



Sustainably Connecting East Bay Communities

EXPANDING EQUITABLE ACTIVE TRANSPORTATION



Submitted by: East Bay Regional Park District, A California Special District

Type of Project: Bicycle/Pedestrian and Public Transit Access

Location: Alameda and Contra Costa Counties, State of California

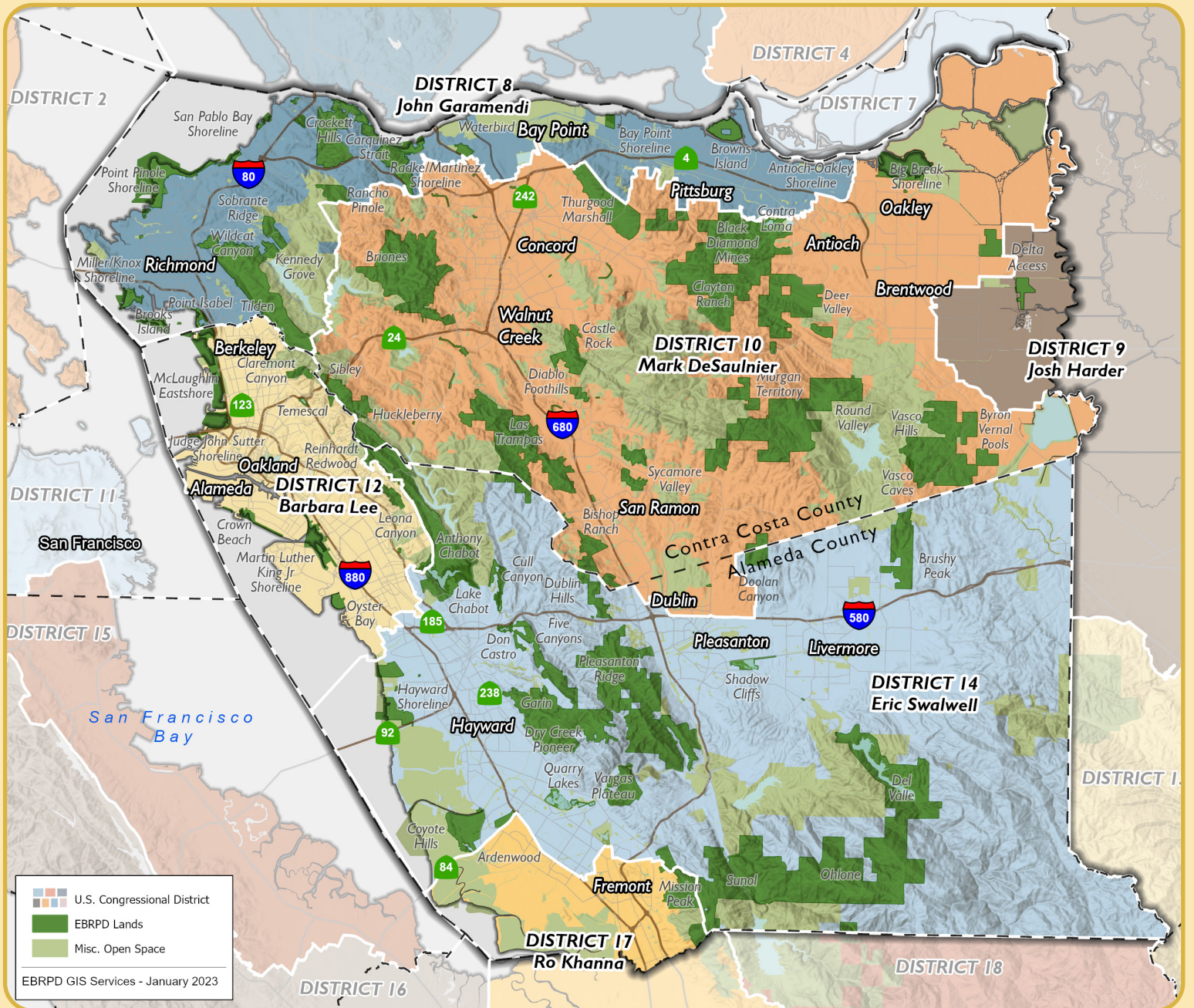
Total Project Cost: \$23,700,000

Matching Funds: \$4,760,000

GRANT REQUEST: \$18,940,000

MISSION STATEMENT

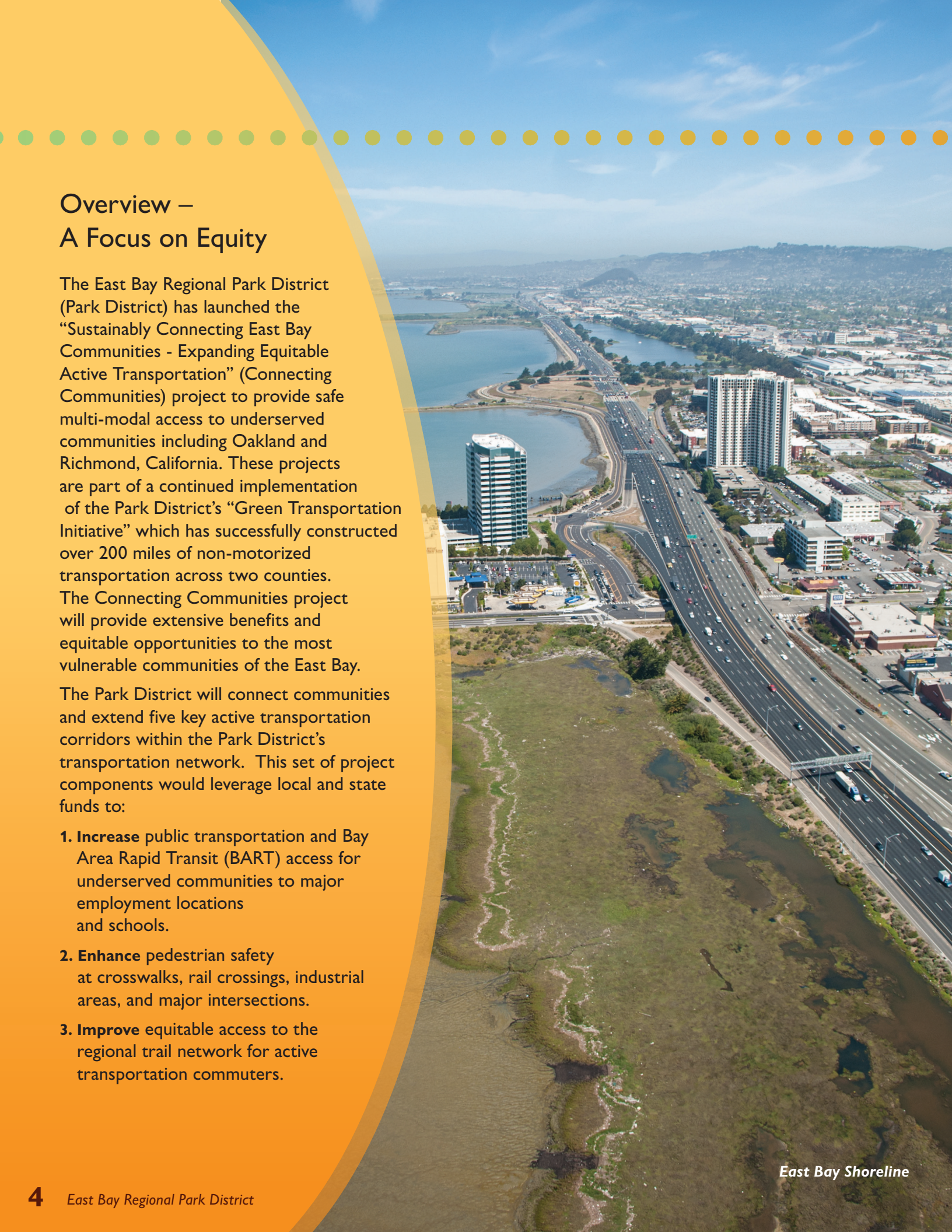
The East Bay Regional Park District preserves a rich heritage of natural and cultural resources and provides open space, parks, trails, safe and healthful recreation and environmental education. An environmental ethic guides the District in all of its activities.



A congressional district's map of the East Bay Regional Park District's two counties.

Table of Contents

	Page
Overview – A Focus on Equity	4
PART I: Project Description and Location	5
<i>** Federal Wage Rate Certification stated in this section **</i>	
PART II: Grant Funds and Sources/Uses of Project Funds ..	12
PART III: Selection Criteria	13
A. Safety	
B. Environmental Sustainability	
C. Quality of Life	
D. Mobility and Community Connectivity	
E. Economic Competitiveness and Opportunity	
F. State of Good Repair	
G. Partnership and Collaboration	
H. Innovation	
i. Innovative Technologies	
ii. Innovative Project Delivery	
iii. Innovative Financing	
PART IV: Environmental Risk Review	20
A. Project Schedule	
B. Required Approvals	
i. Environmental Permits and Reviews	
ii. State and Local Approvals	
iii. Federal Transportation Requirements	
Affecting State and Local Planning	
iv. Assessment of Project Risks and Mitigation Strategies	
PART V: Benefit Cost Analysis Summary	23
Appendices	Attached Separately
Appendix A: Benefit/Cost Analysis	
Appendix B: Funding Commitment letters	
Appendix C: Letters of Support	
Appendix D: Environmental Status Review	



Overview – A Focus on Equity

The East Bay Regional Park District (Park District) has launched the “Sustainably Connecting East Bay Communities - Expanding Equitable Active Transportation” (Connecting Communities) project to provide safe multi-modal access to underserved communities including Oakland and Richmond, California. These projects are part of a continued implementation of the Park District’s “Green Transportation Initiative” which has successfully constructed over 200 miles of non-motorized transportation across two counties.

The Connecting Communities project will provide extensive benefits and equitable opportunities to the most vulnerable communities of the East Bay.

The Park District will connect communities and extend five key active transportation corridors within the Park District’s transportation network. This set of project components would leverage local and state funds to:

1. **Increase** public transportation and Bay Area Rapid Transit (BART) access for underserved communities to major employment locations and schools.
2. **Enhance** pedestrian safety at crosswalks, rail crossings, industrial areas, and major intersections.
3. **Improve** equitable access to the regional trail network for active transportation commuters.

PART 1: Project Description and Location

BACKGROUND

In the mid-1970s, the Park District pioneered the concept of developing an integrated network of paved bicycle and pedestrian trails linking the 33 cities throughout the East Bay. Working closely with local and regional transportation planners and transit agencies, the Park District has developed over 200 miles of paved, non-motorized trails. These “Green Transportation” corridors provide “last mile” connections to transit, as well as access to schools, employment centers and businesses. Additionally, they provide a low-cost transportation option for commuters who have income restraints and/or prioritize a healthy and environmentally sustainable choice. In 2010, the Park District received a highly competitive Federal TIGER II grant of \$10.2 million to extend this non-motorized transportation network. Providing safe and equitable non-motorized alternatives for commuters, students, employees and shoppers reduces highway congestion, greenhouse gases and dependence on fossil fuel. This in turn creates liveable communities and provides the equitable opportunities for a healthy lifestyle close to home. Due to the San Francisco Bay Area’s mild climate, these transportation alternatives can be used year-round.

In addition to managing paved active transportation trails, the Park District serves 2.8 million East Bay residents covering Contra Costa County and Alameda County. With an expansive network in high demand – up to a 50 percent increase in use during the COVID-19 pandemic – it is a timely need for the Park District to have sufficient resources aimed at expanding the system.

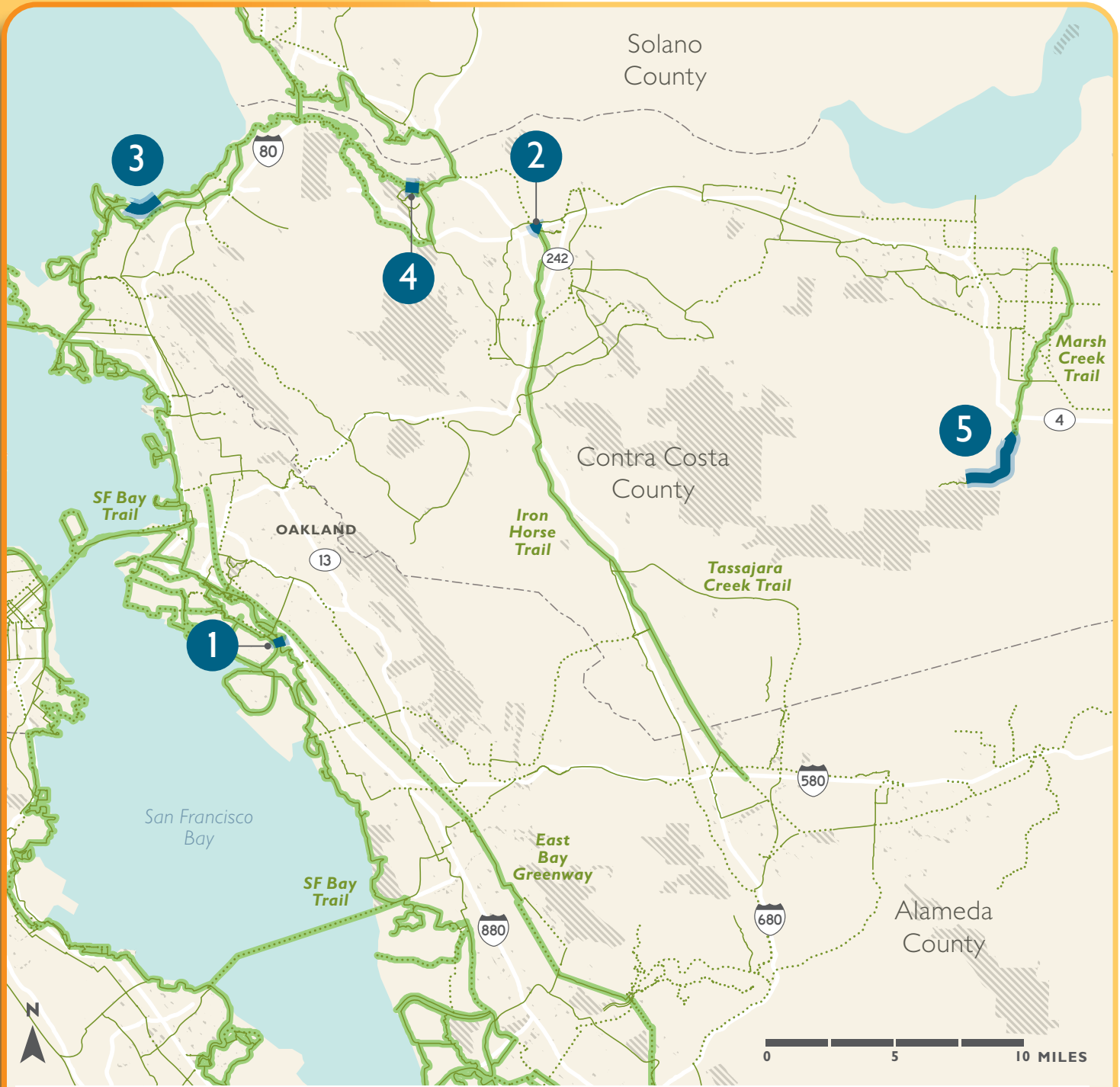
As the East Bay population continues to increase, the Park District is preparing innovative and equitable solutions to address the need for safe, low-cost, environmentally friendly transportation. The Park District recognizes addressing traffic congestion and air pollution is a high priority for many East Bay residents. With dramatic weather conditions affecting shorelines, the Park District also recognizes the role its trail network can play in addressing the impacts of sea level rise with safe, climate friendly Bay and Delta trail infrastructure.

The Connecting Communities project extends five critical corridors of the trail network. The five project components consist of trail extensions which will provide access to buses, the Bay Area Rapid Transit system (BART), Capitol Corridor commuter rail service and Amtrak, parallel to congested roads and highways. The project provides safe, low-cost active transportation access to schools, employment centers and commercial retail. The active transportation network serves an economically and ethnically diverse population including communities that have some of the highest rates of income and health disparities in the county. Providing low-cost, healthy transportation choices in crowded urban areas will improve the region’s economic competitiveness by reducing transportation and health care costs. It will also increase the mobility of the labor force by addressing existing barriers to access affordable and reliable transportation. Walking and bicycling are the most equitable and environmentally sustainable forms of transportation, are energy efficient and generate no greenhouse gases or other pollutants. The Connecting Communities project will support hundreds of well-paying American construction jobs while improving active transportation trail access and quality of life in underserved communities. Additionally, these projects directly improve the safety of communities. From 2015-2019, there have been 5,166 crashes involving pedestrians and cyclists within 3 miles of the Connecting Communities project and 878 crashes within 1 mile of the proposed projects.

Alameda and Contra Costa counties, situated on the eastern shore of San Francisco Bay in Northern California, are home to some of the most congested roads in the country. Hundreds of millions of dollars in local, state and federal funding is currently being spent to improve the region’s network of roads, bridges and mass transit facilities. However, given the expected 35 percent increase of the Bay Area’s population by 2050, even the most optimistic analysis conceded this will do little more than reduce the rate at which our overburdened transportation infrastructure continues to decline. Studies have shown that one of the most cost-effective ways to reduce congestion and the country’s dependence on imported oil, as well as reduce greenhouse gasses, is to get people out of vehicles and using active transportation networks instead.

The five transportation infrastructure project components contained in the Connecting Communities project intend to connect communities sustainably and equitably across a network of diverse and unique cities and counties. The projects included are the following:





EAST BAY REGIONAL PARK DISTRICT

Sustainably Connecting East Bay Communities – Expanding Equitable Transportation

- Unbuilt Regional Trails
- Existing Regional Trails
- Parks

- 1** Oakland Bay Trail Extension
- 2** Iron Horse Trail Extension – Concord to Benicia Bridge
- 3** Richmond Bay Trail Extension
- 4** George Miller Regional Trail to Martinez Intermodal Station Extension
- 5** Marsh Creek Trail Extension

PROJECT 1: OAKLAND BAY TRAIL EXTENSION

Project: Construction of a .1-mile paved multi-use connection from East Oakland to the new Brooklyn Basin development and the San Francisco Bay Trail.

Partners: Port of Oakland and City of Oakland

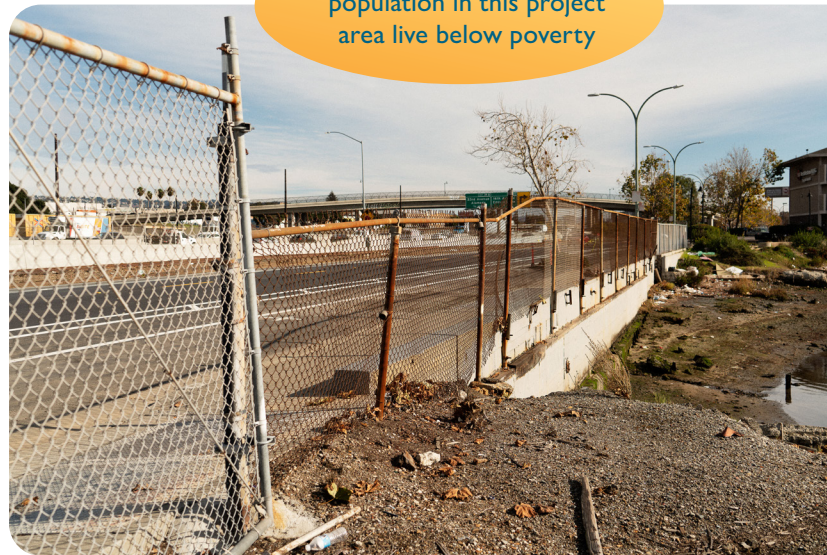
Community Benefits: The Brooklyn Basin was originally part of the Port of Oakland and is now being converted into homes and businesses. This trail will link the Basin to the Fruitvale neighborhood of Oakland and into East Oakland. The MTC ranked this community as Community of Highest Concern and according to a 2019 American Community Survey the project is located in a census tract for which 19 percent of the population lives below poverty. CalEnviroScreen scored this community as 89 percent vulnerable. Within a three-mile project radius, 32 percent of the population are youth and seniors and 9 percent of households do not have access to private motor vehicle. Between 2015-2019, there were 270 bike/pedestrian vehicles collisions within one-mile radius and 1,950 bike/pedestrian vehicles collisions within a three-mile radius of the proposed trail extension. This new connection will allow cyclists and pedestrians to access businesses and retail or use the Bay Trail for low-cost, active transportation and health. The Fruitvale BART station is less than three miles away from the project area.

The San Francisco Bay Trail Plan proposes development of a regional hiking and bicycling trail around the perimeter of San Francisco and San Pablo Bays. The Plan was prepared by the Association of Bay Area Governments and creates links to existing and proposed transportation facilities, provide connections to existing parks and recreation facilities, and be planned in such a way as to avoid adverse effects on environmentally sensitive areas. The plan proposes an alignment for what will become a 500-mile recreational “ring around the Bay.” At least 350-miles have already been completed. Only a few gaps remain in Oakland.

Total Project Cost: \$1.2 million | RAISE Funds Requested: \$940,000

19 percent of the population in this project area live below poverty

I Oakland Bay Trail Extension



PROJECT 2: IRON HORSE TRAIL EXTENSION – CONCORD TO BENICIA BRIDGE

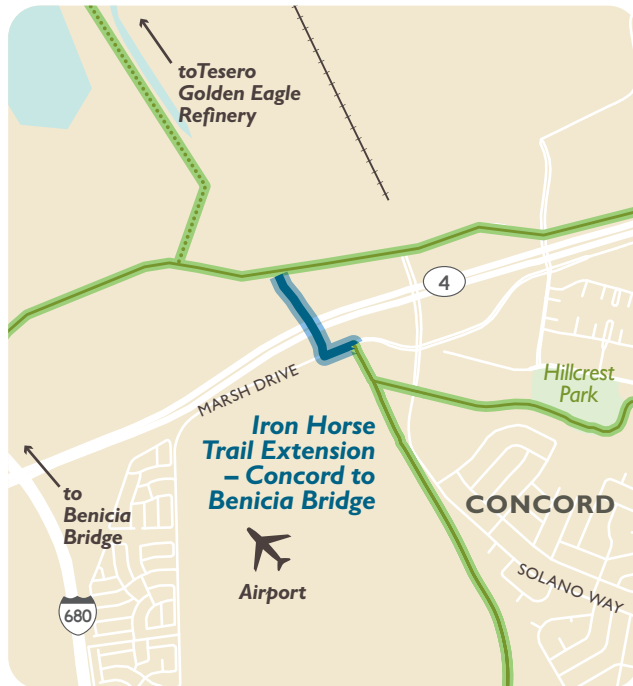
Project: Construction of a .25-mile paved multi-use trail extension of the Iron Horse Trail – Marsh Drive to Imhoff Drive. The project includes a safe signalized crossing and safety improvements of Marsh Drive. This is a key extension of the 34-mile paved trail paralleling Interstate-680 as identified in the 2020 Active Transportation Corridor Study. It would extend a previously funded TIGER II trail corridor.

Partners: Contra Costa County Water Conservation and Flood Control District

Community Benefits: Within a three-mile project radius, 3 percent of households do not have access to private motor vehicle and 34 percent of the population are youth and seniors. Between 2015-2019, there were 17 bike/pedestrian vehicle collisions within one-mile radius and 319 bike/pedestrian vehicle collisions within a three-mile radius of the proposed trail extension. CalEnviroScreen scored this community as 72 percent vulnerable. The proposed trail extension would connect communities and reduce current safety hazards. The Iron Horse Trail, designated as a National Millennium Trail in 2000, is one of the nation’s great Rails-to-Trails success stories. Located primarily within an abandoned rail corridor, the trail attracts over a million users per year along 34 miles of completed trail. It connects to four BART stations, 19 schools, one community college and multiple business parks – including headquarters for Chevron, AT&T, Kaiser Permanente and Shaklee.

Total Project Cost: \$1.2 million | RAISE Funds Requested: \$940,000

2 Iron Horse Trail Extension – Concord to Benicia Bridge



PROJECT 3: RICHMOND BAY TRAIL EXTENSION

Project: Construction of a .9-mile paved multi-use extension of the San Francisco Bay Trail from Pinole Point Business Park in Richmond – where companies including Amazon, Whole Foods and UPS distribution centers are located – to Point Wilson providing a connection to the Regional Intermodal Transportation Center (RITC) and Pinole Shores railroad overcrossing – two active transportation projects previously funded by TIGER II.

Partners: City of Richmond and Contra Costa Transportation Authority

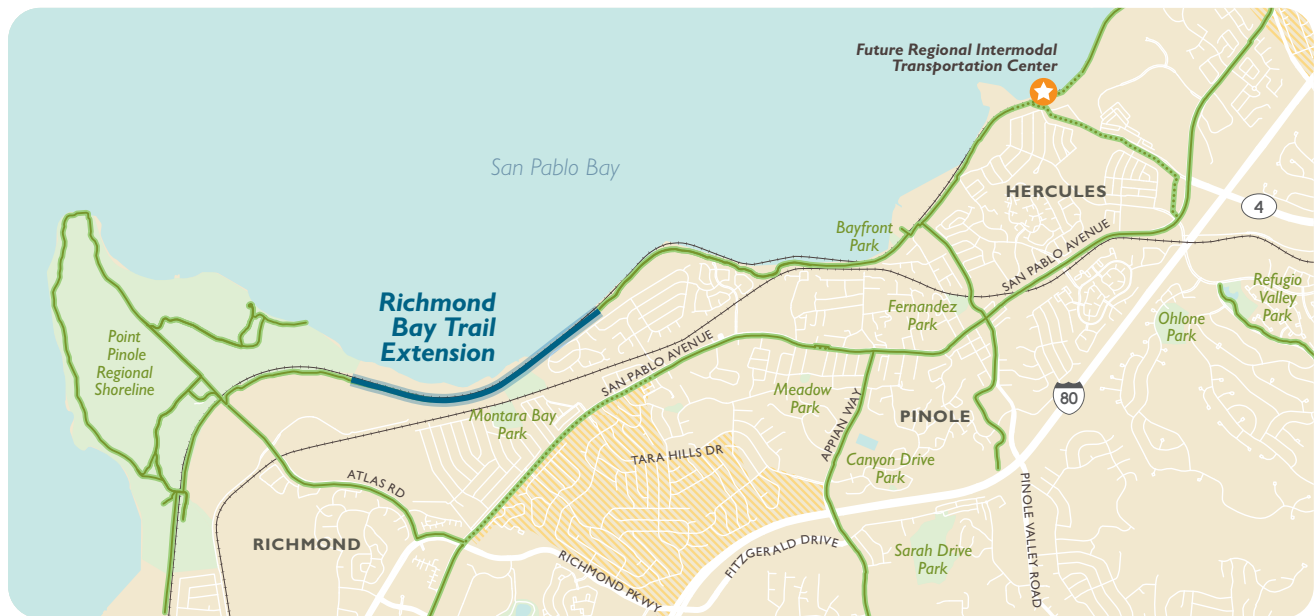
Community Benefits: Within a three-mile project radius, 2 percent of households do not have access to private motor vehicle and 35 percent of the population are youth and seniors. Between 2015-2019, there were 14 bike/pedestrian vehicle collisions within one-mile radius and 168 bike/pedestrian vehicle collisions within a three-mile radius of the proposed trail extension. CalEnviroScreen scored this community as 76 percent vulnerable.

The trail would connect to three modes of public transportation – rail, ferry and bus – at one convenient location along the waterfront in a growing community located at the San Pablo Bay shoreline. The trail also connects to the Bio-Rad Laboratories campus— the top employer in the City of Hercules. This trail segment has regional transportation benefits because it would complete the San Francisco Bay Trail between the City of Oakland and the City of Hercules, approximately 18 miles, paralleling one of the most congested stretches of Interstate 80. Additionally, it will safely connect communities to the proposed Regional Intermodal Transportation Center.

Total Project Cost: \$7.5 million | RAISE Funds Requested: \$6 million

34 percent of the population are youth and seniors in this project area.

3 Richmond Bay Trail Extension



PROJECT 4: GEORGE MILLER REGIONAL TRAIL TO MARTINEZ INTERMODAL STATION EXTENSION

Project: This project is a .5-mile paved multi-use trail extension of the San Francisco Bay Trail. It connects the TIGER II funded segment of the Bay Trail named after former U.S. Representative George Miller to the downtown Martinez intermodal station. The project includes pedestrian safety improvements to the at-grade railroad crossing of Berrellesa Street in Martinez. It closes a gap in the 23-mile Carquinez Strait Scenic Loop Trail and the 500-mile San Francisco Bay Trail. The project will construct a shared-use path along an agreed upon easement in the Union Pacific Railroad right-of-way between the Nejedly Staging Area in the Park District's Carquinez Regional Shoreline and Berrellesa Street in the City of Martinez.

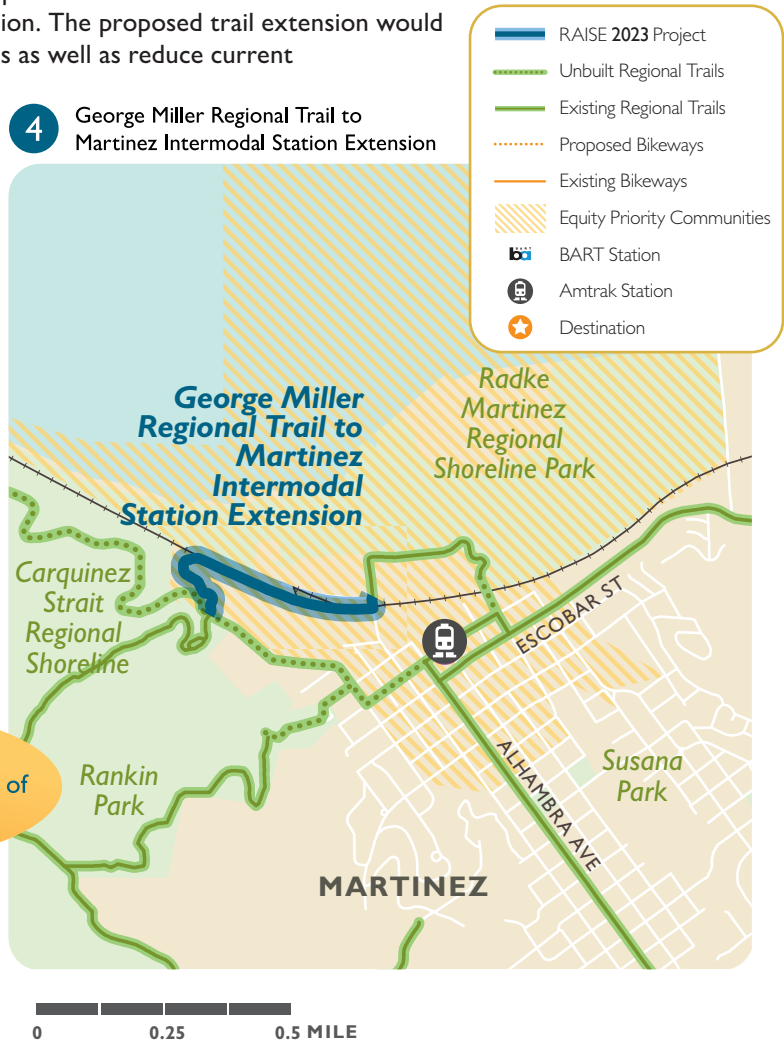
Partners: Contra Costa County, Union Pacific Railroad and City of Martinez

Community Benefits: Users of the new multi-use path will be able to connect to existing bicycle facilities in the Carquinez Regional Shoreline, as well as enable active transportation connections westward into the jurisdictions of Port Costa, Crockett, Benicia, Vallejo, and over 10,000 acres of parks and open space in Contra Costa County. As people travel along the new path eastbound into Martinez, crossing improvements will connect them to an existing pedestrian path leading directly to the Martinez Intermodal Station and Downtown Martinez. It will provide direct, equitable access to Amtrak, the Capitol Corridor commuter rail service to Sacramento, and regional bus service for the residents of Port Costa and Crockett. This project will make multi-modal work and recreation trip options safe and more convenient.

The MTC ranked this community as Community of Highest Concern. The median household income is \$31,000 in the downtown area versus \$102,966 citywide. CalEnviroScreen scored this community as 69 percent vulnerable. Within a three-mile project radius, 2 percent of households do not have access to private motor vehicle and 34 percent of the population are youth and seniors. Between 2015-2019, there were 24 bike/pedestrian vehicle collisions within one-mile radius and 103 bike/pedestrian vehicle collisions within a three-mile radius of the proposed trail extension. The proposed trail extension would equitably and sustainably connect communities as well as reduce current safety hazards. Completing this gap will create public health, economic and social equity benefits for residents within low-income communities, in addition to enhancing the mobility opportunities for residents. This project aligns with the community identified needs in the 2020 Martinez Community-Based Transportation Plan. The plan focuses on transportation improvements to address the mobility needs of economically disadvantaged communities in the City of Martinez.

Total Project Cost: \$3.5 million
RAISE Funds Requested: \$2.8 million

The MTC ranked this community as a Community of Highest Concern.



PROJECT 5: MARSH CREEK TRAIL EXTENSION

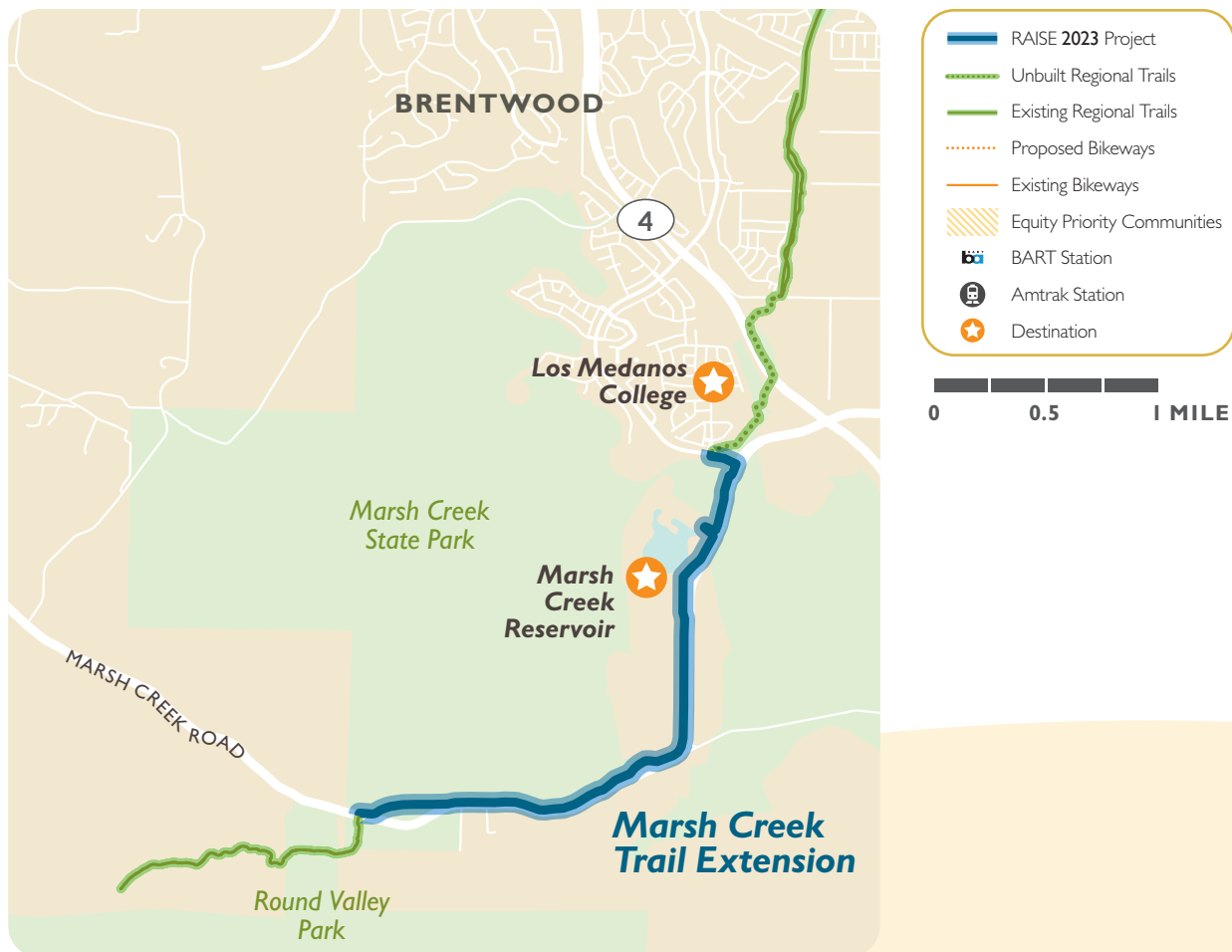
Project: The three-mile paved multi-use extension of the Marsh Creek Trail from the Vineyards Parkway in Brentwood, next to businesses and the Los Medanos College Brentwood Center reside, through Marsh Creek State Historic Park to Round Valley Regional Preserve.

Partners: California Department of Parks and Recreation, Contra Costa County Water Conservation and Flood Control and Contra Costa County

Community Benefits: Within a three-mile project radius, 44 percent of the population are youth and seniors. Between 2015-2019, there were 2 bike/pedestrian vehicle collisions within one-mile radius and 43 bike/pedestrian vehicle collisions within a three-mile radius of the proposed trail extension. The project is in a more rural community and CalEnviroScreen scored this community as 45 percent vulnerable. The project includes safety barriers near Marsh Creek Reservoir. It also provides a safe grade separated trail and wildlife crossing of the heavily used, high speed Marsh Creek Road in Contra Costa County. This connection will provide a low-cost, car-free alternative for Brentwood residents and visitors to access a popular outdoor recreation location.

Total Project Cost: \$8.5 million | RAISE Funds Requested: \$6.8 million

5 Marsh Creek Trail Extension



PART II: Grant Funds and Sources/Uses of Project Funds

The Park District is requesting a total of \$18,940,000 million from the RAISE grant program, out of a total project cost of approximately \$23,700,000 million. The budget will be allocated to different segments show in the table below.

Funding partners include the Regional Parks Foundation, West Contra Costa Transportation Authority, Association of Bay Area Governments, and the Contra Costa Transportation Authority. Sources of matching funds in the amount of \$4,760,000 have either been secured or pending, representing at least 20% of the total project cost. The total percentage of project costs requested of the RAISE grant program represents approximately 80% of the total project costs. Matching sources are all non-federal. Funding commitment letters are contained in Appendix B.

Federal Wage Rate Certification: The East Bay Regional Park District hereby certifies that it will comply with the requirements of subchapter IV of chapter 31 of title 40, United States Code (Federal wage rate requirements) as required by the FY 2010 Appropriation Act. This compliance includes, but it not limited to Prevailing Wage, Stipulations Required in Contract, Discharge of Payment and Overtime Pay.

GRANT FUNDS AND SOURCES/USES OF PROJECT FUNDS

PROJECT	Total Project Costs	Grant Funds Requested	Percent Paid by RAISE	Match*	Agency	Percent of Project	Uses
1. Oakland Bay Trail Extension	\$1.2M	\$940K	78%	–	–	78%	P,D,E,C
				\$260K	RPF	22%	P,D,E,C
2. Iron Horse Trail Extension - Concord to Benicia Bridge	\$3M	\$2.4M	80%	–	–	80%	P,D,E,C
				\$600K	EBRPD	20%	P,D,E,C
3. Richmond Bay Trail Extension	\$7.5M	\$6M	80%	–	–	80%	P,D,E,R,C
				\$800K	EBRPD	10%	P,D,E,R,C
				\$500K	WCCTAC	7%	P,D,E
			\$200K	CCTA**	3%	C	
4. George Miller Regional Trail to Martinez Intermodal Station Extension	\$3.5M	\$2.8M	80%	–	–	80%	C
				\$300K	EBRPD	8%	C
				\$200K	ABAG**	6%	C
				\$200K	CCTA**	6%	C
5. Marsh Creek Trail Extension	\$8.5M	\$6.8M	80%	–	–	80%	P,D,E,C
				\$1.2M	EBRPD	14%	P,D,E,C
				\$500K	CCTA**	6%	P,D,E,C
TOTAL	\$23.7M	\$18.94M	80%				

* All match sources are non-federal

** Pending approval

Uses Key

P – Planning

R – Right of Way

D – Design/Engineering

E – Environmental

C – Construction

Agency Key

EBRPD – East Bay Regional Park District

CCTA – Contra Costa Transportation Authority

ABAG – Association of Bay Area Governments

WCCTAC – West Contra Costa Transportation Advisory Committee

RPF – Regional Parks Foundation

PART III: Selection Criteria

The East Bay Regional Park District is the largest special park district in the nation, managing 73 beautiful parklands which span across 125,000 acres within the San Francisco Bay Area in California. The Park District substantially increases the region's quality of life and provides equitable access for essential outdoor activity. The Park District delivers sizeable economic value, environmental enhancements and health and social benefits to East Bay communities. Based on a comprehensive community survey of over 8,000 East Bay residents, 98 percent of respondents deemed the Park District to be a valuable resource.



New Bicycle and Pedestrian Trips:
16.05 Million



Vehicle Miles Traveled (VMT) Reduced:
3.9 Million Miles



CO2 Reduced:
1,700 Metric Tons



Overall Safety Benefits:
\$38.9 Million

A) Safety

Pedestrians and bicyclists are the most vulnerable users in our transportation systems. In a recent 5-year period in the East Bay (Alameda and Contra Costa Counties), there were 263 bicycle and pedestrian fatalities. By providing separated facilities for bicyclists and pedestrians, to high-speed roadways and active rail lines, the Connecting Communities project provides an equitable alternative to traversing busy roadways and rail corridors, thereby reducing the number of surface transportation related fatalities. From 2015-2019, there have been 5,166 crashes involving pedestrians and cyclists within 3 miles of the project and 878 crashes within 1 mile of the proposed project components. Therefore, the Connecting Communities project will also reduce the consequences and the severity of injuries resulting from surface transportation-related crashes involving bicyclists when they do occur. Injuries resulting from crashes within non-motorized corridors are typically less severe than those involving automobiles, trucks and trains.

All of the proposed project components consist of the creation of a Class I multi-use trail along multiple East Bay corridors. The trails will create a physical barrier which will reduce the likelihood of future crashes or fatalities of the most vulnerable users along these trails. From 2015-2019, there were 28 bicycle and pedestrian crashes, including four fatalities, in the immediate vicinity of the proposed project components. By creating a separated and designated space for people walking and biking without requiring them to share the road with vehicles, the proposed improvements are expected to directly reduce the risks of the annual average of 5.6 bicycle and pedestrian crashes along the project components. The Park District's estimate of safety benefits from the Connecting Communities project is \$38.98 million over the analysis period. The average annual cost is \$7.8 million.

Additionally, two of the project components within the Connecting Communities project, the George Miller Regional Trail to Martinez Intermodal Station Extension and the Richmond Bay Trail Extension, will construct bicycle and pedestrian facilities that parallel active heavy rail lines in western Contra Costa County.

B) Environmental Sustainability

According to the Environmental Protection Agency, greenhouse gas concentrations in the atmosphere are at record high levels. For every gallon of gasoline burned in cars and trucks, 20 lbs. of CO₂ are released. By providing sustainable, healthier and reliable alternatives to driving vehicles, the Connecting Communities project will reduce greenhouse gases in communities with the highest pollution burden, increase modal shifts from vehicles to non-motorized transportation and reduce congestion caused by vehicle traffic. The Bay Area’s population is forecasted to increase 35 percent by 2050. Investing in active transportation facilities is vital to prevent the degrading and overcrowding of these essential community resources (MTC Plan Bay Area 2050). By improving these facilities and providing more equitable access to these areas, historically disinvested communities and people with disabilities will see the numerous benefits.

For example, the Richmond Bay Trail Extension project component will provide a connection to the Regional Intermodal Transit Center (RITC) which will cut the distance the residents in surrounding communities need to travel to reach the RITC from over two miles to less than one. Studies show that providing these “last mile” connections to transit are critical to encouraging a mode shift away from private vehicles to transit.

The Connecting Communities project is located in communities that have historically been disproportionately burdened by environmental pollution and face health and economic challenges. Four out of the five proposed project components are located within census tracts with high CalEnviroScreen 3.0¹ scores of over 50 percent and one out of the five project components are in SB 535 Disadvantaged Communities². Furthermore, two of the proposed project components, the George Miller Regional Trail to Martinez Intermodal Station Extension and the Oakland East Bay Greenway Trail Extension, are in the Highest category of MTC’s Communities of Concern.

CALENVIROSCREEN 3.0 SCORE, SB 535 DISADVANTAGED COMMUNITIES, AND MTC EQUITY PRIORITY COMMUNITIES IN PROJECT AREA

Project Component	CalEnviroScreen 3.0 Score	SB 535 Disadvantaged Communities	MTC Equity Priority Communities ³
Oakland Bay Trail Extension	89%	X	X
Iron Horse Trail Extension – Concord to Benicia Bridge	72%	-	
Richmond Bay Trail Extension	76%	-	
George Miller Regional Trail to Martinez Intermodal Station Extension	69%	-	
Marsh Creek Trail Extension	45%	-	X

¹ CalEnviroScreen is a mapping tool that uses a science-based method for evaluating multiple pollution sources in a community while accounting for a community’s vulnerability to pollution’s adverse effects. The tool uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. An area with a high score is one that experiences a much higher pollution burden than areas with low scores.

Website: <https://oehha.ca.gov/calenviroscreen>.

² Senate Bill 535, directs 25 percent of the proceeds from the Greenhouse Gas Reduction Fund go to projects that provide a benefit to disadvantaged communities. Disadvantaged communities are defined as the top 25% scoring areas from CalEnviroScreen along with other areas with high amounts of pollution and low populations.

Website: <https://oehha.ca.gov/calenviroscreen/sb535>.

³ Metropolitan Transportation Commission (MTC) Equity Priority Communities from Plan Bay Area 2050. The data set was developed using American Community Survey 2014-2018 data for eight variables considered. These features were formerly referred to as Communities of Concern (CoC).

Website: <https://opendata.mtc.ca.gov/datasets/MTC::equity-priority-communities-plan-bay-area-2050/about>

The Benefit Cost Analysis (BCA) estimates that the Connecting Communities project will provide \$206,000 in environmental sustainability benefits due to reduced air pollution from reducing automobile trips over the BCA analysis period. This includes the reduction of 1,700 metric tons of CO₂. The adverse impacts of the use of fossil fuel on air and water quality are well known. Hydrocarbon emissions include nitrogen oxide, carbon monoxide and benzene. These include global warming, ozone depletion, crop damage, reduced visibility, the deterioration of buildings and acid rain. As shown above, the Connecting Communities project will significantly reduce gasoline consumption in the East Bay, leading to a reduction in its environmental impacts.

C) Quality of Life

As detailed in the attached BCA, the Park District's estimate of quality-of-life benefits from the Expanding Equitable Active Transportation – Sustainably Connecting East Bay Communities project is approximately \$64.1 million. These benefits are derived from the estimated number of people who will become newly active after the proposed project is constructed and the associated healthcare savings.

Connecting Communities project provides extensive benefits and opportunities to the most vulnerable communities of the East Bay. George Miller Regional Trail to Martinez Intermodal Station Extension project component will provide transit connectivity to Amtrak and regional and local bus service to several automobile-dependent communities, particularly low-income residents within Census Tract 3160. These new bicycle and pedestrian facilities will reduce the distances between these essential destinations and encourage residents to exercise, which over time may result in reduced obesity rates, cardiovascular disease and diabetes.

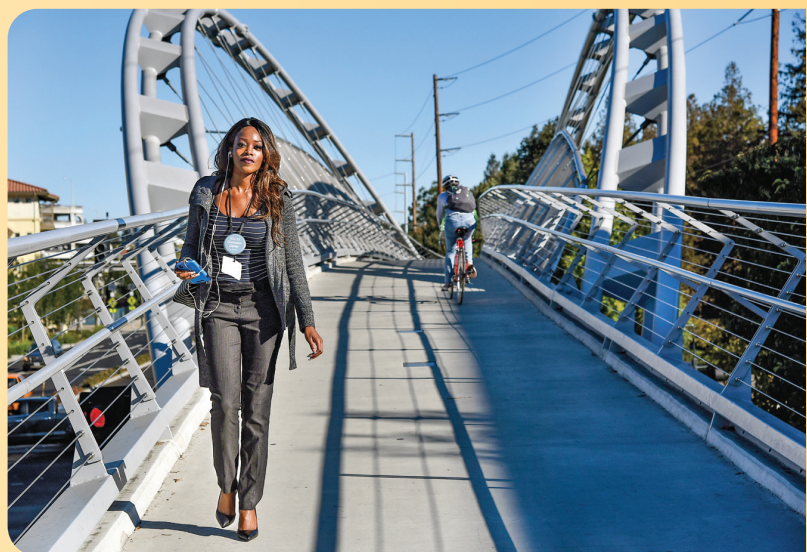
The proposed projects will connect people walking and biking on regional trails to an additional 6,584 acres across the East Bay that they do not currently have access to on existing trails.⁴ These new facilities will provide residents with opportunities for psychological and physical health. The Center for Disease Control (CDC) recommends that people engage in moderate exercise equating to at least 30 minutes a day for 5 days a week, and 19 percent of Californians do not currently meet these guidelines. There have been several studies that have found that when people use trails as a form of physical activity, they have a 50 percent increased chance of meeting the CDC recommendations for exercise.⁵

D) Mobility and Community Connectivity

The Connecting Communities project components would integrate new or improved equitable public access to trails in communities that have historically lacked access to safe transportation options to reach important destinations in their community.

The 149,229 residents living within one mile of the Connecting Communities project components will be provided with low barriers to low-cost access, new and enhanced non-motorized transportation alternatives. The health and economic benefits of the Connecting Communities project are magnified in that implementation of the project components completes a network of non-motorized transportation corridors that are also benefiting the 532,027 employees working within 1 mile of the existing trails. By connecting communities to existing and proposed rail stations, bus stops, ferries and the region's transportation networks, all of which currently provide facilities for bicycles, commuters will be encouraged to walk or bike that "last mile". Low-income residents, wheelchair users and seniors will benefit from improved, low-cost access to jobs, healthcare, schools and transit.

Every segment of the Connecting Communities project has been the subject of an extensive planning process with significant public involvement particularly with residents from underserved and disadvantaged communities within the project areas.



⁴ Refer to the Benefit-Cost Analysis Technical Appendix for a description of how these estimates were calculated.

⁵ East Bay Greenway Health Impact Assessment (pg. 10-12). Website: pewtrusts.org/-/media/assets/2007/09/wwwhealthimpactprojectorgresourcesdocumenteastbaygreenway.pdf

E) Economic Competitiveness

The Connecting Communities project would strengthen the region economically with job creation, increased local spending with the revitalization of key destinations, and an increase in efficiency in the movement of workers throughout the East Bay and beyond. The total number of construction jobs supported by the Connecting Communities project is estimated to be 364 job years.⁶ Due to the global COVID-19 pandemic, unemployment numbers have been higher than previous decades. The Bay Area has been deeply impacted by the pandemic and in 2020, the Bay Area lost over 150,000 jobs (MTC Plan Bay Area 2050). By the year 2050, the region is forecasted to add 1.4 million new jobs, with a total of 5.4 million employees in the Bay Area. The proposed project will support the expected growth in the region and provide more equitable access to transit, jobs, healthcare and places for essential outdoor activities.

Housing and transportation costs for people living along the proposed project's trails are at least 35 percent of their total income. The proposed project will significantly reduce the volume of traffic on roads alongside these corridors with installation of dedicated Class I multi-use trails. As a result of the reduced levels of congestion, people living and working within these communities will be able to get around more efficiently and reliably.

The Benefit-Cost Analysis estimates the project will produce \$2.06 million in economic competitiveness benefits. The proposed project is expected to reduce vehicle miles traveled in the project area, resulting in lower household transportation costs and reduced congestion.

Many of the project components are integrated into regional-scale projects and the increase in economic activity will extend rapidly beyond the scope of this transportation-related effort. Enhanced by improved access to local and regional transit networks, transit oriented residential and commercial developments planned adjacent to these corridors will add jobs and other economic activity, and revitalized waterfront and urban communities will see an expansion of their local economies.

The East Bay Regional Park District's Improvement Projects Economic and Social Impact Analysis by Beacon Economics identified large infrastructure projects to have direct, indirect and induced benefits. The analysis provided estimates for over 90 upcoming green infrastructure projects. The one-time impact for these projects would be \$214.4 million in economic output, 1,199 job years of employment, \$107.1 million in labor income and \$25.4 million in tax revenue. Annually, the completed projects support \$23.7 million in economic output, 131 job years, \$13.4 million in labor income and \$3.6 million in tax revenue.



⁶ Job year is defined as one year of employment for one individual.

F) State of Good Repair

One of the primary strategies used by the State of California, the Metropolitan Transportation Commission and local transportation managers to improve the condition of existing transportation facilities is to encourage alternatives to single occupant vehicle travel. The Metropolitan Transportation Commission's Plan Bay Area 2040 for the San Francisco Bay Area, adopted in April 2017, states, "The program's primary objectives are to invest in strategies that reduce transportation related emissions and vehicle miles traveled and encourage the use of cleaner fuels through incentives, education, policies and programs. The Climate Initiatives Program focuses on two primary strategies... including bicycle and pedestrian networks, transit, targeted transportation alternatives..." Implementation of the Connecting Communities project will advance all of the MTC's stated goals, thereby reducing wear and tear on existing roads and highways and minimizing life-cycle costs. By upgrading the regional trail network throughout the East Bay, the Connecting Communities project components improve transportation efficiency, promotes economic growth by reducing commute times and cost and increases mobility access for residents that are most in need of the East Bay.

As detailed in the attached Benefit-Cost Analysis, the Park District's estimate of the state of good repair benefits from the Connecting Communities project is \$279,100 in reduced roadway maintenance costs.

The Park District is committed to developing, operating and maintaining accessible parklands to best meet the needs of the East Bay's residents. In order to provide for continued preservation of natural habitats and environments, while creating new access to open space adjacent to urban areas, the Park District is currently undertaking over 120 improvement projects, including land acquisitions, new trail construction and enhancements to existing services.

The Park District's Pavement Management Program uses data-driven analysis to maximize the impact of funding to reduce the long-term costs of maintaining pavement, bridges, signage and other non-motorized transportation assets. The Park District benefits from several secure and sustainable sources of revenue to fund long-term operations and maintenance of the Connecting Communities project. The Park District's General Fund is funded via local property taxes from the tax base within Alameda and Contra Costa counties. This is the Park District's largest revenue source for operations and maintenance. The Park District's Two-County Trails Assessment Park District is a supplementary revenue source, providing \$4.2 million for maintenance of the Park District's trails. Total 2022 revenue from all sources exceeds \$242 million, with \$105.4 million budgeted for operations and maintenance, of which \$3.5 million is budgeted specifically for operations and maintenance of active transportation trails.

G) Partnership and Collaboration

The Connecting Communities project demonstrates:

- Strong collaboration among a broad range of stakeholders in project development and funding, including among neighboring or regional jurisdictions, and with the private sector.
- Equity-focused community outreach and public engagement in the project's planning in underserved communities
- Coordination with economic development, affordable housing projects, water and waste infrastructure, power and electric infrastructure, broadband and land use plans and policies or other public service efforts

As a two-county agency serving 33 unique communities, the East Bay Regional Park District is proud of its long history of partnership. For the Connecting Communities project, Park District staff has been in strong communication with the Alameda County Transportation Commission, Contra Costa County Transportation Authority, the City of Oakland, Port of Oakland, City of Richmond, City of Martinez, and the Union Pacific Railroad. Each project component has specific partners based off geographic location and jurisdiction and noted in the project component descriptions.



The Park District's services and resources have significant and environmental impacts on visitors and surrounding communities. The parklands provide for many essential outdoor activity and education programs to help families, community groups and individuals to connect with the East Bay's natural areas.

The Connecting Communities project is a collaborative effort between the Park District and its federal, state, local and non-governmental partners. Financial commitments for the projects have been secured or pending approval from non-federal sources, including the Contra Costa Transportation Authority, Association of Bay Area Governments, and the Regional Parks Foundation. The Park District's own bond measures and funds have also provided significant funding for the Connecting Communities project.

As detailed in the application, the Park District has secured or has pending \$4,760,000 million in matching funds for the Connecting Communities project. RAISE Grant funding in the amount of \$18,940,000 million will complete



the overall financing package, putting hundreds back to work while getting them out of their cars. Due to competing demands on local and state transportation funding and the economic impacts of the COVID-19 pandemic, additional local funding is unlikely, and the project cannot be readily and efficiently completed without federal assistance. It should be noted, however, that each of the five sub-projects can be completed independently, and each provides significant benefits to its local community.

For nearly 40 years, the Park District has partnered with non-transportation related public agencies to develop East Bay's non-motorized transportation network. Because the benefits to the community resulting from the implementation

of Connecting Communities project extend beyond the traditional disciplinary boundaries of transportation agencies, the project has attracted a wide range of support from federal, state, regional and local public agencies.

For example, because the Connecting Communities project will result in a reduction in greenhouse gases that will impact the rate of sea level rise it is supported by both the Contra Costa County Flood Control and Water District and the Alameda County Flood Control and Water Conservation Districts. County and city redevelopment agencies have also provided support for the initiative. The Housing Authority of Alameda County supports the efforts of the project to provide improved access to transit for several low-income communities, such as the Oakland East Bay Greenway Trail and the Oakland Bay Trail. The Connecting Communities project is critical to the success and livability of these new urban communities. The Bay Area Quality Management District and Regional Water Quality Control Board have also provided support for the project as it will reduce vehicle miles travelled by providing safe, high quality alternatives to the automobile will improve both our water and our air.

The vision of the Connecting Communities project could not be implemented without the support and partnership of a wide spectrum of public agencies. These partnerships create synergies resulting in projects that provide multiple, sustainable benefits to the community, the environment and the economy.

H) Innovation

The Connecting Communities project demonstrates innovation through:

- Safety, particularly in relation to automated vehicles or ITS; includes work zone data exchanges.
- Technology, including operational performance of transportation systems and broadband deployment,
- Innovative project delivery, including public-private partnerships (P3s), local hiring provisions, etc.
- Environmental permitting and review to accelerate project delivery and achieve improved outcomes for communities and the environment.
- Funding and finance, including by use of private sector financing or congestion pricing.

i. Innovative Technologies

The project demonstrates innovation by providing a network for non-motorized transportation choices to improve the condition of existing transportation systems, enhance economic competitiveness, create more equitable communities and improve energy efficiency, while creating nearly 360 good-paying American jobs.

The Park District's Climate Smart Initiative advances adaptive management to keep parks, shorelines, lakes and trails maintained in the face of challenges arising from climate change. The Park District is supporting this initiative in a number of ways, including the issuing of Certified Green Bonds to generate funding for acquisition habitat restoration, trail construction and shoreline protection from rising sea levels.

For the past 85 years, local, state, and federal transportation agencies have attempted to “build” their way out of congestion, construction more roadways, adding more lanes to existing highways and bridges, and creating more parking lots to accommodate private automobiles. Yet the condition of our transportation infrastructure continues to decline, caused in large part by the ever-increasing number of automobiles clogging our streets and highways. This innovating use of existing non-motorized corridors paralleling major highways and connecting jobs, housing and transit can reduce the number of cars on our roads and highways, improving the condition and accessibility of existing transportation infrastructure at a fraction of the cost of new highway construction. The Connecting Communities accomplishes this through trail extensions.

ii. Innovative Project Delivery

As detailed in the Project Schedule, the funds can be spent immediately upon receipt, and continue to be spent at a steady rate until the end of the first quarter in 2027. Construction on the first project component is scheduled to begin in the first quarter of 2024 and continue through project completion in the first quarter of 2027.

iii. Innovative Financing

The Connecting Communities project also demonstrates innovation in its funding strategy. Existing non-motorized corridors within the East Bay were developed in silos. The project combines funding from a variety of transportation, livable communities, recreation and natural resource enhancement sources to “connect the dots,” completing a region-wide seamless network of nearly 200 miles of paved trails connecting 33 cities within Alameda and Contra Costa counties. An active transportation network which began in the 1970s is still expanding!



Photo: Terry Sims

PART IV: Environmental Risk Review

A) PROJECT SCHEDULE

Planning and environmental approvals for all the projects contained in the Connecting Communities project are currently underway. Since project initiation is complete, the Connecting Communities project projects can quickly begin upon the award of a RAISE grant. As detailed in the Project Schedule, the funds can be spent immediately upon receipt, and continue to be spent at a steady rate until the end of the first quarter in 2027. Construction on the first project component is scheduled to begin in the second quarter of 2024 and continue through project completion in the first quarter of 2027.

PROJECT SCHEDULE																				
YEAR	2022				2023				2024				2025				2026			
QUARTER	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
1. Oakland Bay Trail Extension	P	P	E	E	D	D	D	C	C	C	C									
2. Iron Horse Trail Extension – Concord to Benicia Bridge	P	P	P	E	E	D	D	D	C	C	C	C	C							
3. Richmond Bay Trail Extension	P	P	P	R	R	E	E	D	D	C	C	C	C							
4. George Miller Regional Trail to Martinez Intermodal Station Extension			E	E	D	D	C	C	C	C	C									
5. Marsh Creek Trail Extension				P	P	R	R	D	D	D	D	C	C	C	C	C	C			
Uses Key	P – Planning			E – Environmental				R – Right of Way				D – Design/Engineering				C - Construction				

B) REQUIRED APPROVALS

i. Environmental Permits and Reviews

All of the projects in the Connecting Communities project are anticipated to have less than significant environmental impacts. For transportation projects in California, Caltrans has been assigned the FHWA's responsibility for compliance with NEPA and other federal environmental regulations. It is Caltrans' policy that confirmation of federal funding is required prior to initiating the NEPA process. Since none of the projects will result in significant environmental impacts, upon confirmation of the receipt of federal funds via the RAISE program, the necessary environmental reviews and NEPA clearance will be completed between 2023-2025, depending on the project component's schedule.

Several of the projects will require additional environmental approvals from federal or state regulatory agencies, including the U.S. Fish & Wildlife Service, the U.S. Army Corps of Engineers, and the State of California Department of Fish and Wildlife.

For a link to the environmental documentation, please visit:

<https://www.ebparks.org/about/planning/raise-grant-regional-trail-projects>

PROJECT 1: Oakland Bay Trail Extension

NEPA: Environmental Assessment will be initiated upon confirmation of federal funding and will be completed by 2024.
CEQA: Categorical Exemption anticipated in 2023. Project to be developed on previously disturbed industrial land.

PROJECT 2: Iron Horse Trail Extension – Concord to Benicia Bridge

NEPA: Environmental Assessment will be initiated upon confirmation of federal funding and will be completed by 2024.
CEQA: Categorical Exemption anticipated by 2023. Project to be developed on an existing levee access road.

PROJECT 3: Richmond Bay Trail Extension

NEPA: Categorical Exclusion will be initiated upon confirmation of federal funding and will be completed by 2024.
CEQA: Mitigated Negative Declaration anticipated by 2023. Environmental studies underway.

PROJECT 4: George Miller Regional Trail to Martinez Intermodal Station Extension

NEPA: Environmental Assessment will be initiated upon confirmation of federal funding and will be completed by 2024.
CEQA: Mitigated Negative Declaration completed in 2003. Addendum filing anticipated in early 2023.
Agreement for Right of Way in place between Union Pacific Railroad and Park District.

PROJECT 5: Marsh Creek Trail Extension

NEPA: Categorical Exclusion will be initiated upon confirmation of federal funding and will be completed by 2024.
CEQA: Mitigated Negative Declaration was filed in September 2021.



ii. State and Local Approvals

The Connecting Communities project does not require any legislative approvals. No action by a legislative authority is required to move forward with the project. Connecting Communities project is broadly supported by legislators— federal, state, and local— as well as transportation agencies, environmental groups, local businesses, the East Bay Congressional delegation and community groups. Copies of the letters of support are contained in Appendix C.

Upon receipt of federal funds, the project components will be entered into the Transportation Improvement Program.

iii. Federal Transportation Requirements Affecting State and Local Planning

The five components in the Connecting Communities project are included in the transportation plans of all regional, countywide, and local agencies with a connection to the subject properties. Specifically:

* All projects are identified in the Metropolitan Transportation Commission’s 2009 update to the Regional Bicycle Plan for the San Francisco Bay Area:

https://www.walkbikemarin.org/documents/MTC_Regional_Bicycle_Plan_Update_FINAL.pdf

*All five project components are included in the local bicycle, bicycle/pedestrian and/or general plans of the jurisdictions in which they are located

* The Bay Trail segments (project components #1, 3, and 4) are shown in the Bay Trail plan which was mandated by California State Senate Bill 100 in 1987:

<https://baytrail.org/about-the-trail/welcome-to-the-san-francisco-bay-trail/>

* The Iron Horse Trail Extension (project #2) is identified in the 2020 Active Transportation Corridor Study <https://www.contracosta.ca.gov/6886/Iron-Horse-Corridor-Active-Transportatio>

*The Contra Costa County segments (projects #2-5) are in the 2018 Contra Costa Countywide Bicycle and Pedestrian Plan:

<https://ccta.net/projects/countywide-bicycle-and-pedestrian-plan/>

*The George Miller Trail to Martinez Intermodal Station Gap Closure (project #4) is included in the Community Based Transportation Plan for Downtown Martinez.

https://mtc.ca.gov/sites/default/files/CBTP_Downtown_Martinez_1-20.pdf

*Regional Intermodal Transportation Center:

<https://www.ci.hercules.ca.us/government/planning/hercules-projects/intermodal-transit-center>

* Martinez Intermodal Facility:

https://www.cityofmartinez.org/depts/engineering/amtrak_station_parking_improvements.asp

iv. Assessment of Project Risks and Mitigation Strategies

Most of the project components utilize conventional design and construction techniques. All will be designed/have been designed in conformance with federal, state, and local standards and comply with the Americans with Disabilities Act. A small portion of the George Miller Regional Trail to Martinez Intermodal Station Extension project component has site constraints and railroad issues that may prevent the entire segment from being ADA complainant. All project components will be designed/have been designed to conform to all requirements of the utility providers, transit agencies, and railroads.



PART V: Benefit Cost Analysis Summary

This Benefit-Cost Analysis (BCA) includes the benefits and costs for the proposed project that would be fully constructed if the RAISE grant is awarded. The proposed project contains five distinct components that each have independent utility. Per the USDOT BCA Guidance, a separate analysis was conducted for each component. Results are presented for each component and the overall combined project. A separate BCA spreadsheet will be included for each component in the application (see Appendix A).

The analysis period for each component includes three years of construction and 20 years of operation, and assumes a useful service life of 30 years. All costs and benefits are presented in 2021 dollars.

The following categories of benefits were considered in the BCA:

- **Safety:** The expected reduction in collisions and associated costs.
- **Environmental Sustainability:** Includes reductions in the following pollutants that impact air quality, CO₂, NO_x, SO₂, and PM_{2.5}.
- **Quality of Life:** The expected reduction in mortality rates due to increased physical activity from new users of the project.
- **Economic Competitiveness:** Includes savings in household transportation costs and traffic congestion costs.
- **State of Good Repair:** Includes reductions in roadway maintenance costs.
- **Maintenance costs (dis-benefit):** Covers the ongoing costs of upkeep to the proposed project



Total Discounted Benefits:
\$40.7 Million



Total Discounted Costs:
\$18.23 Million



Net Present Value:
\$22.53 Million



Benefit-Cost Ratio:
2.2:1.0



Approach to Benefits and Study Area

This BCA approach expands on the methods suggested by the National Cooperative Highway Research Program (NCHRP) Report 552: Guidelines for Analysis of Investments in Bicycle Facilities by incorporating detailed local demographic information and using new data and research that has become available since Guidelines for Analysis was published in 2006.

While construction of the project will benefit all residents of and visitors to the region, those living within three miles (about a 15-minute bike ride) and one-half mile (about a 10-minute walk) of the project will have the most convenient access and will gain the most from its completion. Accordingly, this BCA focuses on the bicycling benefits attributed to residents living within three miles of the project and on the walking benefits attributed to residents living within one-half mile project. There are several benefit categories that benefit the region more widely (reduced roadway maintenance, healthcare costs), but these ranges are used to constrain this analysis to the main beneficiaries.

Benefits were primarily calculated by comparing walking and biking activity (including collisions) under the baseline to a Build scenario in which the Connecting Communities project has been implemented. The baseline and build scenarios encompass an identical geography (Census Tracts within 3 miles of the project).

Results

Table 1 displays the total benefits by category included in the BCA for each project component and the overall project. The capital costs included in the overall BCA are \$23.7 million. This BCA estimates the project compared to the no-build scenario over the evaluation period (2023-2046) and at a 7 percent real discount rate will have a net present value of \$22.5 million and a benefit-cost ratio of 2.2 : 1.0. This is summarized in Table 2.¹

¹ A 7% discount rate was used for all benefits and costs with the exception of carbon benefits which were discounted at 3% per year.

Table 1: Total Undiscounted Benefits over 20 years of Operation

MONETARY VALUE: (IN 2021 DOLLARS)	Overall (all five project components)	George Miller Regional Trail	Iron Horse Trail Extension – Concord to Benicia Bridge	Marsh Creek Trail Extension	Oakland Bay Trail Extension	Richmond Bay Trail Extension
Safety Benefits	\$38,980,000	\$6,670,000	\$17,110,000	-	\$ 6,200,000	\$9,000,000
Environmental Sustainability	\$206,000	\$11,800	\$18,100	\$21,500	\$119,500	\$35,100
Quality of Life	\$64,110,000	\$5,630,000	\$10,660,000	\$8,390,000	\$25,410,000	\$14,020,000
Economic Competitiveness	\$2,066,200	\$121,200	\$181,000	\$210,400	\$1,199,900	\$353,700
State of Good Repair	\$279,100	\$16,300	\$24,000	\$28,600	\$162,400	\$47,800
Maintenance Costs	\$(5,080,000)	\$(600,000)	\$(200,000)	\$(3,000,000)	\$(80,000)	\$(1,200,000)
Residual Value	\$7,900,000	\$1,166,667	\$1,000,000	\$2,833,300	\$400,000	\$2,500,000
TOTAL BENEFITS (Undiscounted)	\$108,541,267	\$13,015,967	\$28,793,100	\$8,400,000	\$33,490,000	\$24,620,000

Table 2: Benefit-Cost Analysis Summary

DISCOUNTED VALUE² (IN 2021 DOLLARS)	Overall (all five project components)	George Miller Regional Trail	Iron Horse Trail Extension – Concord to Benicia Bridge	Marsh Creek Trail Extension	Oakland Bay Trail Extension	Richmond Bay Trail Extension
Net Discounted Benefits	\$40,760,000	\$4,860,000	\$11,000,000	\$2,530,000	\$13,120,000	\$9,250,000
Net Discounted Capital Costs	\$(18,230,000)	\$(2,760,000)	\$(2,360,000)	\$(6,250,000)	\$(950,000)	\$(5,910,000)
Net Present Value	\$22,530,000	\$2,110,000	\$8,620,000	\$(3,730,000)	\$12,180,000	\$3,350,000
Benefit – Cost Ratio	2.2	1.76	4.65	0.40	13.89	1.57

² A 7% discount rate was used for all benefits and costs with the exception of carbon benefits which were discounted at 3% per year.

