

# **Trail and Bikeway Strategy**



# Trail and Bikeway Strategy

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## Summary

An integrated system of parks and open spaces linked to neighborhoods and major destinations by outstanding trails, bikeways and linear parks — this is the vision articulated for Redding in the General Plan.

The purpose of the Trail and Bikeway Strategy is to transform this broad vision into a specific action plan that can be implemented over the next two decades. Undoubtedly, the City will accomplish this future work, as in the past, with the help and cooperation of significant partners in both the public and private sectors.

As the trails and greenways movement has evolved over time, the focus has shifted from a primarily recreational use of trails to a broader, more comprehensive view of the transportation role these facilities can play. Trails and bikeways are now considered integral and vital components of our community infrastructure.

Linkage is a central goal of trails and bikeways — to parks, schools, transit stops, shopping, neighborhoods, cultural attractions, and to other trails and bikeways. In the past decade, federal and state programs have increasingly provided support and funding for these facilities. Redding has consistently and assertively used these resources to build an outstanding system enjoyed by residents and visitors alike.

The hub of the system is the nationally recognized Sacramento River Trail, which has recently been designated a National Recreation Trail by the U.S. Department of the Interior. Over the last eighteen years, this paved trail has been extended to almost nine miles in length. It links the city on both sides of the river and creates a viable commuter corridor.

In addition, seventeen other trails, including 6 miles of dirt-surfaced mountain bike and equestrian paths, have been constructed or are under development in parks and open spaces in every quadrant of the City.



Bikeways and sidewalks located along streets and roads also play an important role in the overall system design. They contribute to the multi-modal transportation system, and reduce traffic congestion and air pollution in the urban area. Up-coming projects by the City and others, which incorporate bike and pedestrian accommodations into vehicle bridge designs, will address some of the long-standing difficulties non-motorized travel has had crossing from one side of town to the other.

In the next twenty years, the trail and bikeway system being developed by Redding and its partners will be remarkable. New trails will take people out to the Whiskeytown National Recreation Area with its thousands of acres of lake, mountainous woodlands, and streams, or north to Lake Shasta and the National Forest. In town, they will make their way along paths that follow the River and its large creeks, and enjoy family bike-and-hike loops in their neighborhoods and close-by parks.

### *Trails & Bikeways for the Redding Area*

	<b>TRAILS Paved and Dirt</b>	<b>BIKEWAYS Class I, II, and III</b>	<b>TOTAL System Miles</b>
<b>Existing Miles</b>	31.57	73.12	104.69
<b>Proposed Miles</b>	101.86	52.94	154.80
<b>Total Existing &amp; Proposed Miles</b>	<b>133.43</b>	<b>126.06</b>	<b>259.49</b>

# **Roles and Benefits of Trails and Bikeways**

As adjuncts to both the transportation system and the park system, trails and bikeways have the capacity to positively affect our city and the region in many ways.

## **Component in a Multi-modal Transportation System**

Bikeways are included in Redding's transportation plan and the Shasta County Regional Transportation Planning Agency's (RTPA) strategy to encourage alternative modes of transportation. Trails and their associated open space corridors help these efforts by linking residents to shopping and entertainment districts, and by providing viable transportation alternatives for commuting to work and to school.

## **Promotes Physical Activity Goals for Public Health**

Many commonly recognized activities related to physical activity exclude large segments of the community. For example, organized team sports may favor athletically inclined individuals; fitness centers may favor individuals who have high self-determination and fitness ability; youth recreational programs may favor young children.

Trails however, represent a diversity of opportunity — from the gifted athlete interested in a convenient place to train, to the individual looking for an aesthetically pleasing place to take an after dinner walk, to a family spending time together walking.

There is strong scientific evidence that regular physical activity promotes health and reduces risk of premature death and many chronic diseases. It is recommended that adults obtain a minimum of 30 minutes of moderate intensity (e.g., brisk walking on trails) on most, if not all, days of the week.

## **Assists Fire Protection Efforts**

Trails can provide fire and emergency access into open space areas via co-location with fire breaks

and waterlines. This is especially important for the protection of life and property in areas where urban development abuts natural areas with high fire risks.

## **Helps Achieve Natural Resource and Conservation Goals of General Plan**

As tools for conservation, Redding's trail and open space systems have mutually supportive goals. Trails, and the open space corridors they often occupy, help preserve important natural landscapes, provide needed links between fragmented habitats, and offer tremendous opportunities for protecting plant and animal species. Partially due to increasing development, "islands" of habitat occur throughout the Redding area, isolating wildlife and plant species, and reducing habitat necessary for their survival. Trails corridors within open space can help provide important links between these isolated populations and habitats, and increase the land available to many species.

## **Assists in Economic Development**

The presence of trail systems, along with other desirable community recreation amenities, play an increasing role in the decisions businesses make when relocating or expanding operations. Better wages and enhanced opportunities positively affect many areas of the community.

## **Creates Potential for Efficient Multiple-Use Utility Corridors**

Combining linear utility corridors with trails has many benefits. Co-location often creates more attractive utility corridors, and can turn a potentially divisive barrier into a connecting recreational feature. Water storage projects, irrigation canals, flood control projects, electric power lines, sewer lines, fiber optic lines, gas pipelines — all provide opportunities worth investigating as our trail and bikeway system expands.

## Connecting to Other Trail and Bikeway Systems

Since linkage and connection are overall goals of the Trail and Bikeway Strategy, coordination with adjacent jurisdictions and agencies is considered essential. At the outset of our planning efforts, we sought information from the cities of Shasta Lake and Anderson, and from Shasta County. As shown on the map, the Strategy has linked those jurisdictions' trails and bikeways to those proposed within the City. In addition, regional trail connections to federal and state lands are also created at several places.

### Shasta-Trinity Trail

The Shasta-Trinity Trail, a concept system developed locally with the help of the National Park Service, envisions a one hundred-mile regional trail connecting significant north state recreation destinations. When completed, the Trail will provide hikers, equestrians, and mountain bikers with a range of opportunities for exploring areas close to town, or to see remote, backcountry areas. It will link the Sacramento River Trail, the Westside Trails, Horsetown-Clear Creek Preserve, Whiskeytown National Recreation Area, and areas around Shasta Lake and Trinity County.

As presently conceived, the trail will utilize both natural corridors and man-made features that remain in the area from past mining and logging activities. Many former roads, rail beds, water ditches, and old stage coach routes can be converted for trail use, while in some places the trail may be routed along existing roads for short distances to get users to the next section of trail.

A trail of this scale can only be established through a commitment to partnerships. With a Steering Committee in place to guide this planning effort, local governments, land management agencies, landowners, and community groups are now working closely together to identify and build the Shasta-Trinity Trail.



### National Trails Designation

In July 1990, the National Trails Agenda Project created a task force that solicited advice from a nationwide cross-section of the trails community. The resulting "Trails for All Americans" report called for a vast interconnected system of private, local, state, and federal trails linking neighborhoods, communities, towns and cities, businesses, parks, and states throughout the country. According to the report, most Americans would live and work within 15 minutes of this national system.

These national trails are being developed and linked, region by region each year. In May 2002, our own Sacramento River Trail and the connecting Sacramento River-Rail Trail were included in this National Trails System when the Secretary of the Interior designated them as *National Recreation Trails*. There are now more than 800 of these

special trails recognized in every state, totaling more than 9,000 miles.

As a participant in the national program, Redding's trails will be promoted on the National Recreation Trail (NRT) website. Hosted by American Trails, a nonprofit program partner, the website includes descriptive information, maps, and pictures for trail users.

Trails given the NRT designation also benefit from letters of support for grants, partnership developments and trail protection efforts, and access to technical assistance and funding opportunities available from NRT program partners (National Park Service, Bureau of Land Management, and USDA Forest Service Challenge Cost Share Programs).

## **Pacific Crest National Scenic Trail**

Adventurous hikers, bikers, and equestrians can venture beyond the immediate area via the Pacific Crest National Scenic Trail. While not directly linked to our proposed trail system, 78 miles of the Pacific Crest Trail are within reach in the eastern and northern parts of the County.

The Pacific Crest Trail, extending 2,600 miles from Canada to Mexico, is a west coast example of the multi-state trail systems now being developed that will connect large regions of the country together.

# Trail Classification System

## Classification Overview

The Redding Trail Strategy proposes four types of trails to address the needs of various user groups, and provide connections between parks, schools, major destinations, and open spaces in an integrated system. Generally described below, their specific design specifications can be found starting on page 6.

### Multipurpose Paved Trails

The primary type of trail is the multipurpose trail. Its design specifications call for wide, paved surfaces and high vertical clearances that accommodate pedestrians and bicyclists of all skill levels and experience. The entrances, or trailheads, for multipurpose trails should provide amenities for the comfort and convenience of trail users. These could typically include restrooms, information kiosks, benches, picnic areas, and drinking fountains.

### Improved Dirt Trails

Besides their unpaved surfaces, improved dirt trails are distinguished from multipurpose trails by their narrower width and smaller horizontal and vertical clearances above and to either side of the path. Trailheads for dirt trails contain amenities similar to those found at multipurpose trails, but may also include facilities that can accommodate horses.

### Open Space Trails

Open space trails provide public access to the natural areas found throughout the city. They are usually associated with water bodies, streams, the Sacramento River, and/or scenic view points. Their design width and surfaces are sensitive to the context of their natural environment. Trailheads furnish basic amenities such as parking, drinking fountains, and trail information postings.



*Stress Ribbon Bridge Across Sacramento River*

### Connector Trails

Connector trails are defined as short off-road corridors. They connect neighborhoods, schools, parks, work places, and community centers, helping create a continuous pedestrian travel networks and alternative routes for non-motorized vehicles. Their surfaces are generally consistent with those segments of the trail or transportation system that they are linking. Trailhead amenities consist only of signs marking entrances and the connecting destination points, and security lighting in certain settings.

<b>Multipurpose Paved Trail</b>		<b>Representative Trail: Sacramento River Trail</b>
<b>Use and Definition</b>	<b>Typical Characteristics</b>	<b>Typical Amenities</b>
<ul style="list-style-type: none"> <li>▶ Primary type of trail for the developed parts of the city.</li> <li>▶ Accommodates pedestrians, commuter or recreation bicyclists, and in-line skaters.</li> <li>▶ Not generally appropriate for equestrians because of paved surfaces and potential conflicts between other users.</li> <li>▶ Design should accommodate many levels of expertise, from casual strollers and family biking, to more accomplished bikers and competitive runners.</li> <li>▶ Provides multi-use commuter routes for alternative transportation methods that are compatible with pedestrian travel.</li> <li>▶ Wherever possible, paved trails will provide for persons with disabilities. Trail barriers and slopes should be designed to permit passage by people with wheelchairs and strollers.</li> <li>▶ Stairways are disallowed except in situations where alternatives would have substantial negative environmental effects.</li> <li>▶ Trail corridors located outside of parklands are included in the Level-of-Service acreage calculation based on an averaged 50'-wide corridor.</li> </ul>	<ul style="list-style-type: none"> <li>▶ <b>Service Area:</b> Located within greenways, parks, and natural resource areas throughout the city.</li> <li>▶ <b>Location:</b> Provided with sufficient buffer for noise and traffic if homes are nearby.</li> <li>▶ <b>Access:</b> Connected to community via bikeways and sidewalks that lead to trailheads and other points of entry.</li> <li>▶ <b>Landscape:</b> Integrated with immediate surroundings, whether park-like and ornamental, or with more emphasis on native materials and plants in natural settings.</li> <li>▶ <b>Maintenance:</b> City-maintained, with some assistance from local groups or residents.</li> <li>▶ <b>Activities:</b> Walking / jogging / running, skating, biking, nature studies and wildlife viewing, fishing access, environmental education.</li> </ul> <p>OPTIMAL SPECIFICATIONS</p> <ul style="list-style-type: none"> <li>▶ <b>Corridor:</b> 50' to 200' width</li> <li>▶ <b>Setback:</b> 60' to 100' from buildings</li> <li>▶ <b>Path Width:</b> 8' minimum, 12' optimal</li> <li>▶ <b>Shoulder:</b> 2' - graded &amp; compacted</li> <li>▶ <b>Cross-Slope:</b> 2% optimal</li> <li>▶ <b>Gradient:</b> 5% desirable, 10% maximum</li> <li>▶ <b>Vertical:</b> 8.5' clearance above</li> <li>▶ <b>Horizontal:</b> 12' clear passage</li> <li>▶ <b>Surface:</b> Asphalt or concrete</li> <li>▶ <b>Striping:</b> In high use areas</li> </ul>	<ul style="list-style-type: none"> <li>• Signage clearly marking entrances</li> <li>▶ Directional and interpretive signs appropriate to the trail</li> <li>▶ Drinking fountains</li> <li>▶ Parking lot for cars and trailers</li> <li>▶ Information kiosks with maps, trail characteristics, and directions</li> <li>▶ Seating at entrances, at vistas, and at special viewing areas</li> <li>▶ Picnic tables</li> <li>▶ Group picnic areas if restrooms can be provided</li> </ul>

<b>Improved Dirt Trail</b>		<b>Representative Trail: The Westside Trails</b>
<b>Use and Definition</b>	<b>Typical Characteristics</b>	<b>Typical Amenities</b>
<ul style="list-style-type: none"> <li>▶ Can be built as a temporary first phase of a paved trail, or as a permanent trail that will not require hard paving.</li> <li>▶ Serves pedestrians, bicyclists, and equestrians.</li> <li>▶ Does not allow motorized vehicles, such as mopeds, all-terrain vehicles or motorcycles, except wheelchairs.</li> <li>▶ Wherever possible, improved trails will provide for persons with disabilities. Trail barriers and slopes should be designed to permit passage by people with wheelchairs and strollers.</li> <li>▶ Stairways are disallowed except in situations where alternatives would have substantial negative environmental effects.</li> <li>▶ Trail corridors located outside of parklands are included in the Level-of-Service acreage calculation based on an averaged 50'-wide corridor.</li> </ul>	<ul style="list-style-type: none"> <li>▶ <i>Service Area:</i> Found in developed areas of city, or in open space areas.</li> <li>▶ <i>Location:</i> Provided with sufficient buffer for noise and traffic if homes are nearby.</li> <li>▶ <i>Access:</i> Connected to community via bikeways and sidewalks that lead to trailheads and other points of entry.</li> <li>▶ <i>Landscape:</i> Emphasizes native plants and natural features found either on-site or developed through restoration efforts, including streams, ponds, wetlands, or unique habitats.</li> <li>▶ <i>Maintenance:</i> City-maintained, with some assistance from local groups or residents.</li> <li>▶ <i>Activities:</i> Walking / jogging / running, biking, horseback riding, nature studies and wildlife viewing, fishing access, environmental education.</li> </ul> <p><b>OPTIMAL SPECIFICATIONS</b></p> <ul style="list-style-type: none"> <li>▶ <i>Corridor:</i> 50' to 200' width</li> <li>▶ <i>Setback:</i> 60' to 100' from buildings</li> <li>▶ <i>Path Width:</i> 4' minimum, with wider areas at frequent intervals for passing and turn-outs</li> <li>▶ <i>Cross-Slope:</i> Varies</li> <li>▶ <i>Gradient:</i> 10% maximum</li> <li>▶ <i>Vertical:</i> 12' clearance above</li> <li>▶ <i>Horizontal:</i> 8' clear passage</li> <li>▶ <i>Surface:</i> Graded and compacted dirt, limestone, decomposed granite, or other natural material</li> </ul>	<ul style="list-style-type: none"> <li>▶ Signage clearly marking entrances</li> <li>▶ Directional and interpretive signs appropriate to the trail</li> <li>▶ Drinking fountains</li> <li>▶ Parking lot for cars and possibly trailers</li> <li>▶ Information kiosks with maps, trail characteristics, and directions</li> <li>▶ Seating at entrances, at vistas, and at special viewing areas</li> <li>▶ Picnic tables</li> <li>▶ Group picnic areas if restrooms can be provided</li> </ul>

<b>Open Space Trail</b>		<b>Representative Trail: Future Salt Creek Trail</b>
<b>Use and Definition</b>	<b>Typical Characteristics</b>	<b>Typical Amenities</b>
<ul style="list-style-type: none"> <li>▶ Provides access to open space areas along creeks and in canyons.</li> <li>▶ Emphasizes strong relationship with the natural environment.</li> <li>▶ Utilizes fire roads, other unpaved roads, or existing trails wherever possible.</li> <li>▶ Serves pedestrians, bicyclists, and equestrians, depending on permitted uses in open space areas.</li> <li>▶ Does not allow motorized vehicles, such as mopeds or all-terrain vehicles (ATVs).</li> <li>▶ Stairways are disallowed except in situations where alternatives would have substantial negative environmental effects.</li> <li>▶ Trail corridors located outside of parklands are included in the Level-of-Service acreage calculation based on an averaged 50'-wide corridor.</li> </ul>	<ul style="list-style-type: none"> <li>▶ <i>Service Area:</i> Found within open space and natural resource areas.</li> <li>▶ <i>Location:</i> Provide with sufficient buffer for noise and traffic if homes are nearby.</li> <li>▶ <i>Access:</i> Connected to community via bikeways and sidewalks that lead to trailheads and other points of entry.</li> <li>▶ <i>Landscape:</i> Emphasis on native plants and natural features found on-site, or developed through restoration efforts, including streams, ponds, wetlands, or unique habitats.</li> <li>▶ <i>Maintenance:</i> City-maintained, with some assistance from local groups or residents.</li> <li>▶ <i>Activities:</i> Walking / jogging / running, biking, horseback riding, nature studies and wildlife viewing, fishing access, environmental education.</li> </ul> <p>OPTIMAL SPECIFICATIONS</p> <ul style="list-style-type: none"> <li>▶ <i>Corridor:</i> 50' to 200' width</li> <li>▶ <i>Setback:</i> 60' to 100' from buildings</li> <li>▶ <i>Path Width:</i> 1' to 1.5' minimum, with wider areas at frequent intervals for passing and turn-outs.</li> <li>▶ <i>Cross-Slope:</i> Varies</li> <li>▶ <i>Gradient:</i> 10% maximum</li> <li>▶ <i>Vertical:</i> 7' to 12' clearance above</li> <li>▶ <i>Horizontal:</i> Varies</li> <li>▶ <i>Surface:</i> Graded and compacted dirt, limestone, decomposed granite, or other natural material</li> </ul>	<ul style="list-style-type: none"> <li>▶ Signage clearly marking entrances</li> <li>▶ Directional and interpretive signs appropriate to the trail</li> <li>▶ Drinking fountains</li> <li>▶ Parking lot for cars and trailers</li> <li>▶ Information kiosks with maps, trail characteristics, and directions</li> <li>▶ Seating at entrances, at vistas, and at special viewing areas</li> </ul>

<b>Connector Trail</b>		<b>Representative Trail: Overhill/Mary Street Connector to Sacramento River Trail</b>
<b>Use and Definition</b>	<b>Typical Characteristics</b>	<b>Typical Amenities</b>
<ul style="list-style-type: none"> <li>▶ Differentiated from other trails in that they provide a safe off-road open space corridor that connects neighborhoods, schools, parks, work places, and community centers.</li> <li>▶ Accommodates pedestrians, commuter or recreation bicyclists, and in-line skaters.</li> <li>▶ Provides multi-use commuter routes for alternative transportation methods that are compatible with pedestrian travel.</li> <li>▶ Wherever possible, connector trails will provide for persons with disabilities. Trail barriers and slopes should be designed to permit passage by people with wheelchairs and strollers.</li> <li>▶ Stairways are disallowed except in situations where alternatives would have substantial negative environmental effects.</li> <li>▶ Connector trails located outside of parklands are included in the Level-of-Service acreage calculation based on an averaged 50'-wide corridor.</li> </ul>	<ul style="list-style-type: none"> <li>▶ <i>Service Area:</i> Can be built as separate paths, or located within existing right-of-way along road shoulders and through utility easements.</li> <li>▶ <i>Location:</i> Provided with sufficient buffer for noise and traffic if homes are nearby.</li> <li>▶ <i>Access:</i> Connected to community via bikeways and sidewalks that lead to trailheads and other points of entry.</li> <li>▶ <i>Landscape:</i> Integrated with immediate surroundings: more ornamental in park-like settings, or emphasizing native materials and plants in natural environments.</li> <li>▶ <i>Maintenance:</i> Typically city-maintained, with some assistance from local groups or residents.</li> <li>▶ <i>Activities:</i> Walking / jogging / running, skating, biking, nature studies and wildlife viewing, fishing access, environmental education.</li> </ul> <p><b>OPTIMAL SPECIFICATIONS</b></p> <ul style="list-style-type: none"> <li>▶ <i>Corridor:</i> 50' to 200' width</li> <li>▶ <i>Setback:</i> 60' to 100' from buildings</li> <li>▶ <i>Path Width:</i> 5' minimum, 8' optimal</li> <li>▶ <i>Shoulder:</i> 2' - graded and compacted if paved</li> <li>▶ <i>Cross-Slope:</i> 2% optimal</li> <li>▶ <i>Gradient:</i> 5% desirable, 10% maximum</li> <li>▶ <i>Vertical:</i> 8.5' clearance above</li> <li>▶ <i>Horizontal:</i> 12' clear passage</li> <li>▶ <i>Surface:</i> Asphalt, concrete, or decomposed granite</li> </ul>	<ul style="list-style-type: none"> <li>▶ Signage clearly marking entrances and destinations ahead</li> <li>▶ Security lighting should be considered in some situations</li> </ul>

# Existing and Proposed Trail Inventory

## Inventory Overview

Redding's present trail system encompasses a wide range of trail types suitable for many kinds of users. Some trails are steep and challenging, while others are flat and easily accommodate wheelchairs or youngsters. From them, you can fish, walk the dog, race in marathons, ride your horse, watch wildlife, or skate with friends. Trails can be found in greenways downtown, within suburban neighborhoods, or in secluded open space areas that carry you far from roads and houses.

Our substantial inventory of trails, listed in the table on the next two pages, shows that we have 18 trails either existing or under development in the 83-square mile City-County planning area. More than 25 miles are paved pathways, and an additional 6 miles are engineered with dirt surfaces.

Trails are very popular recreation facilities for Redding residents. The 2001 Household Survey shows that two-thirds (67%) of respondents have used the City's trails for walking a few times per year. The Sacramento River Trail is also the venue for numerous celebrations, organized walks and runs, and special occasions that benefit charitable causes.

The Trail and Bikeway Strategy proposes almost 102 additional miles of trails within the planning area over the next twenty years. This will create a total network of 133 miles of multipurpose trails, dirt equestrian and bike paths, connector trails, and loops in every part of the City.



*Sacramento River Trail in Caldwell-Lake Redding Park*

**The Redding Parks, Trails and Bikeways Map** illustrates the general layout of this comprehensive trail network and how it will connect with street bikeways. *Please note that while existing trails are shown as accurately as a map at this scale can depict, the proposed trail alignments should be interpreted as schematic and conceptual.* Before any trail is built and opened to the public, detailed engineering studies will be made with the cooperation of land owners and resource agencies.

## Trails Existing or Under Development in the Redding Area, 2003

### MULTIPLE-USE TRAILS

Map No.	Trail Name	From	To	Length	Acres	Quad
1	Blue Gravel Mine Trail *	Placer St	Canyon Creek Rd	2.04	12.34	SWW
2	Buckeye Park Trail*	Internal Loop	Internal Loop	0.29	1.76	NW
3	Canyon Creek Trail*	Blazingwood Dr	Buenaventura Blvd	0.51	3.09	SWW
4	Cascade Park Trail	Internal Loop	Internal Loop	0.50		SWW
5	Civic Center Perimeter Trail	Internal Loop	Internal Loop	0.89		SWW
6	Enterprise Park Trail	Internal Loop	Internal Loop	1.53		SE
7	Knolls Trail *	Foothill Blvd	Eureka Way	0.19	0.14	SWW
8	Lema Ranch Trails (private, open to the public)	Internal Loop	Internal Loop	3.58		NE
9	Mary Lake Trail	Internal Loop	Internal Loop	1.00		SWW
10	Mary Street / Overhill Extension *	Sacramento River Trail	Overhill St	0.31	1.90	SWW
34	Old 99 Spur Trail*	Lake Blvd	North Market St	0.96	4.61	NW
36	Parkview Riverfront Park Trail	Civic Center	Cypress Bridge	0.55		SWW
11	Peppertree Park Trail	Internal	Internal Loop	0.37		NW
12	Sacramento River Trail - North *	Stress Ribbon Bridge	Hilltop Drive	6.12	37.07	NW
13	Sacramento River Trail - South *	Court St	Stress Ribbon Bridge	2.80	16.97	SWW
44	Sacramento River Rail Trail - Connector	Spring Creek	Keswick Dam Rd	3.00		NW
14	Stanford Hills Trail *	Sutro Mine Rd	Sac. River Trail - North	0.86	5.19	NW
MULTIPLE-USE TRAILS				25.49	83.07	

### DIRT TRAILS

15	Westside Trails	Lower Springs / Placer Rd	Mary Lake Park	6.08		SW
DIRT TRAILS				6.08		
MULTIPLE-USE and DIRT TRAILS				31.57		
TRAIL ACREAGE *					83.07	

\* TRAIL ACREAGE Trails included in the Level-of-Service acreage, using a 50'-wide corridor, are marked with asterisks. Included in this acreage calculation are all public trails found within the city limits, and outside a developed park (because its acreage would already be counted in the park's acreage). Excluded from the trail acreage count are private trails (Lema Ranch Trails, a portion of the River Trail within the McConnell Arboretum), trails outside the city (Westside Trails) and those located within developed parks.

## Future Trails for the Redding Area, 2004-2020

### MULTIPLE-USE TRAILS

Map No.	Trail Name	From	To	Length	Acres	Quad	Year
16	ACID Trail	Butte St	Cypress Av	0.89	5.38	SW	2008
17	Blue Gravel Mine Spur	Placer St	Blue Gravel Mine Trail	0.18	1.08	SW	2004
18	Boulder Creek Trail	SR 299E Bikeway	Chum Creek	1.69	10.24	NE	2015
19	Buenaventura Trail	Eureka Way	Placer St	0.82	4.96	SW	2004
20	Candlewood Trail	Chum Creek Trail	Candlewood Dr	0.55	3.32	NE	2010
21	Canyon Creek Trail Extension	Placer St	Blazingwood Dr	2.13	12.93	SW	2004-2005
22	Chum Creek Trail	Twin View Blvd	Chum Creek Rd	8.03	48.68	NE	2007-2020
23	Clear Creek Trail	SR 273S Bridge	Cascade Park	1.66	10.06	SW	2012
24	Clover Creek Trail	Sports Park	Sacramento River	8.30	60.32	NE	2007-2020
25	Dana Drive Trail and Bikeway	Turtle Bay	Mt. Shasta Mall	0.59	3.57	SW	2006-2007
26	Gold Run Creek Trail	Sacramento River Trail	Eureka Way	0.90	5.44	SW	2004
27	Jenny Creek Trail	Eureka Way	Mary Lake	0.62	3.78	SW	2004
28	Lema - Nash Trail	Shasta View Dr	Old Oregon Trail	0.98	5.94	NE	2015
29	Linden Creek Trail	Fire Hall #2	MLK, Jr. Park	1.64	9.94	SW	2020
30	Little Chum Creek Trail	Hartnell Av	Chum Creek	1.07	6.48	SE	2010
31	Manzanita Trail	Manzanita Hills Av	Almond Av	0.27	1.63	SW	2010
32	Middle Creek Trail	Old Shasta / SR 299W	Sacramento River Trail	1.86	11.28	SW	2005-2007
33	Minder Park Trail	Lema Ranch	Chum Creek	0.37	2.22	NE	2006
35	Palisades Trail	Hilltop Dr	North Bechelli Ln	1.43	8.67	NW	2006-2007
37	Riverside Trail	Sacramento River Trail	Center St	0.38	2.31	SW	2005
38	Sac. River Trail - Future Expansion	Cypress Av	Anderson River Park	10.20	61.82	SW	2018
39	Sac. River Trail - Hatchcover Spur	Hemstead Dr	Cypress Av	0.29	1.74	SW	2004
41	Sac. River Trail - Keswick Dam Extension	Keswick Dam	Stress Ribbon Bridge	0.69	4.15	NW	2004
42	Sac. River Trail - Park Marina Trail	State Route 299W	Cypress Av	2.12	12.87	SW	2015
43	Sac. River Trail - Turtle Bay/West Extension	Convention Center	State Route 299W	1.57	9.51	SW	2007
44	Sacramento River Rail Trail	Shasta Dam	Keswick Dam Rd	11.80	71.52	NW	2004
45	Stillwater Creek Trail	Old Oregon Trail	Sacramento River	15.46	93.63	NE	2020
46	Stillwater Plant Trail	State Route 44	Dersch Rd	1.85	11.21	SE	2020
47	Sulphur Creek Trail - South	North Market St	Arboretum Perimeter Tra	0.38	2.30	NW	2010
48	Sundial Bridge	McConnell Arboretum	Convention Center	0.32	1.94	SW	2004
49	Sunset Trail	Scenic Dr	Sacramento River Trail	0.15	0.91	SW	2004
50	Upper Chum Creek Trail	Pine Grove Av	Oasis Rd	1.75	10.62	NE	2020
51	Wertz Creek Trail	Mistletoe School	Cypress Av	0.55	3.34	SE	2020
				<b>FUTURE MULTIPLE-USE TRAILS</b>	<b>81.47</b>	<b>498.79</b>	

### DIRT TRAILS

Map No.	Trail Name	From	To	Miles	Acres	Quad	Year
52	China Dam Trail	Placer Rd	Texas Springs Rd	2.43	14.75	SW	2012
53	Mercedes Trail	Arboretum Perimeter Trail	Mercedes Ln	0.21	1.26	NW	2006
54	Olney Creek Trail	Texas Springs Rd	Cascade Park	3.67	22.22	SW	2016
55	Ridgeview Trail	Ridgeview Park	Blue Gravel Mine Trail	0.65	3.91	SW	2008
56	Salt Creek Trail	Lower Springs Rd	Sacramento River Trail	2.00	12.12	SW	2010
57	Sulphur Creek Trail - North	Quartz Hill Rd	North Market St	3.30	20.02	NW	2010
58	Westside Trails Extension	Mule Town Rd	Westside Ridge	5.00	30.30	SW	2003-2005
59	Greenwood Trail	Walnut Ave	Sonoma St	0.83	5.03	SW	2010
60	Avalon Trail	Shasta View Dr	Old Oregon Trail	1.00	6.06	NE	2015
				<b>FUTURE DIRT TRAILS</b>	<b>19.09</b>	<b>115.67</b>	
				<b>FUTURE DIRT and MULTIPLE-USE TRAILS</b>	<b>100.56</b>	<b>609.46</b>	
				<b>TOTAL EXISTING and FUTURE TRAILS</b>	<b>132.13</b>	<b>692.53</b>	

# Trail Design

## Trailhead Amenities

The creation of trails for public use involves more than creating the path on which to hike or ride. Trail amenities and well-defined entrances (trailheads) must also be developed so that visitors can fully enjoy the trail system. These types of improvements will encourage people to use the trails to reach activity centers and parks, and foster a more active lifestyle among Redding residents.

While trailheads with higher use may require more parking and additional accommodations, each trailhead should generally have the following improvements to make them enjoyable and so that they avoid conflicts with nearby land uses:

- Entry points clearly signed to encourage people to use the trail system
- Parking for bikes, cars, and horse/boat trailer maneuvering and parking areas
- Drinking fountains for people, dogs, and for filling water bottles
- Seating areas on which to rest and adjust equipment
- Shaded picnic tables or group facilities, if the site allows
- Restroom accommodations at larger trails, or at those associated with parks and/or group picnic areas
- Information boards or kiosks that contain important and useful information about the trail (see Signage section, below), with recognition of any organizations and Adopt-a-Trail groups involved with the trail
- Bus stops for public transportation system linkages, if there is a route nearby.

## Neighborhood and Pedestrian Connections

Trailheads and connector trails should be provided within neighborhood settings to create linkages between residential areas and other parts of the city. The presence of trail signs and other amenities at these locations will advertise the trail, encourage its use, and provide a convenient entry to the trail system.

Improvements at neighborhood trailheads will be designed so that they are compatible with their immediate residential setting, and will include entry and directional signage, trash containers, and drinking fountains where possible.



*Sacramento River Trail entrance within residential area*

## Trail Signage

Signs are an important component of any trail system, and include several types, each with different functions:

- *Entry Signs* advertise the location of trails and trailheads for new users and out-of-town visitors.
- *Informational Signs* posted near entrances describe the characteristics of a trail. This will

enable users of any level or ability to understand the challenges ahead and make their own decisions based on their individual capabilities. As the primary introduction to a trail, they should include the following information:

- ▶ Map of trail and the terrain it traverses
  - ▶ Permitted users and other rules regarding dogs, smoking, and motorized vehicles
  - ▶ “Rules of the Road” signs on multi-use paths explaining expectations of behavior from equestrians, skaters, bicyclists and pedestrians toward one another.
  - ▶ Bulletin board where user groups may post hiking schedules, and other pertinent information
  - ▶ Trail length and type of surface
  - ▶ Change in elevation over the total trail length, and maximum elevation traveled
  - ▶ Average and maximum running grade and cross-slopes grades that users will encounter
  - ▶ Average tread width and minimum clear widths
  - ▶ Location and length of any soft or unstable surfaces, such as sand or gravel
  - ▶ Size, location and frequency of obstacles
  - ▶ Location of rest places
- *Directional Signs* along pathways help people traverse the trails, find their way through the system, and direct them to important destinations.
  - *Interpretive Signs* are positioned near significant features to educate visitors and enhance their experience. This may include information about the trail and the area it traverses, its history, geology, and plants or wildlife found along the trail.

## **Trail Accessibility**

Our trails can often take us to places beyond the everyday world of houses, cars, and buildings. They give us the opportunity to see the sky reflected in water, smell the earth after a rain shower, and hear the rush of water flowing over rocks. The pleasures and challenges of this experience should be available to any user who has the interest to participate.

While every trail cannot be made accessible to all people, the trail system should provide a range of opportunities so that users can experience the various and unique environments offered in our park and open space system. All types of people can and do use all types of trails.

Redding’s trail design recommendations strive to be consistent with the rules made by the United States Access Board, which govern accessible outdoor developed areas under the Americans with Disabilities Act (ADA).

## **Challenging Trails**

Redding’s planned trail system is large enough to include a diversity of trail types to accommodate varying desires and abilities. This can encompass casual strolling and family biking, and also more aggressive trails with higher levels of technical challenge that appeal to expert bikers and hard-core hikers.

Because urban trails are used by a variety of people with different levels of expertise, their designs are generally open and flowing to promote safety and reduce conflicts between users. However, with careful planning, we can include more difficult trail loops within our system. These trails would have steeper, rougher grades, and the overall feel can be tight and wild.

## Bikeway Inventory and Classification

CalTrans, the state transportation agency, has divided bicycle facilities into three types — bike paths, bike lanes and bike routes — described in detail on the next page. Together, they serve various bicycle user groups that include casual recreational bike-riders, competitive athletes, fitness enthusiasts, and commuters.

The 2000 U.S. Census statistics show that in California, as many as 134,000 working people over the age of 16 can be considered bicycle commuters. In Shasta County, the data shows that 244 people (4 percent) in this same group use their bikes as their main transportation to work.

### Bridging Transportation Barriers

Like other cities, Redding’s two-wheeled commuters must contend with local impediments to bike travel. Here, those difficulties include steep topography, rainy but mild winters, and very hot summers. Significant transportation barriers limiting cross-town travel include Interstate 5, the Union Pacific Railroad, and the Sacramento River.

Of the six vehicular bridges that currently cross the River, only two safely accommodate bicycle traffic: the Lake Redding Bridge on Court/Benton Street and the South Bonnyview Road Bridge. However, new designs for the Cypress Avenue and State Route 44 bridges will increase the number of safe crossings for non-motorized vehicles in the future.

Fortunately for Redding bicyclists and pedestrians, the Sacramento River Trail has several bridge crossings available exclusively for non-motorized travel:

- *The Stress Ribbon (or Suspension) Bridge* connects the north and south sections of the River Trail just below Keswick Dam.
- *The Diestelhorst Bridge*, near Lake Redding Park at Court Street and Benton Drive, is an historic vehicular structure now used only for pedestrians and bikes.



*Sundial Bridge on the Sacramento River Trail*

- *The Sundial Bridge* spans the River with a spectacular steel cable and glass-decked design. The bridge connects the McConnell Arboretum on the north with the rest of Turtle Bay Exploration Park, the Redding Convention Center, and the Park Marina area to the south.

### Summary of Existing and Proposed Bikeways for the Redding Area

	<b>Class I Bike Path</b>	<b>Class II Bike Lane</b>	<b>Class III Bike Route</b>	<b>TOTAL MILES</b>
<b>Existing Miles</b>	0.86	7.18	65.08	73.12
<b>Proposed Miles</b>	0 *	27.43	25.51	52.94
<b>TOTAL MILES</b>	0.86	34.61	90.59	126.06
* All proposed Class I Bikeways are counted as Multipurpose Trails				

<b>Bike Path - Class I Bikeway</b>	
<b>Use and Definition</b>	<b>Specifications</b>
<ul style="list-style-type: none"> <li>▶ Developed within an entirely separate right of way for the exclusive use of bikes, skaters, and pedestrians, with minimal cross flows by motorists</li> <li>▶ By law, all motorized vehicles, including motorized bicycles ("mopeds"), are prohibited on bike paths unless allowed by city ordinance</li> <li>▶ Offers opportunities for cyclists not provided by the road system</li> <li>▶ Well-connected to trail system</li> <li>▶ If significant pedestrian traffic is anticipated, separate facilities should be provided to avoid conflicts between cyclists and pedestrians, and/or increase width and sight distances on curves and at intersections</li> <li>▶ Class I Bikeways are included in the Level-of-Service acreage calculation as trails, calculated with an average corridor width of 50'</li> </ul>	<ul style="list-style-type: none"> <li>▶ <i>Width:</i> Two-Way Path - 8' minimum, with 2' graded shoulders on either side. Increase width at steep grades and curves. One-Way Path - 5' minimum</li> <li>▶ <i>Vertical:</i> 7' minimum clearance, 10' optimal</li> <li>▶ <i>Horizontal:</i> 2' clearance minimum, 3' optimal</li> <li>▶ <i>Cross Slope:</i> 2% minimum, 5% maximum</li> <li>▶ <i>Grade:</i> 5% maximum</li> <li>▶ <i>Surface:</i> Asphalt or concrete</li> <li>▶ <i>Lighting:</i> Along path if compatible with adjacent land uses; at entrances &amp; intersections for safety</li> <li>▶ <i>Striping:</i> Stripe lanes in high use areas; around barrier posts</li> <li>▶ <i>Signage:</i> "Bike Path", with supplemental destination plates ("To Downtown"; to "To College")</li> </ul>

<b>Bike Lane - Class II Bikeway</b>	
<b>Use and Definition</b>	<b>Specifications</b>
<ul style="list-style-type: none"> <li>▶ A corridor within the road right-of-way designated specifically for one-way bike use, and delineated by bike lane signs and pavement striping along street shoulders</li> <li>▶ Connected to trail system</li> <li>▶ Not included in the Level-of-Service acreage calculation</li> </ul>	<ul style="list-style-type: none"> <li>▶ <i>Width:</i> 5' minimum, 13' where parking is permitted</li> <li>▶ <i>Signage:</i> "Bike Lane", with supplemental destination plates ("To Downtown"; to "To College"); placed at beginning, and on far side of every arterial street intersection, at all major changes in direction, and at 0.62 miles (1k) intervals</li> </ul>

<b>Bike Route - Class III Bikeway</b>	
<b>Use and Definition</b>	<b>Standards</b>
<ul style="list-style-type: none"> <li>▶ Shared facilities where bicycle use is secondary</li> <li>▶ Offers a higher degree of services to bicyclists than alternative streets: traffic control devices adapted for bikes, more frequent pavement maintenance, restricted parking along the street</li> <li>▶ Established by placing bike route signs along existing roadways</li> <li>▶ Should be connected to trail system</li> <li>▶ Not included in the Level-of-Service acreage calculation</li> </ul>	<ul style="list-style-type: none"> <li>▶ <i>Roadway</i> Prior to signing a new route, roadway characteristics should include 2'-wide shoulders (preferably 4'-wide); or roadways should have low traffic volumes and have speeds of 40 mph or less.</li> <li>▶ <i>Signage:</i> "Bike Route," with supplemental destination plates ("To Downtown"; to "To College") and directional arrows to increase functionality</li> </ul>

**Table: Existing and Proposed Bikeways in the Redding Area, 2002-2020**

**CLASS I - BIKEWAYS**

STATUS	ROAD SEGMENT	FROM	TO	MILES	QUAD
Existing	CalTrans Bikeway	Boulder Creek	Interstate 5	0.24	NW
Existing	CalTrans Bikeway	Interstate 5	College View Dr	0.61	NE
EXISTING CLASS I BIKEWAYS:				0.85	

**CLASS II - BIKE LANES**

STATUS	ROAD SEGMENT	FROM	TO	MILES	QUAD
Existing	Eastside Rd	Polk St	Breslauer Ln	1.01	SW
Existing	Hartnell Av	Cypress Av	Victor Av	1.98	SE
Existing	Park Marina Dr	State Route 44	Parkview Av	1.48	SW
Existing	Placer St	Wisconsin Av	Pleasant St	1.01	SW
Existing	So Bonnyview Rd	East Bonnyview Rd	Bechelli Ln	1.70	SW
Proposed	Airport Rd	State Route 44	North Street Bridge	5.88	SE
Proposed	Bechelli Ln*	Cypress Av	Hartnell Av	0.50	SW
Proposed	Browning St	Hilltop Dr	Churn Creek Rd	0.37	NE
Proposed	Buenaventura Blvd	Keswick Dam Rd	Sutro Mine Rd	0.79	NW
Proposed	College View Dr	Bodenhamer Blvd (future)	Old Oregon Trail	2.15	NE
Proposed	Cypress Av (future alignment)	Ishi Dr	Goodwater Av	0.42	SE
Proposed	Freebridge Av	Parkview Av	Smile Pl	0.05	SW
Proposed	Hartnell Av	Victor Av	Shasta View Dr	0.73	SE
Proposed	Hawley Rd	State Route 299E	North City Limits	2.68	NE
Proposed	Hilltop Dr	Cypress Av	Maraglia St	0.27	SE
Proposed	Keswick Dam Rd	Sacramento River Trail	North City Limits	2.13	NW
Proposed	Knighten Rd	Churn Creek Rd	Airport Rd	1.53	SE
Proposed	Loma Vista Dr (future alignment)	Churn Creek Rd	Victor Av	0.87	SE
Proposed	Old Oregon Trail	Oasis Rd	State Route 44	6.83	NE
Proposed	Parkview Av	Park Marina Dr	Cypress Av	0.07	SW
Proposed	Parkview Av (future alignment)	Freebridge Av	Hartnell Av	0.59	SW
Proposed	Pleasant St	Shasta St	Placer St	0.20	SW
Proposed	Quartz Hill Rd	Lake Blvd	West City Limits	0.55	NW
Proposed	Quartz Hill Rd	Keswick Dam Rd	North City Limits	0.52	NW
Proposed	South Bonnyview Rd	Bechelli Ln	Churn Creek Rd	0.31	SW
EXISTING CLASS II BIKEWAYS:				7.18	
PROPOSED CLASS II BIKEWAYS:				27.43	
TOTAL CLASS II BIKEWAYS:				34.61	

**CLASS III - BIKE ROUTES**

STATUS	ROAD SEGMENT	FROM	TO	MILES	QUAD
Existing	Bechelli Ln*	Hartnell Av	South Bonnyview Rd	1.89	SW
Existing	Benton Dr*	Quartz Hill Rd	North Market St	1.00	NW
Existing	Branstetter Ln	West City Limits	Westside Rd	3.64	SW
Existing	Buenaventura Blvd	Placer St	Westside Rd	2.21	SW
Existing	Buenaventura Blvd (1)	Eureka Way	Placer St	0.83	SW
Existing	Butte St	Continental St	Auditorium Dr	0.39	SW
Existing	Cedars Rd*	El Reno Ln	South Bonnyview Rd	1.54	SW
Existing	Center St	Trinity St	Riverside Dr	0.16	SW
Existing	Churn Creek Rd*	State Route 44	Rancho Rd	4.13	SE
Existing	Churn Creek Rd*	State Route 299E	State Route 44	2.38	NE
Existing	Clear Creek Rd	West City Limits	State Route 273S	4.03	SW
Existing	Collyer Dr	Hawley Rd	Old Oregon Trail	1.74	NE
Existing	Continental St	Trinity St	Butte St	0.31	SW
Existing	Cypress Av*	Churn Creek Rd	Ishi Dr	1.03	SE
Existing	Cypress Av*	Pine St	Hartnell Av	0.89	SW
Existing	Cypress Av	Interstate 5	Churn Creek Rd	0.38	SE
Existing	Cypress Av	Hartnell Av	Interstate 5	0.49	SW
Existing	East St	Trinity St	Pine St	0.57	SW
Existing	Eastside Rd	Breslauer Ln	South City Limits	2.85	SW
Existing	Freebridge Av	Parkview Av	Ellis St	0.53	SW

**CLASS III - BIKE ROUTES (continued)**

STATUS	ROAD SEGMENT	FROM	TO	MILES	QUAD
Existing	Hilltop Dr	State Route 44	Cypress Av	0.98	SE
Existing	Hilltop Dr	Browning St	State Route 44	0.53	NE
Existing	Hilltop Dr *	Interstate 5	Browning St	0.24	NE
Existing	Hilltop Dr *	Lake Blvd	Interstate 5 Fwy	1.57	NW
Existing	Keswick Dam Rd *	North City Limits	Lake Blvd	0.83	NW
Existing	Lake Blvd	North City Limits	North Market St	2.62	NW
Existing	North Market St *	Lake Blvd	Benton Dr	0.80	NW
Existing	Oasis Rd *	Interstate 5	East City Limits	1.80	NE
Existing	Oasis Rd *	Lake Blvd	Interstate 5	2.33	NW
Existing	Old Alturas Rd *	Churn Creek Rd	Old Oregon Trail	2.45	NE
Existing	Parkview Av *	State Route 273	Hartnell Av	0.59	SW
Existing	Placer Rd *	West City Limits	Wisconsin Av	0.80	SW
Existing	Quartz Hill Rd *	West City Limits	Benton Dr	1.82	NW
Existing	Railroad Av	Court St	Buenaventura Blvd	1.36	SW
Existing	Rancho Rd *	Churn Creek Rd	Airport Rd	1.73	SE
Existing	Riverside Dr	Court St	Center St	0.20	SW
Existing	Shasta View Dr *	State Route 44	Rancho Rd	2.69	SE
Existing	Shasta View Dr *	College View Dr	State Route 44	3.28	NE
Existing	Trinity St	Center St	Continental St	0.43	SW
Existing	Twin View Blvd/Mtn. View Dr *	Hawley Rd	Oasis Rd	1.86	NE
Existing	Victor Av *	State Route 44	Rancho Rd	3.12	SE
Existing	Victor Av *	Old Alturas Rd	State Route 44	0.57	NE
Existing	Westside Rd	Buenaventura Blvd	South Bonnyview Rd	1.47	SW
Proposed	Butte St	Almond Av	Oregon St	0.74	SW
Proposed	California St	Trinity St	Tehama St	0.24	SW
Proposed	Churn Creek Rd	Rancho Rd	Airport Rd	5.77	SE
Proposed	Civic Center Dr	Locust St	Cypress Av	0.14	SW
Proposed	Clear Creek Rd	Honeybee Rd	West City Limits	0.32	SW
Proposed	Collyer Dr	Mountain View Dr	Hawley Rd	0.67	NE
Proposed	Dersch Rd	Airport Rd	Stillwater Creek Trail	1.77	SE
Proposed	East St	South St	Locust St	0.21	SW
Proposed	El Reno Ln	Cedars Rd	Westside Rd	0.14	SW
Proposed	Ellis St	Polk St	Anita St	0.12	SW
Proposed	Highway 273	Girvan Rd	Ox Yoke -Riverside Av	2.76	SW
Proposed	Honey Bee Rd	Texas Springs Rd	Clear Creek Rd	0.73	SW
Proposed	Lake Blvd	The Shasta Dam	North City Limits	2.87	NW
Proposed	Locust St	East St	Civic Center Dr.	0.32	SW
Proposed	Manzanita Hills Av	Knolls Trail	Shasta St	0.20	SW
Proposed	Meadow View Dr	Churn Creek Rd	Airport Rd	1.29	SE
Proposed	Oregon St	Tehama St	Yuba St	0.14	SW
Proposed	Placer Rd	Tower View Rd	West City Limits	0.98	SW
Proposed	Quartz Hill Rd	Keswick Dam Rd	Lake Blvd	2.33	NW
Proposed	Radio Ln	Eastside Rd	South Bonnyview Rd	1.58	SW
Proposed	Shasta St	Pleasant St	Manzanita Hills	0.13	SW
Proposed	South Market St	Placer St	South St	0.11	SW
Proposed	South St	South Market St	East St	0.15	SW
Proposed	Tehama St	California St	Oregon St	0.13	SW
Proposed	Texas Springs Rd	West City Limits	Honey Bee Rd	0.77	SW
Proposed	Tower View Rd	Rattlesnake Ln	Placer Rd	0.42	SW
Proposed	Westside Rd	Buenaventura Blvd	El Reno Ln	0.35	SW
Proposed	Yuba St	Oregon St	California St	0.13	SW
EXISTING CLASS III BIKEWAYS:				65.08	
PROPOSED CLASS III BIKEWAYS:				25.51	
TOTAL CLASS III BIKEWAYS:				90.60	
TOTAL ALL TYPES OF BIKEWAYS:				126.05	

\* ASTERISKED CLASS III BIKE ROUTES WILL BE UP-GRADED TO CLASS II BIKE LINES IN THE FUTURE.

# Trail and Bikeway Development

## Planning

Trail and bikeway planning in Redding occurs in the Administrative Division of the Community Services Department, and in the Transportation Division of the Municipal Utilities Department.

## Acquisition and Development

Class I bicycle paths and trails with separate right-of-ways are generally developed as capital projects on City-owned land or acquired through land dedications related to the subdivision process for open space or recreational trail purposes. These dedications may be made as conditions for map approval, or through requirements pursuant to Section 17.41.020 of Redding’s Municipal Code. This code section requires developers of subdivisions of two hundred or more parcels to dedicate additional land as may be necessary and feasible to provide bicycle paths for the use and safety of the residents of the subdivision.

Class II and Class III bike facilities, which are a part of the street system, are developed as new road construction occurs, or as special federal and state funds become available to widen shoulders, upgrade existing roadways, and to stripe and sign them.

Trail development costs varies widely, depending on topography, the need for bridges, and drainage issues. Generally speaking, paved trails cost approximately \$250,000 per mile. Bikeway improvement costs are detailed in the table below.

## Maintenance

Responsibility for trail maintenance belongs to the Parks Maintenance Division in the Support Services Department, while maintenance for bikeway facilities on streets and on roadways is a Municipal Utilities function. These divisions are funded with appropriations from the General Fund.

<b>Estimated Per Mile Bikeway Improvement Costs for City of Redding Bikeways</b>					
<b>Bikeway Classification</b>	<b>Improvements</b>	<b>CONSTRUCTION COST PER MILE</b>			
		<b>2000</b>	<b>2002</b>	<b>2004</b>	<b>2006</b>
Class I	two-way path	\$179,300	\$190,200	\$201,800	\$214,100
Class II	no curb	\$124,100	\$131,700	\$139,700	\$148,200
Class II	curb	\$340,600	\$361,300	\$383,300	\$406,650
Class II	signs & striping	\$6,200	\$6,500	\$6,900	\$7,300
Class III	signs	\$535	\$565	\$600	\$650

*Source: Shasta County Bikeway Plan (1995), with 3% annual inflation factor*

## Partnerships

Public-private partnerships are a necessary and growing trend in addressing a variety of community needs, including capacity-building in our trail and bikeway system. Partnerships are the only way to solve the complex problems associated with trails crossing jurisdictional boundaries where multiple goals must often be achieved. Involving partners with diverse interests also greatly broadens funding, support, and publicity efforts.

### Agency and Non-Profit Partners

Redding's long record of successful partnership projects is a testament to a community-oriented planning approach. Every trail within the city is the result of creative collaborations with both public agencies and nonprofit groups. Through these efforts, not only have state and federal dollars been leveraged to create outstanding projects, but community enthusiasm and civic pride in our public landscape has been fostered.

Redding trail partners have included:

- American Trails
- California Department of Parks and Recreation
- California Department of Water Resources
- California Conservation Corps
- CalTrans (State Dept. of Transportation)
- McConnell Foundation
- National Park Service
- Trails and Bikeways Council of Greater Redding
- U.S. Bureau of Land Management
- U.S. Bureau of Reclamation

Assistance has also come from a variety of service clubs, nonprofits, and the private sector.

### Adopt-A-Trail Programs

As our trail system expands, higher levels of maintenance and management will be required to keep it safe and efficient. Volunteer groups can play a role in helping the City's Park Maintenance staff through an Adopt-A-Trail program where individuals or groups agree to regularly maintain a section of trail.

A wide variety of entities have developed successful programs that benefit from volunteer labor, including the City of Provo, Utah, the U.S. Forest Service, land trusts who manage open space lands, and the California State Parks. Many different groups can help — scout troops, civic or church groups, employees of a business, hiking and biking clubs, or the residents of a street or neighborhood.

Participants involved in adopt-a-trail ventures experience the rewards of stewardship and an increased sense of ownership that fosters greater safety and higher standards of care for the trails. Their many service hours ease already strained maintenance budgets, and their presence helps staff by providing more eyes to watch out for potential problems that may arise.

## Funding for Trails and Bikeways

The resources to develop a trail and bikeway system come from various places, including federal appropriations, state funds, grants, and private donations. The next table lists the major sources for recreational and transportation-related trails and bikeways.

No matter the funding source, most development projects include some form of cost-sharing or leveraging. Redding has received approximately \$3 million to expand its trail system over the next five years. More than \$4 million in matching funds will come from our various partners.

Volunteer contributions are also critical to trail construction, protection, and continued maintenance. In 1999, volunteer contributions for National scenic and historic trails alone totaled



more than 550,000 volunteer hours (with an estimated labor value of \$7.4 million) and \$5.7 million in financial contributions.

## Primary Funding Sources for Trails and Bikeways

<b>SOURCE / AGENCY</b>	<b>FUNDING PROGRAM</b>	<b>ELIGIBLE COSTS</b>
<b>CA Conservation Corps</b>	California Conservation Corps	emergency assistance, public service conservation work, construction, maintenance
<b>CA Wildlife Conservation Board</b>	Public Access Program	acquisition, design, construction, administration, maintenance for projects that preserve wildlife habitat or improve recreational access for fishing or other wildlife-oriented recreation
<b>CA Dept. of Parks and Recreation</b>	CA State Park Bond (Prop. 12 and Prop 40)	acquisition, design, construction, education
	Recreational Trails Program	engineering, construction, administration, maintenance
	Habitat Conservation Fund (Trails and Urban Access Category)	acquisition, enhancement, and restoration of wildlife areas & for programs to bring urban residents into parks and wildlife areas
<b>CalTrans</b>	Environmental Enhancement and Mitigation Program - State EEMP (AB-471)	administration, acquisition, engineering, construction, mitigation of environmental impacts for transportation facility modification
	TEA-21 - Statewide Transportation Enhancement	acquisition, design, construction
	Community Based Transportation Planning (CBTP) Grants	coordinated transportation/land use planning projects that have state-wide or multi-regional significance, encourage community involvement and partnerships, and promote community identity and quality of life
	Safe Routes to School (SR2S)	acquisition, design, construction of pedestrian & bikeway routes to and from school
	Bicycle Transportation Account (BTA)	right-of-way acquisition, planning, design, construction, education, maintenance of projects identified by regional transportation planning agency that improve bike commuting
<b>National Park Service</b>	Rivers, Trails and Conservation Assistance Program	staff time, planning
<b>Public Health Agencies and Non-Profit Groups</b>	Public Health Initiatives	planning, design, education, signage, programs
<b>Shasta Regional Transportation Planning Agency (RTPA)</b>	Transportation Enhancement Act (TEA - Regional Share)	acquisition, design, construction, education
<b>U.S. Dept. of Housing and Urban Development (HUD)</b>	Community Development Block Grants (CDBG)	acquisition, planning, design, construction, maintenance for projects that benefit low- to moderate-income people, or special populations

# Trail and Bikeway Strategy

## Recommended Goals and Policies

The many recommended goals and policies for the Trail and Bikeway Strategy found within this section of the Master Plan are gathered here for ease of reference.

Bracketed text refers to relevant General Plan goals and policies in the Natural Resources [NR], Community Development and Design [CDD], Recreation [R], Public Facilities [PF], and Air Quality [AQ] Elements, which can be found in abridged form in the Appendix.

### Trails

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#### Goal TB1

*Promote and facilitate the development of a Citywide Trail System.* [R11] [AQ2-28]

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Policies to achieve this goal include:

- TB1A *Linkages.* Focus efforts on linking neighborhoods and activity centers, connecting recreational, educational, cultural, commercial, and residential areas and uses. [R11A]
- TB1B *Sacramento River Trail.* Continue development of the Sacramento River Trail to establish a common and continuous thread along the river corridor. [R11B]
- TB1C *Trail Corridors.* Use this document and the map entitled, "Redding Parks, Trails and Bikeways Map," and all subsequent revisions, to guide trail development. [R11]

- Integrate trail corridors and bicycle routes into project improvement plans to provide alternative access to public and private parks and open space, transit stops, nearby commercial developments, and schools. [CDD10F]
- Continue to obtain land dedications and/or easements for the development of public trails and the Regional Sacramento River Parkway through direct purchases, and through the discretionary approval process for new development. [R11D]
- Co-locate trails in open space areas whenever public access is compatible with natural resource goals. [NR10]
- Provide continuous trail connections, including a looped system around the City. [R11A]
- Develop and designate family "bike-and-hike" loops where residents can exercise close to their own neighborhoods.
- Protect the privacy and security of adjacent land uses. [R11F]
- Future expansion to the trail system should take place with the willing cooperation of land owners.

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## Goal TB2

***Design and develop trails to provide maximum recreational and non-motorized opportunities for all segments of Redding's population.***

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Policies to achieve this goal include:

- TB2A *Trail Entrances.* Provide trailhead improvements, such as signage, seating, drinking fountains, and restrooms, to existing and future trails.
- TB2B *Funding.* Pursue funding that can be used for parkway and trail system planning, land acquisition, construction, maintenance, and programs that promote health and fitness activities related to trail use. [R11E]
- TB2C *Partnerships.* Continue to actively seek partnerships with other local jurisdictions, governmental agencies, public health organizations, and willing landowners in trail development.
- TB2D *Planning.* Include the participation of trail users in trail planning, design, and maintenance.
- Perform regular trail user surveys to learn specific interests and concerns at targeted locations.
  - Encourage the establishment of volunteer bicycle-path/recreation-trail patrols to improve the real and perceived level of safety for users. [R11G]
  - Consider the creation of an Adopt-A-Trail Program to organize volunteer efforts benefitting trails.
- TB2E *Sidewalks.* Connect the trail system with an attractive, safe, and continuous system of sidewalks and other pedestrian facilities. Give special consideration in prioritization of sidewalk improvement projects to school walk zones. [T6]

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## Goal TB3

***Coordinate trail development with emergency and fire management efforts.***

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Policies to achieve this goal include:

- TB3A *Emergency Features.* Coordinate with other City departments to include the following features in the design and location of trail corridors whenever possible:
- Routes for medical and fire emergency access and evacuation
  - Shaded fuel breaks, and fuel reduction areas
  - Water lines in trail corridors for both trail use and fire fighting

## Bikeways

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### Goal TB4

*Make it easier and safer for people to travel by bicycle. [T8] [AQ2-28]*

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Policies to achieve this goal include:

- TB4A *Bicycle Plan.* Implement the goals and policies found in the “1998 Redding Bicycle Plan.” Incorporate the bikeway components of this document into subsequent revisions of that Plan. [T8A]
- TB4B *Improvements.* Make improvements to existing streets, signs, and traffic signals as needed to improve bicycle travel. [T8C]
- Use this document and the map entitled, “Redding Parks, Trails and Bikeways Map,” and all subsequent revisions, to guide bikeway development.
- TB4C *Design.* Incorporate facilities suitable for bicycle use in the design of interchanges, intersections, street-improvement, and maintenance projects. [T8B]
- TB4D *Safety.* Separate bicyclists and pedestrians from vehicular traffic, and pedestrian facilities from bicycle facilities, whenever feasible. [R11A]
- TB4D *Bicycle Parking.* Install bicycle parking in the Downtown area and at City parks, trailheads, civic buildings, and other community centers. [T8E]
- TB4E *Planning.* Designate a bikeway planner or coordinator to work with bicycle advocacy groups and bike race organizations to plan for and accommodate future improvements to the bicycle system.
- TB4F *Jurisdictional Coordination.* Continue to work with surrounding jurisdictions and agencies to create a regional network of bikeways that connect Shasta County communities and destinations. [R12]
- TB4G *Maintenance.* Keep bikeways free of overhanging shrubbery, debris, and obstacles, and periodically re-grade earthen and gravel shoulders next to bikeways to prevent drop-offs. [T8D]
- TB4H *Funding.* Continue to seek funding for bikeway system expansion, improvement, and maintenance. [AQ2-26]
- Require new development to provide bicycle facilities or pay in-lieu fees based on the fair share of that development’s impacts on the bikeway system and needs identified in this document [T8G] [AQ2-20]
  - Use all available state and federal funding programs. [PF20D]
  - Encourage cooperation among agencies and volunteers for jointly funding bikeway facilities.

