



San Mateo County Shared Micromobility Feasibility Study and Implementation Plan

December 2022

Executive Summary

WHAT IS SHARED MICROMOBILITY?

Shared micromobility is an umbrella term for lightweight, human or electric-powered vehicles that are operated as a fleet and can be accessed by the public to use. While many forms of micromobility vehicles exist, this study focuses on bikes, e-bikes, and e-scooters, which are the most common form of shared fleets. Shared micromobility services have expanded across the world. Their technologies and ownership structures have rapidly developed and evolved in the past 5-10 years. In 2021, 128 million trips were taken via shared micromobility in the North America. Shared micromobility services changed significantly in 2018, with the widespread launch of scooter share systems in around 100 U.S. cities. Scooters accounted for 62.2 million trips in 2021.

PROJECT PURPOSE

The City/County Association of Governments of San Mateo County (C/CAG) collaborated with local stakeholders to define what a successful shared micromobility program would look like for San Mateo County and to determine the feasibility of developing one. The existing status quo requires individual jurisdictions across San Mateo County to develop their own shared micromobility programs and guidelines. This study aims to define what a coordinated, proactive approach to shared micromobility could look like for residents, visitors, and employees in San Mateo County.

PROJECT PROCESS

The study incorporated multiple analyses to evaluate the feasibility of a shared micromobility program in San Mateo County. Throughout the process, the project team worked with an Ad Hoc Advisory Group and various stakeholders to ensure the study reflected the values of the community. The process included:

- **Would shared micromobility work in San Mateo County?** Examining seven key factors known to influence program feasibility to better understand fatal flaws and/or significant barriers to implementing a shared micromobility program in San Mateo County.
- **How would shared micromobility fit into the San Mateo County context?** Analyzing local and regional policy and data to determine the transportation challenges and opportunities that a shared micromobility could address.
- **What would success look like for a program in San Mateo County?** Working with stakeholders to establish a vision, goals, and objectives that articulate what outcomes a shared micromobility program would need to support.
- **How would a shared micromobility program develop in San Mateo County?** Recommending a program structure and guidelines for implementation that best fit the context and resources of partnering agencies in San Mateo County.

Vision:

A shared micromobility program in San Mateo County will provide residents and visitors—including low-income individuals, communities of color, persons with disabilities, and other historically marginalized communities—with an affordable, convenient, and sustainable transportation option that reduces vehicle miles travelled, connects communities to destinations across the County, and seamlessly integrates with transit.

Program Goals:

- Integrate with Transit
- Ensure the Program Benefits Everyone
- Enhance Mobility Options for Local Residents
- Support Economic Development
- Generate Positive Public Perception about the Program
- Support Tourism Opportunities

PROGRAM FEASIBILITY

Many factors influence the level to which a shared micromobility program is feasible, and more specifically, whether a program that meets the local community's vision and goals is feasible. Based on the results of multiple analyses, or feasibility factors, the project team concluded that a shared micromobility program is feasible in San Mateo County. The feasibility factors, listed below, include qualitative analyses to better understand how a program might achieve its goals and to identify fatal flaws and/or significant barriers to implementing a shared micromobility program in San Mateo County.

Feasibility Factors

- **Planning and Policy Review:** Do existing plans and policies allow or recommend shared micromobility?
- **Demand Analysis:** Are there multiple areas around the county where share devices would likely be used?
- **Barriers Analysis:** Would users have viable routes/connections to travel on?
- **Equity Analysis:** Could a program benefit people with low-incomes and in communities of color?
- **Program Opportunity and Resource Analysis:** Are there sufficient resources available for the management, vendor equipment and operations, and funding of a program?

PROGRAM RECOMMENDATIONS

The recommendations apply best practices and lessons learned from peer programs to 1) create a program that is best positioned to achieve the vision and goals and 2) to leverage the county's strengths and adjust for challenges identified in the feasibility analysis.

While San Mateo County could elect to move forward with a structure other than the proposed, there are several less desirable governance outcomes of continuing with the current micromobility status quo. Individual jurisdictions would have to bear all procurement, management, and oversight responsibilities

for a local program, resulting in an increased and redundant workload burden on jurisdiction staff. Jurisdictions would have no established regulatory or procurement standards from which to build their micromobility program. Individually, each community may struggle to attract the same number and quality of vendors as a multi-jurisdictional program. Additionally, jurisdictions and vendors would have no mechanism for coordinating planning, procurement, and negotiations and there would be no structure to manage or address inter-jurisdictional micromobility issues. The results would be a fragmented micromobility market where users may be restricted to making trips within a specific town or city, users may have to switch between operators based on where they are travelling, and users have less predictability regarding user pricing and riding rules.

GOVERNANCE AND MANAGEMENT RECOMMENDATIONS

- Establish a multi-jurisdictional program with a single program manager responsible for procurement and contract management.
- The recommended program manager is C/CAG, given the agency's countywide program scope, its proven ability to build consensus with partners across jurisdictional boundaries, general support from the C/CAG Board on the project concept and the program's ability to reduce vehicle miles traveled.
- Contract out to one or more private, third-party operators.
- Management and oversight responsibilities would be the responsibility of a single organization as the program manager, with support from other organizations in specialized roles.
- Individual jurisdictions could opt into the program with the flexibility to dictate certain operating requirements, such as no-ride areas, speed limited areas, and restricted parking areas. Jurisdictions will retain the ability to fine the operator or impound vehicles in instances of violations. Ideally, any day-to-day operational issues will be handled by the vendor with oversight from the program manager.
- Establish a governance committee composed of participating jurisdictions, the program manager and any other key stakeholders as needed. This body would be a venue to discuss program issues, share lessons learned, and resolve problems.
- Establish a process for escalating complaints and issues, creating a clear chain of command for any operational issues and complaints

SYSTEM TYPE RECOMMENDATIONS

- E-bikes are the primary vehicle type, with the option to include manual bikes and/or e-scooters as determined by individual jurisdictions.
- Hybrid or dockless system types are preferred given their ease of implementation and flexibility of operations when considering a pilot program. However, the results of the feasibility analysis, best practices memo, and goals of the program indicate that multiple system types could be successful in San Mateo County. The peer system comparison showed a hybrid, docked, and/or dockless system can be successful for a regional program. The system type, therefore, will depend on level of funding available and interest from operators.

COSTS AND FUNDING RECOMMENDATIONS

- Through a competitive Request for Proposal (RFP) process, procure a private operator responsible for self-financing and operating the system.
- Public costs would be limited to the cost of procurement, oversight, and contract management. These costs could be partially recouped through a permit fee.
- Provide program funding or a program subsidy in return for operator guarantees, such as the equity pricing program, caps on user fees, or certain geographic operating requirements.

PLAN DEVELOPMENT RECOMMENDATIONS

Phase 1 Pilot Program

The San Mateo County Shared Micromobility Feasibility Study proposes a Phase 1 Pilot Program that would run for one to two years, with participating jurisdictions committing to stay within the program through the duration of the pilot. The study identified five potential pilot locations (see Map 1 below) based on an analysis of high demand areas, equity focus areas, and the opportunity to connect across jurisdictional boundaries. The two locations recommended for the pilot are Daly City, Broadmoor, and Colma, and Redwood City and North Fair Oaks based on their close proximity to high frequency transit locations, the ability to serve a large population in an equity priority community with limited access to vehicles and high reliance on transit. Each pilot program should set a target of 500 vehicles and 50 stations/hubs (if a docked or hybrid system is chosen). This would include 1.6-2.0 designated parking spots per bike and 16 hubs per square mile in high density locations. If a pilot location already has shared micromobility vehicles from another program, we recommend adjusting the amount of vehicles added to reflect the target amount of 500 vehicles, which would reduce the cost of the program. The three additional areas identified as candidates for a pilot program include: Daly City, Pacifica, South San Francisco, and San Bruno; South San Francisco and Unincorporated San Mateo County; and Millbrae and Burlingame.

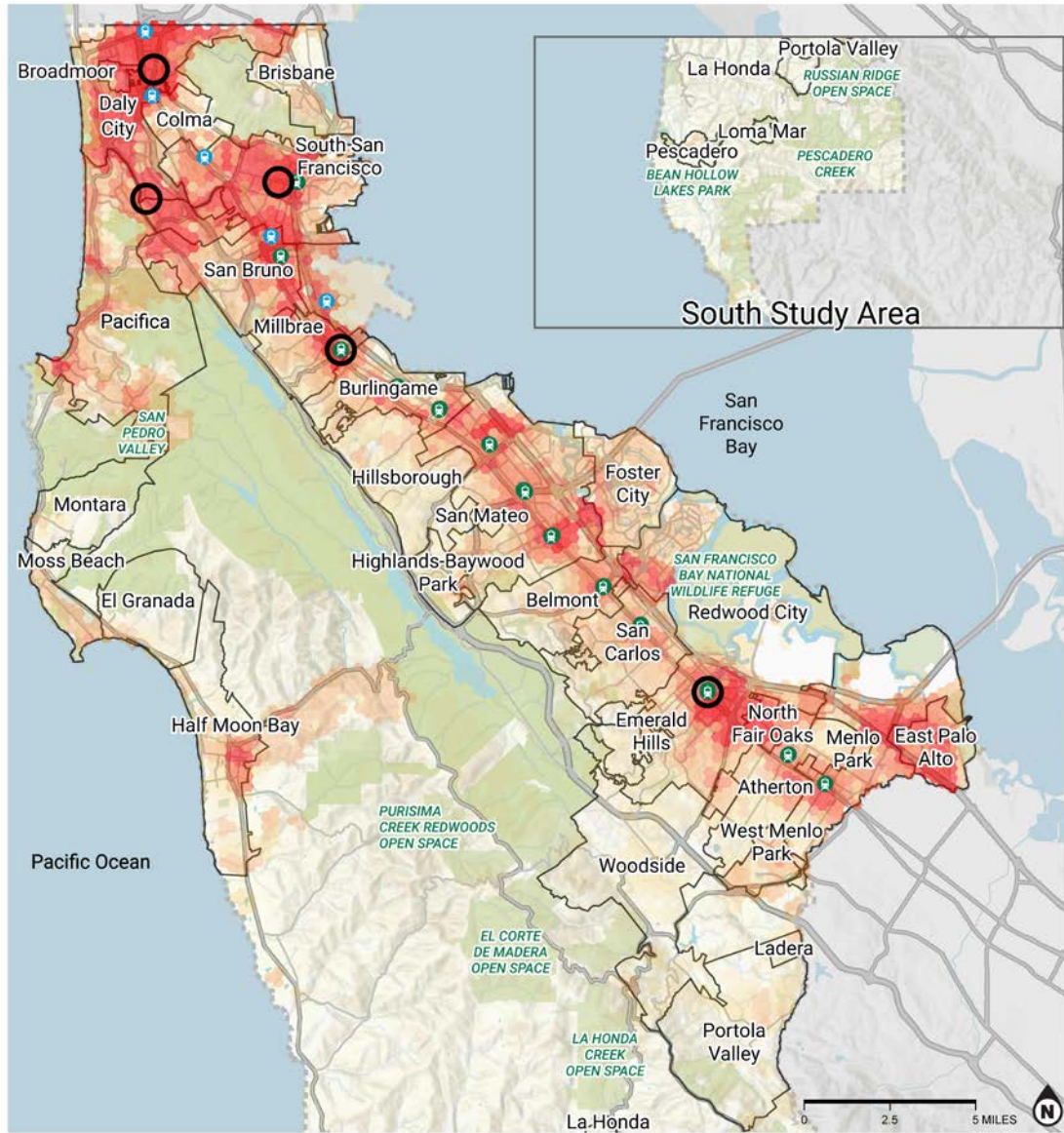
System Expansion

The pilot is an opportunity to test and refine the multi-jurisdictional micromobility management approach. At the end of the pilot period, the study team envisions that revised recommendations and program management structure may be adopted to incorporate lessons learned from the pilot. The system should expand beyond the initial Phase 1 Pilot Program service area based upon factors such as ridership, funding, infrastructure, new indicators of demand, and political will/agency capacity. Following the pilot program, with the multijurisdictional contract in place, the program manager should work with the operator(s) to develop satellite programs at coastal communities, with consideration for alternate service models, such as reduced user fees and/or long-term lending.

PROGRAM GUIDELINES & REQUIREMENTS

A Request for Proposals (RFP) for shared micromobility will lay out guidelines and requirements for the program that the selected vendor must follow. The San Mateo County Shared Micromobility Feasibility Study offers recommendations for common elements that will be included, such as type of vehicles permitted, rider age restrictions, and contract length.

Map 1. Prospective Pilot Areas



PROSPECTIVE PILOT AREAS

SAN MATEO COUNTY SHARED MICROMOBILITY FEASIBILITY STUDY



PROSPECTIVE PILOT AREAS & SCORE

- Prospective Pilot Areas
- Higher Score
-
- Lower Score

DESTINATIONS + BOUNDARIES

- BART Station
- Caltrain Station
- County Boundary
- San Mateo County City Boundaries
- Water
- Park

Data provided by the 2021 C/CAG Comprehensive Bicycle and Pedestrian Plan (2021), Caltrans State Highway Network (2021), San Mateo County GIS Open Data (2021), ESRI Living Atlas (2021), American Community Survey 5 Year Estimates (2019), Longitudinal Employer-Household Dynamics (2019), Bureau of Transportation Statistics Docked Bikeshare Ridership (2021), US Environmental Protection Agency Smart Location Database (2021), and OpenStreetMap (2021).