



# Get Out and Play! Ensuring Accessible Recreation Across the Region

*Accessible Futures Conference*

MTC Bay Trail & Active Transportation Team

June 16, 2025



METROPOLITAN  
TRANSPORTATION  
COMMISSION



# Agenda

## 1. Bay Trail Design Guidelines & Toolkit 2.0

- Presented by Dee Dohm (MTC) and Sofia Zander (Zander Westbrook Design)

## 2. Bay Trail Needs, Operations, and Maintenance Assessment (NOMA)

- Presented by Lily Brown (MTC)

## 3. Adaptive Bikeshare Programming

- Presented by Camille Cauchois (MTC) and Emily Seelenfreund (BORP Adaptive Sports & Recreation)



# Bay Trail Design Guidelines & Toolkit 2.0

MTC Accessible Futures Conference

June 16, 2025

# Trail Map for Today's Talk

- Bay Trail Overview
- Accessibility in the 2016 Bay Trail Design Guidelines + Toolkit
- Accessibility in the Updated Bay Trail Design Guidelines + Toolkit 2.0

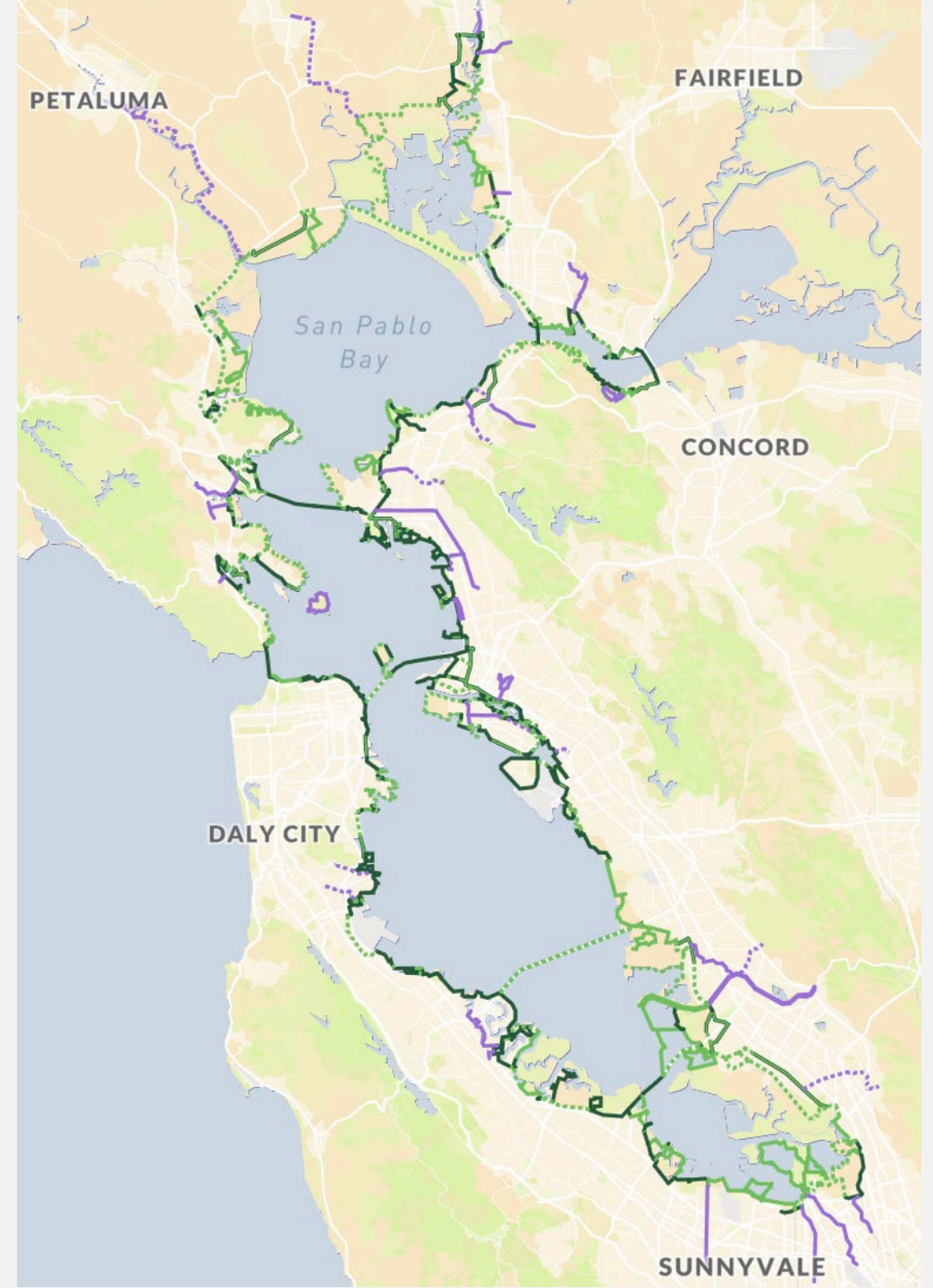


*Richmond, CA*

# Bay Trail Overview

# Bay Trail

- Planned 500-mile path around San Francisco and San Pablo Bays
- 70% complete, ~350 miles
- 5½ Toll Bridges
- Public access to the Bay
- ADA-accessible path



# Bay Trail Goals

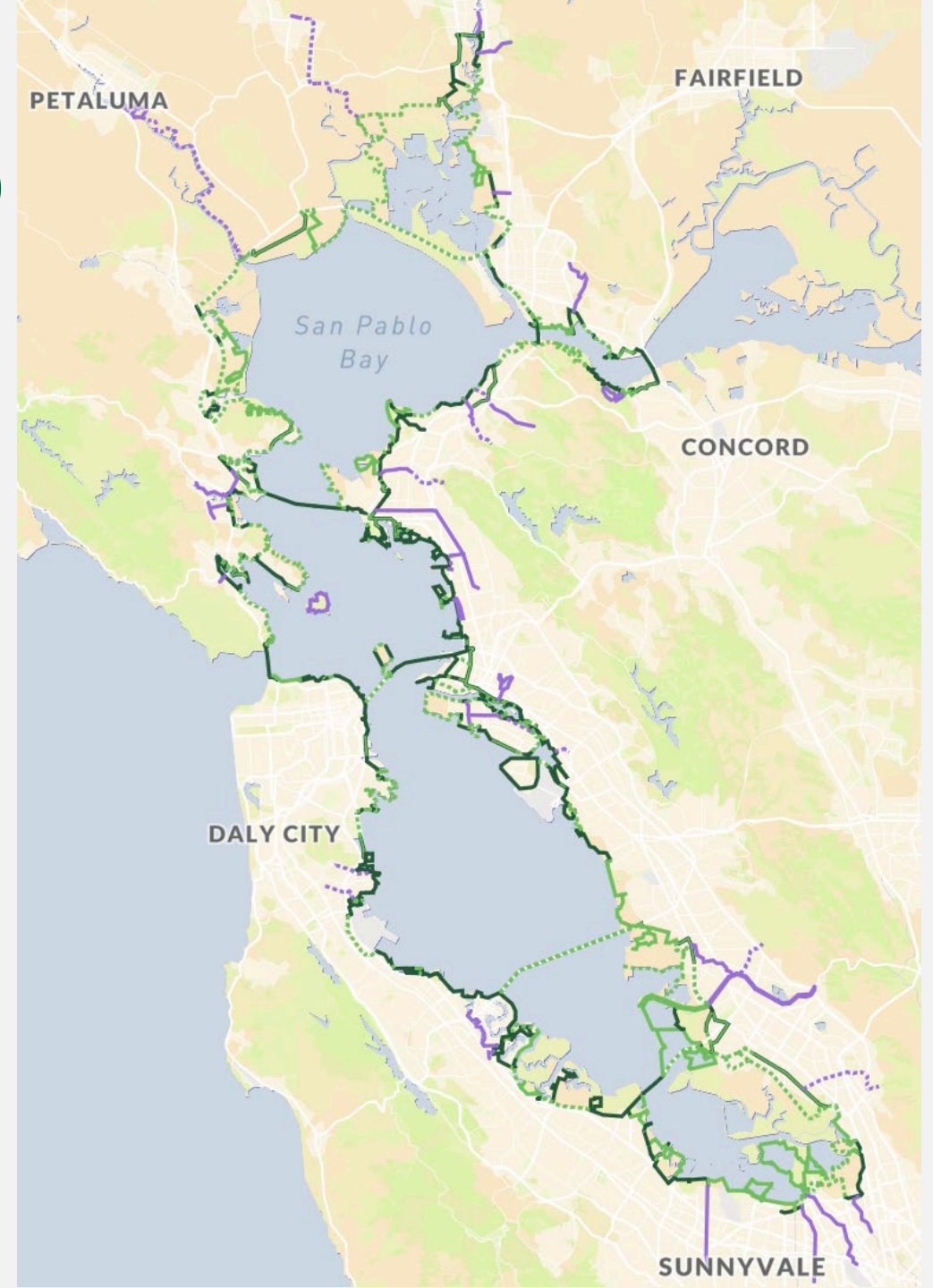
- Facilitate environmental stewardship and education
- Increase equitable public shoreline access for all Bay Area residents and visitors
- Promote healthy communities
- Foster active transportation



*Coyote Hills Regional Park (Fremont, CA)*

# MTC's Role as the MPO

- Prioritize and select projects to fund with regional, state, and federal dollars
- Bring stakeholders together to share knowledge and coordinate with partners to plan, fund, and build the San Francisco Bay Trail





*Middle Harbor Shoreline Park (Oakland, CA)*

# Bay Trail Design Guidelines & Toolkit (2016)



# Basic Bay Trail Design & Equity

## 5.1 THE ESSENTIAL BAY TRAIL

### Trail Geometrics

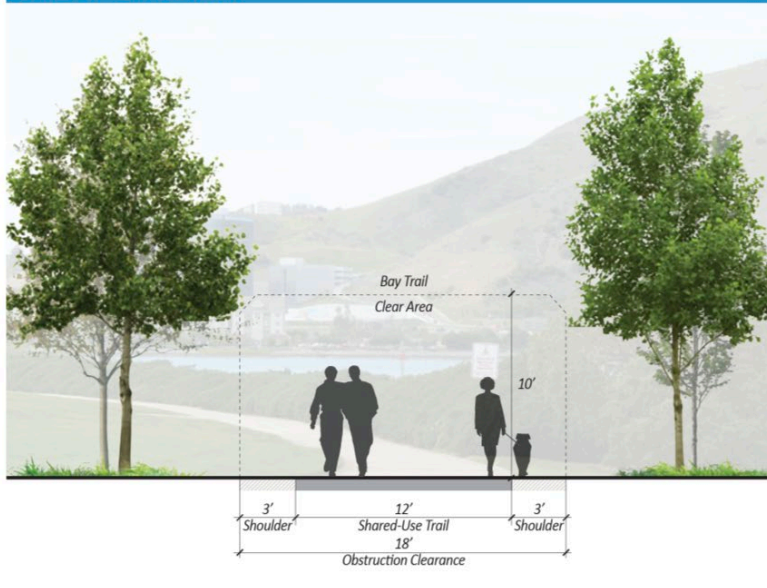
- Trail Width:** The standard width of the Bay Trail should accommodate the user's primary travel space and the use of shoulders when present. The Bay Trail and its clear space should consist of a minimum 18-foot width. The trail and shoulder widths are considered minimum standards necessary to accommodate a typical level of use along the



Bay Trail when completed. In many instances, projected use levels may be high, and therefore the Bay Trail width should be wider, such as along urban waterfront promenades. If use levels are anticipated to be extremely high, consideration should be given to separating fast-moving users (e.g., bicyclists, rollerbladers, or skateboarders) from slower-

moving pedestrians. There are a variety of methods to do so, such as pavement striping or inclusion of physical barriers (see Section 5.2. Bay Trail in Special Circumstances). In any case, all Bay Trail users should be able to enjoy a Bay experience, including Bay views.

FIGURE 5-1: BAY TRAIL WIDTH



## 3.3 UNIVERSAL ACCESS

### ACCOMMODATE ALL USER GROUPS

The Bay Trail in its entirety, including all associated trail features, should be designed to be usable by as many people as possible including all the user types described in Chapter 2.

### OBJECTIVES TO ACCOMPLISH THIS PRINCIPLE:

- Incorporating accessibility into the design of the Bay Trail and all related trail amenities, to the maximum feasible extent. For additional information, refer to the *U.S. Access Board's Design Guidelines* ([www.access-board.gov](http://www.access-board.gov)), the California Building Code, and local regulations on accessibility.
- Designing the trail for all forms of non-motorized use.
- Ensuring the trail design width accommodates bi-directional bicycle and pedestrian use for the expected level of future use when the Bay Trail is completed.
- Recognizing the role of the Bay Trail as a commuter route that may benefit from specialized signs and lighting.



# Key Updates for 2.0 Version

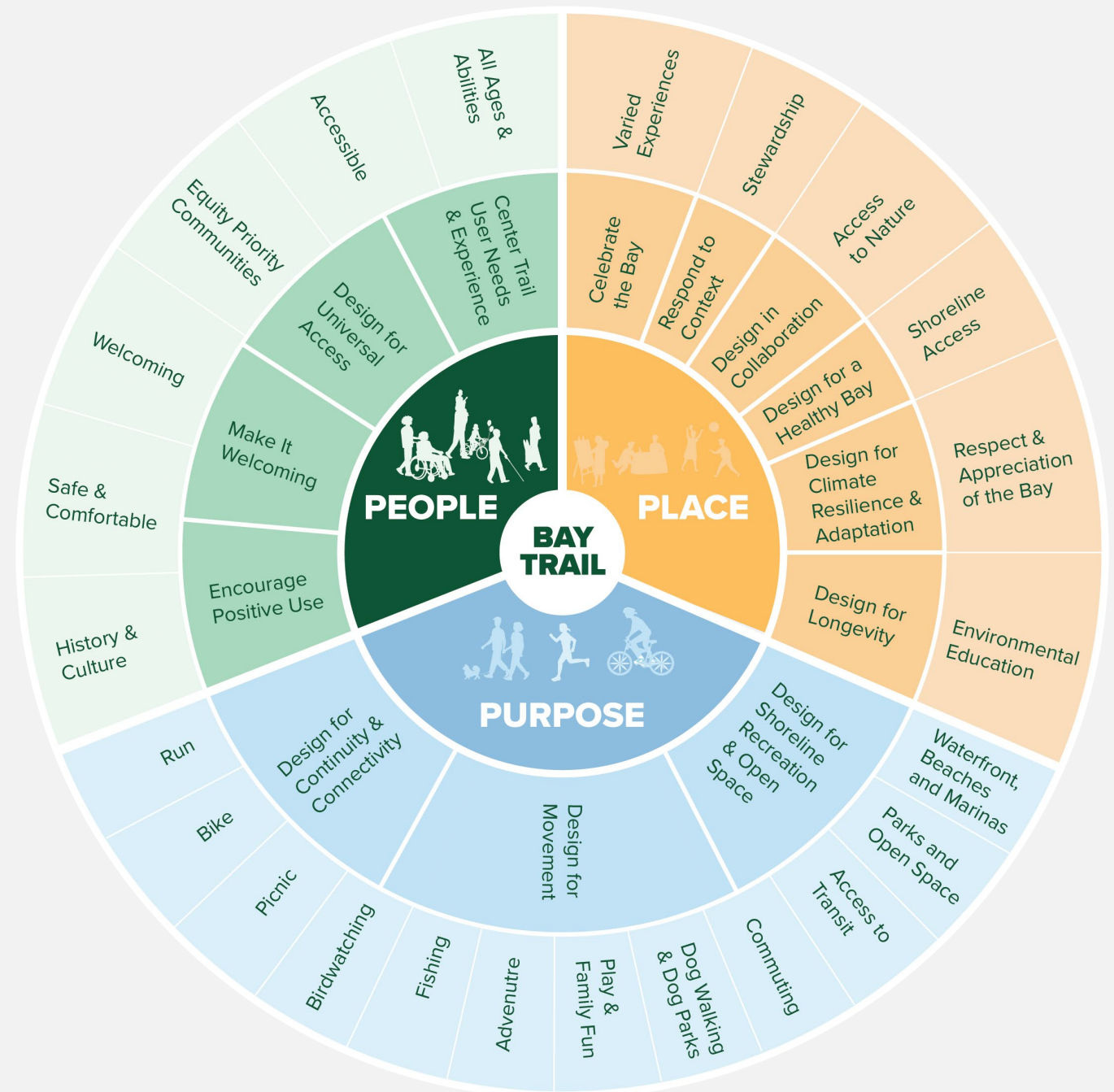
- **Climate Resilience:** Significant work by partners (SFEI, SFEP, BCDC, local jurisdictions, etc.) informs the need to provide more robust design guidance related to sea level rise, king tides, flooding, etc.
- **Equity:** Foundational work at MTC in recent years (Equity Platform, Bay Trail Equity Strategy) and broader ADA-accessibility needs to be incorporated into the design guidance
- **Robust Design:** Implementation agencies need more robust design guidance and examples

# Bay Trail Design Guidelines + Toolkit 2.0



# Designing for People, Place, and Purpose

- Framework for thinking comprehensively about all the design factors that inform trail design



# Designing for People

- Bay Trail User Types and User Dynamics
- Movement characteristics and design considerations
- Implications of Micromobility

## Pedestrians

Walkers; people using wheelchairs; dog walkers; people walking with baby strollers; people with one or more disabilities (physical, vision, auditory, and/or cognitive); runners



## Slower bicyclists and micromobility device users

New and/or casual bicyclists; children and families bicycling together; people on tricycles, tandem bicycles, recumbent bicycles, adaptive bicycles, or pulling bike trailers; people on self-propelled micromobility devices such as in-line skates, roller skates, kick scooters, and skateboards



## Faster bicyclists and micromobility device users

Faster bicyclists; people using electric micromobility devices like e-bikes (adaptive e-bikes), e-scooters, and hoverboards



# Designing for Place

- Rural, Agricultural, & Open Space Contexts
  - *Agriculture and production lands*
  - *Open space, refuges, nature preserves*
- Urban and Suburban Contexts
  - *Park lands*
  - *Office parks & campuses*
  - *High security areas*
  - *Residential areas*

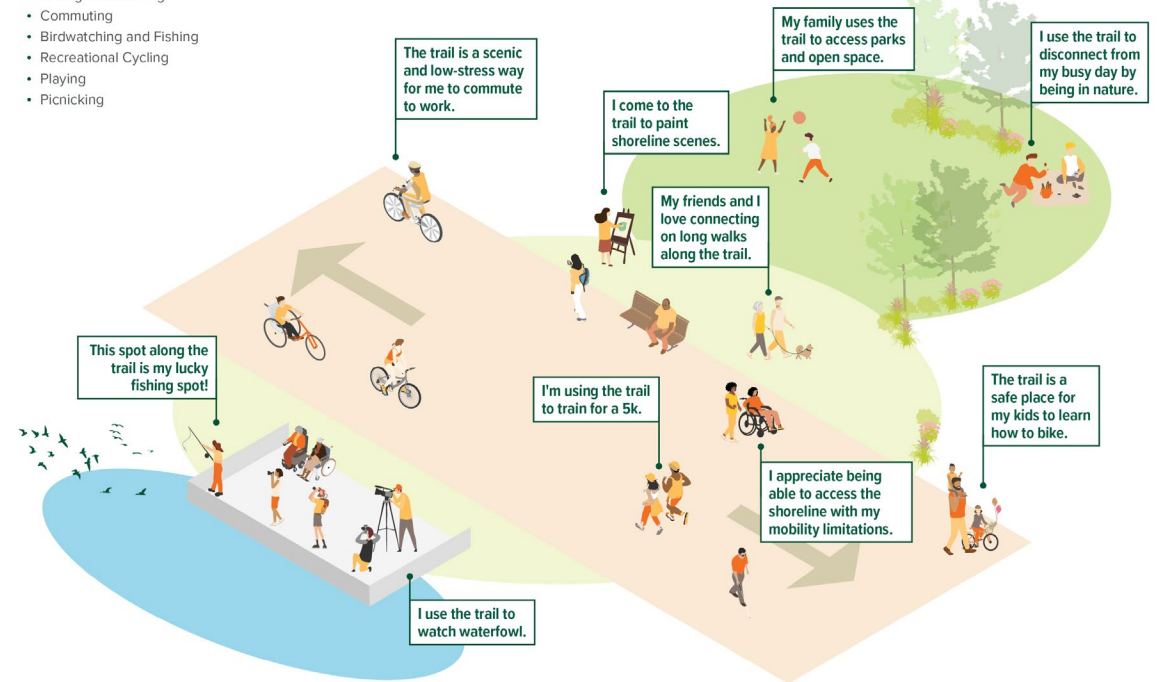


# Designing for Purpose

- 14 Functions in 4 Groups
  - Recreation & Open Space
  - Ecosystem & Shoreline Protection
  - Transportation
  - Economic Vitality

FIGURE 2 The Bay Trail serves a variety of purposes



- Walking and Running
- Rolling and Strolling
- Commuting
- Birdwatching and Fishing
- Recreational Cycling
- Playing
- Picnicking



# Equity Tips

- Highlight ways to bolster equity, accessibility, and universal design in the Bay Trail context.

## Rural, Agricultural, and Open Space Contexts

Context	Description	Example Locations	Critical Design Considerations
<b>Agricultural and Production Lands</b>	<ul style="list-style-type: none"> <li>• Farms, vineyards, and ranchlands</li> <li>• May include livestock, orchards, row crops, rural residential, and other farming operations</li> <li>• Salt Ponds</li> </ul>	<ul style="list-style-type: none"> <li>• Stanly Crossroad and Stanly Lane (Napa)</li> <li>• Napa Valley Vine Trail (Napa County)</li> </ul>	<ul style="list-style-type: none"> <li>• Collaborate with agricultural operators about equipment clearances, biosecurity measures, or seasonal changes that may impact trail use.</li> <li>• Design features that allow trail and agricultural uses to remain compatible including vegetated buffers, fencing, and trail surface changes (to support agricultural equipment or reduce runoff).</li> <li>• Provide accessible interpretive panels to educate trail users on topics such as biosecurity, food sources, and agricultural history.</li> </ul> 
<b>Open Space, Refuges and Nature Preserves</b>	<ul style="list-style-type: none"> <li>• Natural areas along the Bay that are managed for habitat protection</li> <li>• Shoreline open space</li> <li>• May include levees, marshes, wetlands</li> <li>• May be managed by a county, regional, state, or national agency</li> </ul>	<ul style="list-style-type: none"> <li>• Ravenswood (East Palo Alto)</li> <li>• Dotson Family Marsh (Richmond)</li> <li>• Hamilton Wetlands (Novato)</li> <li>• Benicia State Recreation Area (Benicia)</li> <li>• Wetlands Edge Park (American Canyon)</li> </ul>	<ul style="list-style-type: none"> <li>• Align the trail to maximize visual access to the shoreline and the Bay.</li> <li>• Locate trails in desirable areas to deter users from creating informal access into and through sensitive locations.</li> <li>• Incorporate design features that balance trail use and habitat protection, such as wildlife-friendly fencing or buffers; regulatory signs can also be used to prevent pet access to habitat areas.</li> <li>• Use context-sensitive design, such as elevated boardwalk or causeway trails, to reduce habitat fragmentation in very sensitive areas.</li> <li>• Coordinate with the land manager, such as USFWS, to determine appropriate trail surface materials that balance durability, permeability, and impact reduction.</li> <li>• Direct trail lighting away from habitat areas, and do not install lighting in areas where it would impact sensitive species.</li> <li>• Where the Bay Trail is part of an open space trail network, use the Bay Trail sign to distinguish it from other trails in the park and to visually indicate it is part of the larger Bay Trail network.</li> <li>• Provide consistent accessible wayfinding, such as mile markers, where there are longer distances between access points.</li> <li>• Provide information on the availability of trail support facilities, such as restrooms, drinking fountains, and benches, which may be less frequent in open space areas.</li> <li>• Provide accessible interpretive panels to educate trail users on topics such as common wildlife, rare or protected species, and ecosystem function.</li> <li>• Provide wildlife viewing resources, such as strategically placed benches, overlooks, elevated trails, and bird blinds.</li> </ul> 

### EQUITY TIP



Enable trail users with disabilities to determine an appropriate route for their needs by including key trail information at trailheads. This information might include trail length, surface, width, grade, and cross slope. It also may include a map with distances between benches or other seating areas for people who need to rest often.

# Designing for All Bay Trail Users

- Turning radii based on **adaptive bicycles and bicycles pulling trailers**
- Sight distances based on the height and speed of **recumbent bicycles**

## EQUITY TIP



- Curves and trail entry points should be designed to accommodate the wide turning radius of some recumbent and other accessibility bikes.



# Signage for Access

- Provide key information at the trailhead
- Include tactile elements – braille and raised letters and arrows



## EQUITY TIP



- Trailhead signage can also show accessibility elements of the trail, such as average slope and cross-slope, average width, surface type, and rest area or bench frequency.

## Multi-benefit

- Power outlets for charging
- Tactile wayfinding bars

### EQUITY TIPS



- Consider including electricity for electric micro-mobility charging as well e-mobility devices for people with disabilities.



# Thank you!



**Dee Dohm, AICP**

Project Manager

Metropolitan Transportation  
Commission (MTC)

[ddohm@bayareametro.gov](mailto:ddohm@bayareametro.gov)

**Sofia Zander, PLA**

Zander Westbrook Design

[Sofia@zanderwestbrook.com](mailto:Sofia@zanderwestbrook.com)



# Bay Trail Needs, Operations, and Maintenance Assessment (NOMA)

MTC Accessible Futures Conference

June 16, 2025



# Project Background

Engagement with local agency partners and community during the [Bay Trail Equity Strategy](#) and [Bay Trail Gap Closure Implementation Plan](#) projects confirmed that **access**, **amenities** and **maintenance** are key contributors to use and enjoyment of the Bay Trail.



# Bay Trail Equity Strategy

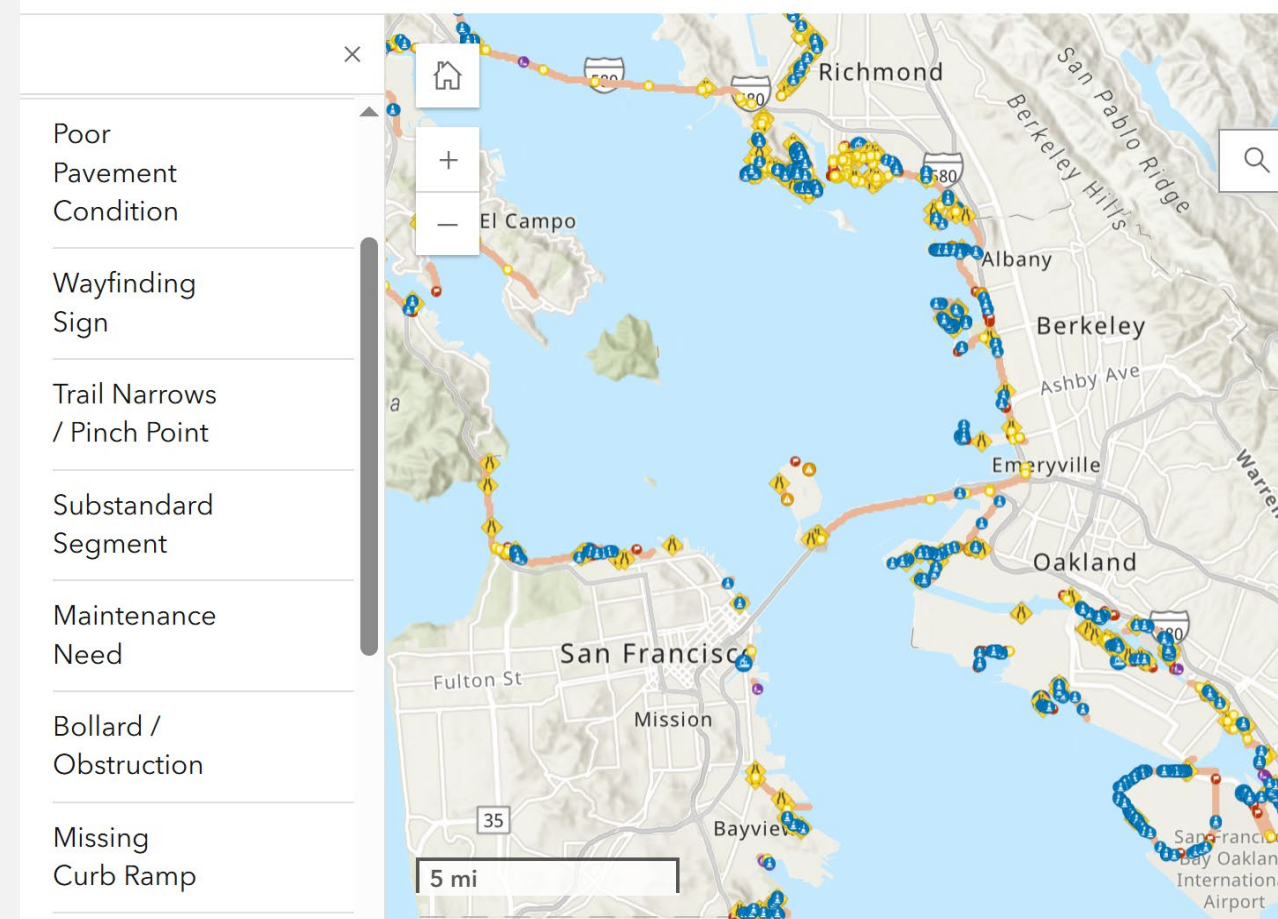
- Understand how to increase access and belonging at Bay Trail for all visitors with a focus on Equity Priority Communities and people with marginalized identities
- Partnered with CBOs, including BORP, to do engagement activities focused on learning about peoples experiences on the Bay Trail and ideas for improvements



# Assessment Goals

Ensure that the Bay Trail is accessible, safe, and welcoming to all through:

- Defining access and amenity needs and improvements
- Making information accessible to the public through interactive online maps
- Developing trail maintenance and operations best practice guidance for ROW owners/operators



# Measuring Needs: What Should We Measure?

## Potential Data Indicators

### ACCESS INDICATORS

- Entrances/trailheads
- Active transportation routes
- Vehicle Access
- Parking – Automotive and Bike
- Connections to/from Destinations – Parks, Schools, Arts & Culture, Services, Jobs/Housing, Transit, Equity Priority Communities, Accessibility Features

### MAINTENANCE & CONDITIONS INDICATORS

- Bay Trail Surface Type
- Pavement Condition
- Trail Width
- Substandard Segments
- Pinch Points
- Trail Obstructions
- Vegetation Management
- Waste Receptacles
- Dog Waste Bags
- Illegal dumping, etc.

### COMFORT, ENJOYMENT & INCLUSION

- Restrooms
- Drinking Water
- Seating/Picnic Tables
- Shade Structures/Tree Canopy
- Water Access
- Viewing Resources
- Lighting/Safety Blue Lights
- Signage (Wayfinding, Interpretive, & Regulatory)
- Trail Programming\*\*
- Public arts and cultural representation on the trail\*\*

### ENVIRONMENTAL & CULTURAL INDICATORS

- Historic/Cultural landmarks \*\*
- Contamination Sites
- Habitat & Biodiverse Ecosystems
- SLR Flooding Projections
- Erosion
- Adaptation Atlas Operational Landscape Units (OLUs)

# Thank you!!



**Lily Brown**

Project Manager

Metropolitan Transportation  
Commission (MTC)

[lbrown@bayareametro.gov](mailto:lbrown@bayareametro.gov)





# Adaptive Bikeshare Programming

MTC Accessible Futures Conference

June 16, 2025

# Bay Wheels: Bikeshare in the Bay Area

- Bay Wheels Bikeshare system launched in the Bay Area in **2017**
  - The system is managed by MTC and operated by Lyft.
- The current Bay Wheels system is located in **Berkeley, Emeryville, Oakland, San Jose, San Francisco, and Daly City (forthcoming)**
- The system includes two-wheel, up-right **e-bikes** and **pedal bikes**
- Bikes are checked in and out of stations
- Pricing is based on bike type and length of time of the ride (in minutes)
  - Membership and the income qualified program reduce the price per minute.
- Adaptive bikeshare programs **increase cycling options for people with disabilities**

baywheels lyft



Photo Credit: Karl Nielsen

# BORP Adaptive Sports and Recreation



*BORP's mission is to empower Bay Area youth and adults with mobility and vision disabilities through sports, fitness, and recreational programs that foster independence, health, and belonging.*

- Founded in Berkeley in 1976, BORP has served as a pioneer in the field for nearly 50 years.
- Created and sustained by and for people with disabilities, we offer an average of **20 weekly programs** at locations around the Bay Area.
- Programs include youth and adult team sports, virtual and in-person fitness classes, 70 annual nature and cultural outings with transportation on our two wheelchair accessible buses, kayaking, pickleball, and of course cycling!
- Beyond physical fitness, BORP fosters healthy living, independence, empowerment, and belonging to our over **1,000 annual participants**, many of whom call BORP a lifeline:
  - **90% of participants** say taking part in BORP programs has increased their self-esteem
  - **85% youth participants** report increased emotional well-being



# Adaptive Bikeshare Programming: East Bay

- **2005:** BORP's Cycling Center in Berkeley opened and has been in operation ever since, with one of the world's largest collections of adaptive cycles and direct access to the Bay Trail
  - Open Tuesdays, Thursdays, and Saturdays
- **2019:** Pilot adaptive bikeshare program in Oakland in partnership with BORP and Oakland Department of Transportation near Lake Merritt
- **2025 and 2026:** MTC funding additional pop-up style adaptive cycling events by BORP in Oakland and/or Emeryville
  - Plus increased outreach to increase awareness of the BORP Cycling Center in Berkeley
  - Multiple cycle types available (handcycles, recumbents, side-by-side tandems, and more)
  - BORP staff/volunteers assist with selecting cycles and fitting participants. Support riders available with advance notice.
  - Programs are open to riders with disabilities of all experience levels and their family and friends



Photo Credit: Kien Nguyen, via City of Oakland Department of Transportation.

# Adaptive Bikeshare Programming: San Francisco

- **2019 and 2021:** Pilot adaptive bikeshare program in San Francisco, in collaboration with BORP Adaptive Sports & Recreation, SFMTA, SF Recreation and Parks, and Bay Wheels/Lyft
- **2022- Present:** Permanent adaptive bikeshare program, with BORP, launched in 2022 and is ongoing
  - MTC is funding the 2024, 2025, and 2026 seasons
- **Program Details:**
  - Saturdays June – October (10:00am – 3:00pm)
  - Located in Golden Gate Park, with direct access to trails
  - Multiple cycle types available (handcycles, recumbents, side-by-side tandems, and more)
  - BORP staff and volunteers assist with selecting cycles and fitting participants. Support riders available with advance notice.
  - Programs are open to riders with disabilities of all experience levels and their family and friends



Photo Credit: Jeremy Menzies, SFMTA

# Adaptive Bikeshare Programming: San Jose

- **2025 and 2026:** MTC is funding BORP to launch a new program in San Jose to increase opportunities for adaptive cycling in the South Bay
- **Program Details:**
  - Sundays June – October (10:00am – 2:00pm)
  - Located at Good Karma Bikes, near the Guadalupe River Trail
  - Variety of Adaptive Cycles Available (handcycles, recumbents, side-by-side tandems, and more)
  - BORP staff and volunteers assist with selecting cycles and fitting participants. Support riders available with advance notice.
  - Open to riders with disabilities of all experience levels and their family and friends



Photo Courtesy of BORP Adaptive Sports and Recreation

# Thank you!

**Emily Seelenfreund**

Executive Director

BORP Adaptive Sports and  
Recreation

[Emily@borp.org](mailto:Emily@borp.org)

**Camille Cauchois**

Assistant Transportation  
Planner

Metropolitan Transportation  
Commission (MTC)

[ccauchois@bayareametro.gov](mailto:ccauchois@bayareametro.gov)



# Get Out and Play! Ensuring Accessible Recreation Across the Region: Audience Feedback

## Bay Trail Design Guidelines

- What types of design elements or amenities would help you access and enjoy the Bay Trail?

## Bay Trail Needs, Operations, and Maintenance Assessment

- What needs or amenities should the study measure?

## Adaptive Bikeshare Programming

- Have you heard of SF Rec & Park/BORP's Adaptive Cycling program before today? If you've heard of it but have not yet attended, what has stopped you?
- How could adaptive bikeshare work best for you?
- What are barriers you experience to cycling? How can these barriers best be addressed?