency, and Riverside County Park District Advisory Commission

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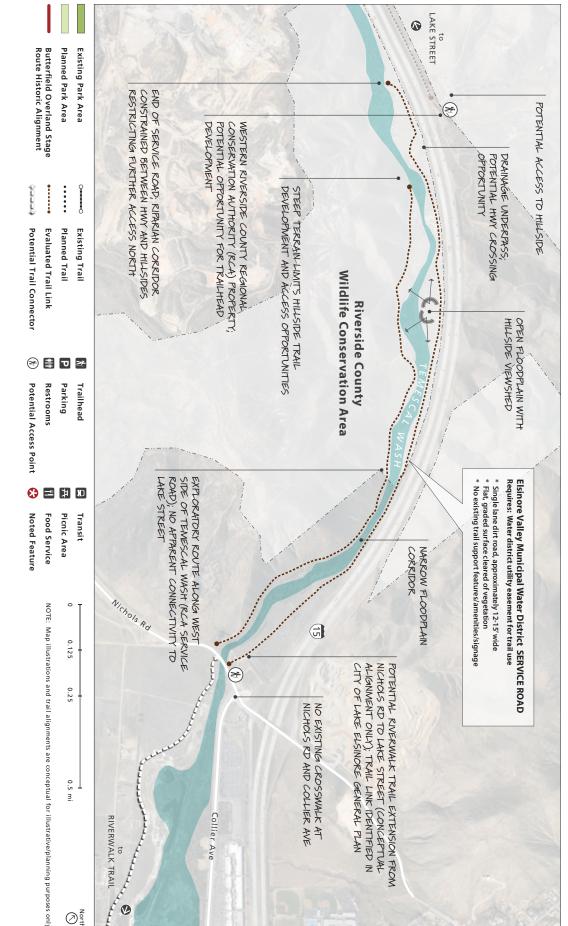
**Butterfield Overland Trail Project** 

## Section 14 Inventory Map





## Section A2 Inventory Map



Section A3 Inventory Map

