
Yolo County Transportation District

Bike & Pedestrian Trail Network Planning Project



Applicant: Yolo County Transportation District

Type of Applicant: Transit Agency

Urban/Rural: Urban

RAISE Grant Request: \$1,200,000

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i. Project Description

Yolo County Transportation District (YCTD) seeks \$1.2 million in US Department of Transportation (DOT) RAISE planning grant funds with \$500,000 in local match to develop an active transportation plan for a network of multiuse trails that will help to address barriers to mobility for low-income and minority residents of Yolo County, California (population 220,500). YCTD, which operates the Yolobus local and intercity bus service, offers safe, economical, and sustainable alternatives to conventional transportation within its service area that includes Davis, West Sacramento, Winters, Woodland, downtown Sacramento, Sacramento International Airport, Cache Creek Casino Resort, Esparto, Madison, Dunnigan and Knights Landing. The population of Yolo County is primarily concentrated in smaller cities surrounded by working lands. While in the past these services were limited to transit, YCTD is in the process of expanding its services to better meet the mobility needs of its geographically, racially, ethnically, and economically diverse service area. According to the [US DOT's RAISE Persistent Poverty Project Status Tool](#), twenty-two (22) out of the 85 total Census Tracts included in the YCTD service area are Areas of Persistent Poverty. Residents of these areas contend with barriers to access to jobs, educational attainment, health, and opportunity. This planning project will build upon YCTD's recent efforts to explore how public interest design of transportation services can be used to address the needs of the region's most isolated and disadvantaged areas, where the impacts of systemic racism, institutional disadvantages of rurality, and disproportionately high environmental burdens generate disparities in socioeconomic outcomes.

With US DOT RAISE grant funds, YCTD will conduct community outreach, map areas of persistent poverty in the county, prioritize disadvantaged areas for access to the bike/pedestrian trail network, assess the feasibility of electric bike/scooter charging stations, provide conceptual design plans and cost estimates to build out the trail network, and develop 100% design and engineering and construction documents for top priority trails. YCTD will also partner with the Solano Transportation Authority to explore a possible trail link between the University of California, Davis campus and the City of Dixon in Solano County. This YCTD Bike & Pedestrian Trail Network Planning project will advance the broader [Sacramento Area Council of Government's Parks and Trails Strategic Development Plan](#), which envisions a dynamic, regional system of interconnected trails and parks across El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties in Northern California.

Completion of this project will advance the construction of a robust, well-planned bike and pedestrian network that will help to achieve the following goals:

- Improving **safety** by diverting bicyclists and pedestrians off of busy roadways and onto shared-use paths that meet Federal Highway Administration (FHWA) and Caltrans design guidelines, reducing the risk for vehicle-bicycle crashes and vehicle-pedestrian crashes in the project area.
- Advancing **environmental sustainability** and **climate action** by encouraging a mode shift from single occupancy vehicles (SOVs) to walking and biking, which will decrease Vehicle Miles Traveled (VMT), congestion, pollution, and greenhouse gas emissions.
- Enhancing **quality of life** and **equity** by addressing the transportation barriers facing isolated, low-income, and minority communities in the YCTD service area that lack affordable, reliable

connections to jobs, education, health services, grocery stores, recreation, green space, and other popular destinations.

- Promoting **state of good repair** by establishing a more resilient transportation system and reducing long-term operational and maintenance costs of the road system by reducing VMT.
- Boosting **economic competitiveness** by attracting foot traffic to local businesses in incorporated areas, as well as to farms and agritourism businesses in rural areas, while helping to balance Yolo County’s commitment to smart growth and reducing urban sprawl.
- Propelling YCTD’s **partnership** with SACOG forward to advance the regional vision for an interconnected trail network for the entire Sacramento region.
- Designing and engineering **innovative trail technologies** (solar Rectangular Rapid Flashing Beacons, GIS-driven trail and transit apps, e-bike charging stations), **innovative project delivery** (travel demand modeling using GIS, targeted investment in disadvantaged communities, local hiring preferences), and **innovative financing** (public-private partnerships, other innovative financing).

Upon completion of the proposed planning project, YCTD will be poised to establish a bike and pedestrian trail network that helps to address the barriers to mobility currently facing disadvantaged populations living in the county’s areas of persistent poverty.

Project History & Context

Regional Approach to World-Class Trail Network

The Sacramento Area Council of Governments (SACOG) has been working with its cities, counties, and community stakeholders to develop a visionary [SACOG Parks & Trails Strategic Development Plan](#) that links every community and major parks with a network of trails and increase access to job sites, community amenities, and public spaces supporting recreational/social activities. SACOG is where local government leaders in the Sacramento region come together to advance the goals of economic prosperity, connected communities, and vibrant places. With a staff of 60 guided by a board of elected officials from each of its 28 member cities and counties, SACOG works to collaboratively solve challenges that are too big for any one jurisdiction to solve on its own. As the federally designated Metropolitan Planning Organization (MPO) for the Sacramento Region, SACOG plays a central role in transportation planning and funding assistance for cities, counties, transit operators, and other entities responsible for providing for the travel needs of the region’s residents. As the only public agency with members from every jurisdiction in the region, SACOG also serves as a forum for the study, planning, and resolution of other issues facing local governments in a wide variety of topics from protecting our agricultural and natural resources, challenges related to flooding and wildfires, airport planning, and housing affordability.

To inform the Strategic Development Plan, SACOG hosted a survey to develop a plan that reflects residents’ needs and values, with special attention to historically underserved communities. The survey sought to identify where trails for walking, wheeling, biking, and scooting are

Figure 1 Facebook Marketing Example



missing. SACOG worked with its six counties (El Dorado, Placer, Sacramento, Sutter, Yolo, Yuba counties), cities, and other close partners to publicize the survey using social media, email, and news media and an incentive for a chance to win \$50 in grocery store gift cards for responding.

The SACOG project aims to encourage travel through the region via active transportation modes and to increase access to green space that is key for mental and physical health. The plan will identify immediate term projects to jumpstart the network development and focus on creating access to low-income communities that are currently lacking access to green spaces and safe active transportation infrastructure. The plan is intended as a guide for local jurisdictions so they can incorporate a regional vision into their trails program of work. This YCTD Bike & Pedestrian Trail Network Planning project builds upon YCTD's participation in the SACOG study to take the next step toward implementing and constructing priority trails connecting the region's most underserved populations with jobs, education, services, and recreation.

[Disadvantaged Communities \(SB 535\) & Low-Income Communities \(AB 1550\)](#)

During our participation in the SACOG planning project, YCTD has advanced data collection and mapping overlaying YCTD's existing and proposed bike and pedestrian infrastructure and Yolobus stops with communities classified as low-income and disadvantaged communities under SB 535 and AB 1335 – two statutes which were designed to encourage investment in environmental justice areas of concern in the State of California.

Under its carbon cap-and-trade program, California is working to mitigate and adapt to climate change threats, while improving conditions in communities over-burdened by pollution, socioeconomic, and health impacts. California's carbon cap-and-trade program is one of the largest multi-sectoral emissions trading systems in the world. Revenues that California receives from the program are deposited into the state's Greenhouse Gas Reduction Fund (GGRF) and then appropriated to state agencies to implement programs that further reduce greenhouse gas emissions.

[Disadvantaged Communities \(SB 535\)](#) directs the California Environmental Protection Agency (CalEPA) to identify disadvantaged communities for purposes of the GGRF programs based on geographic, socioeconomic, public health, and environmental hazard criteria, which it does using the [CalEnviroScreen 3.0 tool](#); designated communities include:

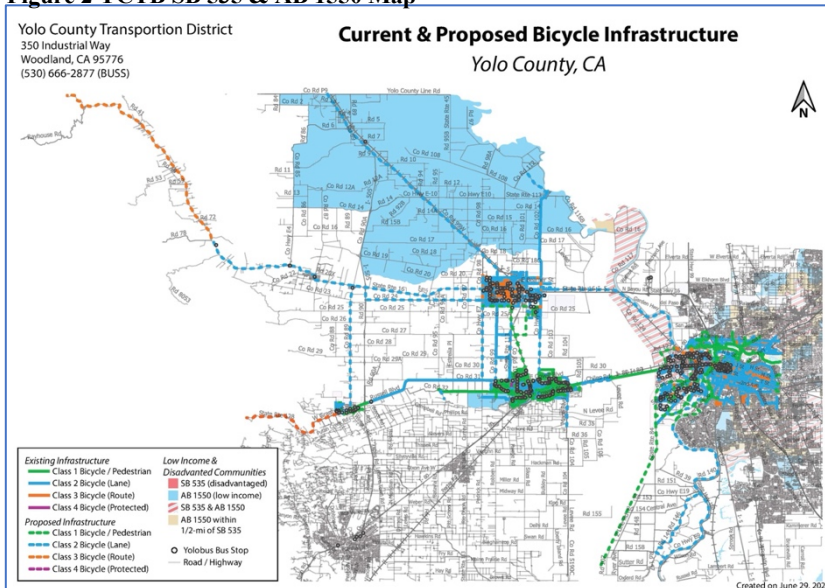
- Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation.
- Areas with concentrations of people that are of low-income, high unemployment, low levels of home ownership, high rent burden, sensitive populations, or low levels of educational attainment.

SB 535 requires that a minimum of 25% of the available GGRF proceeds be allocated to projects that provide a benefit to disadvantaged communities; and at least 10% of the available proceeds were to be allocated to projects located *within* disadvantaged communities. SB 535 also Communities designated as SB 535 Disadvantaged Communities include:

[Low Income Communities \(AB 1550\)](#) increased the percent of funds for projects located *within* disadvantaged communities from 10% to 25%. AB 1550 also created new investment requirements for low-income communities and households requiring that:

- At least 5% of the moneys allocated from the GGRF must fund projects located within and benefiting individuals living in low-income communities or fund projects benefiting low-income households statewide; and
- At least 5% of the moneys allocated from the GGRF must fund projects located within and benefiting individuals living in low-income communities, or benefiting low-income households, that are within ½ mile of a disadvantaged community.

Figure 2 YCTB SB 535 & AB 1550 Map



The maps of the YCTD’s current and proposed bicycle infrastructure and Yolobus Bus Stops overlaid with SB 535 Disadvantaged Communities and AB 1550 Low-Income Communities (see attached *Project Maps* for enlarged map) will help to drive the prioritization of the design and engineering of critical trail segments to serve the communities in highest need of assistance in the YCTD service area.

YCTD Seeks to Broaden Transportation Options

This YCTD Bike & Pedestrian Trail Network Planning project is central to YCTD’s ongoing transformation from a bus-only public transit provider to a multimodal transportation provider and project delivery agency that connects and supports vibrant communities with transit and trails.

In 2019, YCTD kicked off the YoloGo effort, which sought to update the Yolobus network based upon technical analysis, best practices in transit planning, and community input. Outreach efforts in 2019 and 2020 included pop-up workshops, virtual workshops, and in-person community meetings. The resulting [Comprehensive Operational Analysis of YCTD](#) offered a thorough review of YCTD transit services, based on extensive data collection, analysis, and public input.

Mid-way through the YoloGo effort, YCTD was forced to reassess and reprioritize recommendations in response to COVID-19. As essential workers who lacked access to vehicles struggled to find safe ways to get to work, COVID-19 travel patterns highlighted the gaps in the bike and pedestrian network and underscored the need for active transportation connections to establish a resilient transportation network. While transit ridership is already bouncing back after dramatic declines due to public safety guidelines during the pandemic, demand for safe spaces to walk and bike for workers, families, and kids is not going away. YCTD is prepared to utilize its planning expertise, access to data, existing infrastructure assets, and strong regional partnerships to plan and construct a network of bike and pedestrian trails that make the Yolo County region a national model for a regional bike/pedestrian commuting network with connections to transit hubs, jobs, services, and parks.

YCTD is in the process of hiring for a new Executive Director with the goal of hiring a “multimodal leader” for the agency by mid-July. YCTD is also hiring three new staff positions to support its efforts to broaden the idea of what public transportation looks like within its service area – a Project Manager for Trails and Special Projects, Communications/Marketing Specialist and Grants/Procurement person – all three of whom will have major roles in executing the YCTD Bike & Pedestrian Trail Network Planning project, which is a top priority project for the YCTD Board. US DOT RAISE Planning grant funds will leverage this strong agency commitment to develop a shovel-ready plan that will jumpstart YCTD’s construction and operation of a bike-, pedestrian-, transit-, and microtransit-friendly regional transportation network.

Transportation Challenges

Poor Connectivity & Unsafe Conditions

While the YCTD region has significant transportation assets, including transit stops, park n’ ride lots, alternative fuel stations, bike racks, train access (Capital Corridor Amtrak Station in Davis) public docks for water taxis (Clarksburg, Elkhorn, and Knights Landing), and airport shuttles, safe and direct bike and pedestrian connections linking these assets are lacking. Capitalizing on the assets of each community will require providing travel corridors that consistently provide connections within and between communities and jurisdictions; however, bicycle and pedestrian planning and policies in the YCTD service area have historically only been addressed at the individual city level. Poor trail network connectivity between populated areas results in bicyclists and pedestrians walking and biking along unsafe stretches of road to reach transit or their destinations. As the popularity of biking and walking, as well as use of E-bikes and electric scooters, increases rapidly, the need for a cohesive, regional approach to safe and connected bike/pedestrian infrastructure is more apparent.

Transportation Equity

The YCTD service area is geographically varied and home to a diverse population. Lack of transportation equity is the top priority challenge facing the YCTD region. YCTD communities lack horizontal transportation equity (similar neighborhoods lack similar access to active transportation and transit), vertical transportation equity with respect to income and social class (residents of different incomes, races, and ethnicities experience different levels of transportation affordability, housing affordability, access to employment, and service quality), and vertical transportation equity with respect to need ability (residents of different abilities experience different levels of transportation access, reliability, affordability, and service quality). For example, according to the SACOG Parks & Trails Strategic Development Plan data, lower income residents (less than 200% of the federal poverty level) were 30% less likely to have a connecting trail easily accessible (within a half mile, or ten-minute walk). In fact, this data was backed up by resident perceptions, as Yolo County respondents to the SACOG survey indicated that they live, on average, 8.36 miles away from any trail, while Sacramento County respondents reported within 1.17 miles.

Environmental Challenges

The SACOG region is designated as a “severe” nonattainment area for ground-level ozone; almost 70% of the Sacramento region’s ozone pollution comes from vehicular exhaust. Because the Sacramento Valley is shaped like a bowl, ozone pollution presents a serious problem in the summer when an inversion layer traps pollutants close to the ground. This lid prevents pollutants from

escaping into the upper atmosphere causing poor air quality for residents. Poor air quality is among the environmental burdens in the YCTD service area that disproportionately impact the most vulnerable populations.

Economic Challenges

According to the [SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy](#), the regional economic risks of not taking bold steps to prepare for the changes in climate, land use patterns, and transportation patterns over the next 20 years include:



Sprawl and its side effects: congestion, longer travel times, increased freight costs, and worse health.



Our economy hollows out and the people leave because we lost our competitive advantage.



An economy that lags our peers because our stagnating cities fail to attract talented workers and we have not managed to connect existing workers to training and new opportunity.



A region split between denser areas well served by a high-tech, electric fleet and rural and disadvantaged areas relying on 30-year old internal combustion technology.



An economy, land use pattern, and transportation system that leaves vulnerable populations behind.



Crumbling transportation infrastructure because we failed to develop a sustainable way to pay for it.

Solutions

Advancing planning, design, and engineering for the construction of a bike and pedestrian trail network with connections to transit hubs and key destinations will help to improve connectivity and fill gaps in the YCTD service area's transportation system. Prioritizing trail segments for 100% level design plans that connect the region's most vulnerable populations to jobs, services, and recreation will help to advance reparation of our transportation system's role in generating racial and ethnic disparities in employment, income, educational attainment, health, and opportunity. Creating new, affordable, active transportation choices will encourage mode shift that will reduce VMT and congestion, thereby decreasing air pollution and greenhouse gas emissions. And finally, planning the trail network guided by smart growth principles will help to build economically vibrant places for today's and tomorrow's generations.

Statement of Work

With US DOT RAISE grant funds and local match, YCTD will complete the following scope of work over a two-year project period:

Task 1. Project Management & Grant Administration

The Project Manager for Trails and Special Projects will serve as the Project Director, managing the planning effort from start to finish with the support of the new Executive Director, the Deputy Director of Operations, and the Deputy Director of Finance with oversight from the YCTD Board of Directors. The Project Director will assemble the project team; YCTD will competitively procure a community engagement consultant and transportation planning/design firm or, alternatively, a single public interest design/transportation planning firm to complete both the engagement and design/engineering, if qualified. Project management will include overseeing

procurement processes, managing contractors, coordinating with project partners, establishing performance metrics, conducting quality assurance, and guiding the development of the YCTD Bike & Pedestrian Trail Network Plan.

YCTD's new Procurement & Grants Specialist will lead grant administration and reporting. The Procurement & Grants Specialist will coordinate with US DOT to execute the grant award, conduct procurement and contracting in accordance with federal, state, and local standards; administer the grant funding; and work with the Deputy Director of Finance to complete all financial reporting.

Task 2. Existing Condition Assessment

YCTD staff will work with the planning consultant to review recent planning documents, surveys, maps, and data collected at the YCTD and SACOG level to assess existing conditions and determine what additional data is needed to inform the Plan. This assessment will include building upon the recent mapping of disadvantaged and low-income areas by mapping areas of persistent poverty as defined by US DOT in relation to access to existing trails and transit hubs in the County to inform the prioritization of these areas for trail development. This exercise will also help to ensure that additional surveys and public engagement are not redundant with previous efforts to help avoid planning fatigue and deploy resources efficiently.

Task 3. Public Outreach & Community Engagement

YCTD's new Communications & Marketing Specialist will work with the community engagement consultant to develop a marketing plan and schedule for conducting targeted outreach to engage community members in the YCTD service area to participate in the planning process. The plan will outline strategies that the project team and its partners will deploy to encourage participation in and remove barriers to participation in the community engagement portion of this planning project. The community engagement process will make space for "meeting folks where they are at," by, for example, attending conveniently located and timed community events to provide bilingual information about the project. YCTD will work to overcome the digital divide for folks without internet or who are not comfortable with tech by coordinating on-board, print, publicity/surveys on the YoloBus and ensuring input materials are available in print for those who prefer print materials and distributed in hard copy in areas with low access to highspeed internet. The project team will conduct outreach to the Yocha Dehe Wintun Tribe, who own the Cache Creek Casino Resort in the project service area, to encourage participation in the planning project.

YCTD is experienced with cutting edge public engagement processes in disadvantaged communities and will design and implement an innovative series of activities to fully engage the broad community and target populations. These will include interactive "live" activities with local residents as well as interactive computer software that will provide a broader population of both residents and experts the opportunity to provide creative ideas and critical commentary throughout the process. Engagement activities will solicit public input that aims to understand barriers to mobility and access holistically, drilling down deeper into where folks want to go and what holds them back from getting there. YCTD will ensure that residents who participate in planning have an understanding of how their perspectives will be incorporated. YCTD will ensure participants are updated on project progress and have additional opportunities to provide feedback throughout planning, design, and engineering.

Task 4. Plan Development

YCTD will work with the transportation planning/design consultant to develop the plan for the trail system, which will include the following considerations/components: siting, with attention to safety and diversity of users (income, mobility impairments, bike ownership, etc.); trail design, with attention to environmental areas of concern (wetlands, soil erosion, habitat, stormwater management); trail layout, with attention to routing, access to key destinations, and connections to Class 1 bike trails; trail construction, with attention to required equipment, labor, and materials; trail support facilities, with attention to innovative technologies (wayfinding, solar-powered RRFBs, electric bike charging stations); permits and compliance with local and state ordinances; trail maintenance; and costs. The plan will evaluate design alternatives for selection by YCTD and outline recommendations for implementation.

Task 5. Preliminary Design, Cost Estimates, & Prioritization

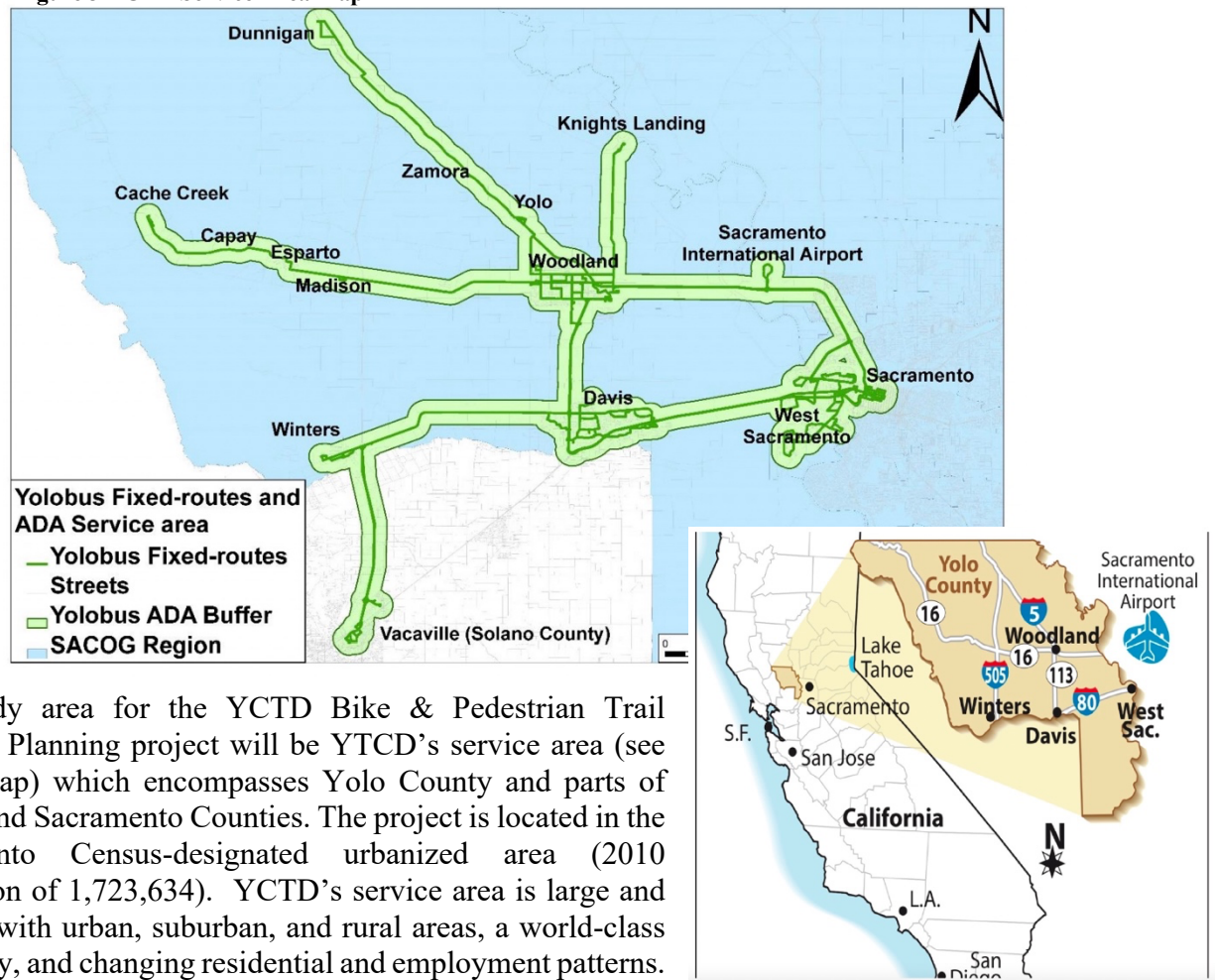
Guided by the results of the public engagement, the transportation planning/design consultant will develop conceptual design plans and cost estimates for the YCTD Bike & Pedestrian Trail Network. The transportation planning/design consultant will conduct a topographic utility survey and all environmental investigations necessary to produce preliminary design concepts. The Plan will prioritize trail segments for construction based on capacity to establish access for low-income and non-driving communities to jobs, education, healthcare, and other key destinations; connections to transit hubs; benefits to areas of persistent poverty and majority-minority communities with environmental burdens; strength of local partnerships; and cost and availability of funds.

Task 6. Final Design & Engineering for Priority Segments

The transportation planning/design consultant will advance design and engineering to the 100% for the top priority trail segments identified in the Plan. This will include completing permitting and approvals and producing construction documents for a shovel-ready construction project that falls within a reasonable cost range for pursuing and leveraging federal and state construction funds to complete the initial trail phases by December of 2025.

i. Project Location

Figure 3 YCTD Service Area Map



The study area for the YCTD Bike & Pedestrian Trail Network Planning project will be YCTD's service area (see above map) which encompasses Yolo County and parts of Solano and Sacramento Counties. The project is located in the Sacramento Census-designated urbanized area (2010 population of 1,723,634). YCTD's service area is large and diverse, with urban, suburban, and rural areas, a world-class university, and changing residential and employment patterns. The bulk of the approximately 300,057 people in the YCTD service area are located within community centers with the greatest concentrations of residents living within incorporated communities.

West Sacramento (population 53,251) sits across the river from the City of Sacramento (population 500,930), the capital of California and the region's historic employment center. The Port of West Sacramento ships out 1.0 million tons of Yolo County's many agricultural products, such as rice, wheat, and safflower seed, to worldwide markets. Davis (population 68,543) is the most populous city in Yolo County and home to the University of California (UC), Davis campus. Also located in Davis is the US Bicycling Hall of Fame, which houses a collection of antique bikes and trophies. Woodland (population 57,710), the Yolo County seat, has strong historic heritage, reflected in an impressive stock of historic buildings in the downtown area and surrounding neighborhoods. To the south, Solano County and the City of Vacaville (population 98,875) are home to educational and medical facilities of regional importance. The City of Winters (population 7,197) is a small farming town nestled at the base of the Vaca Mountains, offering unique shops, restaurants, galleries and live entertainment at the Palms Playhouse. It is close to Lake Berryessa and has become a favorite destination for bicycle enthusiasts. Located about eight miles west of Esparto in

the Capay Valley (along Cache Creek), the Cache Creek Casino Resort, owned by the Yocha De He Wintun Tribe, is northern California's largest Indian gaming resort, employing approximately 2,400 people.

A defining characteristic of Yolo County is its agriculture and open spaces. Though agriculture is a business, the fields, orchards, and rangeland that comprise most of our agricultural land base are generally open and pastoral, creating valued views and vistas. The term "working landscape" is sometimes used to refer to the de facto open space provided by the vast land mass of designated agricultural space in the county; 92% of the land surface of Yolo County is off-limits to residential, commercial and industrial development uses that are not consistent with the agricultural designation and 67% of the unincorporated area of the county is protected under Williamson Act contracts to provide further long-term protection of these lands.

While Yolo's historic commitment to preventing sprawl and preserving agriculture and open space produces smart growth and quality of life benefits for residents, the rurality of its unincorporated areas presents mobility challenges. The roadway network within the unincorporated parts of the county is primarily rural in character, serving small communities and agricultural uses through a system of State freeways and highways, county roads (including arterials, collectors and local streets) and private roads. Interstate 80, Interstate 5 and Interstate 505 are the primary transportation corridors extending through the county and serve all of the county's major population centers including Davis, West Sacramento, Winters and Woodland.

The YCTD service area is a favorable area for bicycling because of its flat terrain, mild climate and relatively short distances between cities and unincorporated communities. Bikeways within Yolo County are classified into the following three types:

- Class I – Off-street bike paths.
- Class II – On-street bike lanes marked by pavement striping. In agricultural areas, designation of Class II facilities should consider movement of agricultural equipment.
- Class III – On-street bike routes that share the road with motorized vehicles.

There are five bikeways in unincorporated Yolo County. They have been constructed over the past 38 years and are routes constructed to either Class I or Class II width standards. the routes are:

- A route from Davis to West Sacramento, consisting of a Class I Caltrans-maintained bike path along the Interstate 80 causeway over the Yolo Bypass, and Class I and II sections of County Road 32A.
- A Class II bike lane along County Road 102 from Knights Landing to the eastern portion of Woodland and on to near Davis.
- A Class II bike lane along County Road 99 from the southern city limits of Woodland south approximately 5.5 miles to County Road 29, then east one mile to County Road 99D, then south on County Road 99D to the City of Davis.
- Class II bike lane along County Road 31, County Road 93A, and Russell Boulevard between Davis and Winters.
- A Class I bike path along County Road 32 west from Davis to County Road 95A.

In addition to these local bikeways, the SACOG region has a patchwork of off-street biking corridors that will serve as a starting point for the broader regional trail network, including the 32-mile, off-street American River Bike Trail in Folsom and Davis and the levee-top and Creekside trails around the region. The City of Sacramento is planning to turn a four-mile stretch of an old railroad corridor into an off-street bike lane running from the southern Meadowview neighborhood to the northern William Land Park, and the nearby suburbs of Citrus Heights and Orangevale will be connected via a three-mile bike and walking trail running on an electrical power corridor next to Arcade and Cripple creeks. YCTD will coordinate closely with SACOG and its member jurisdictions throughout the planning project to maximize connections between existing and planned trail facilities in surrounding communities. YCTD has identified three major missing links that we hope to address through this planning project: the unfinished connection between Sacramento and Clarksburg, the gap between Woodland and the City of Davis, and gaps in the Class I network from Davis to Winters.

According to the [US DOT's RAISE Persistent Poverty Project Status Tool](#), twenty-two (22) out of the 85 total Census Tracts included in the YCTD service area are Areas of Persistent Poverty. The YCTD service area is racially and ethnically diverse. The 2017 American Community Survey reveals that persons identified as White (not Hispanic) make up the largest group at 50.5%. followed by Hispanic/Latino at 27.8%, and Asian at 12.4 %. All other Census race categories were below 5 percent.

Figure 4. Areas of Persistent Poverty in YCTD Service Area

Census Tract Numbers			
Yolo County (All)		Sacramento County (City of Sacramento)	Solano County (Vacaville)
101.01	106.08	3	2529.04
101.02	107.01	4	2529.11
102.01	107.03	5	2529.12
102.03	107.04	6	2531.05
102.04	108	7	
103.02	109.01	8	
103.10	109.02	11.01	
103.12	110.01	12	
104.01	110.02	13	
104.02	111.01	14	
105.01	111.02	15	
105.05	111.03	17	
105.08	112.03	18	
105.09	112.04	19	
105.10	112.05	20	
105.11	112.06	21	
105.12	113	22	
105.13	114	23	
106.02	115	26	
106.05		27	
106.06		53.01	
106.07		71.01	
106.08			
107.01			
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114			
115			

ii. Grant Funds, Sources, & Uses

YCTD seeks **\$1.2 million** in FY 2021 US DOT RAISE grant funds with **\$500,000** in local match to complete the YCTD Bike & Pedestrian Trail Network Plan. The total cost of the planning project is **\$1.7 million**.

YCTD Bike & Pedestrian Trail Network Planning Project Budget by Tasks

Task	Total Cost	RAISE Grant	Non-Federal Match	Other Federal
Project Management	\$ 268,048	\$ -	\$ 268,048	\$ -
Existing Condition Assessment	\$ 88,002	\$ 80,000	\$ 8,002	\$ -
Public Outreach & Engagement	\$ 111,934	\$ 50,000	\$ 61,934	\$ -
Plan & Preliminary Design	\$ 466,080	\$ 430,000	\$ 36,080	
Final Design of Priority Segments	\$ 655,451	\$ 600,000	\$ 55,451	\$ -
Permitting & Approvals	\$ 53,342	\$ 40,000	\$ 13,342	\$ -
Subtotal Project Cost	\$ 1,642,857	\$ 1,200,000	\$ 442,857	\$ -
Indirect (5% de minimis)	\$ 57,143	\$ -	\$ 57,143	\$ -
Total Project Cost	\$ 1,700,000	\$ 1,200,000	\$ 500,000	\$ -

YCTD Bike & Pedestrian Trail Network Planning Project Budget by Budget Category

Budget Category & Line Item	Total Cost	RAISE Grant	Non-Federal Match	Other Federal
Personnel				
Project Manager for Trails	\$ 213,600	\$ -	\$ 213,600	\$ -
Executive Director	\$ 102,318	\$ -	\$ 102,318	\$ -
Deputy Director - Operations	\$ 15,752	\$ -	\$ 15,752	\$ -
Deputy Director - Finance	\$ 14,581	\$ -	\$ 14,581	
Assistant Planner	\$ 40,012	\$ -	\$ 40,012	\$ -
Comms & Marketing Specialist	\$ 56,594	\$ -	\$ 56,594	\$ -
Subtotal Personnel	\$ 442,857	\$ -	\$ 442,857	\$ -
Contractual				
Community Engagement Consultant	\$ 50,000	\$ 50,000	\$ 500,000	\$ -
Transportation Planning/Design Firm	\$ 1,150,000	\$ 1,150,000	\$ -	\$ -
Subtotal Contractual	\$ 1,200,000	\$ 1,200,000	\$ -	\$ -
Indirect Cost (10% de minimis)	\$ 57,143	\$ -	\$ 57,143	
Procurement & Grants Specialist (25%)				
Deputy Director – Finance (<1%)				
Total Project Cost	\$ 1,700,000	\$ 1,200,000	\$ 500,000	\$ -

Source & Amount for all Funds

Source	Amount	Percentage	Status
US DOT RAISE Planning grant	\$1,200,000	70%	Pending
YCTD Match	\$500,000	30%	Committed
Total Project	\$1,700,000	100%	

Non-Federal Funding Commitments:

YCTD Local Match	% FTE	Cost	2-Year Period
Project Manager for Trails & Special Projects			
Project Management	72%	\$ 96,120	\$ 192,240
Public Outreach & Engagement	2%	\$ 2,670	\$ 5,340
Plan & Preliminary Design	2%	\$ 2,670	\$ 5,340
Final Design	2%	\$ 2,670	\$ 5,340
Permitting & Approvals	2%	\$ 2,670	\$ 5,340
	80%	\$ 106,800	\$ 213,600
Executive Director			
Project Management	8%	\$ 22,737	\$ 45,475
Plan & Preliminary Design	4%	\$ 11,369	\$ 22,737
Final Design	6%	\$ 17,053	\$ 34,106
	18%	\$ 51,159	\$ 102,318
Deputy Director - Operations			
Project Management	5%	\$ 7,876	\$ 15,752
	5%	\$ 7,876	\$ 15,752
Deputy Director - Finances			
Project Management	>4%	\$ 7,291	\$ 14,581
Indirect	<1%	\$ 1,342	\$ 2,685
	5%	\$ 8,633	\$ 17,266
Procurement & Grants Specialist			
Indirect Costs	25%	\$ 27,229	\$ 54,458
	25%	\$ 27,229	\$ 54,458
Assistant Planner			
Existing Condition Assessment	5%	\$ 4,001	\$ 8,002
Plan & Preliminary Design	5%	\$ 4,001	\$ 8,002
Final Design	10%	\$ 8,002	\$ 16,005
Permitting & Approvals	5%	\$ 4,001	\$ 8,002
	25%	\$ 20,006	\$ 40,012
Communications & Marketing Specialist			
Public Outreach	25%	\$ 28,297	\$ 56,594
	25%	\$ 28,297	\$ 56,594
Total Local Match		\$ 250,000	\$ 500,000

YCTD's local match commitment is derived from the time its paid employees will spent completing the project activities over a two-year grant period. As described above, the Project Manager for Trails & Special Projects, who is expected to be hired by September of 2021, will serve as the Project Director, committing 80% of her/his time over the two-year grant period to this priority project beginning in January of 2022. Other YCTD personnel who will contribute directly to project activities throughout the two-year grant period include the Executive Director (18% FTE), the Deputy Director of Operations (5% FTE), the Deputy Director of Finances (5% FTE), the new Procurement & Grants Specialist (25% FTE), the Assistant Planner (25% FTE), and the Communications & Marketing Specialist (25% FTE). See the above *Non-Federal Funding Commitments Table* for a detailed breakout of the tasks to which YCTD personnel will contribute, see the attached *Matching Commitment Documentation* for confirmation of YCTD's commitment to providing staff to support the project activities, and see the *Statement of Work* section on page 9 for additional detail regarding key project activities.

Costs of Construction: At this time, YCTD anticipates that the priority trail segments will cost approximately \$20 million to construct. This estimate is based upon rough cost estimates for major missing links that will be considered for full design and engineering through this planning process: improvements to the West Sacramento to Davis existing route and completing the missing and/or broken links from West Sacramento to Clarksburg, Woodland to City of Davis, and Davis to Winters.

iii. Selection Criteria

The YCTD Bike & Pedestrian Trail Network Planning project will develop a plan for a regional trail network that will provide the communities most vulnerable and isolated residents with active transportation options that are equitable, safe, reliable, accessible, sustainable, and efficient.

Primary Selection Criteria

(A) Safety

Safety is a major concern for cyclists and pedestrians in the YCTD service area, who must venture out on roads with narrow shoulders, roadside obstacles, poor lighting, and no bike or pedestrian facilities to reach key destinations using active transportation. Many residents who do not commute by bicycle indicated on the SACOG survey that they would consider biking to travel to work or encouraging children to bike to school if it were safe to do so.



Figure 5. Cyclist on Russell Boulevard (El Rio Villa) facing I-505

Unsafe conditions lead to intersection crashes, run-off-the-road collisions, vehicle-bike and vehicle-pedestrian collisions. According to UC Berkley's California Active Transportation Safety Information Pages (CATSIP), there were 218 collisions involving pedestrians with 30 fatalities and 515 collisions with involving bicycles with 5 fatalities in Yolo County from 2015 – 2019. Just last year in Octobr of 2020, a [professor emeritus at US Davis tragically died](#) after she was struck by a car headed up County Road 100 A in Yolo County north of Davis when she crossed the County Road from a private road. These types of incidents are all to common in a region where biking is popular but bike infrastructure is lacking.

In rural areas of the YCTD service area, shoulders and guardrails are often lacking along many high-collision locations. In these areas crashes between vehicles and vehicles or vehicles hitting cyclists and pedestrians, often happen at much higher speeds.



Figure 6. Clarksburg at Netherlands facing North

The project team will work with the transportation planning/design consultant to analyze reported cyclist and pedestrian crash data and consider public input regarding bike and pedestrian safety to strategically develop trails that address safety challenges in both rural and urban environments. The project team will assess collision heat maps to identify pedestrian and bicycle collision hot spots and cross-reference data regarding the purpose of trips in dangerous areas to evaluate the potential for creating alternative, safer pathways to destinations.

The planning project design the trail network in accordance with Federal Highway Administration (FHWA) guidelines for safe multi-use trails, as well as Caltrans guidance for Class I, Class II, and Class III bike trails. Pedestrian safety projects will improve pedestrian crossing locations, including high visibility sidewalks along all sides of intersections, advanced signing to alert drivers to pedestrians, pedestrian refuge islands and medians, and curb extensions to reduce crossing distances. Solutions for increasing safety along rural roads must be sensitive to community preferences, as many rural residents prefer roads that reflect a more rural setting (i.e. without curbs, gutters, and sidewalks).

This planning project will advance construction of multi-use trail connections that will reduce points of conflicts and decrease accidents resulting in property damage only (PDO), injuries, and fatalities in rural and urban areas of Yolo County. Safety benefits will have a multiplier as cyclists are safer on the road when joined by other cyclists.

(B) Environmental Sustainability

Environmental Justice

A primary focus of the YCTD Bike & Pedestrian Trail Network Planning project is to invest in and improve environmental justice communities in the YCTD service area. The YCTD service area includes SB 535 Disadvantaged Communities located within West Sacramento and Sacramento, as well as AB 1550 disproportionately impacted low-income communities in Woodland and Davis (see attached *Project Maps*). YCTD's SB 535 Disadvantaged Communities are in the 90-95% percentile for a higher relative burden according to the CalEnviroScreen 3.0. The US EPA EJScreen Tool, which provides a nationally consistent index for combining environmental and demographic indicators to measure environmental burden relative to demographic indicators of vulnerability (% low-income, % people of color, % less than high school education, % linguistic isolation, % children, and % seniors) confirms that the YCTD service area contends with significant environmental justice challenges. Residents in the project area are in the 75% percentile or above with respect to exposure to particulate matter, exposure to ozone, cancer risk, respiratory risk, superfund proximity, proximity to risk management plan sites,

proximity to hazardous waste facilities, and exposure to wastewater discharges. The Plan will aim to design trail connections that will generate the environmental benefits described in this section to help reduce environmental burdens and improve health outcomes for our residents.

Vehicle Miles Traveled (VMT) Reduction

The YCTD Bike & Pedestrian Trail Network Planning project will design a regional network of trails that encourages mode shift away from SOVs to active transportation modes. Mode shift to walking, biking, and transit will be achieved by data-driven planning to create connections that serve short trips within communities, longer trips between communities, and “first-mile” and “last-mile” trips to transit hubs. The Plan will evaluate the capacity of proposed design alternatives to generate mode shift and reduce VMT by analyzing key indicators such as network completeness, network density, route directness, access to destinations, network quality, bicycle level of service (LOS), level of traffic stress, low stress connectivity, and bike route quality index ([see Caltrans study on mode shift from bikeways](#)). Using data from SACOG’s recent JUMP bike pilot and from e-bike and scooter sharing services in other similarly situated communities, the Plan will consider how YCTD can deploy E-bikes, scooters, E-bike shares, scooter shares and charging infrastructure on the trail network to help encourage additional mode shift away from SOVs and on to trails.

Reduction of transportation emissions is difficult to achieve in the unincorporated areas of the mostly rural project area. The Plan will consider tailoring strategies for trail development to serve different kinds of rural communities: [productive areas, destinations areas, or edge communities](#). For example, trail planning in and around productive town centers (such as Woodlands) may include eschewing new growth-inducing infrastructure while adapting the existing transportation network to accommodate active transportation, including sidewalks, street-fronting buildings, bicycle lanes, and bicycle parking to encourage fulfilling needs locally. Strategies for VMT reduction in destination areas (such as Winters and Cache Creek) may focus trail nodes around regional transit connections where bike-rentals, bike-shares, shuttles, and/or car-shares are available to visitors. And strategies for VMT reduction in edge communities located on the periphery of a city (such as West Sacramento) may include building constructing new, separated active transportation facilities between major destinations and offering bike lockers, changing areas, or onsite showers to encourage active commuting.

Should the Plan’s proposed trail improvements achieve the goal of spurring significant mode shift away from SOVs to active transportation and transit, the project will also help to reduce congestion on the YCTD road system. Residents of the project area contend with chronic freeway congestion, as well as growing traffic on local streets when commuters use driving apps to find alternative routes that take them through local neighborhoods. Increased traffic on State Highway 16 traveling to and from the Cache Creek Casino has created problems for local residents and businesses (such as farmers moving equipment), and alternative forms of travel (bicyclists, pedestrians) that might be relieved by a bike facility. Reducing congestion by decreasing the number of drivers on the road for short trips and commuting will reduce fuel consumption and pollution from idling.

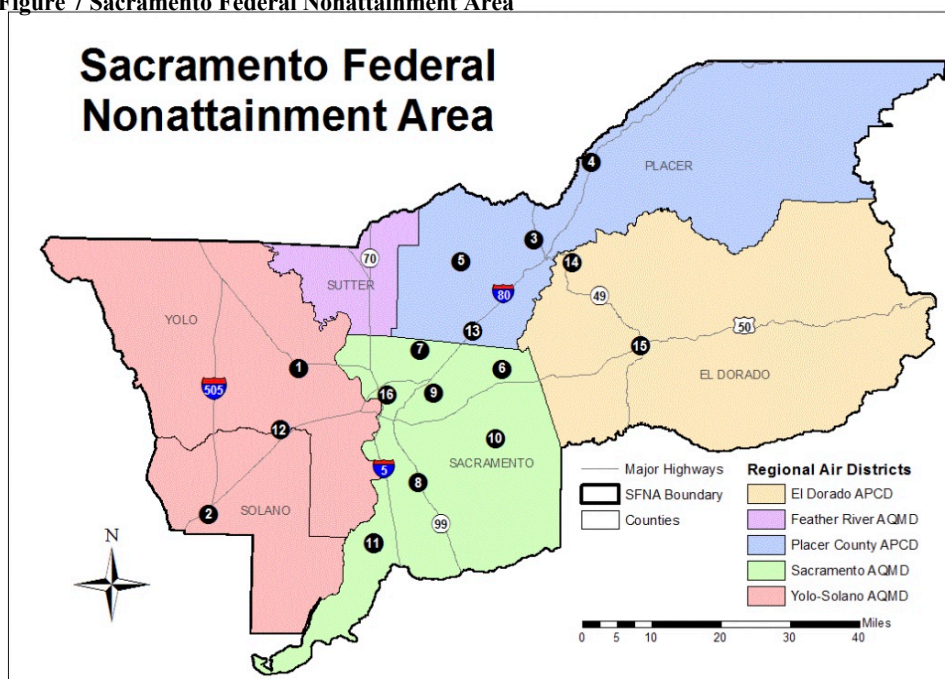
Pollution & Emissions Reductions

Designing a YCTD Bike & Pedestrian Trail System that reduces VMT and congestion through mode shift will lower greenhouse gas emissions and reduce harmful air pollutants. Most of the SACOG region and the YCTD service area are designated a federal non-attainment area for ozone.

Ground-level ozone is created by chemical reactions between NO_x and VOCs (pollutants emitted from vehicle exhaust) in the presence of heat and sunlight; congestion is a major cause of “smog” in hot, sunny places like Yolo County. Elevated exposures to ozone can affect sensitive vegetation and ecosystems, including forests, parks, wildlife refuges and wilderness areas. Ozone exposure can also cause adverse health impacts in humans; ozone can cause lung aggravation and is especially harmful to children, seniors, and people with asthma.

The federal nonattainment designation activates stringent air quality emissions budgets that the transportation system is required to meet to reduce pollutant levels that contribute to ozone formation. To receive federal funding, transportation projects nominated by cities, counties and agencies in the Sacramento Federal Non-Attainment Area must be consistent with the SACOG MTP. This planning project will advance the design and engineering of priority trail segments to shovel-readiness. The resulting trail projects will reduce ozone pollution and will be consistent with the SACOG MTP, which is required to secure federal funding in the Sacramento Federal Non-Attainment Area. Reducing ozone pollution, as well as NO_x, SO_x, PM_{2.5}, and other harmful pollutants, through VMT reductions as a result of the completed trail network will benefit local ecosystems in the project area and improve health outcomes for vulnerable populations.

Figure 7 Sacramento Federal Nonattainment Area



The YCTD service area is on the front lines of climate change and its communities are on the cutting edge of climate action. The Yolo County Board of Supervisors adopted the [*Yolo County Climate Action Plan: A Strategy for Smart Growth Implementation, Greenhouse Gas Reduction, and Adaptation to Global Climate Change*](#) in March of 2011. The Climate Action Plan’s [*Transportation and Land Use*](#) chapter focuses on reducing vehicle miles traveled through smart growth development and efforts to encourage mode shift away from SOVs. This planning project aligns with the goals of the Climate Action Plan to reduce greenhouse gas emissions and slow the projected changes for the Yolo County region, which include rising temperatures, rising sea level, worsened air quality, and shifts in seasonal crops.

Engaging Disadvantaged Community Members

The primary goal of the YCTD Bike & Pedestrian Trail Network Planning project is to address transportation inequity that impacts residents of disadvantaged areas that contend with the impacts of systemic racism, rurality, and/or environmental burdens. The planning project will work to address horizontal and vertical transportation inequity in the YCTD transportation system with respect to income and social class and ability by analyzing how historical investment patterns have resulted in generational disparities in access. The planning process will engage individuals of transportation disadvantaged groups to enhance understanding of needs before designing and prioritizing trails to serve these groups.

Addressing Social Determinants of Health

As described above, twenty-two (22) out of the 85 Census Tracts in the YCTD service area are areas of persistent poverty. Poverty is racially concentrated in Yolo County. According to the 2011 Community Health Needs Assessment, over 30% of Black residents and 30% of Asian residents of Yolo County live in poverty, compared to just 14% of white residents. Poverty is key determinant of individual and community health. LatinX residents of Yolo County experience worse health outcomes, including higher rates of diabetes (13%) relative to non-LatinX residents (5%), lower educational attainment (20% Algebra Proficiency) relative to white residents (47%), and higher infant mortality (5.7 per 1,000) relative to the County at large (2.4 per 1,000 births). COVID-19 cast a stark light on structural inequalities that impact health outcomes in Yolo County. As LatinX households have more wage earners per household than non-LatinX households, LatinX families had more adults leaving the house every day and depending upon transit to get them to work. While LatinX residents make up just 30% of the population, they made up over 40% of all COVID-19 cases. Low-income residents, seniors, and individuals with disabilities also remained dependent on transit to get to shopping and medical appointments during the pandemic.

While the YCTD Bike & Pedestrian Trail Network Planning progress cannot address all of the inequities facing project area residents, prioritizing improved trail access for disadvantaged communities will create new opportunities for recreation, better connections to jobs and healthcare, and easier access to transit, even for residents of isolated rural areas. Establishing a highly functional trail system with connections parks, waterways, and greenspace will help to achieve health benefits for our community members, including increased physical activity, improved mental health outcomes, and lower risk for chronic disease. COVID-19 brought many people out to the trails who had not previously been trail users. Capitalizing on this new group of users by engaging them in the trail planning effort will help to ensure that high trail usership is retained beyond the COVID-19 public health crisis.

Prioritizing Underserved Areas

The extremely high demand for trails brought on by COVID-19 also highlighted disparities in trail access for YCTD communities. SACOG found that lower income residents (less than 200% of the federal poverty level) were 30% less likely to have a connecting trail easily accessible (within a half mile, or ten minute walk). Urban community members in Sacramento County who reported within 1.17 miles of any trail enjoy better trail access than rural residents of Yolo County who

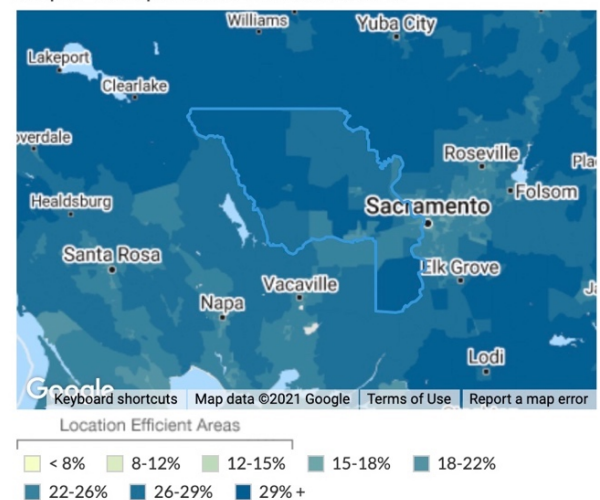
report living 8.36 miles away from any trail. This project will ensure that this world-class trail system is not built only for the wealthy in the county who have access to road and mountain bikes and ample time to explore; rather, this project will prioritize providing low-cost active transportation options to the communities that need them most, first. This project team will study [available data on commuting patterns](#) to identify gaps in bike-to-work infrastructure and inform the prioritization of trails that will encourage bike commuting. The project will also consider potential programs and partnerships to increase access to bicycles in low-income communities.

Mitigating High Housing + Transportation Costs

According to the Center for Neighborhood Technology's (CNT) Housing & Transportation (H+T) affordability index, 0% of Yolo County neighborhoods are location efficient, meaning no neighborhoods are compact and close to jobs and services, allowing people to spend less time, energy, and money on transportation. According to U.S. Census Data, there are 5,534 households (7.3% of all households) in Yolo County with no vehicles available; any of these households that lack access to trails and/or transit likely face difficulty running routine errands and participating in civic and social life.

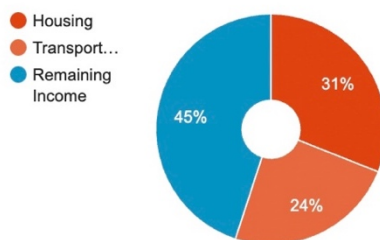
According to the CNT H+T index, Yolo County residents rank 3.4 out of 10 for job access, 5 out of 10 for transit access, and 2.1 out of 10 for density and walkability. Yolo County residents spend 55% of their income on housing and transportation costs combined, meaning they have just 45% to spend on food, healthcare, other costs. Planning a trail system that connects people to jobs will help to mitigate high housing costs by providing consumer cost savings from reduced vehicle ownership costs, operating costs (fuel, oil, and tire wear), long-term mileage-related costs (depreciation, lease fees, user costs from crashes and tickets), and special costs (tools, parking fees), which will help to relieve the high cost-burdens facing project area residents. Establishing affordable, reliable, and non-vehicular transportation options will remove barriers to growing affordable, local housing stock using sustainable, smart growth development strategies.

Figure 8. CNT H+T Index
Map of Transportation Costs % Income



Average Housing + Transportation Costs % Income

Factoring in both housing *and* transportation costs provides a more comprehensive way of thinking about the cost of housing and true affordability.



Transportation Costs

In dispersed areas, people need to own more vehicles and rely upon driving them farther distances which also drives up the cost of living.



Building upon Existing Equity Initiatives

As an FWA subrecipient, Yolo County must complete a [Title VI Plan](#), outlining its commitment to providing equal and equitable access to its services in the safe, most cost-effective manner possible. YCTD has conducted its own equity analyses, mapping exercises, and outreach efforts to inform its YoloBus operations. US DOT RAISE Planning grant funding will provide YCTD will the opportunity to build upon its equity analyses to develop an updated YCTD Bike & Pedestrian Trail Network Plan that centers on equity as a core value. YCTD will coordinate with SACOG's newly established Race, Equity, and Inclusion Group to solicit ideas and data for the planning process and also to share results for future trail plans centered on equity goals. YCTD's hiring search for a new Executive Director and a Project Manager for Trails who will be integral to this planning project calls out equity and inclusivity explicitly as YCTD organizational values.

(D) State of Good Repair

Alignment with State and Local Plans

The YCTD Bike & Pedestrian Network Planning project is consistent with regional and local plans to maintain transportation facilities in a state of good repair and address current and projected vulnerabilities. The project is in direct alignment with the [SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy](#), which calls for establishing a transportation system with less reliance on SOVs and more opportunities to walk and bike. The project is also in direct alignment with the [Yolo County General Plan Circulation Element](#), which calls for new bikeways to fill the gaps between the four incorporated cities and to provide additional connectivity to the growing communities of Esparto, Madison, and Dunnigan. The project aligns the [2020 Comprehensive Operational Analysis of YCTD](#), in which residents call for additional bike infrastructure connecting to transit stops.

The planning proceed will follow the guiding principles for planning of bicycle facilities set forth in the [2013 Yolo County Bicycle Transportation Plan](#):

- The safety of bicyclists and the motoring public is of primary importance.
- Commuter bicycling facilities shall be given a higher priority than recreational facilities. Commute trips are any trip with a utilitarian purpose such as bicycle trips to work, school, shopping, appointments, sporting events, recreational events, or entertainment events.
- Class II Bikeways (bike lanes contiguous to roadways) shall be the generally preferred facility in areas of developed roadways, primarily to serve commuters. Class I Bikeways (bike paths separated from roadways) shall be considered to close gaps that exist in the roadway system and to provide alternate routes that might be more desirable or safer, to serve both commuter and recreational bicyclists.
Special emphasis shall be given to transportation interfaces so that a bicyclist may employ multiple modes of transportation in reaching a destination.
- County bicycle facilities shall be developed with maximum flexibility and shall be developed in coordination with long-range transportation planning.
- County bicycle facilities planning shall be developed with maximum citizen, community, and local government involvement.
- Personal safety and security issues shall be addressed in the planning of individual bicycle facilities.

- Cost effective measures to provide safe and convenient bicycling shall be emphasized in the bikeway facility planning process. These can include removal of physical barriers and improved maintenance activities, such as pavement sweeping where required.
- The development of bicycle routes on levees or abandoned railroad road rights of way shall be considered as opportunities arise

Threats to Transportation Network

If left unimproved, the YCTD transportation system will remain unsafe for cyclists and pedestrians seeking to travel between communities. Failure to plan, design, and engineer a trail network will force more cars onto the road as the region's population and job centers grow, creating problematic congestion that will require expensive freeway expansions that are not sustainable fixes.

Capitalization

This planning project will enable YCTD to conduct scenario planning and fiscal impact analysis to understand the future impact of trail construction projects on public finances.

Maintenance & Operations

The planning project will enable YCTD develop an operation and maintenance plan for the proposed trail projects and to select alternatives that reduce operation and maintenance costs over the life cycle of the projects. The resulting trail projects will help shift traffic off of the road system, reducing vehicular wear and tear and preventing deterioration of the roadways. YCTD will work with SACOG and its member communities to work out operation and maintenance agreements for shared trail assets where appropriate.

Rural Transportation Infrastructure

This planning project will prioritize isolated, disadvantaged, and rural areas for the development of new, high quality transportation facilities. Yolo County's nearly 900 miles of roads provide a reliable network by which local farmers can move equipment, labor and supplies from field to field and transport their goods to processing plants and markets. However, many of the county's roads are in poor condition and increased traffic impedes the movement of slower farm equipment, thus affecting productivity. The Plan will consider the unique challenges presented in establishing a rural, multi-use trail systems on which farmers may move equipment, labor, and supplies. The Plan will contemplate rural bike and equestrian trails as a tourism promotion strategy that can spur visitor spending at restaurants, farm markets, orchards, and other destinations.

(E) Economic Competitiveness

Economic Benefits from Bike/Ped Infrastructure

The planning project will seek to develop trail alternatives that maximize the benefits derived from investment in bicycle and pedestrian infrastructure, such as increases in real estate values; economic stimulus from infrastructure construction; businesses profiting from increased foot traffic; time savings by pedestrians and cyclists, as well as drivers on less congested roads; cost savings from avoided driving and reduced fuel consumption; increased productivity due to improved health; and general gains in quality of life and more livable communities. These benefits are expected to multiply as the broader region creates additional trail connections. The project will

aim to concentrate these benefits in underserved areas where a lack of trail access compounds other barriers to economic opportunity.

Rural Economic Development & Agritourism

The economic shocks brought on by the COVID-19 pandemic have pushed California's farmers and ranchers to quickly embrace new business practices — including creative new ways to sell directly to consumers. Consumers' interest in local food and local outdoor experiences has grown immensely, creating an opportunity to leverage this new interest with better access to on-farm pickup options, visits to farm stands, U-pick operations, farm tours, horse parks, and tasting rooms.

The Yolo County General Plan Open Space & Recreation Element recommends the potential for a “farm trail” or other visitor serving activity in which visitors spend time moving between attractions with the same or similar theme. Currently the Putah-Cache Bioregion Project, based at UC Davis, promotes a “Circum-Drive Tour” that traverses the Putah-Cache Creek watershed encompassing parts of Yolo and surrounding counties. In Fresno County, the Blossom Trail is touted as an auto/motorcycle/bicycle trail that highlights the region’s agriculture and historical points of interest. In the community of Camino in Placer County, Apple Hill is a popular destination with numerous farms, orchards and wineries, which hosts events and maintains an organization to attract visitors. The almond festival in Esparto could be an incubator for a similar type of organization in Yolo County. [Visit Yolo](#) lists 23 farms, orchards, and ranches that attract visitors and host events. This planning project will contemplate the potential for driving agritourism to local farms through the bike trail network.

Figure 9. Agritourism Destinations listed on Visit Yolo



Direct Job Creation

This project is a top priority project for moving ahead with the YCTD transition to offering more expansive public transportation services beyond the Yolobus Transit service. This transition is creating three new full-time positions at YCTD who are expected to be fully hired by September – the Project Manager for Trails and Special Projects, the Grants & Procurement Specialist, and the Communications & Marketing Specialist. The project will also create up to two contracting

opportunities for community engagement and transportation planning/design consultants. Procurement for these contracts will adhere to all relevant local, state, and federal procurement policies. As a recipient of federal financial assistance from the FTA, YCTD is committed to and has adopted a Disadvantage Business Enterprise (DBE) Program in accordance with federal Regulations 49 CFR Part 26 issued by the DOT.

Secondary Criteria

(A) Partnership

This YCTD Bike & Pedestrian Trail Network Planning project builds upon YCTD's close partnership with SACOG and involvement with the Sacramento Region Parks & Trails Strategic Development Plan. The project enjoys broad community support from a range of stakeholders including:

- The Cities of Davis, West Sacramento, Winters, and Woodland.
- [Sacramento Area Council of Governments](#) commits to sharing its high-quality land use and transportation data to support the planning project; supporting YCTD's efforts to develop and implement equitable planning processes that amplify the voices of underserved communities; coordinating with regional partners, and providing additional technical assistance as needed to support the development of an equitable, sustainable trail network in Yolo County.
- [Breathe California Sacramento Region](#) – a public health nonprofit that fights for healthy lung conditions in the Sacramento region. BREATHE commits to make itself available in any way possible to ensure the trail system is built and done so equitably.
- [UC Davis](#) – a leader in higher education and world-class research – commits to participating in the planning process and providing substantial trail routing options, open to the public, through and across the UC Davis campus land which includes connections to downtown visitor areas in the City of Davis and at key crossing points at Interstate 80 and State Route 113.
- [UC Davis – UniTrans](#) – a part of UC Davis and a public transit partner to YCTD – commits to participating in the planning process and assisting in any way needed to help ensure success for YCTD and our community.
- [Putah Creek Council](#), which facilitates community stewardship and education along Putah Creek, will participate through promoting opportunities for public engagement, providing data to support the planning process, participating in community engagement and visioning workshops, and collaborating with local leaders to maximize multimodal links between communities.
- [Yolo Habitat Conservancy](#), which seeks to conserve natural and working landscapes, stands ready to assist in advancing this project with relevant data and/or technical consultation.
- [Yolo-Solano Air Quality Management District](#), which works to protect human health and property from the harmful effects of air pollution and commits to participating as an ongoing partner in the project.

Additional supporters who have committed to participating in planning, publicizing, and project engagement include the YCTD's Citizen Advisory Committee, the Bike Campaign, Yolo Mobility, The Sierra Club Yolo Group, West Sacramento Chamber of Commerce, Tulyome, Explorit Science Center, Sutter Davis Hospital, and Winters Healthcare. See attached *Support Letters* for additional detail.

(B) Innovation

Innovative Technology



Figure 10. E-Bike Charging Stations

The YCTD Bike & Pedestrian Trail Network Planning project will deploy innovative technology both in the planning process and in the implementation. Through its partnerships with SACOG and other local leaders, YCTD has access to a wealth of innovative data collection and analysis tools, including geospatial analysis, ridership databases, travel demand modeling, crash data, and qualitative data from surveys and engagement. YCTD will also work with the community engagement consultant to deploy innovative software for public interest design to engage residents and stakeholders in expressing their needs and visions.

Through the planning effort, YCTD will consider strategies for deploying innovative technology on its trail system, such as smart signs, advanced crosswalk warnings, solar Rectangular Rapid Flashing Beacons (RRFBs), e-bike charging stations, and trail/wayfinding apps. These technologies will enhance safety measures, generate energy savings, extend trip distances for users, and attract young users to the trail system.

Innovative Delivery

The planning project will contemplate the use of innovative approaches to congestion management, long-term maintenance, and environmental permitting and review to accelerate project delivery and achieve outcomes for the YCTD service area and the environment. The planning project will seek to design and engineer trail projects that minimize short- and long-term disruption to the surrounding landscape and require minimal maintenance overtime.

Innovative Financing

The planning project will consider innovative methods for financing trail construction and maintenance, such as painting and placing parking meters at trailheads to solicit donations and user fees (see [Steamboat Springs](#)) or exploring outdoor recreation outcomes-based financing (see Athens, Ohio, [Environmental Impact Bonds](#)). The plan will include a funding strategy for leveraging state, federal, and other available resources to complete construction of the recommended trail projects.



Figure 11. Donation-based trail meters in Steamboat Springs

iv. Environmental Risk Review

(A) Project Schedule

The Phase 3 Planning will begin upon grant award, and the project will easily meet the statutory deadlines for obligating funds by June 30, 2024, and for expending all funds by September 30, 2029, as evidenced by the project schedule below.

Table 1. Project Schedule

		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Task	Timeline	2022				2023			
Project Management	Jan '22 – Dec '23								
First Stakeholder Meetings & Open Houses (Visioning)	Jan '22 – Feb '22								
Existing Condition Assessment	Feb '22 – Apr '22								
Topographic & Utility Survey	Mar '22 – May '22								
Alternatives Development & Preliminary Design	Jun '22 – Nov '22								
Environmental Investigation	Dec '22 – Feb '23								
Second Stakeholder Meetings & Open Houses (Alternatives Selection)	Feb '23 – Mar '23								
100% Level Design & Engineering	Mar '23 – Oct '23								
Project Acceptance/Clearance	Oct '23 – Nov '23								
Planning Project Closeout	Dec '23								

(B) Required Approvals

i. Environmental Permits & Reviews

(a) NEPA Status

YCTD will work with the transportation planning/design consultant to conduct the NEPA process as part of the planning project for selected trail alternatives, as appropriate.

(b) Review, Approvals, & Permits by Other Agencies

YCTD will work with Caltrans, CalEPA, California Air Resource Board, California Office of historic Preservation (OHP), municipalities impacted by the project, and any other relevant agencies to conduct reviews, approvals, and permitting as part of the planning process for selected trail alternatives, as appropriate. For trail projects, required permits and approvals are expected to include SACOG MTP and CalEPA for NEPA and approval for ozone nonattainment, Caltrans NPDES permit, OHP for historical review, and CalEPA for NEPA.

(c) Environmental Studies

With DOT RAISE grant funds, the project team will advance the preliminary studies and analysis needed to conduct a thorough environmental analysis for selected trail alternatives. Environmental

review of proposed trails will demonstrate compliance with National Historic Preservation Act, Floodplain Management, Wetlands Protection, Endangered Species Act, Sole Source Aquifers, Air Quality, Farmland Protection Policy Act and Environmental Justice. YCTD will analyze the impacts to community facilities and services for any trail projects proceeding to full design.

(d) Discussion with Caltrans

YCTD will coordinate closely with CalTrans Region 3 throughout the planning project. YCTD has advanced data analysis to jumpstart the planning project with the assistance of a CalTrans Sustainable Transportation Planning grant that funded the YCDT “Planning Technician” program. YCTD will ensure that its proposed trail projects align with Caltrans goals and planning documents.

(e) Description of Public Engagement

As described in the *Statement of Work* section above, the YCTD Bike & Pedestrian Network Planning project will include extensive public engagement, especially of disadvantaged community members. Public participation will align with the YCTD Title VI Public Participation Plan, which recommends engaging the public at the earliest possible stage in any YCTD project.

The Communications & Marketing Specialist will work with the community engagement consultant to develop a plan for marketing and outreach to achieve maximum participation in public input activities. YCTD will deploy past successful outreach strategies, including:

Service information presentations – Presented to multilingual audiences throughout the service

- Senior centers – Regular visits to local senior centers to deliver large-format posters/notices about engagement opportunities and to host engagement discussions/surveys.
- Hospitality-centered outreach – YCTD has worked with local vendors throughout its service area to publicize public engagement opportunities to local hotels and hospitality businesses.
- Educational institutions – YCTD works closely with regional partner UC Davis, Los Rios Community College, and Yuba Community College. These partnerships include regular site/field visits and delivery of notices and promotional materials. Further, CTD works with local elementary, secondary, and post-secondary education centers to distribute and promote service information and could work to engage youth in public input for the Plan.
- Media releases – YCTD will release notices about public engagement for the Plan in local newspapers and media contacts.
- Social Media – YCTD maintains social media accounts that enable staff to promote public input opportunities. Accounts include Facebook, Twitter, Yobus Live and Yobus Alert!
- Community event participation – YCTD will consider participating in community events to boost public participation in the planning process.
- As Spanish Limited-English Proficiency (LEP) persons account for nearly 64% of all LEP persons in Yolo County, efforts will be made to ensure Spanish-language outreach and engagement materials are made available throughout the services area.

ii. State & Local Approvals

The project is supported by Caltrans Region 3 and SACOG and will be incorporated into the STIP when funded. As referenced above, the project builds directly upon SACOG’s Sacramento Region Parks & Trail Strategic Development planning effort. See SACOG’s support letter for reference.

iii. Federal Approvals

The YCTD Bike & Pedestrian Trails Network Planning project will ensure that all federal transportation requirements affecting state and local planning are met within the development and engineering of trail improvements. This will include incorporating selected projects into the STIP before construction.

(C) Assessment of Project Risk and Mitigation Strategies

The YCTD Bike & Pedestrian Trail Network Planning project is fully ready to begin upon grant award. The limited project risks identified are not expected to affect the likelihood of a successful start and completion of the planning effort. The YCTD Board of Directors has approved the local match for this project (see the attached *Non-Federal Funding Commitments*). SACOG's ongoing involvement in the project will ensure effective coordination between regional, state, and federal transportation agencies, as well as expert oversight for all data analysis, engineering and design activities. The project team will establish performance measures in order to track and share progress with key stakeholders and the community, including through posts to YCTD's webpage and social media accounts. The project team is ready to advance the project according to the Project Schedule, which estimates that the planning project will be complete by December of 2023.

YCTD has extensive experience with administering major transportation infrastructure grants, including FTA and FHWA grants. YCTD has never been cited for an adverse OMB Circular A-133 audit finding and has never been required to comply with "high risk" terms or conditions under OMB Circular A-102.

Project risks for the construction of the priority trail projects will be evaluated throughout the planning, engineering, and design process. The project deliverables for priority trail projects will include all necessary permitting and approvals. YCTD will work with its partners to develop a project financing strategy for the full construction of priority trail projects, which are estimated to cost approximately \$20 million.

VI. Benefit-Cost Analysis

As a planning project, the requirement for a Benefit-Cost Analysis (BCA) is not applicable to the YCTD Bike & Pedestrian Trail Network Planning project. However, a preliminary assessment of potential benefits of the project indicates that the resulting construction of trail connections will have positive and significant safety benefits (avoided PDO, injury, and fatality accidents), environmental benefits (reduced VMT resulting in reduced pollution and reduced emissions, improved stormwater management), travel time savings due to reduced congestion, improved natural and human environments (increased connectivity, improved public health, noise reduction), and maintenance/operational cost savings.