

Tuolumne County Trails



Paths to Health and Prosperity 2011

Prosperity is the state of flourishing, thriving, success, or good fortune. Prosperity often encompasses wealth but also includes others factors which are independent of wealth to varying degrees, such as happiness and health.

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EXECUTIVE SUMMARY

Tuolumne County Trails Program:

The Trails Plan presents a renewed vision, goals and strategic actions to help guide the efforts of all those who long for, plan, build, operate and maintain trails. The Plan reaffirms the importance of providing trails for all and emphasizes the value and wide range of benefits that trails offer. The Trails Plan serves as a common ground for all to achieve these two conditions for success— cooperation and funding.

What are Trails?

“A Trail may consist of a single route or a network of routes that may incorporate other bikeway and pedestrian facilities that are clearly signed and regularly maintained. *In all cases, a trail is a public access route with protected status developed for one or more non-motorized recreation and/or transportation purposes.* These purposes may include linkages to public transit facilities, local schools, office parks, and commercial areas, and/or provide access through parks, preserves and greenways. A trail may be designed for varying uses including walking, jogging, hiking, bicycling, horseback riding, skating, mountain biking, and use of wheeled devices including, but not limited to, wheelchairs and strollers. In cold climate areas, a trail may also accommodate winter snow shoeing and cross country skiing.” *Trail Planning for California Communities*

This report will address three broad areas of possible trail development:

1. Purpose-Built Trails

Purpose-built trails refer to investments in a particular type of recreational trail that is intended to foster recreation and economic development. Typically this type of investment is targeted at mountain bikers. Building trails specific to this user group is becoming increasingly popular and beneficial for the communities who pursue it. Three typical purpose built trails are:

- Ski Resort Mountain Biking (Downhill/XC)
- Bike Parks/Skills Progression Parks (skate parks for bikes)
- Expanding, managing and marketing of existing Trail networks

2. Urban Trails

Urban Trails are multi-functional and for purposes of this report will be trails in and around the developed communities of Tuolumne County and Sonora. These trails in many cases are utilitarian, ie connecting neighborhoods to Transit, schools, shopping—but does not exclude recreational improvements designed to be accessible from within the community.

Dragoon Gulch is an example of a Recreation-oriented Urban Trail, whereas the sidewalk along Mono Way is a utilitarian link between two developed parts of town.

3. Heritage Trails

A Heritage Trails Program may focus on the historic aspects of the community which make this region a significant part of the Sierra, California, the United States and the World. The Heritage Trails Program focus areas are: the Ditch system, the Railways, and the downtowns of ‘Gold Rush’ communities (Sonora, Columbia, Jamestown).

A Heritage Trails Program could also include Groveland. Because Groveland is strategically located in the ‘Gold Country’ and in route to Yosemite it has a unique story to tell, rich in events and characters that have captured the imagination of the country.

Managing Trails

A Trails Committee is proposed to serve in an advisory capacity to the Tuolumne County Transportation Council. The Trails Committee will have broad representation from public agencies, land owners, Park and Recreation Districts, the Native American Tribes and other entities interested in the advancement of Tuolumne County and the City of Sonora.

Possible Trail Committee composition-

User Groups	Local Gov’t	Federal	State	Business	Resource
Hikers	Board of Supervisors	Forest Service	State Parks	Sierra RR	Visitors Bureau
Equestrian	City Council	Bureau of Reclamation	Caltrans	Dodge Ridge	Chambers of Commerce
Mountain Bike	Tribal Council/s	Bureau of Land Management		Bike Shops Hotels	Economic Development Public Health Dept
Road Bike Other Recreation Interests	TUD* TPRD* GCSD* THCSD* MID* TID* PG& E Hetch Hetchy	Yosemite Nat’l Park Army Corp of Engineers		Outdoor & Active Recreation Retailers Sierra Pacific Industries	IMBA* American Trails R-2-T Conservancy Columbia College Historical Society Sierra Nevada Conservancy Sierra Business Council Sierra Club TuCare Yosemite Gateway Partnership

* Tuolumne Utilities District; Tuolumne Parks and Recreation District; Groveland Community Services District (CSD); Twain Harte CSD; Modesto Irrigation District; Turlock Irrigation District; International Mountain Bike Association

Long Term Trail Maintenance/Management

The Trail Plan addresses a number of relevant ways that a program could be sustained/maintained as new trail sections are incorporated into the system. These alternatives are bulleted.

- Park and Recreation District
- Non-profit organization
- Adopt-a-Trail Program
- Sierra Conservation Crews
- California Conservation Corps
- 'Realignment' candidates

Funding Trail Development

There are a myriad of Federal, State and Local funding streams that can be utilized to deliver trails, trail amenities and trail infrastructure. The dollar amounts pale in comparison to motorized travel investments, yet serve as the best path (no pun intended) to trail development currently available.

- Transportation Enhancements
- Recreational Trails Program
- Sonora Area Foundation
- Bicycle Transportation Account
- Micro-grants (Huck-n-Roll, etc)
- Development Mitigations and 'Conditions of Approval'
- Recreation Tax
- California Propositions

Paths to Health and Prosperity

There is an increasing amount of literature linking overall human health and recreation opportunities. This symbiotic relationship is also extended to positive economic impacts. This segment of the plan only scratches the surface of the research that has been compiled on both the health and economic benefits of trails.

ABOUT the TCTC and the Trails Program

The Tuolumne County Transportation Council (TCTC) is the Regional Transportation Planning Agency for the County of Tuolumne and the City of Sonora. The TCTC is intended to act as the lead planning agency for transportation projects and programs. The purpose of the planning process is to identify and develop transportation improvements that meet the region's mobility needs, contribute to the economic health of a region and preserve the environmental quality of the region.

A seemingly natural part of being located in the Sierra Nevada is outdoor activity and recreation. With the many wonders of the area- Yosemite, the High Country, Reservoirs, the Stanislaus and Tuolumne Rivers and ancillary waterways, State Parks- many could make the argument that County residents spend all their time outdoors.

The reality is that these amenities are under-utilized by locals and visitors alike. Key shortcomings are awareness and access. In some cases, there are opportunities that go unrealized simply because signage is poor or non-existent. Other times, folks may not feel up to getting into their vehicles to pick their way through traffic to access a trail or other outdoor amenity. No matter what the reason, it has been demonstrated that when communities invest in creating connections to access trails, parks and other healthy outlets, they do¹.

In historic communities like Tuolumne County and the City of Sonora connecting Gold Rush era development to new development can be difficult. On the one hand you have development that is on a human scale, initiated prior to the advent of the automobile, so blocks are short, buildings are close to the street, and accommodations are made for the pedestrian. In newer developments, many times, pedestrian and bicycle movements take a back seat to a different type of circulation system. One that is designed to be navigated by vehicle is built less densely, has more distance between nodes, has large parking lots and is typically more difficult on the pedestrian or bicyclist. Tying these communities together and creating connections between destinations is a key aspect of this document. The focus is on healthier communities and more regular use of community assets.

Identifying strategic steps that can be taken by the City and County to facilitate, prioritize, fund and build these missing links (both utilitarian and recreational) is the purpose of this strategic plan, the Trails Program, and the establishment of a Trails Committee.

The purpose of a Trails Committee will be to represent a broad perspective of interests in the region and collaboratively recommend projects, or phases of projects, that are desired in the community, to the full Council for support, funding and implementation. It is believed that through a coordinated effort of all user groups the residents of the region will be able to better articulate the needs and desires of the community. Through coordination with elected officials, public agencies, developers, utility companies, the Tribes, railroad interests and other stakeholders a network of non-motorized amenities can be secured for local and tourist mobility.

The Trails Plan presents a renewed vision, goals and strategic actions to help guide the efforts of all those who long for, plan, build, operate and maintain trails. The Plan reaffirms the importance of providing trails for all and emphasizes the value and wide range of benefits that trails offer. The Trails Plan serves as a common ground for all to achieve these two conditions for success— cooperation and funding.

VISION

Tuolumne County and the City of Sonora desire a connected network of urban and recreational trails that offer locals and tourists alike an opportunity to explore and appreciate the historic communities and natural amenities offered in the beautiful Sierra landscape.

MISSION

Promote, encourage, build and maintain a functional, educational, fun and accessible trail network that will be valued by residents and tourists of Tuolumne County; enhance opportunities for economic development, allow for healthy recreation and highlight the natural, cultural and historic heritage of the region.

"A connected system of parks and parkways is manifestly far more complete and useful than a series of isolated parks."

- Frederick Law Olmsted, American Landscape Architect, 1822-1903

A TRAILS PROGRAM for TUOLUMNE COUNTY

This report will address three broad areas of possible trail development:

1. Purpose-Built Trails

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- a. Ski Resort Mountain Biking (Downhill/XC)
- b. Bike Parks/Skills Progression Parks (skate parks for bikes)
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Urban Trails come in many forms and can include sidewalks, bike lanes, class I facilities, multi-use paths and additional amenities catering to the needs of non-motorized movements.

Dragoon Gulch is an example of a Recreation-oriented Urban Trail, whereas the sidewalk along Mono Way is a utilitarian link between two developed parts of town.

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A Heritage Trails Program may focus on the historic aspects of the community which make this region a significant part of the Sierra, California, the United States and the World. The Heritage Trails Program focus areas are: the Ditch system, the Railways, and the downtowns of ‘Gold Rush’ communities (Sonora, Columbia, Jamestown).

A Heritage Trails Program could also include Groveland. Because Groveland is strategically located in the ‘Gold Country’ and in route to Yosemite it has a unique story to tell, rich in events and characters that have captured the imagination of the country.

WHAT are TRAILS?

Trails come in many shapes, sizes, and in various states of repair. One purpose of this document is to expand the definition of trail to include the multitude of pathways used to travel between locations in the Foothills.

“A Trail may consist of a single route or a network of routes that may incorporate other bikeway and pedestrian facilities that are clearly signed and regularly maintained. *In all cases, a trail is a public access route with protected status developed for one or more non-motorized recreation and/or transportation purposes* (italics mine). These purposes may include linkages to public transit facilities, local schools, office parks, and commercial areas, and/or provide access through parks, preserves and greenways. A trail may be designed for varying uses including walking, jogging, hiking, bicycling, horseback riding, skating, mountain biking, and use of wheeled devices including, but not limited to, wheelchairs and strollers. In cold climate areas, a trail may also accommodate winter snow shoeing and cross country skiing.” *Trail Planning for California Communities*

Various types of Tuolumne County Trails

Westside Trail, Tuolumne

N. Forest Rd, Sonora

Parrots Ferry, Columbia

Mono Way, Sonora



PURPOSE-BUILT TRAILS



“Fruita, CO (*pop.* 11,500) has earned a reputation as a world-class Mountain Biking destination that pumps \$1.5 million a year into the local economy, according to the BLM (Bureau of Land Management). And Fruita’s sales tax revenues have increased by 51% in the last five years, including an 80% increase in sales tax revenues from restaurants.”
Outdoor Industry Foundation (2006)

A PURPOSE BUILT TRAILS PROGRAM

Purpose built trails refer to investments in trails that appeal to (or are built for) particular user groups, typically mountain bikers. Mountain bikers, of all the user groups, have demonstrated the greatest aptitude to travel to ‘destination’ locations to ride. As a demographic, mountain bikers have more formal years of education and earn more on average than the general public, affording them more resources by which to facilitate their recreation².

Scientific studies that have been conducted on trail use, demonstrate it is not uncommon for bikers to account for 50-60 percent of trail use traffic³.

Building trails specific to this user group is becoming increasingly popular and beneficial for the communities who pursue it. Many Sierra communities first capitalize on this market in partnership with the local Ski Resort. Locally this is true of Bear Valley Ski Resort (Calaveras), Kirkwood (Alpine/Amador), Northstar (El Dorado), and Mammoth Mountain (Inyo). Because infrastructure is already in place, and there are few competing uses in the summer, these locations have successfully negotiated with the Forest Service to allow this activity as a summer draw to the resort.

What do ‘destination’ mountain bikers look for when deciding on where to travel?

1. Terrain, 2. Number of trail miles, 3. Scenery, 4. Reputation

Dodge Ridge

Developing a proposal of this type for Tuolumne County would require the support, enthusiasm and buy-in from Dodge Ridge Ski Resort and the United States Forest Service who manages the Stanislaus National Forest through Special Use Permits (SUP).

Dodge Ridge reaches out to folks from the Central Valley and Bay Area as the “closest snow to home”. This theme could continue to be capitalized on for Mountain Biking. “Closest High Country Riding to Home” could resonate nicely with those who live at lower elevations. The highway 108 corridor is a straightforward drive for those looking to access the high country.

The Sugar Pine railway grades that are found in the east part of the county offer great family rides, while Pinecrest Peak and other big granite bowls offer technical riding opportunities for more experienced riders.

This area presents some of the best economic development opportunities for local businesses. Recent studies in Jackson Hole, Wyoming have demonstrated the incredible return on investment that trails can generate⁴.

Several Sierra communities in particular have set themselves apart in their pursuit of purpose built and expansive trail networks.

Ski Area Recreational Opportunity Enhancement Act of 2011⁵

USDA Forest Service Welcomes Boon to Local Economies in Ski Communities -

President Barack Obama signed the Ski Area Recreational Opportunity Enhancement Act of 2011, which permits year-long recreation opportunities on U.S. Forest Service ski areas, boosting rural economies while continuing to maintain stringent environmental safeguards.

The year-long recreation season is estimated to annually sustain up to 600 extra jobs and is expected to bring in an additional \$40 million to local communities in direct spending.

The new legislation amends the National Forest Ski Area Permit Act of 1986, which allowed only nordic and alpine skiing. Under the new legislation, other snow sports may be permitted on National Forest System lands, as well as year-round activities. Potential permitted activities may include zip lines, mountain bike terrain parks and trails, Frisbee golf courses, and ropes courses.

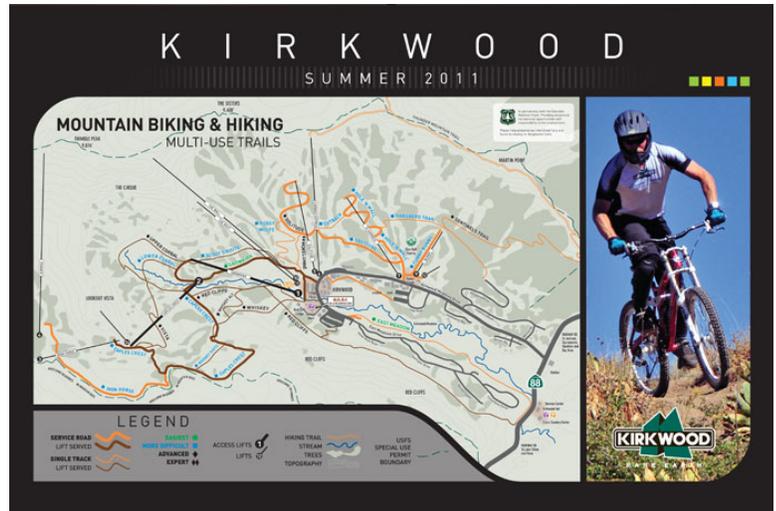
Currently, the Forest Service averages 27 million visits annually to ski areas. This has contributed \$4 billion every winter and created approximately 80,000 full-, part-time and seasonal jobs in hard-hit rural communities. Under the new legislation, the Forest Service anticipates roughly 600,000 more summertime visits that may create and sustain up to 600 more full-, part-time and seasonal jobs. The addition of summer recreation is expected to infuse almost \$40 million of direct funding into local mountain communities.

Protecting natural resources will remain a priority and year-long facilities will be subject to the same review and approval processes as those for ski facilities such as the construction of ski lifts and ski trails.

The mission of the U.S. Forest Service is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations. Recreational activities on our lands contribute \$14.5 billion annually to the U.S. economy. The agency manages 193 million acres of public land, provides assistance to state and private landowners, and maintains the largest forestry research organization in the world.

Kirkwood, CA

Kirkwood's Mountain Bike Park is one of only a few developed bike parks in the High Sierra. Kirkwood provides bike transport on the Snowkirk and the Flying Carpet (chairs 1 and 2) chairlifts. Mountain biking is permitted in the lower elevations of Kirkwood's SUP area on a network of dirt roads, multiple-use trails and single track trails. Kirkwood's biking trail ability distribution is approximately 3 miles of beginner trails, 6.6 miles of intermediate/advanced intermediate trails, and 3.7 miles of expert trails. Bike rentals, repairs and accessories are available at the Kirkwood Adventure Center. Lift served Mountain biking operation is limited to weekend and holidays, mid-June through Labor Day weekend⁶.



Downieville, Sierra County, CA



Downieville has established itself as one of the premier 'destination' rides in the United States and by some accounts, the world. They host an annual race that draws thousands to the tiny town, the Downieville Classic. The distinguishing feature of this area is the Downieville Downhill. Riders are shuttled to Packer Summit. From here it is all downhill. The community has built a 14 mile trail that begins at 7100' and cascades down to the town of Downieville, elevation 2800'. The biker completes the ride cruising down 'main' street back to waiting shops, eateries and watering holes. The tiny town of Downieville, population 300 springs to life every May. The town has two bicycle expedition shops, hotel accommodations, an elementary school, and all kinds of charm.

Lake Tahoe, Placer County, CA

The Tahoe Rim Trail is one of the world's premier trails. It passes through two states (California and Nevada), six counties, one state park, three National Forests, and three Wilderness areas. This spectacular trail is 165 miles of single-track multiuse trail, winding peak to peak around Lake Tahoe. It is a trail that offers something for everyone! Hiking and horseback riding are allowed on all portions of the trail, while mountain biking is allowed on the trail with the exception of the wilderness areas, the section that is in the Lake Tahoe Nevada State Park, and on the sections of trail that overlap with the Pacific Crest Trail⁷.



Oakridge, OR

A non-CA example that is striking in its similarities to Tuolumne County is Oakridge, Oregon. Oakridge was a former logging community that went defunct when the Timber industry pulled out of the town.

From the City of Oakridge, Or. website:

“Oakridge is the Center of Oregon Outdoor Recreation and the Mountain Biking Capital of the Northwest. This is a beautiful area where families and businesses live and grow, work and play, learn and dream, in a safe and sustainable community. Oakridge is a beautiful place to live, play and recreate.”

Oakridge is nestled in the foothills of the Western Cascade Mountains. The area is surrounded by the Willamette National Forest and is located on the Northern bank of the Upper Willamette River. The city population is 3,205.

Locals began developing trails and inviting folks to town to ride their terrain. The first group of early adopters loved it. The first year, the program attracted 34 riders. Bikers were allowed to shower in the local elementary school, everybody was given room to camp at a local park and the locals shuttled folks to a myriad of trails for the days riding.

Today the program has ballooned. The town now hosts multiple riding camps and serves thousands of riders who make the annual summer pilgrimage to ride the local singletrack, stay in local accommodations, eat at local restaurants, shop and then go home! They have their own site called Mountain Bike Oregon, that is focused on promoting Oakridge and is funded by the City of Oakridge and a Lane County Tourism Grant.

Bike Parks/Skills Progression

What are Bike Parks?

While there doesn't seem to be a set recipe, the ingredients usually include a variety of natural obstacles such as rocks and logs, imaginatively constructed features like teeters and ladder bridges and dirt jumps - all collected in a small setting. Picture a skateboard park or snowboard park, but designed specifically for mountain bikes⁸.

Bike Parks are also growing in popularity. Recent literature suggests that bikers out-represent competing outdoor activities and interests⁹ and yet have typically been less successful in garnering community amenities, such as bike parks

The opportunity to partner with private enterprise, such as Sierra Pacific Industries or Forest Service (thinning efforts), to provide slash and other materials of value to construct these types of unique mountain bike features remains unexplored.

Working with Land Managers to establish appropriate areas to develop 'destination' style riding presents an open door for the county and city to walk through.

New companies are springing up to meet this demand in communities. Hilride, a California company, the International Mountain Biking Association and Progressive Trail Design all work with local communities wishing to tap into their outdoor, multi-use, mountain/trail/DJ/ rider contingent.



Featured in the picture to the right is a bike park feature developed in the backyard of a Tuolumne County local. Because there are no facilities of this type, this family has built their own. This family is not alone. These types of riding areas are unique because they don't take much space and much of the product required to build the parks is lying around the forest or treated as unwanted material by local companies. Furthermore, the cost to build these terrain parks can be minimal. Because the folks who use them want them so badly, they are willing to organize the labor required to make these dreams a reality.

A feature of this nature could easily be accommodated as part of Dragoon Gulch Phase II or other sites in the City or County designated for open space or recreation purposes.

Dragoon Gulch Phase II

The City of Sonora has made amazing progress on an invaluable community asset, Dragoon Gulch. The purchase and subsequent development of a thirty-five acre parcel of land now accommodates a mini trail network of 2.5 miles in the heart of the downtown. Dragoon Gulch is surrounded primarily by single family subdivisions, offering these neighborhoods convenient access to the outdoors and exercise.

The city has been awarded a second grant to purchase and develop an adjacent sixty-five acre parcel. This presents one of the best purpose-built trail opportunities of any Sierra community. The ability to use this undeveloped land to meet a myriad of goals in the community is incredibly doable.

1. Extend the existing Dragoon Gulch trail network as planned.
2. Plan for a bike park/skills progression area as part of the acreage
3. Deliver Economic Development through Purpose-Built trails

Fresno, CA Woodward Bike Park

The most progressive Mountain Bike Park in California. 10 Acres of progression based riding in Fresno, California. Beginner, intermediate, and Expert level riders will find one of the most dynamic mountain bike parks in the country.



The Air DH Trail boasts 40 progressive table top jumps in row. The Fish Loop Short Track XC is a one mile single track time trial course. The North Shore trail features over a 1/4 mile of technical balance lines. Additional features include The World Cup Observed Trials Zones, Pump Track and the South Shore Drop Zone¹⁰.

How do these trails/parks get built?

Traditional means of constructing trails and trail amenities are in many cases cumbersome, require huge amounts of time and are costly. As a result many communities are moving away from, or at least supplementing the traditional approach with more creative, less costly, and more time efficient methods of delivering trail improvements for their communities. Several of these mechanisms are described below.

Volunteers

There are many Tuolumne County residents who desire more trails. In many communities these individuals have proven an important component of the project team as well. A willingness to dedicate many hours of volunteer labor to build and maintain

trails, apply for grant monies, build community support for improvements—there is no end to the abilities of the folks who live in our communities. If empowered to be part of the solution, these folks will jump at the opportunity to be put to work!

Forest Service Crews

The United States Forest Service has trail development professionals working locally. These individuals have formal training in trail building and will be an important part of any Trails Program the County and City move forward with.

IMBA/Subaru Trail Building Crews

Inviting the IMBA/Subaru Trail Building crew to Tuolumne County is a must do. The trail crews work all over the United States, by invitation only. The crew is funded in large part by Subaru and local partners' responsibilities are typically limited to coordinating accommodations, facilities, trail work location, and advertising.

The Trail crews bring the latest in sustainable trail development know how, bundled in a package with community outreach presentations which can be custom tailored to the region in which work is being done. The trail crew, because it is backed by the International Mountain Biking Association and a local trail advocacy group, can bring national attention to areas that theretofore, had no such coverage.

The Trail crew is also a great occasion to build a trails related community event around.

California Conservation Corps (CCC)

The CCC works for a wide range of project sponsors throughout California, including state agencies, federal agencies, city and county agencies, school districts, nonprofit organizations and private industry. Among the criteria considered in selecting projects, the CCC looks for work conserving or enhancing the state's natural resources or providing another public benefit, and work offering corps members an opportunity to boost employable skills. The sponsoring agency typically provides the technical plans/specifications, materials and on-site technical supervision.

A typical CCC crew consists of 10-15 young men and women (corps members) trained in the safe use of hand and power tools; there is a CCC civil service staff supervisor who directs the crew. The crew comes complete with vehicle and basic tools. Specialty crews, mini-crews and internships can be customized to fit the needs of a particular project.

Local, state and federal agencies as well as nonprofit organizations may contract with the CCC on an hourly basis or per-project basis, depending on the details of the project. It's also possible to sponsor a crew on an annual basis¹¹.

The CCC are no strangers to the Sierra. Just recently they finished a massive trail-building effort in neighboring Calaveras County. Their efforts included cutting over 10

miles of new trails, building rock and log retaining walls, clearing debris, operating a Sweko (similar to a skid-steer but is made for cutting trails), chainsaws, and other heavy equipment. These crews can be hired far cheaper than traditional public works, state, federal or private trail building interests.

Professional Trail-Building Companies

California and US based companies are abundant and many local governments, non-profit trail organizations and Park and Recreation Districts hire professional firms to help reach community goals.

Several options unique to Tuolumne County may be-

Sierra Conservation Center 'Prison' Crews

The Sierra Conservation Center (SCC) is a medium-security State prison facility located off O'Byrnes Ferry road. The SCC has work crews comprised of inmates who have demonstrated good behavior and were convicted of non-violent crimes. These crews work closely with State and Local agencies who request their services. A primary use of these crews is related to fighting fires in California communities. However, when not engaged in these activities the work crews can be put on various projects that benefit the general public.

'Realignment' Crews

Recently the State signed into law changes in the way that folks who have been sentenced in a court of law are housed. This means that Tuolumne County will be responsible for dealing with realignment folks in our community. Many of these individuals will have a tough time securing work with their criminal histories. The City and County could offer these individuals gainful employment in trail building, trail maintenance and other activities that are trail related. These individuals will be able to re-build their lives while the County/City and community will benefit from their efforts.

URBAN TRAILS



AN URBAN TRAILS PROGRAM

Urban Trails are non-motorized routes that facilitate movements throughout a community. Urban Trails come in many forms and can include sidewalks, bike lanes, class I facilities, multi-use paths and additional amenities catering to the needs of non-motorized movements. In many cases, the lack of formal improvements, require community members to blaze their own paths that allow them to access the many important resources a community offers. Evidence of informal trails abound locally and serve as a reminder that many of our communities have become increasingly auto dependant. It is typically a goal of urban trails programs to connect the gaps that exist in a non-motorized trail network and improve upon future health of a community by requiring new development to integrate these important pieces of transportation into their project plans.

Sonora and Tuolumne County have been actively working on an urban trails program for many years. Although the various plans that have been created and adopted have not always used the same terminology to describe the trails, the goals are the same. As a result, there are a long list of desired improvements already outlined in several planning documents, including the Tuolumne County Bikeways and Trails Plan, Recreation Master Plan, Regional Transportation Plan and Tuolumne Rancheria Mobility Plan.

The following are the existing project lists that will be important for a Trails Committee or task force to review, evaluate and prioritize.

Tuolumne County Bikeways and Trails Plan—Priority Projects

Community	Miles	Project Description	Cost
Sonora-Columbia	2.7 mi. ±	Construct a bicycle and pedestrian facility from Sonora to Columbia College	Class I: \$3,790,813 ClassII: \$1,252,818
Twain Harte-Tuolumne	5.1 mi. ±	Utilize the Sugar Pine Railway from Twain Harte to the vicinity of Tuolumne as a bicycle, pedestrian, and equestrian path.	Class I: \$7,160,424
Standard-Tuolumne	5.8 mi. ±	Utilize the Sierra Railway from Tuolumne to Standard as a bicycle, pedestrian and equestrian path.	Class I: \$8,143,228 Class II: \$2,691,238
East Sonora	5.7 mi. ±	Provide better bicycle, pedestrian, and possibly equestrian facilities along the Highway 108 corridor in East Sonora.	Class I: \$8,030,907 Class II: \$2,654,152
Jamestown-Columbia	6.1 mi. ±	Construct a trail from Jamestown to Columbia via the vicinity of Jamestown Rd. to Shaws Flat Rd, to Springfield Rd, to Parrotts Ferry Rd.	Class II: \$2,830,440
Jamestown-Sonora	3.3 mi. ±	Construct a trail from Sonora to Jamestown utilizing Highways 49 and 108, the Sierra Railroad, or Woods Creek.	Class I: \$4,633,216 Class II: \$1,531,222
Groveland	1.9 mi. ±	Construct a bicycle and pedestrian facility along Ferretti Road in Groveland from Highway 120 to Tioga High School.	Asphalt Sidewalk w/

			curb: \$2,642,128
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Regional Transportation Plan projects

COMMUNITY	MILES	PROJECT DESCRIPTION
Columbia	0.6 ±	Widen shoulders along Broadway (Parrotts Ferry) from Airport Road to the entrance of Columbia State Historic Park for combined bicycle and pedestrian use.
Columbia	0.5 ±	Provide bicycle and pedestrian facilities from the Columbia Airport to downtown Columbia. Along Airport Road, then overland through the Steiner parcel along Mormon Creek to Parrotts Ferry Road near Columbia Elementary School and connecting with Parrotts Ferry Road facilities.
Columbia	1.0 ±	Widen shoulders along Parrotts Ferry Road from Sawmill Flat Road to Airport Road for bicycle use.
Columbia	0.7 ±	Connect Columbia College to downtown Columbia. Improve the existing path from Columbia College to downtown Columbia for bicycle and pedestrian use. NOTE: This area is under State and private ownership and negotiations to obtain permission to use the path to avoid conflict with stagecoach and horses should be discussed extensively with the State and private owners to determine the most appropriate design standards and any potential deviations needed along the route.
Groveland	0.6 ±	Improve the Hetch Hetchy Railroad Grade for bicycle and pedestrian use from Mary Laveroni Park to Deer Flat Road.
Groveland	0.5 ±	Construct new and improve existing pedestrian facilities along Highway 120 through the central downtown district. Construct combination bicycle and pedestrian facilities from Mary Laveroni Park along Highway 120 to connect with the existing route to Tenaya Elementary school originating west of Elder Lane.
Groveland	1.0 ±	Connect Tioga High School with the Leon Rose Ballpark (Flint Court), Pine Mountain Lake Subdivision and downtown Groveland. Widen shoulders for bicycle and pedestrian facilities from Tioga High School along Ferretti Road to Flint Court and along Ferretti from Flint Court to facilities beginning on Ferretti at its intersection with Pine Mountain Drive.
Jamestown	0.4 ±	Complete bicycle and pedestrian facilities along Fifth Avenue from Willow to State Highway 108. Continue facilities from the Fifth Avenue/Hwy 108 intersection to Main Street along Hwy 108.
Jamestown	0.4 ±	Construct new and improve existing pedestrian facilities along the entire portion of Main Street.
Jamestown	0.2 ±	Construct pedestrian facilities along Donovan between Main and Seco. Construct pedestrian facilities along the west side of Seco Street between Donovan and Main Streets.
Jamestown	0.3 ±	Construct bicycle and pedestrian facilities along the east side of Highway 108. Connecting both entrances of Main Street.
Jamestown	0	Construct a pedestrian underpass from Main Street under Hwy 108.
Jamestown	0.9 ±	Connect Jamestown Elementary School to downtown Jamestown. Extend proposed bicycle and pedestrian facilities from the facilities proposed on Fifth Avenue ending at the Elementary School along Willow from Fifth Avenue to Main Street.
Phoenix Lake Basin / Belleview Oaks	0.8 ±	Connect Belleview Oaks Subdivision with Sullivan Creek Elementary School. Create a bike path along Belleview Creek from Acorn Drive to Phoenix Lake Road as it passes through the Belleview Oaks Subdivision. At Belleview Creek's intersection with Phoenix Lake Road, create a pedestrian/bicycle crossing and/or overpass. At this point, Belleview Creek enters Sullivan Creek. Continue the pedestrian/bicycle path along the southern side of Sullivan Creek (a road grade exists) to Hidden Valley Drive and to the Sullivan Creek Elementary School.
Phoenix Lake Basin / Crystal Falls	1.7 ±	Create a bicycle /pedestrian path along Sullivan Creek from its intersection with Crystal Falls Drive (near Crystal Falls Court) to the bridge across Sullivan Creek on Hidden Valley Road. Continue the facility from this bridge to the Sullivan Creek school along the east side of Hidden Valley Road. NOTE: If right of way acquisition estimates prove too costly for this route, the route should be relocated to the shoulders of Crystal Falls Drive to Crestview to Creekside to service residents of Crystal Falls traveling to Sullivan Creek School.
Pinecrest	1.5	Construct network of Class I bicycle and pedestrian trails in the Pinecrest basin.
Sonora	0.7 ±	Provide striping for bicycle and pedestrian facilities from Stockton Road's intersection with Woods

		Creek Drive, across woods Creek and onto Bonanza Road. This route should continue along Bonanza to its intersection with proposed facilities at Snell.
Sonora	0.8 ±	Connect Greenley Basin with downtown Sonora. Bicycle / pedestrian facilities shall be constructed along the interior roadways, including the Cabezut extension, through the Sunrise Hills subdivision by the developer. A preferred route from the terminus of the Cabezut extension's intersection with Barretta should be constructed to connect Barretta with, preferably, Stewart Street. The preferred route for this addition is to connect Barretta with Shepherd and then to Stewart along Theall.
Sonora	0.5 ±	Widen shoulders along Stockton Road/Hwy 49 from the entrance to the fairgrounds to Washington Street.
Sonora	0.8 ±	Connect Banner/Elk Drive subdivisions with downtown Sonora and Sonora High School. Provide bicycle and pedestrian facilities from the Banner/Elk Drive intersection with Shaw's Flat Road and along Shaw's Flat Road to School Street and intersection with facilities on Bonanza and Snell. Shoulders should be widened and facilities should use an asphaltic curb to separate heavy traffic areas from non-motorized facilities.
Sonora	1.8 ±	Connect Gibbs Ranch Subdivision, Rancho Sonora Subdivision and Sonora Knolls Subdivision with downtown Sonora and Sonora High School. Widen shoulders along Snell Street from Washington Street to Racetrack Road. Continue widening along Racetrack Road to Jamestown Road. Combination bicycle and pedestrian facilities should be provided and an asphaltic curb, at minimum, should separate the non-motorized facility from motorized traffic.
Sonora	1.1 ±	Connect Lyons Street to Mono Way along Greenley Road. Pedestrian facilities currently exist along most of the route. Bicycle routes should be added where they do not already exist by widening shoulders and striping. Along sections that receive high use from school children, an asphaltic barrier should be constructed between the bicycle lanes and motorized traffic. A traffic signal at the Cabezut/Greenley intersection already exists. Striping at this intersection should be planned to accommodate bicycle and pedestrian crossings.
Sonora / East Sonora	0.4 ±	Connect Greenley Road to the Junction Shopping Center. Complete bicycle/pedestrian facilities along Mono Way from Greenley Road to Loop Road then along Loop Road and continue back onto Highway 108 to the Junction Shopping Center.
Twain Harte	0.6 ±	Widen shoulders along Joaquin Gully and proceed with bicycle and pedestrian facilities along Manzanita through to Twain Harte Elementary School (an improved crossing over Twain Harte Drive should be in place from a preciously proposed project on this list). From the school, create facilities behind the baseball field and on Tiffeni Drive. Continue facilities along Tiffeni Drive from the baseball field to Twain Harte Drive. Continue facilities along Twain Harte Drive's frontage to Black Oak Elementary School. Separate bicycle and pedestrian facilities should be provided along Twain Harte Drive from Tiffeni Drive and along the frontage of Black Oak Elementary School.
Twain Harte	0.7 ±	Widen shoulders along Fuller Road from Mark Twain Road, across Joaquin Gully and down Cedar to Twain Harte Elementary School for bicycle and pedestrian use.
Twain Harte	0	Improve intersections along roads connecting major subdivisions near downtown Twain Harte to the Twain Harte Elementary School. Improve the intersections of Joaquin Gully / Little Fuller and Joaquin Gully / Tiffeni and Twain Harte Drive by painting or repainting and signing crosswalks to allow safer crossings for bicyclists and pedestrians traveling from this area to both existing and proposed school.

Recreation Master Plan

COMMUNITY	MILES	PROJECT DESCRIPTION
Jamestown	0.48 mi ±	Angels Spur Trail – Begins at Railtown 1897 State Park and heads northward toward Highway 49/108 along an old railroad spur. The trail would end at the proposed Woods Creek Trail north of Highway 49/108.
Columbia	0.62 mi ±	Bell Hill Trail – Connects Columbia township near Marble Quarry R.V. Resort on Yankee Hill Road eastward to the existing trail around Columbia College.
Groveland – Hwy. 120 Corridor	3.93 mi ±	Big Creek Trail – This trail would travel along the Hetch Hetchy Railroad grade along Big Creek east of the Pine Mountain Lake subdivision. The trail would connect with the Hetch Hetchy Bypass

		grade in the Stanislaus National Forest.
Columbia – Twain Harte	16.98 mi ±	Columbia – Main Tuolumne Ditch Trail – The trailhead would be located at Lyons Dam, then southeasterly past Twain Harte Golf Course, and westerly across Kewin Mill Road. At approximately the top of Big Hill Road, the Main Tuolumne Ditch follows this ditch to near Italian Bar Road, and follows to its intersection with the San Diego Ditch in Columbia.
Long Barn – Pinecrest	9.63 mi ±	Emigrant Trail – From the easterly point at the Summit Ranger Station, this proposed trail would go southwest along the ridge parallel to Highway 108, through Cold Springs. At Stoddard Springs, the trail follows Forest Service Road 3N87 to where it ends at the northeast limit of Long Barn.
Jamestown	1.84 mi ±	Golden Pond Trail – Connects the Tuolumne County property commonly known as “Golden Pond” west of Jamestown with the existing and proposed Melones Lake Trail system. The Golden Pond property will provide a major hub trailhead for users wishing to access the Melones Lake Trail System, Woods Creek, and Sierra Railroad Trails. The Recreational Master Plan proposes the Golden Pond property be developed into a major recreational area.
Groveland	5.62 mi ±	Hetch Hetchy Bypass Trail – Connects the population centers along Highway 120 to the Stanislaus National Forest. The proposed trail would link the Hetch Hetchy Railroad Trail where it enters the Pine Mountain Lake subdivision to the grade where it resumes within the National Forest, east of Pine Mountain Lake.
Moccasin – Groveland	12.93 mi ±	Hetch Hetchy Railroad Trail – This trail follows the old Hetch Hetchy Railroad grade from Moccasin, through Big Oak Flat and Groveland, to the west boundary of the Stanislaus National Forest near Buck Meadows, and beyond to Yosemite National Park and the Pacific Crest Trail. The proposed Hetch Hetchy Bypass Trail would connect the two sections of the railroad grade divided by Pine Mountain Lake subdivision.
New Melones Reservoir	23.80 mi ±	Melones Trail System – Under the jurisdiction of the US Bureau of Reclamation, this trail system is being built by volunteers.
Strawberry – Kennedy Meadows	32.73 mi. ±	Old Mono Highway Trail – This is the original historic route of the Sonora-Mono Toll Road over the Sierra Nevada. It connects the Sugar Pine Railroad terminus in Strawberry with campgrounds along Highway 108 to Kennedy Meadows.
Don Pedro	18.94 mi. ±	Red Hills–Don Pedro Connector Trail – This trail starts on Old Don Pedro Road near the south trail head in the Red Hills BLA land, proceeds south along old county road rights-of-way a distance of about 7 miles, crossing Hetch Hetchy Railroad grade and connects with a series of old roads leading to the Blue Oak Recreational Area. From here, the trail will follow Bonds Flat Road to the Don Pedro subdivision.
Stanislaus Co. Line – Tuolumne	36.39	Sierra Railroad Trail – This trail follows the Sierra Railroad from the Stanislaus-Tuolumne County Line through Jamestown, Sonora and Standard to Tuolumne, where it will connect to the Westside Railroad Trail.
Columbia – Sonora	0.92 mi ±	Squabbletown Trail - This proposed trail would start where the Woods Creek Trail ends near Sonora High School. It would connect Sonora to Columbia College and eventually Columbia via the Bell Hill Trail.
Standard	2.16 mi ±	Standard Mill Bypass Trail – This proposed trail bypasses the Sierra Pacific Industries mill site, creating a safe non-motorized trail that would connect the Standard township, Curtis Creek School and Standard Park. This trail utilizes the old Sierra Railroad grade that leaves the main line in Section 4, goes adjacent to Standard Park and crosses Standard Road. From there, it skirts southeast of the County road, behind Curtis Creek School, and reconnecting with the main line east of Standard township.
Pinecrest	0.53 mi ±	Sugar Pine Connector Trail – This proposed trail connects the eastern terminus of the Sugar Pine Railroad Trail with the Stanislaus National Forest Summit Ranger Station and other trails that leave from the Pinecrest area.
Twain Harte – Pinecrest	25.83 mi ±	Sugar Pine Railroad Trail – This trail follows the route of the old Sugar Pine Railroad grade from Ralph’s Station, through Twain Harte into the west boundary of the Stanislaus National Forest, ending at Strawberry. The California Dept. of Parks and Recreation passed a resolution to recognize it as a major historical trail.
Groveland	1.64 mi. ±	Tioga High School Trail – This trail connects the Hetch Hetchy Railroad grade at its present terminus across Ferretti road from the Pine Mountain Lake subdivision entrance. It then runs somewhat parallel on the west side of Ferretti Road to Leon Rose Field, and then on to Tioga High

		School.
Tuolumne	7.84	Westside Railroad Trail – This trail begins at the Westside Mill site and proceeds east into the Stanislaus National Forest, following the old West Side Railroad grade.
Jamestown – Sonora	9.30	Woods Creek Trail – This proposed trail follows Woods Creek from Sonora High School, through Jamestown, and possibly all the way to where the creek enters Lake Don Pedro.

Tuolumne Rancheria

COMMUNITY	MILES	PROJECT DESCRIPTION
Tuolumne Rancheria	1.5 mi. ±	Class I bicycle/pedestrian facility from the Me-Wuk community center southerly to Turnback Creek. From here, create a Class II facility along a future secondary access road to the Rancheria southerly to the relinquished section of Tuolumne Road North. Follow this southward to Carter Street into the community of Tuolumne, providing access to the transit stop, community pool and Memorial Park. Possible future extensions to Summerville Elementary School and Summerville High School. (May be constructed in stages.)

Tuolumne Mobility Enhancement Plan

The goal of the Tuolumne Community Mobility Enhancement Study is to provide a comprehensive plan that will provide meaningful recommendations and design guidelines for infrastructure improvements necessary to meet the goals of the Tuolumne Community Plan. Four components under the Circulation and Land Use Elements of the Tuolumne Community Plan have been identified as unique issues regarding mobility and connectivity in Tuolumne. These components include sidewalk improvements, street lighting, bikeways and trails and residential alleyways. Alternative modes of transportation provide important benefits such as: safer routes to destinations such as retail areas, parks and schools; improved air quality from lowered vehicle exhaust; and a healthier community as they use their bikes and feet instead of a car to make their trips¹².

Community Plans

For Tuolumne County communities that have an adopted community plan; the priorities and projects outlined in these documents should be considered the communities expression of desired improvements.

Columbia Master Plan

The Columbia Master Plan includes the following project:

- Comprehensive bicycle and pedestrian facility plan with the top priority project being the Columbia (town) to Columbia College/Dondero trail.

Jamestown Community Action Plan

The Community Action Plan is intended to provide a means of achieving the desired vision of the community. The “vision statement” from the plan focuses on major public improvements to the core area of Jamestown. Included are improvements to parking facilities, pedestrian facilities, landscaping, and additional signage in the core area to identify visitor attractions and facilitate access.

A priority projects is:

- Sidewalk restoration and repair on Main-street connecting to Rail-town.

Tuolumne Community Plan

The Tuolumne Community Plan is part of the Tuolumne County General Plan. It addresses planning issues specific to the development of the Tuolumne community and provides policies and strategies to address the unique needs of the Tuolumne Planning Area over the next 25 years.

Dragoon Gulch

A glowing example of local success in creating urban recreation-oriented trails is Dragoon Gulch. This project was spear-headed by Sonora and has added enormous value to the community. The following was taken from the City of Sonora's website.

Located in the City of Sonora, the Dragoon Gulch Trail provides its visitors with a unique opportunity to stroll through the Mother Lode's oak woodlands. The Dragoon Gulch Trail is a system of trails creating a 2 ½ mile loop. The trails travel along a natural creek up to the vista that provides a spectacular view of the City and its surrounding mountain ranges. The trails vary in difficulty making it perfect for the casual walker and for those who want a strenuous hike or jog.



The Dragoon Gulch Trail Project officially began in 2002 with the City's receipt of a \$500,000 Roberti-Z' Berg-Harris Non-urbanized Area Grant (RZH).

The 35 acre site had been slated for residential development but owner, Dr. Audry Glover, was in support of the City's efforts and sold the property to the City at a reduced rate. The remaining grant funds have been used to develop the 2.5 mile looped trail. The Stanislaus National Forest's Trail Crew and Baseline Conservation Camp assisted the City with trail development.



Through an additional \$500,000 RZH Grant, the City purchased the adjacent 67 acres from Mr. Robert and Mrs. Grace Cutler. The Cutlers, who supported the trail project, sold the property to the City at a reduced rate. In the future, trails will be developed on this



property as well and incorporated within the Dragoon Gulch Trail System.

The development of the Dragoon Gulch Trail was accomplished with the assistance of many individuals and agencies, without whom, this project would not have become a reality¹³.

Retro-fitting our Communities

The process of evaluating a community's non-motorized circulation system and prioritizing projects to help improve mobility is difficult, expensive and time consuming. Each project requires environmental approvals, right-of-way clearances, complex programming of state or federal funding (if being funded through one of these sources), engineering, and other project submittals that are required simply to accomplish small improvements to the transportation network. The pace and complexity of these projects can discourage involvement from average citizens desiring trails of this nature. However, there are funding sources available to the City and County to build these connections and a clear prioritization of desired improvements will help community members and local government keep their focus on these important trails.

Mono Way Widening Project

Currently the City of Sonora and Tuolumne County are planning for a project which will help bridge gaps in the existing transportation network along Mono Way. These pedestrian improvements are being added as part of a larger project to address congestion, but represents important and needed steps towards completing non-motorized paths in the City and County.

The proposed project will provide a 5-lane facility with a median lane and two lanes in each direction for its entire length. There will also be additional lanes at the signalized intersections for turning movements and vehicle stacking.

Under the preferred alternative which has been selected, most of the major widening work will be on the northerly side of the project in the easterly half. Approximately 2100 lineal feet of sidewalk curb and gutter, and shoulder widening will be provided on the northerly side to have continuous sidewalk from the end of the existing sidewalk near Greenley Road to Fir Drive.

On the Southerly side, sidewalks will be extended some 400' easterly of the Timber Hills Shopping Center and terminated in a ramp to existing pavement. The termination of the sidewalk at this location is necessary to preserve access to four commercial buildings easterly from the point of termination.

The project does also provide widened shoulder areas for bus stop locations near Fir Drive for westbound travel and near Greenley Road for eastbound travel. Although not shown on the plans due to scale, the project includes a sidewalk widening for an Americans with Disabilities Act (ADA) bus loading area and a future bus shelter near Fir Drive¹⁴.

HERITAGE TRAILS



A HERITAGE TRAILS PROGRAM

Tuolumne County and the City of Sonora have a rich natural and cultural history. This is true not only because of the most prolific vein of gold ever discovered in the world--the 'Mother Lode'-- but also speaks to the rich natural (Yosemite), biological (rich flora and fauna) and cultural (Native American/Pioneer/49er/International) commodities which fueled the growth, development, diversification and wealth of the region, the State, the country and ultimately, the world.

These natural amenities that have sustained modern development of the foothills for generations--and native culture for many thousands of years prior-- are now the reason many outdoor enthusiasts, tourists, residents and businesses find their way to the area. Many aspects of this incredibly rich heritage are under-acknowledged and present opportunities to capitalize on America's and the worlds fascination with the West, Native American culture, the Gold Rush era, transportation and water history, and the many outgrowths of this massive social experiment.

Heritage trails embrace some historical, cultural or natural feature of a place. These trails are an engaging way of connecting with the traveler. The trail is transformed into an outdoor classroom where the traveler enjoys the natural elements of the place, while also being exposed to the historical, cultural or natural relevance of the site. By offering educational or informative interpretation value is added to an already desirable and interesting activity.

The latent benefit of making a meaningful connection between a place and its history or relevance to daily life has untold impacts on the individual and in many cases leads to a more personal fondness, appreciation or sense of stewardship responsibility for the resources.

Because these trails are in our backyard, and this amazing history surrounds us, it can lead to a tendency take them for granted or under estimate their true value.

This section of the report will focus on the history of three outstanding features of Tuolumne County to demonstrate the depth of opportunities in this area:

- the Ditch System
- Railways
- Historic Town Sites

Tuolumne County Historical Society- A rich resource

The following histories have been gleaned from what is clearly one of Tuolumne County's most precious resources, its citizens. Full credit for the history that follows belongs to the Tuolumne County Historical Society and I offer my humble praise for the quality and breadth of the history they have protected, researched, archived and made available to the public through the museum and website. The following narratives on the Ditch system, Railway and historic town site history are taken from their website, at: www.tchistory.org

This section may be a bit gratuitous in its length, however, it serves as proof of how wonderfully endowed Tuolumne County is with historical charm, natural beauty and the building blocks of today's world.

THE DITCH SYSTEM

After the first discovery of gold in Tuolumne County at Woods Creek near present day Jamestown in the summer of 1848, camps sprang up throughout the foothills. A steady supply of water was searched for in various areas near the major rivers resulting in diverting and transporting water primarily for mining purposes.

Few people realize that the 'California Dream' began with the diverting of water during the Gold Rush. It was water that allowed miners to reduce the landscape around Columbia to the ghost-white fields of limestone that are seen today. The story of water development in Tuolumne County is colored by rivalry, technology and a thirst for dreams from this era. In the early 1850s, Yankee engineers scouted the Sierra for suitable rivers and possible conveyance routes to



carry the water through rugged terrain to the gold fields below. The result was a well-engineered system of flumes, ditches and canals at two percent grade. All totaled, over 250 miles of hand-dug ditches distributed water to all corners of the county. Today, about 50 miles of this remarkable system are still in use by the Tuolumne Utilities District (TUD) service areas.

Water disputes were very common during the last half of the 1800s which led to fighting and murder in some cases.

With the general exodus from the county after the placers became exhausted, many of the ditches were abandoned; but the mining lodes later attracted attention and new laterals were dug to supply the quartz mines, many of which were rich producers into the 1950s. The present system was united into one organization from the properties of a number of separate and independent companies, which have ceased to operate after having sold their water rights and canals to the Sierra and San Francisco Power Company.



In 1983, the portion of the ditch system providing water to the county, known as the Tuolumne Water System, was sold to Tuolumne County by PG&E. It later consolidated with the Tuolumne Regional Water District and in 1992 Phoenix Lake and most of the ditch assets all assets were transferred to the newly formed Tuolumne Utilities District (TUD).

TUD Ditch Sustainability Plan

The Tuolumne Utilities District was recently awarded a grant to complete a “Ditch Sustainability Plan”. The Ditch Plan is funded by the Sierra Nevada Conservancy to the tune of \$350,000 dollars and includes a whole host of deliverables, but the one that this paper will focus on is the recreation component of the Ditch. The Plan will look for and evaluate potential and appropriate types of uses along the flume that could include, walking, hiking, biking, and interpretative elements. Grappling with tough issues such as private property rights and easements will be aided by the funding approved for the plan.

This project award is serendipitous as it coincides with the County and City effort to evaluate a myriad of different trail possibilities.

THE RAILWAYS

The Sierra Railroad

The Sierra Railway of California was incorporated January 1, 1897. Thomas S. Bullock, William Crocker and Prince Andre Poniatowski, who represented wealthy French investors, founded the railroad. Bullock brought rails and engines from his original railroad investments used on the Prescott and Arizona Central Railroad. The first forty-one miles were built from Oakdale to Jamestown by November 10, 1897, where the roundhouse and central maintenance facility was set up. After teamsters protested and delayed, the connection line to Sonora was completed on February 16, 1899. From Sonora the railroad added another 12 miles to reach Carters-Summerville (later renamed Tuolumne). By February 1, 1900, the end of the main line was completed with a depot located only a few hundred yards from the new mill of the West Side Flume and Lumber Company.



The Sierra Railway was the connection between Sonora, Jamestown and the company lumber towns of Standard and Tuolumne. The West Side Lumber mill at Tuolumne and the mountain mills of Standard Lumber Company furnished the largest source of revenue for the Sierra. The Standard Lumber Company's Sugar Pine Railroad and the West Side Lumber Company's West Side Lumber Railroad

fed the Sierra Railway.

The Sierra Railway connected directly to Santa Fe and Southern Pacific railroads in Oakdale, providing access to the national rail network. It reached its peak passenger service in years just before WWI when ten regularly scheduled trains ran every day. The Sierra Railway was used to supply the Don Pedro Dam project on the Tuolumne River and the Melones Dam project on the Stanislaus River in the early 1920s. It also supported the Hetch Hetchy Dam project (O'Shaughnessey Dam) in the 1920s and had access in 1935-38 to the Hetch Hetchy Railroad, which ran up to the Hetch Hetchy Valley's major construction sites. The Sierra Railroad supported the Tri-Dam Project consisting of Tulloch, Beardsley and Donnell.

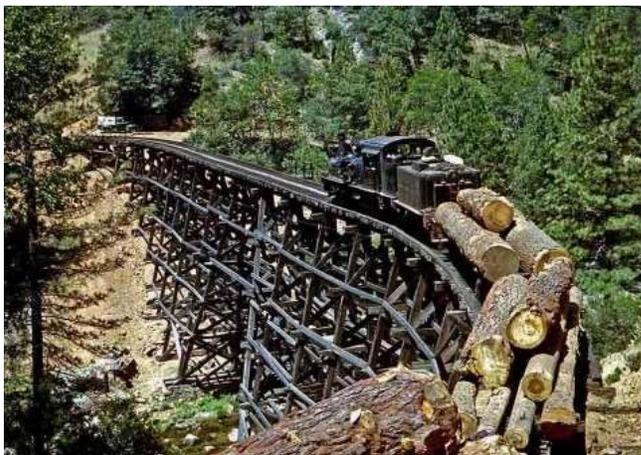
The Jamestown original complex of roundhouse, turntable and steam maintenance shops were sold in 1982 to the State of California Parks and Recreation Department to become Railtown 1897 State Historic Park, where steam passenger excursion trains operate today on weekends from April through October.

The Sierra Railway is also famous for its role in the film industry. It began in 1919 when Hollywood discovered the old steam engines and rolling stock for the silent movies. It also became one of the first field facilities to use sound on location. The local Tuolumne County scenery is perfect for movie making of all types and specialized in western films. Over 200 films and TV programs were filmed using Sierra's rolling stock and steam engines and it continues to play a role in filmmaking supported by the Tuolumne County Film Commission. Many notable movie location sites, which were used in such films as "High Noon" starring Gary Cooper, still exist here today. A living history experience of the Sierra Railway steam era and western film making in Tuolumne County is provided during a visit to Railtown 1897. You can enjoy a train ride, interpretive roundhouse tour of the movie artifacts located next to the Jamestown train depot accompanied by period dressed docents.



The Westside Railroad

The West Side's logging railroad was built to haul the harvest of sugar pine, ponderosa pine, incense cedar and white fir which kept West Side's sawmill in production year 'round. What was unique about this railroad was that it used narrow gauge track (36 inches between rails) with Heisler and Shay locomotives to effectively maneuver around the 40 to 60 degree curves deep into the woods and return to the mill.



Ultimately the line reached 70 miles into the woods (1949) towards the boundary of Yosemite National Park with over 250 miles of spurs. Engineers started to lay out a railroad grade in 1899, from town, to Baker Siding, Flume (where the old mining water flume crosses the rail bed), then down into the North Fork of the Tuolumne River Canyon.

Once the very lucrative harvest of the huge stands of virgin timber was underway, attention was focused on narrow gauge railroad logging for the next 60 years and any plans to extend the railroad as a passenger line into Yosemite were forgotten.

The last logging train rumbled down to Tuolumne Yard October 28, 1960 with Shorty Maddox, engineer, at the throttle....the last narrow gauge logging operation in the West. Although there were brief periods in the 1970's when West Side trains ran as tourist operations by businessmen Frank Cottle or Glen Bell (Taco Bell Corp.), removal of a portion of the rails from the track bed to be sold as salvage in the 1980's doomed the future possibility of any trains running on the West Side tracks. Despite that, rail fans and modelers from all over the world have shown increasing interest in West Side Lumber Company since it ceased logging operations.

The (Yosemite) Sugar Pine Railroad

There is a dearth of information available regarding the activities of the Sugar Pine RR in Tuolumne County. More information will be included on the Tuolumne County branches of the Sugar Pine at a later date outlining the significance of this railway.

The Hetch Hetchy Railroad

Due to many concerns regarding the supply of water for the city of San Francisco (not the least of which were shortages during the great quake of 1906), plans were drawn up to build a dam and turn the Hetch Hetchy watershed into a reservoir in the rugged Sierra Nevada mountains of Yosemite National Park. Many people feared that the Hetch Hetchy system would destroy Yosemite Valley, as well as other



natural resources in the area. Nevertheless, the Raker Act was adopted by the United States Senate on December 2, 1913.

The scope of the Hetch Hetchy project was immense; it involved dams, reservoirs, conduits, powerhouses and a 150-mile aqueduct. Surveying and construction took place in mountainous regions without roads or power. Machinery, equipment and thousands of men had to be transported to remote sites, making an already difficult project even more challenging.

In order to carry supplies, machinery and laborers for the massive and controversial project, San Francisco built the Hetch Hetchy Railroad. The right-of-way was 68 miles long and reached the edge of Hetch Hetchy Valley and the O'Shaughnessy dam site high in the Sierra.

Today, much of the Hetch Hetchy Railroad has been overlain and repeatedly bisected by parts of various roads: CA Route 120 and the Cherry Lake Road, Forest Routes 17 and

12, etc. But the observant visitor can readily spot the old railroad grades along these routes by noticing their narrow, raised railbeds, their gentle grades and their wide, sweeping curves. Some of the more remarkable views of the Hetch Hetchy Railroad route are along the Cherry Lake Road between the hill above Spinning Wheel Camp and Camp Mather. The route presents breathtaking views of the formidable Tuolumne River Canyon.

HISTORIC TOWN SITES

Columbia

In March of 1850, the Hildreth party from New England left Pine Log camp in the Stanislaus canyon. The party was caught in a rainstorm and needed to find shelter. While camped overnight along a seasonal creek, John Walker found gold; and the rush was on to Columbia. In the summer, the creek dried up and with no way to separate the gold from the dirt, most miners left. A few tried to bring barrels of water to the diggings, or barrels of dirt to Tim's Springs, today known as Springfield, but it wasn't worth their effort. The following winter, the miners returned and a prosperous camp followed.

With a more dependable supply of water, and sufficient quantities of gold continuing to be found, Columbia developed as a market for the miners and surrounding communities. Businesses, a post office, churches, newspapers and as families started moving into the area, schools were established. Substantial brick buildings were erected, family homes were built, and plans for a public schoolhouse were started. As with most gold rush towns, fire was always a problem and more buildings were built of brick. A volunteer fire department was established, soon to be joined by another, leading to a rivalry continuing into the 20th century. Even with these catastrophes the town gained a reputation for a place of business, a "going concern" and as "a pretty town."

As part of the southern mines, Columbia's population was very diverse, having citizens from France (so many for a short time there was a consulate), Italy, Ireland, China, Germany, Russia, Canada, Mexico, Peru, and Australia. Some of this diversity can be seen by visiting the town cemetery next to the old schoolhouse.

By 1870, the town had fallen from a high population of 6,000-8,000 to a low of about 1,000. It still maintained its reputation as a scenic town; the brick buildings were never abandoned. The stores continued to supply the hard rock mines, marble quarries, and farms and ranches surrounding the area. With a recession in the early 1890s bringing more gold miners to the area, the marble quarries doing well, the growth of the logging industry and increasing tourism bringing visitors to Yosemite and Calaveras Big Trees, townspeople were able to scratch out a living.

In the 1920s, Frederic Law Olmsted was conducting a survey for the state legislature prior to their establishing a state park system. He arrived in the area looking for areas of scenic, cultural or natural interest. He came to Columbia and was impressed with the collection of original buildings surviving with very few modifications. The town had been

preserved by a remarkable combination of circumstance: just far enough off the major road never to be modernized and just close enough never to be abandoned.

In the mid-1940s local residents organized to preserve the town culminating in July 1945, with Governor Warren signing documents making Columbia a State Historic Park. Slowly through the ensuing years, the park system has acquired the historic downtown business section and surrounding residences. Even more slowly the park system is restoring the structures as money becomes available. Columbia State Historic Park enjoys a place on the National Register of Historic Places as the Columbia Historic District. While concessionaires occupy many of the buildings, there are several museums and displays reflecting this period and the experiences of the majority of gold rush participants.

Columbia shows the every day town, customs and activities of people who left home, and in many cases country, to start a new life, whether this meant leaving families behind, or bringing them on the long journey.

Jamestown

Jamestown was a center of mining, transportation and trading activity, which grew fast as a result. In town there were many businesses such as a bank, livery stables, doctors offices, drug stores, butcher shops, hotels, saloons, Masonic Hall, bakery and others. In 1852, the Jamestown Methodist Church was founded and the pre-1861 church building is still in use. Author Prentice Mulford wrote about teaching there in 1862. "My school house was the church, built and paid for partly by the gamblers and partly by the good people of Jimtown 'for the use of all sects' on Sundays, and for educational purposes on week days."

Before the state of California, in the days of volcanoes and uplifting mountains many eons ago, a sinuous river of lava flowed westward towards the lowlands. The mountains became the Sierra Nevada and the river of lava became known as Table Mountain after the softer soil washed away, leaving deposits of gold and other minerals.

The discoverer of gold was an Oregon prospector, Benjamin Wood and his party, which included James Savage. They called their camp Woods Crossing, and the creek Woods Creek. About a year later when easily found gold disappeared, the settlement began to move a mile east to the site of present-day Jamestown.

Among others, Colonel George James became a gold speculator with Native Americans and miners working for him. He had a lavish lifestyle with a huge, well-stocked tent and trading post so the town was named in his honor after Colonel James



plied them with champagne. When Colonel James suddenly departed in the night leaving many miners and investors unpaid, they angrily changed the name of Jamestown to American Camp. That name did not catch on so the name went back to Jamestown or "Jimtown". Later in 1850 there was a movement to form a new camp in the northern portion of Jamestown and call it Georgetown, but citizens voted on May 25, 1851 to call both camps by one name, Jamestown, which has remained ever since.

Claim jumping did occur and murders took place as a result.

The Sierra Railway arrived in Jamestown from Oakdale in 1897 with much fanfare. By taking Fifth Avenue from Highway 120 you are driving or walking along the original railroad corridor to the working roundhouse, locomotives, railcars and site of the Jamestown depot. Since 1919 the rolling stock has appeared in over 200 movies and television shows. Because of massive local public support, in 1983 all historic steam maintenance facilities became Railtown 1897 State Historic Park with an interpretive center, steam train rides, roundhouse tours and depot store. From April to October train rides, special event excursions and many other railroad displays and activities are a part of the seasonal activities.

Groveland

A unique area of Tuolumne County is located south and east of the Tuolumne River. State Highway 120 is the only road that links the towns and settlements from Oakdale and across the Sierra's Tioga Pass. Groveland and Big Oak Flat were originally part of a small placer mining area discovered by James D. Savage, a California pioneer of 1846. The gold was first found in the waterway later named Rattlesnake Creek, near Big Oak Flat. Both towns are located at 3000 feet elevation along Highway 120, above a steep grade on the way to Yosemite National Park.

James Savage founded the towns of Big Oak Flat and Garrote (now Groveland), then collectively known as Savages Diggings in 1849. Big Oak Flat got its name from a large oak located there. The Groveland section of the camp was named Garrote from its reputation of swift and hard justice by way of hangings. Garrote in Spanish means death by strangulation. A third small town one-mile east of First Garrote was named Second Garrote. All three towns were within three miles of each other.

In the late 1890s, Groveland had a second boom with deep shaft quartz mines and stamping operations. As mining profitability declined again, a new kind of boom started. The large Hetch Hetchy water project's headquarters was in Groveland from 1915 to 1925. The City and County of San Francisco had gained generous rights to the Tuolumne River watershed in 1910 and set its sights on damming the main Tuolumne River as it meandered through Hetch Hetchy, a wide glacial cut valley almost as grand as Yosemite. Before the actual dam construction could get underway, the San Francisco project built the Hetch Hetchy Railroad extending from the Sierra Railway at the Hetch Hetchy Junction, fifteen miles west of Jamestown, and continuing to the dam site. The railroad carried cement, materials, and workers to the dam site. Maintenance shops were also centered at Groveland.

Sonora

Some of the first miners to reach Tuolumne County were discharged Mexican War veterans and miners from the state of Sonora, Mexico known as Sonorians. In 1848, gold seekers were few and placer was abundant. Friction between Americans and Spanish-speaking miners increased at the end of the Mexican War, when Americans considered California conquered territory giving them the right to exploit its riches. As the number of miners increased, Sonorians were forced from their diggings and moved along the gold laden creeks and drainages. On March 17, 1849, Sonorians vacated their camp and moved to a new camp on Wood's Creek now the site of Sonora High School.

When the Americans realized the Sonorians had moved to a new camp, they began to prospect nearby. In the area of today's Coffill Park, Americans found rich diggings. The camp was engulfed by Sonorians and others and became known as Sonoranian Camp. Later this was shortened to Sonora. The old Indian trail which extended from the Wood's Creek diggings down to the American diggings later became today's Washington Street. This was the center of commerce for the miners and later for the City of Sonora.

Sonora's motto remains the "Queen of the Southern Mines." With the discovery of gold, people came from all over the world to Sonora. Originally many foreign languages were spoken here, such as Mexican, French, German, Italian and Spanish. By early 1852, Sonora was a far more cosmopolitan town than many other mining camps, with its architecture reflecting its diverse population.

The Bonanza Mine, lying just north of Sonora's Episcopal or "Red Church" enjoys the reputation of being one of the Mother Lode's richest pocket mines. Originally discovered in early 1850s, when free placer gold was extracted, it was not fully developed until 1879 when a pocket of gold was encountered worth an estimated \$250,000. They encountered other rich leads throughout the life of the mine.



California passed legislation in February, 1850 dividing the state into 27 counties and designated a seat of government for each county. Sonora was designated the county seat, but citizens were upset to find their assemblyman had changed the name of the town to reflect his own name, Stewart. A petition was signed and amendment was passed naming Sonora the county seat of Tuolumne County.

On September 9, 1850, California became the 31st state. The City of Sonora was incorporated on May 1, 1851 and has always been the county seat of Tuolumne County. There are only ten cities in the State of California that have been incorporated longer.

Up until the early 1900s gold mining was very important to Sonora's economy. In the later part of the 1800s a second gold rush occurred when new mining methods were used to more profitably extract the gold. Also, in the late 1880s, the lumber industry became a major contributor to Sonora's vitality. The Standard Lumber Company incorporated by D. H. Steinmitz was originally headquartered in Sonora and eventually moved to a company town, Standard. In 1908, they were awarded a \$1 million box contract by Fruit Grower Company in Los Angeles. The Sierra Railway exported lumber products to the national rail network by way of Oakdale, California. When you tour Sonora you will find that many of our most impressive buildings were constructed from 1880 to 1910.

A Heritage Trails Program for Tuolumne County should consider:

- Interpretative trail signage
- Pavement markings (Downtowns)
- Consultation with the Historical Society
- Support of the Tuolumne Utilities District
- Agreement on use of Railway ROW, abandoned corridors, etc
- Coordination with outdoor and historical interest clubs
- Support of Business Associations, Chambers of Commerce
- Development of materials for trail user
- Input from the community
- Partnership with the TC Visitors Bureau

Elements of a Heritage Trails program have been pursued locally in the past. Although they may not have been pitched as Heritage trail improvement, in essence this is what they are. This is an encouraging sign for the program being proposed. It demonstrates that there is recognition of the historical significance and recreational value of the sites. With formal support from policy makers and the implementation of a comprehensive and coordinated effort these early investments can be assimilated into a broader program.

Two examples are the Westside Trail in Tuolumne and the Sugar Pine Trail, East of Twain Harte. Both trail segments—along abandoned RR grades-- have added some form of interpretation.

- The Westside trail has signage offering a brief narrative on the history of timber operation present and the identification of native plant species along the trail.
- The United States Forest Service created a self guided interpretative brochure with 9 posts along an abandoned stretch of the Sugar Pine railway (between Fraser Flat Campground and Old Strawberry Rd). The route posts correspond to text in a free brochure offered by the Mi-Wok and Summit Ranger Districts.

These improvements have fallen into a state of disrepair and need to be reinvigorated. They may be best served as priority projects of the Heritage Trails program.

Navigating historic downtowns

Trails in the historic town sites would help the walker navigate safely to the various sites and points of interest. This could easily be a self-guided walking tour with striping, or some other pavement treatment serving as the way-finding tool.

Older communities typically are built to a more human scale, with buildings located more closely to the road, narrower streets, shorter blocks and nooks or pocket parks offering respite. These characteristics make the older town sites ideal for walking tours. Developing preferred routes, site interpretation and appropriate signage would be a major component of this effort.

Additional outstanding aspects of Central Sierra History that are not covered here but should be considered if a heritage trails program takes root are:

- Native American culture
- Manifest Destiny
- Geologic/Natural Formations (Yosemite, Big Trees, Caverns)
- Literature (Mark Twain, Bret Harte, John Muir, etc)

Columbia Community College Pilot Project

An ideal candidate for a pilot project demonstrating the value of such a program is Columbia College. The land is publicly owned, has an existing trail system, a built in volunteer base, and the San Diego reservoir as a central feature of the campus. Working with TUD, the College Administration, Student Body and instructors to formalize this resource as a collaboration of healthy recreation, education and community resources stewardship seems a natural opportunity to explore.

MANAGING TRAILS

MULTIPLE USE TRAIL GUIDELINES

TRAIL COURTESY



HIKERS
Yield trail to equestrians,
Allow equestrians and
bicyclists to pass.
Don't cut switchbacks.



BICYCLISTS
Ride on open trails only.
Leave no Trace.
Control your bicycle.
Always yield trail.
Never scare animals.
Plan ahead.



EQUESTRIANS
Control your horse.
Avoid cross-country riding.

ALL USERS

For Your Safety Please:
Observe Rules And Regulations
Stay on Designated Trails
Be Alert And Courteous
Avoid Muddy Areas



A TRAILS COMMITTEE

A Trails Committee success is a reflection of the partnerships it is able to form. Trails, as community resources, must be embraced by locals, businesses and elected officials for them to be integrated fully, funded, maintained and protected. This type of buy-in can only be secured by working with the various interests who are involved and invested in improving the connectivity of the urbanized areas and creating healthier environments through more recreation and utilitarian connections for locals and tourists.

Cultivating relationships, sharing visions, and creating buy-in takes time and energy. It also necessitates a coalition of folks who understand the benefits being sought.

This is proposed to be accomplished through the formation of the Tuolumne County Trails Committee or other like minded body of passionate, invested and progressive representatives supportive of the vision and mission of the stated goals.

The Trails Committee is anticipated to serve in an advisory capacity to the Tuolumne County Transportation Council. The Trails Committee will have broad representation from public agencies, land owners, Park and Recreation Districts, the Tribes and other entities interested in the advancement of Tuolumne County and the City of Sonora Trails.

Below are listed likely candidates for participation in an effort of this breadth and importance. The type of advisory group will give each of the Trails Committee stakeholders an important and necessary voice in the planning and development process.

Possible Trails Committee composition:

User Groups	Local Gov't	Federal	State	Business	Resource
Hikers	Board of Supervisors	Forest Service	State Parks	Sierra RR	Visitors Bureau
Equestrian	City Council	Bureau of Reclamation	Caltrans	Dodge Ridge	Chambers of Commerce
Mountain Bike	Tribal Council/s	Bureau of Land Management		Bike Shops Hotels	Economic Development Public Health Dept
Road Bike Other Recreation Interests	TUD* TPRD* GCSD* THCSD* MID* TID* Hetch Hetchy PG&E	Yosemite Nat'l Park Army Corp of Engineers		Outdoor & Active Recreation Retailers Sierra Pacific Industries	IMBA* American Trails R-2-T Conservancy Columbia College Historical Society Sierra Nevada Conservancy Sierra Business Council TuCare Sierra Club

					Yosemite Gateway Partnership
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* Tuolumne Utilities District; Tuolumne Parks and Recreation District; Groveland Community Services District (CSD); Twain Harte CSD; Modesto Irrigation District; Turlock Irrigation District; International Mountain Bike Association

The KEY Objectives of the Trails Committee-

- Develop an integrated network of Trails
- Maintain ownership of existing Easements, Rail alignments, etc
- Respect private property
- Improve access to community amenities, downtowns and other high traffic areas of Tuolumne County and Sonora
- Decrease childhood obesity, Type II Diabetes and associated preventable diseases through opportunities for activity and recreation
- Incorporate trails and access as part of new development
- Pursue funding sources specific to implementation of bicycle and pedestrian projects
- Rejuvenate non-profit organization to help facilitate and support the development of trails in the County and City
- Involve community members and stakeholders in the development of the trail system
- Enhance the historic, cultural, biological and economic values of the area through interpretation along trails
- Encourage outdoor activity through community events
- Promote amenities for bicycles and pedestrians including- bike racks, shelters, striping, signage and other beneficial physical improvements

Successes to build on

There are a number of accomplishments that should be recognized as positive additions to community wealth, they are:

- Westside Trail
- Dragoon Gulch
- Rails-to-Trails funding awards
- Ditch Sustainability Plan (TUD/SNC) funding
- Trail Development at New Melones (Tuttle town, ARRA funding)
- Sugar Pine Trail
- Community Transformation Grant awards

SUCSESSES TO PURSUE

To create momentum and enthusiasm for this revived effort it will be important to have a variety of projects which can be accomplished in the short term to complement the larger and more complex projects the Trails Council will work towards.

Current activities identified for early attention include:

3-6-12 month goals

- Formalize the existing resources with Maps and Trail Head kiosks
- Development of a comprehensive, Countywide Trails Website
 - Forum for sharing hikes, bike rides, horse trails, complete with GPS, pictures, commentary.
- Create high quality maps for all existing trails
- Pursue an article in National Media outlet (Bike Magazine, DirtRag, National Geographic Adventurer, Outside, Sunset or other outdoor publication)
- Cross marketing of existing trails systems with Visitors Bureau, Chambers of Commerce
- Bike Park exploratory committee
- Trails Related Event (Symposium/Trails Summit)
- Establishment/Nomination/Designation of Trails Committee
- Adoption of this or other Strategic Plan
- Invite Subaru Trail Building Crew to TC
- Get TC trails on important websites (Trails.com, etc)
- Establish a fund through Sonora Area Foundation
- Columbia College Pilot Project (Ditch Trails program)
- Stay involved with the Ditch Sustainability Plan (TUD/SNC)
- Civic Group presentations (Rotary/Lions/Kiwanis)
- Call for Trail Data from user groups
- Trail User counts
- Trail Survey on Website
- Community (by community) connectivity map
- Explore Rail-banking for Tuolumne County

18-36 month goals

- Adopt policies supporting Trail components as part of future development
- Attend and exhibit at the 2012 American Trails Symposium
- Accept Civic group donations to build Kiosks/Trailhead improvements
- Integrate Interpretative Signage into Trails designated to be part of the Heritage Program
- Fund a feasibility study to evaluate potential development sites in Tuolumne County or Sonora

5 year plan

- Host California Trails and Greenways Conference
- Build a Bike progression park
- Offer Mountain Biking at Dodge Ridge Ski Resort
- Offer ‘Gold Rush’ Interpretative Tours in Sonora, Columbia and Jamestown

10 year plan

- Host the National American Trails Symposium

Things We Can Do to Help Trails Succeed

- Build trails to bring new people into the sport (not double black diamond)
- Show off the beauty/scenery
- Create high quality trail maps and great signage that makes traveling on trails easy
- Align political, physical, social elements to ensure success
- Focus on the community and the infrastructure before creating a “destination”
- Be patient with local, state and federal agencies—they support trails but support creating them legally, sustainably and with full community support
- Meet with private land owners—provide the facts. Invite them to meetings. Let them know the demographic that will be on the land. Inform them of trail user’s ability and desire to police the trail.

User conflicts/Trail Etiquette

A critical component of any Trails Plan is managing use of the trail system or network. In many cases trail users must be made aware of what trails expectations are. They are a simple set of guidelines which, if adhered to, can limit negative experiences on the trail and allow a diverse group of trail users to interact respectfully and without incident. Many trail issues can be resolved prior to a user stepping foot on a trail by simply reminding the individual of their responsibilities at the trail head, and on printed materials designed to help the trail user navigate.

Almost all potential conflicts can be avoided by sharing the following information:

- Who the trail user can expect to encounter when on the trail
- What expectations are of the user when encountering other users



- Public Lands are managed to encourage broad recreation opportunities

Some variation on this graphic is ubiquitous across the US and should be used in Tuolumne County when multiple user groups are sharing the same resources.

LONG TERM TRAIL MANAGEMENT/MAINTENANCE

Tuolumne County and the City of Sonora do not currently have adequate resources for maintaining Class I trails and bicycle paths. Further collaboration is needed to come up with an efficient and effective method for trail and bicycle path maintenance. Therefore, project proposals for new trails must include plans for trail maintenance.

Different jurisdictions incorporate various methods for meeting the demand for trails and bicycle paths in their respective areas. There is at least one commonality between them though, and that is partnership. It seems that in order to have a successful trails and bikeway program, public, private and non-profit agencies must partner together in achieving this common goal. Another common trait is that all of these areas already have detailed Regional Trail Plans developed. Without having this framework to backup efforts, agencies may be reluctant to partner together, and securing any grant funding is unlikely.

The following are examples of trail maintenance programs practiced in California. Whatever group and/or method are used for trail maintenance, these efforts shall be coordinated with the County and City.

Park and Recreation District

One option that Tuolumne County and the City of Sonora should consider is the possibility of creating a countywide Parks and Recreation District that would include the City. If passed by the voters, the district would provide a more efficient method than we currently have for the development and maintenance of a trail system. The district has the possibility of being even more successful by partnering with other agencies and organizations interested in trails. It could also assist in providing a fund to match grant programs. The East Bay Regional Park District, which encompasses Alameda and Contra Costa Counties, is a good example of a large special district in charge of trail planning, construction and maintenance as well as preservation of park land and open space.

Non-Profit Organizations

There are examples throughout California where non-profit organizations have become the lead agency in trail and bicycle path construction and maintenance. One example is the Redwood Community Action Agency in Humboldt County. Another good example of a non-profit organization is the Santa Monica Mountains Trail Council. These organizations advocate, maintain, and construct trails and bicycle paths in their respective areas. The organizations enlist the help of volunteers, reach out to the community, and

actively seek out grant funding. The development of, or the expansion of an existing non-profit organization in Tuolumne County and the City of Sonora would be an excellent method for constructing and maintaining trails and bicycle paths in a cost-effective and efficient manner.

Adopt-A-Trail Program

Another option for the maintenance of trails and bicycle paths would be to create an adopt-a-trail program. An example of this is in the City of Chico. The city has an adopt-a-trail program and puts out a nine page handbook detailing the program. The City has training sessions for volunteers in the areas of trail and bicycle path building and maintenance. These trained volunteers can lead others in the work. This idea was echoed in one of the public meeting for the creation of this Bikeways and Trails Plan.

FUNDING TRAIL DEVELOPMENT



FUNDING TRAIL DEVELOPMENT

Great community assets are no accident. Cities and Counties which place a high priority on health, activity and outdoor recreation have found a way to make these amenities a cornerstone of their lifestyle and communities.

Funding Trails, pathways, parks and greenbelts is not an easy task. There are a myriad of ways to do so, and most communities deliver these facilities through a patchwork quilt of various funding sources. Although there is no silver bullet or generic template that can be applied similar to a formula which generates the right answer, so to, trail development is unique on a community by community basis.

With this said, there are some general principles which have yielded results throughout California that can be applied to the Sierra.

Tuolumne County and the City of Sonora have funded Trail projects in a number of ways that will be highlighted below, along with known funding mechanisms that have yet to be employed in the area.

There are several Federal and State programs which support the development of trails, paths and greenways.

Federal Programs-

Transportation Enhancements

Transportation Enhancements (TE) activities are federally funded, community-based projects that expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic and environmental aspects of our transportation infrastructure. TE projects must be one of 12 eligible activities and must relate to surface transportation.

For example, projects can include creation of bicycle and pedestrian facilities, streetscape improvements, refurbishment of historic transportation facilities, and other investments that enhance communities and access. The federal government provides funding for TE projects through our nation's surface transportation legislation.

http://www.enhancements.org/Te_basics.asp

Recreational Trails Program

The Recreational Trails Program (RTP, not to be confused with the Regional Transportation Plan!) provides funds to the States to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. The RTP is an assistance program of the Department of Transportation's Federal

Highway Administration (FHWA). Federal transportation funds benefit recreation including hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicles.

RTP funds are distributed to the States by legislative formula: half of the funds are distributed equally among all States, and half are distributed in proportion to the estimated amount of non-highway recreational fuel use in each State.

<http://www.fhwa.dot.gov/environment/rectrails/>

State Programs-

Bicycle Transportation Account

The Bicycle Transportation Account (BTA) is an annual program providing state funds for city and county projects that improve safety and convenience for bicycle commuters. In accordance with the Streets and Highways Code (SHC) Section 890-894.2 - California Bicycle Transportation Act, projects must be designed and developed to achieve the functional commuting needs and physical safety of all bicyclists. Local agencies first establish eligibility by preparing and adopting a Bicycle Transportation Plan (BTP) that complies with SHC Section 891.2. The BTP must be approved by the local agency's Regional Transportation Planning Agency.

Caltrans anticipates appropriation of \$7.2 million annually for projects that improve safety and convenience for bicycle commuters. SHC Section 2106 stipulates the annual BTA funding level in the approved State budget, with awards announced after enactment. Per SHC 891.4(b), funds are allocated to cities and counties on a matching basis that requires the applicant to furnish a minimum of 10 percent of the total project cost. No applicant shall receive more than 25 percent of the total amount transferred to the BTA in a single fiscal year.

<http://www.dot.ca.gov/hq/LocalPrograms/bta/btawebPage.htm>

Proposition 40

Roberti-Z' Berg-Harris Non-urbanized Area Grant (RZH)

Funds for this grant program are to be allocated for projects pursuant to the Roberti-Z'berg-Harris Urban Open Space and Recreational Grant Program (Public Resources Code Chapter 3.2 commencing with Section 5620) and are to be used for:

1. High priority projects that satisfy the most urgent park and recreation needs, with emphasis on unmet needs in the most heavily populated and most economically disadvantaged areas within each jurisdiction.

2. Projects for which funding supplements--rather than supplants--local expenditures for park and recreation facilities and does not diminish a local jurisdiction's efforts to provide park and recreation services.
3. Block grants allocated on the basis of population and location in urbanized areas.
4. Need-basis grants to be awarded competitively to eligible entities in urbanized areas and in non-urbanized areas.

Eligible Projects:

- Acquisition of park and recreation lands and facilities
- Development/rehabilitation of park and recreation lands and facilities
- Special Major Maintenance of park and recreation lands and facilities
- Innovative Recreation Programs

http://parks.ca.gov/?page_id=22329

Local Programs-

Local Transportation Funds

LTF Claims for Bicycle and Pedestrian Facilities

At the discretion of the Council, TCTC typically allocates 2% of the LTF for bicycle and pedestrian facilities and amenities pursuant to PUC Section 99233.3 and CCR Section 6655.2.

Development Fees (Quimby Act)

Local governments in California provide a critical role in the effort to set aside parkland and open space for recreational purposes. Cities and counties have been authorized since the passage of the 1975 Quimby Act (California Government Code §66477) to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities.

The goal of the Quimby Act was to require developers to help mitigate the impacts of property improvements. The act gives authority for passage of land dedication ordinances only to cities and counties. Special districts must work with cities, and/or counties to receive parkland dedication and/or in-lieu fees. The fees must be paid and land conveyed directly to the local public agencies that provide park and recreation services community-wide.

http://www.cprs.org/membersonly/Sum02_Quimby.htm

Mitigation/Conditions of Approval

Development applications that are submitted to the City of Sonora and County of Tuolumne are many times subject to approval with 'conditions'. These conditions of approval must have a documented 'nexus' to the project. Transportation mitigation measures which may be part of a new development can come in the form of building trail improvements or dedicating land or right-of-way for future improvements to be built by a public entity. These types of improvements are part of the answer in getting needed trails embedded as part of the community transportation network.

Parks and Recreation tax (¼ to ½%)

Following is an example of what the City of Santa Cruz has as policy:

5.72.070 PARKS AND RECREATION FACILITIES TAX IMPOSED.

An excise tax is imposed on the privilege of constructing in the city of Santa Cruz any mobile-home lot or residential dwelling unit. Every person to whom a permit to construct or develop any residential dwelling unit in the city is issued, and every person to whom a permit to construct or develop and install electrical and plumbing equipment to service a mobile-home lot in a mobile-home park in the city is issued, shall pay to the city such tax at the following rates:

The sum of \$3.00 for each square foot of a residential dwelling unit, or portion thereof, to be constructed and/or developed;

The sum of \$160.00 for each mobile-home lot to be constructed and/or developed in a mobile-home park.

5.72.110 USE OF TAX FOR ACQUISITION, IMPROVEMENT AND EXPANSION OF PUBLIC PARK, PLAYGROUND AND RECREATIONAL FACILITIES.

All of the parks and recreation facilities taxes collected pursuant to the provisions of this chapter shall be placed into a special fund which is created and established for such purpose and which shall be known as the "parks and recreation facilities tax fund." Taxes collected pursuant to this chapter shall be used and expended solely for the acquisition, improvement and expansion of public park, playground and recreational facilities in the city.

<http://www.cityofsantacruz.com/>

Grants-

Industry micro-grants.

Private-

Sonora Area Foundation (SAF)

The Sonora Area Foundation remains focused on its mission – of strengthening its communities. It partially achieves this mission through:

Awarding grants-

The Foundation's governing board has a pool of discretionary funds, and regularly awards grants to qualified non-profit and public agencies. These grants are competitive, and awarded for worthy projects that help improve the quality of life in Tuolumne County, whether for education, human services, recreation, arts or the environment.

Property/Easement Donations

The Natural Heritage Preservation Tax Credit Act offers incentives to preserve wildlife and plant habitat, agricultural lands, open spaces, and water rights on private lands. Landowners, including pass-through entities who donate land, an easement, or water rights are eligible for the credit. Eligible donations must meet the goals of a conservation plan, protect species or habitat, conserve threatened agricultural land, or increase public access to open space or archaeological resources. The tax credits are managed by the state resource agencies and essentially "granted" to landowners. Donors are allowed an income tax credit of 55% of the fair market value of the donated property against their income, with an eight-year carry-forward period. The tax credit program was suspended in 2002, but reinstated in 2005. Under the reinstated program, the state resource agencies and departments have to provide funds to the state's general fund to replace any tax credit claimed by a landowner. Please see the links below for details on the current status. The California conservation easement tax credit is non-transferable and applies in addition to federal tax benefits.

<http://www.landtrustalliance.org/policy/tax-matters/campaigns/state-tax-incentives>

PATHS TO HEALTH & PROSPERITY

“Trails consistently remain the number one community amenity sought by prospective homebuyers.” National Association of Homebuilders



Health Benefits of Trails

The documented benefits of a healthy, active lifestyle need no introduction. Communities with more opportunities for active recreation are communities with lower health care costs, rates of heart disease, Type II Diabetes, Coronary Disease and a myriad of other chronic health issues that affect many Americans¹⁵.

Compiled statistical data has shown that fewer fatal accidents occur in communities where mode splits (transit, walk, bicycle, and cars) are greater versus communities where the automobile is the primary mode of transportation¹⁶.

There is a growing body of research which is linking urban development with health, happiness and social connectedness. These studies are important because they are applying scientific principles to a field that was previously dominated by qualitative data. The findings are clearly linking the built environment to health and wellness.

Tuolumne County is currently pursuing funding to address some of these issues through a *Community Transformation Grant*.

Strategic Direction of the grant, is to- Increase the total number of physical activity opportunities implemented at or around school facilities (such as physical activity clubs, and walking or bicycling to and from school); increase opportunities for physical activity in communities and workplaces (e.g., access to facilities and places; joint use agreements); increase adoption of comprehensive approaches to improve community design to enhance walking and bicycling and active transportation; promote community design standards (e.g., Complete Streets, Main Street as Highway) that make streets safe for all users, including pedestrians, bicyclists and users of public transit; increase mixed-use zoning and transit-oriented development; establish community protocols to assess the impact of community changes on community health and wellbeing (conduct HIAs).

The Economic Rationale for Multi-Use and Purpose-Built Trails

This claim-- that trails add to the economic vitality of a place-- has been receiving more and more attention over the course of the past decade. Study after study have shown correlations between findings that investments in trails and trail infrastructure in many instances return many more dollars than invested¹⁷.

This report draws attention to some of the key findings that are applicable to the central Sierra region.

Outdoor recreation is a \$730 billion market in the United States. Of that amount, more than \$622 billion is spent on travel and the expenses associated with recreation (fuel, food, lodging, etc).

Over the last decade, many regions have seen great success in creating, increasing and sustaining economic development through the development of trails. For example, Jackson WY invested nearly \$1.7 million over the last 10 years to create a world-class trail system. In 2010, their estimated annual income associated with mountain biking was \$18 million, with over \$3 million coming from local residents. (Outdoor Industry Foundation, 2006)

Varieties of Economic Impacts¹⁸:

There are many ways that trails and greenways affect the local and national economies, including:

- Tourism
- Events
- Urban redevelopment
- Community improvement
- Property value
- Health care costs
- Jobs and investment
- General consumer spending

“Although Trails are small income generators compared to manufacturing, health services, and other large sectors of the local economy, their impacts are concentrated in communities dependant on trail activity, and spread to other businesses in population centers and commercial hubs of the region.” –Economic Impact of Recreational Trail Use in Different Regions of Minnesota (2009)

Attachment:

Tuolumne County Trail Easement Liability Policy

Sources Cited

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³ *Neighborhood Correlates of Urban Trail Use*. Authors: Greg Lindsey, Yuling Han, Jeffrey Wilsen, Jihui Yang. Journal of Physical Activity and Health. 2006.

⁴ *Jackson Hole Trails Project Economic Impact Study*. Author: Nadia Kaliszewski. Thesis, University of Wyoming- Haub School of Environment and Natural Resources. 2011.

⁵ <http://www.fs.fed.us/news/2011/releases/11/skicomm.shtml>

⁶ Kirkwood Mountain Resort-Mountain Master Development Plan Final Environmental Impact Statement

⁷ http://tahoerimtrail.org/index.php?option=com_content&view=article&id=363&Itemid=202

⁸ <http://www.imba.com/resources/freeriding/emergence-bike-parks>

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¹¹ <http://www.ccc.ca.gov/work/Pages/thework.aspx>

¹² Tuolumne Community Enhancement Mobility Study, pg. 8

¹³ <http://www.sonoraca.com/visitsonora/dragoonpage.htm>

¹⁴ Project Report- Mono Way Widening Project-- .46 miles in the City of Sonora from Greenly Road to Fir Drive. Implementing Agency: City of Sonora

¹⁵ Surgeon General's Report on Physical Activity and Health, July 1996

¹⁶ Missing reference, will include in revision

¹⁷ *Jackson Hole Trails Project Economic Impact Study*. Author: Nadia Kaliszewski. Thesis, University of Wyoming- Haub School of Environment and Natural Resources. 2011.

¹⁸ American Trails, Summer 2011 Issue, P. 6