

4G BIKE SHARING COMES TO THE SAN FRANCISCO BAY



Heath Maddox

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Bicycle sharing began sweeping across Europe in the mid-1990s when the *Velo'v* program in Lyon ushered in the third generation of public bicycle sharing systems with a number of innovations including the use of electronic locks, smart cards, telecommunication systems, and onboard computers.

In the past few years, starting with the introduction of the first fourth-generation system, Montreal's *Bixi*, bike sharing has taken off in North America as well. Just since 2010, large-scale systems have launched and continued to expand in Washington DC, Minneapolis, Denver, Boston and a host of smaller programs have rolled out in cities like Boulder, Honolulu, San Antonio, and Broward County, FL. Not to be left out, New York City, Chicago and the San Francisco Bay Area are poised to launch similar systems of their own later this year. These fourth generation systems take all the innovations of generation three and add a solar, portable, modular station design that requires no external AC power or excavation and can be installed and turned on in an hour or less.

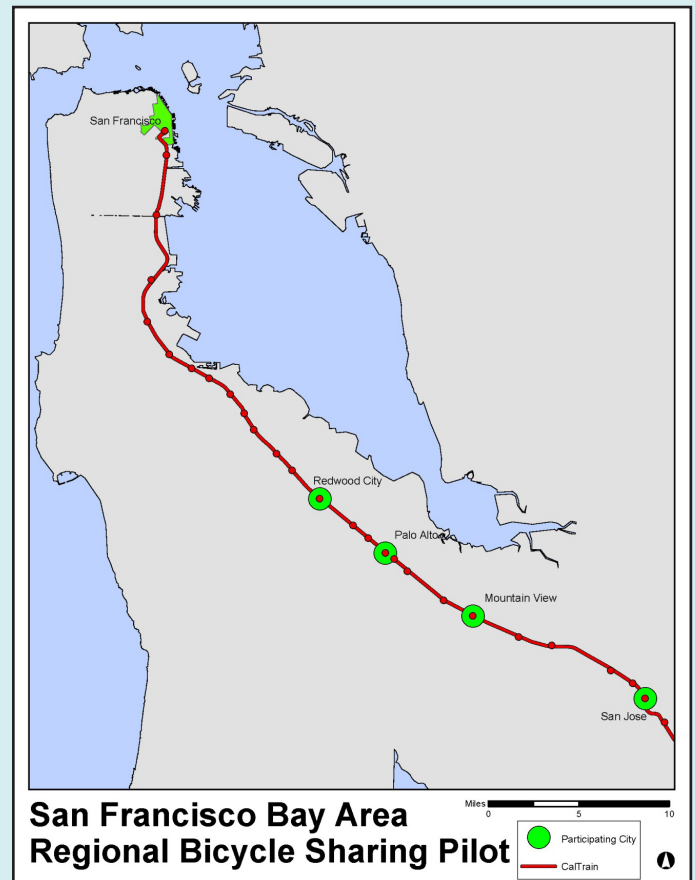
San Francisco Regional Bicycle Sharing System

An interagency team in the Bay Area has been working to bring just such a fourth generation system to San Francisco, the Peninsula and South Bay this fall. A regional bicycle sharing pilot program led by the Bay Area Air Quality Management District (BAAQMD) in partnership with the San Francisco Municipal Transportation Agency (SFMTA), Valley Transportation Authority (VTA) and Caltrain will deploy 1000 bicycles regionally by Fall 2012 at up to 100 stations along the Peninsula transportation corridor. The pilot locations (San Francisco, Mountain View, Palo Alto, Redwood City and San Jose) are all lined up along the Caltrain corridor to facilitate first- and last-mile use of the system in conjunction with regional transit in addition to use of the bikes for stand-alone short trips (see Figure 1).

Half the total, or 500 bicycles and approximately 50 stations, will be located in San Francisco, with 100 in Redwood City

and 400 spread between the South Bay cities.

A system membership will give users access to bikes and stations in any of the pilot locations, but bikes will not be allowed to circulate from one city to another. A major incentive for Caltrain's participation is to encourage bicycle access to their stations without increasing the number of bikes they must accommodate onboard their trains. Membership and use fees have yet to be finalized, but the system is likely to be structured in much the same way it's done in other cities: once you are a member, you can use the system for free for trips of 30 minutes or shorter.



San Francisco Bay Area Regional Bicycle Sharing Pilot Jurisdictions

Membership may cost from \$5 to \$10 a day, or \$75 to \$95 for a year, with monthly or multiday memberships options as well. Once trips go beyond 30 minutes, half-hourly rates kick in to encourage short trips and quick turnover of the bikes. Data from other cities show that 98% of trips made by annual members are 30 minutes or less. Casual users are typically not as skilled at avoiding extra fees, but the overwhelming majority of trips by short-term members are still under an hour or two.

A combination of local, regional and federal grants are funding the startup costs of project with major funding coming from a \$4.3 million Metropolitan Transportation Commission (MTC) Innovative Bay Area Climate Initiatives (BACI) grant and \$1.4 million from the BAAQMD's Transportation Fund for Clean Air (TFCA).

Project Schedule

In February 2012, the BAAQMD issued a request for proposals (RFP) for bicycle share vendors to furnish, install and operate the regional pilot system. The RFP closed on March 21, 2012, and the BAAQMD plans to award the contract this spring.

On May 2, 2012, the BAAQMD Board authorized the Air District's Executive Director to enter into a contract with Alta Bicycle Share (Alta) or the next highest ranked bidder in the event that no agreement can be reached with Alta. Alta, which operates bike share systems in Washington DC, Boston and Melbourne, and has been chosen to deliver systems in Chicago and New York City, was the highest ranked vendor in the Air District's proposal evaluation process. If negotiations move according to schedule, Alta should be under contract before summer,

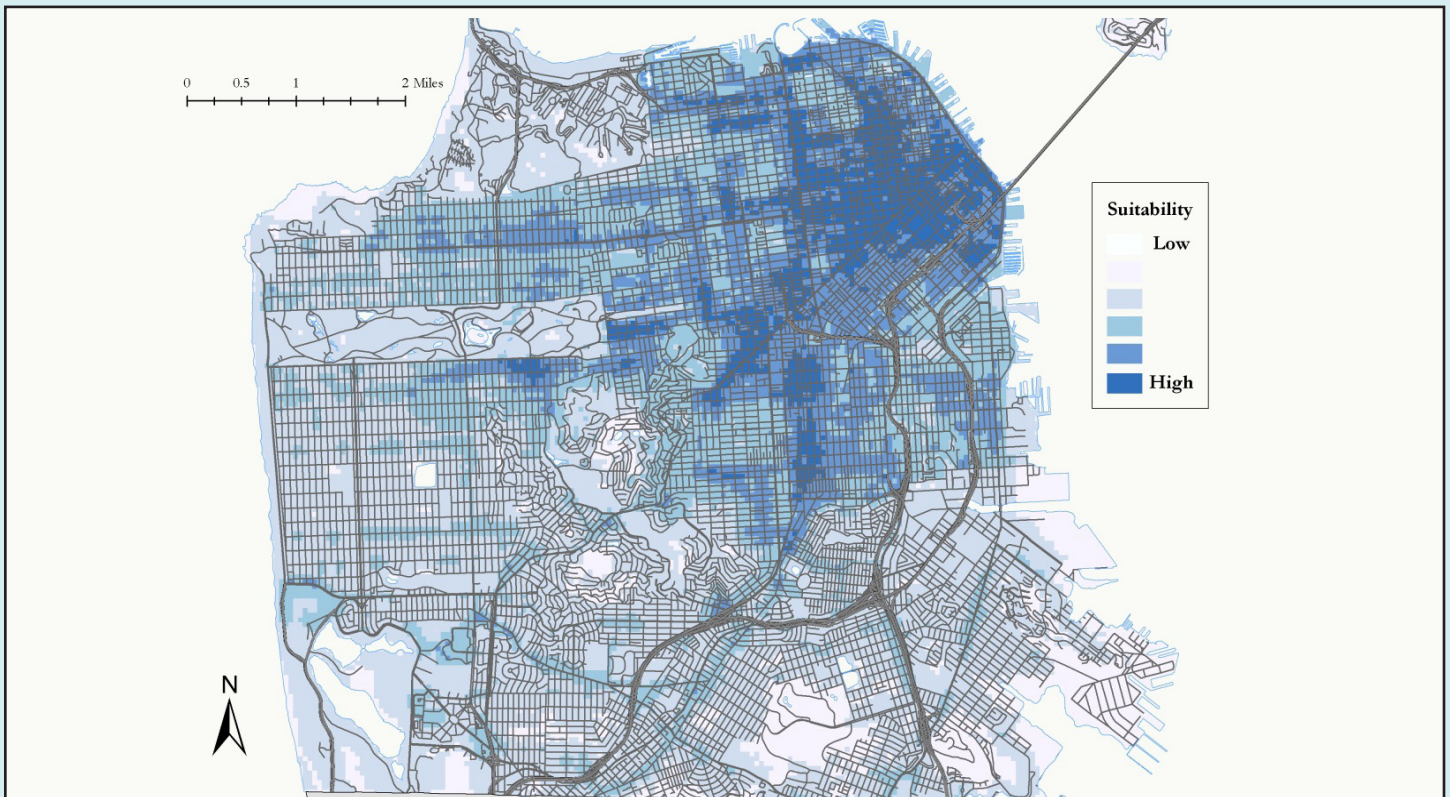
which would facilitate a system launch by early Fall.

This BAAQMD-led project is a pilot that will run for 12 to 24 months, followed by a final evaluation. Upon completion of the evaluation, the goal of the project is for regional operations to continue and expand seamlessly following the pilot period.

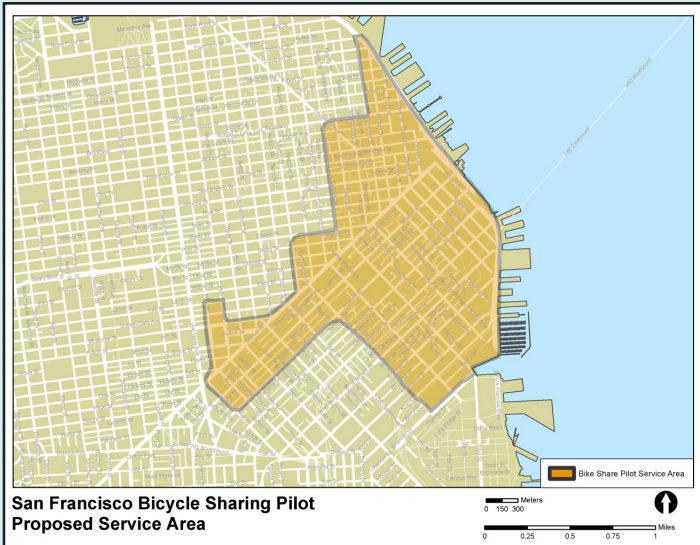
San Francisco Bicycle Share Pilot Service Area

The pilot service area in San Francisco lies in the city's employment- and transit-rich Downtown/SOMA area between the Financial District, Market Street and the Transbay and Caltrain terminals. This area is notably flat, has the densest bikeway network coverage and has the highest bicycle use counts in the city. The service area also assists those who commute by transit from cities to the east and south that encounter difficulties bringing a bicycle with them on BART or Caltrain.

Much of the city's densely urbanized northeastern quadrant is similarly well-suited for bicycle sharing, and the pilot service area is strategic for immediate expansion into this area. To choose the introductory service area, a citywide suitability study was done, using eleven factors



San Francisco Bike Share Suitability Map.



City of San Francisco Bicycle Share Pilot Service Area

known to be positively correlated with bike sharing success in a raster-based GIS overlay analysis.

Station Planning

The SFMTA bicycle sharing team has identified over 60 potential sites concentrated in or immediately outside of the pilot service area in locations found to be most suitable for bicycle share use. Within the service area, the SFMTA prioritized stations to serve regional transportation stations such as BART and Caltrain.

The remaining sites fall along the existing bicycle network and maintain the ideal distribution of one station every two to four blocks. This fine-grained coverage creates a flexible network for users and increases options when the system is used for both first- and last-mile connections to transit and for short stand-alone trips. In the Peninsula and South Bay cities, stations are primarily being concentrated in the area immediately surrounding the anchoring Caltrain station, but will also provide connections to nearby major trip attractors (e.g. Stanford University, and large high tech campuses). An exciting aspect of this regional pilot is that it will test the viability of bike sharing in urban centers of varying size and density, providing key lessons for expansion to the rest of the region.

System Sponsorship

Cities elsewhere have had success in enlisting sponsors to support bicycle sharing efforts. Kaiser sponsors Denver's system, Blue Cross Blue Shield sponsors NiceRide in

Minneapolis, and New Balance sponsors the Hubway system in Boston. New York City just announced that Citibank will put up \$40M for naming rights of their soon-to-be-launched system. Sponsorship recognition is generally through logo placement on the program website, at stations, and on the bicycles themselves. Such logo placement is different from advertising schemes in cities like Paris, where bike sharing is delivered under contract with an outdoor advertising company and subsidized by a revenue stream stemming from ads on billboards and street furniture, much of which is otherwise unrelated to the actual bicycle sharing system itself.

Here, the regional partners have begun to develop a sponsorship program and identify sponsorship opportunities for the San Francisco Bay Area bicycle share system. Once there is a selected bicycle share vendor, the partners will determine more details regarding sponsorship. The available grant funds will cover the majority of the capital and operating expenses for the pilot phase of the project. Additional revenue from membership and user fees as well as sponsorship will help the project reach complete rollout of the 1000 bicycle pilot and may provide funding for expansion.

Post Pilot: Evaluation and Expansion

MTC will be performing an in-depth analysis of all the BACI-funded grants to determine their effectiveness at reducing greenhouse gas emissions. Member surveys in conjunction with the rich travel data that will be automatically gathered by the bike sharing system as it is used will provide the basis for this evaluation. Economic and fiscal analyses will be conducted to judge the long-term viability of the system as well. If bike sharing proves a success and is deemed economically sustainable and worthy of continuing, then a transition phase will be initiated in which ownership and overall management of the system is transferred from the BAAQMD to a yet-to-be-determined agency or company.

Additional Information

Additional materials, including fact sheets and presentations are available on the BAAQMD, SFMTA, and VTA project websites online:

<http://www.baaqmd.gov/Divisions/Strategic-Incentives/Alternative-Transportation/Bike-Share-Pilot.aspx>

<http://www.sfmta.com/cms/bshare/indxbishare.htm>

http://www.vta.org/bike_information/bike_sharing.html