

REPORT TO COUNCIL

SUBJECT

Implementation of a Bike Share Program (Study Issue)

REPORT IN BRIEF

The Bicycle and Pedestrian Advisory Commission sponsored the Bike Share Program Study Issue which examined the costs, logistics, and efficiency of establishing a bike share program in Sunnyvale (Attachment 1, Council Study Issue: DPW 14-05). The Study Issue was ranked 3rd by Council. This report identifies a feasible concept for Sunnyvale based on program components, capital outlay, operation and maintenance requirements, potential ridership and revenue generation.

While Sunnyvale has a strong bicycle network, the segregated and lower-density land uses make adequate station spacing challenging, thus reducing ridership potential limiting the program's success. While Bay Area Bike Share operates as a system, gaps between Mountain View and San Jose limit the ability to establish connections of reasonable riding distances to and from Sunnyvale, thus reducing the program's potential for success. This program is still relatively new to the Bay Area. A formal evaluation of the current pilot program has not been completed and staff will continue to monitor progress as performance data is published.

In the best case scenario where Sunnyvale is able to be integrated into the existing Bay Area Bike Share program and the program is grant-funded, implemented, and operated through the Air District well beyond this initial pilot phase, the City, would have to allocate only a match fund for implementation (typically 11%-12%, roughly \$70,000 for a ten station system), with operations fully covered by fees and grants. In the worst case scenario, as the project sponsor the City would be responsible for the full implementation, operation, and maintenance costs of the system. For a ten-station system this would equate to approximately \$600,000 for implementation, and \$48,000 to \$168,000 annual operating costs. As the future of the existing system is uncertain, the City would have to be prepared to allocate full funding for operating costs in the event the Air District is not able to continue the program and the City wishes to maintain the system in the City.

The Bicycle and Pedestrian Advisory Commission considered this item on September 18, 2014 (RTC 14-0702). Commissioners voted 5-0 (Attachment 3) to support the staff recommendation of Alternative 2: Monitor the Bay Area Bike Share Pilot Program for resolution of ongoing funding issues at a regional level before re-evaluating the future of a bike share program in Sunnyvale.

BACKGROUND

Bike sharing is a system that allows members to use bicycles for short trips for a fee. In comparison to conventional bike rentals which may allow bikes to be rented on a half-day, daily, or even weekly basis, bike sharing systems are typically designed for short-term trips often referred to as "first-mile"

or “last-mile” connections. Bike share systems are commonly linked to transit system access. A typical concept of a bike share system is to strategically place stations in a manner that connects transit to popular final destinations thus encouraging residents, tourists, and commuters to use transit and complete their trips with this non-motorized transportation service. Table 1 below outlines some additional differences between conventional bicycle rentals and bike sharing.

Table 1: Conventional Bicycle Rentals vs Bike Sharing

	Conventional Rentals	Bike Sharing
Does the bicycle have to be returned to the original rental location?	Yes	No
Are there a variety of bicycle styles to choose from?	Yes	No
Does the rental station have on-site staff?	Yes	No
Are the bicycles available 24/7?	No	Yes
Do I have to sign or accept a user agreement?	Yes	Yes
Are children's bicycles available?	Yes	No
Can the bicycles be rented for long-term trips?	Maybe, depends on the vendor.	No. System is designed for short-term rides (typically 30 minutes)

Over the last decade, major cities worldwide (Paris, London, Barcelona, Tokyo, Bangkok, and Buenos Aires to name a few) have implemented bike sharing programs. Major US cities with bike share programs include New York City, Austin, Chicago, Salt Lake City, Los Angeles, and San Francisco. In September 2012 the Federal Highway Administration released a report *Bike Sharing in the United States: State of the Practice and Guide to Implementation* which included multiple program profiles. These profiles can be found in the appendix of the document and are included in Attachment 2 of this report.

EXISTING POLICY

General Plan, *Land Use and Transportation Element Policies*:

- 4.14(b): Ensure the provision of bicycle support facilities at all major public use locations.
- 5.5(d): Maximize the provision of bicycle and pedestrian facilities.
- 5.5(g): Ensure safe and efficient pedestrian and bicycle connections to neighborhood transit stops.
- 5.9: Appropriate accommodations for motor vehicles, bicycles, and pedestrians shall be determined for city streets to increase the use of bicycles for transportation and to enhance the safety and efficiency of the overall street network for bicyclists, pedestrians, and motor vehicles.

Council Policy Manual, Policy 7.1.1 *Fiscal -Long Range Goals and Financial Policies B.4: Grants and Intergovernmental Assistance*

- B.4.1 The use of intergovernmental grant assistance for routine programs will be discouraged. Intergovernmental grants may be used for special projects which strengthen a program, have a definable starting and ending date, and do not expand a service in such a way as to require

the substitution of local funds to continue part or all of the service once intergovernmental assistance ends.

- B.4.2 Intergovernmental assistance may only be used to establish or expand a program when the Twenty-Year Resource Allocation Plan meets the following conditions:
 - The program is eliminated at the end of the intergovernmental funding period, or
 - The program continues with the requisite local funding in the Twenty-Year Resource Allocation Plan upon completion of intergovernmental funding.

ENVIRONMENTAL REVIEW

N/A

DISCUSSION

Bay Area Bike Share

In summer 2013 Bay Area Bike Share was launched. Bay Area Bike Share is a regional program with stations along the peninsula - San Francisco, Redwood City, Mountain View, Palo Alto, and San Jose. Bay Area Bike Share (<https://www.bayareabikeshare.com/>) is a collaboration between Metropolitan Transportation Commission (MTC), Bay Area Air Quality Management District (Air District), City and County of San Francisco, City of Redwood City, County of San Mateo, San Mateo County Transit District, San Mateo County Transportation Authority, and Santa Clara Valley Transportation Authority (VTA). The pilot program was funded through local, regional and federal grants and was launched August 2013.

This pilot program has launched 70 stations. The program received \$11.2 million in funding, with the majority of these funds (\$7.1 million) coming from MTC grants and \$1.3 million of the funds being local match. The Air District is the lead agency for the system and VTA is the partner for Santa Clara County; this includes stations in the cities of Palo Alto, Mountain View, and San Jose. Although the pilot program operation time has not been established, it is anticipated that it will be in operation for one to two years.

With the exception of San Francisco, Bay Area Bike Share in all the cities operates as a system where bicycles can be used for city connections (while this is an option, city-to-city connections may exceed allowable time limits). The system is operated by Alta Bicycle Share and has the fees can be found on the Bay Area Bike Share website at <http://www.bayareabikeshare.com/pricing>. The base membership fees include unlimited 30-minute trips with overtime fees for longer trips. Current charges for trips between 30 and 60 minutes will cost an additional \$4; any trip beyond an hour will cost an additional \$7 per half hour.

As the system reaches one year in operation, the partnering agencies are tasked in evaluating the program. In early July VTA provided a Bike Share Program Update to the VTA Bicycle & Pedestrian Advisory Committee. The update outlined the system performance, evaluation and expansion. Table 2 outlines some statistics of the system performance up until May 31st, 2014. VTA staff noted that although the formal evaluation of the program's success has not started, Air District has received nearly \$9 million additional dollars in funding to expand the program to the East Bay. Furthermore, they are evaluating the extension of the contract with Alta Bicycle Share to continue their services to operate the pilot program for another year. Program management and operation services are uncertain beyond the pilot program.

Table 2: Existing System Performance

City	Total Stations	Total Trips	Total Trips in Reference to the System (%)	Average Trips per Station	Average Daily Trips
San Francisco	35	200,386	90%	5,725	726
Redwood City	7	1,127	1%	161	4
Palo Alto	5	2,631	1%	526	10
Mountain View	7	5,181	2%	740	19
San Jose	16	14,004	6%	875	51
Systemwide	70	223,329	100%	3,190	809

1. All data on existing Bay Area Bike Share System is from www.bayareabikeshare.com for operations between 8/29/2013 and 5/31/2014

The pilot program was intended to be a phased implementation with the second phase being implemented early 2014. However, Bixi, the equipment supplier for Alta filed for bankruptcy earlier in 2014 and therefore the additional phase of this pilot program has been put on hold as Bixi undergoes ownership change. The next phase is now expected to be implemented in late 2014 or early 2015. Full deployment of the program is expected to increase the number of stations from 70 to 100.

Bike Share in Sunnyvale

Existing System

As mentioned earlier, Bay Area Bike Share is a regional program and operates mostly as a single system. While there is no regulation requiring that any bay area bike share program has to collaborate, or be part of Bay Area Bike Share, in an effort to create an efficient and area-wide system that encourages bicycling as a first- or last- mile connection. It would be best that any future programs in Sunnyvale be part of the existing system. As the program expands, Sunnyvale visitors and residents would have more options to connect to regional destinations and attractions.

Local Market

South of Evelyn Avenue Sunnyvale is predominantly residential; north of Evelyn Avenue, the City is predominantly industrial. Shopping Centers are mostly along El Camino Real corridor across the central part of the City. The City's downtown district is mainly located south of the Caltrain tracks, north of El Camino Real, between Mathilda and Sunnyvale Avenues. The downtown area has a dense retail and restaurant use on Murphy Avenue, between Evelyn and Washington Avenues; this area is an attractive destination for weekday lunch, weeknight retail and restaurant activities and hosts a farmers market on Saturdays. While this block of Murphy Avenue is dense with shopping and restaurants, immediately adjacent blocks are less dense and consist of a Macy's retail center, high-density residential (currently under construction), parking garages and parking lots; on the outskirts of the downtown district one can find mostly single family residences or town homes.

The northern boundary of the downtown district is the Sunnyvale Caltrain station. The station is one of the major stations of the Caltrain system and hosts a parking lot and five-level parking garage. Caltrain is the major commuter transit system along the peninsula connecting San Francisco to

Gilroy. Being one of the major stations, the Sunnyvale Station is a stop for multiple peak-hour express lines; the Lawrence Station is another Caltrain station in Sunnyvale but is less popular as express lines do not stop at this station and there are no other transit connections. VTA is the transit agency that provides service through Sunnyvale and has two transit centers in Sunnyvale. One of the transit centers is located in the downtown area, across the street from the Caltrain Station and one block from Murphy Avenue, and it serves express, limited, community, and local bus lines; the Lockheed Martin Transit Center in the Moffett Park area serves express, limited, and local bus lines as well as light rail lines.

The City currently has approximately 65 miles of bicycle facilities, 50 of which are marked bike lanes. This extensive network has been growing in recent years and staff has been working to upgrade existing bike routes to designated bike lanes. The network provides intra-city connections to all extents of the City as well as connections to transit such as the Caltrain stations and connections to adjacent cities.

As previously noted, bike share systems are intended to provide first- and last- mile connections. It is typically recommended that bike share networks be implemented where there are high population and job densities and a diverse land use. Stations should be placed no more than half mile apart and close to popular destinations in order to minimize walking distances. Bike share stations should be at locations where they are visible from multiple approaches and near transit and bike facilities in order to facilitate connections. While the City's extensive bicycle network is very favorable to the operation of a bike share system, the City's separation of industrial on the north end and residential on the south end with commercial along El Camino Real and other retail and restaurant on one block of Murphy Avenue would make the success of a system challenging. Connecting the existing areas of single-use to transit and other popular destinations while maintaining desirable station spacing and placement would be difficult. In providing first- and last-mile connections stations are strategically placed at transit areas and the destinations they are intended to connect to.

The Sunnyvale Caltrain Station and the downtown VTA Sunnyvale Transit Center are less than an eighth and less than a twelfth of a mile from the north end of the downtown Murphy Avenue, respectively. For most people this would equate to less than a three minute walk, thus making walking more desirable than taking the time to undock a bike, ride to a downtown Murphy Avenue station, re-docking the bike and then walking the retail or restaurant destination. This is especially true when traveling with a group of people, as is often the case, as undocking and docking would take longer and not all members of the group may be able to bike. As for connections to other areas, such as major employment centers, the Civic Center, El Camino Real shopping centers, or the other VTA or Caltrain transit connections, the majority of these are well beyond the half mile recommended spacing, thus reducing the ridership potential.

Since Bay Area Bike Share operates as a system, an ideal regional program would expand the system to southern Mountain View, Sunnyvale, and Santa Clara to provide a comprehensive south bay connection and facilitate city-to-city connectivity. Implementing a bike share system centralized in the downtown area, El Camino Real, or the northern industrial area would still leave these stations isolated from Mountain View and San Jose, thus limiting the service area to Sunnyvale only and reducing ridership potential.

In May 2014, the City submitted a letter of intent to MTC to be included as part of a regional application for projects for the state's Active Transportation Program; the regional application was to

identify projects that will fit into the existing Bay Area Bike Share program. MTC concluded that Sunnyvale was not a suitable candidate for this specific application, but noted that they would include Sunnyvale in future discussions regarding planning for expansion of the bike share program. Sunnyvale's application proposed ten station stations around the downtown area, El Camino Real corridor, Moffett Park Light Rail Station, Civic Center, and Peery Park.

Capital Outlay

The majority of the existing Bay Area Bike Share stations are implemented within the public right-of-way as this makes the stations more visible. Currently the existing infrastructure in Sunnyvale consists of typical public right-of-way widths of eight to eleven feet from the face of curb to the property line, with about five feet of sidewalk. The size and configuration of stations varies and depends on the site layout, however under typical conditions accommodating bike share stations within the sidewalk while complying with American with Disabilities Act (ADA) accessibility requirements, would be challenging.

A solution to limited right-of-way sidewalk access is sidewalk extensions. While feasible, this is typically not preferred as it would be a costly capital cost to the City. A lower-cost option that is currently being used in other cities is on-street station placement. Some potential challenges with on-street placement are parking removal and impact on traffic operations. If stations were not able to be accommodated within the public right-of-way, the Air District in collaboration with the City would have to seek private partners for station locations.

Operation and Maintenance

As mentioned earlier, Alta Bicycle Share manages and operates the Bay Area Bike Share program. As is the experience in San Jose, under the existing pilot program the City has very little involvement in the operations and maintenance. Aside from forwarding occasional customer inquiries, all operations, including customer service, are handled by Alta. Bike share operations include: bike redistribution to ensure there's a good balance of available bikes and docks at each station, customer service, fee and membership administration, and marketing. Given the type of operations involved with a bike share system, Sunnyvale would need to rely on outside vendor to operate the system.

Program Costs

As previously noted, Bay Area Bike Share was funded through a combination of federal, regional, and local grants in the amount of \$9.9 million and a local match of \$1.3 million. It is estimated that it costs between \$52,000 (small station [9 bikes]) to \$69,500 (extra-large station [15 bikes]) for station implementation. These costs include: planning and system design, bicycles, docks, kiosk, and equipment installation.

As there has been no formal evaluation of the existing program, it is challenging to assess the long-term operational costs of a bay area program. The American Public Works Association (APWA) recently reported on a feasibility study completed for a Monterey area system (Bike Share: Coming to a city near you?, APWA Reporter, Volume 81, No. 7, p. 57). The report noted that the cost recovery from user fees can be anywhere between 20% and 70% of the program cost. Approximate annual operating costs are \$24,000 per station. Although there has been no formal evaluation of the existing program, work is underway to establish a sponsorship program to sustain the existing system and potentially expand it. However, these efforts are still in progress and no funding has yet been secured for the future of the program.

Although major connections in Sunnyvale may result in station-spacing beyond the recommended half-mile, for cost estimation purposes this report will assume ten medium stations in Sunnyvale; the cost for ten Bay Area Bike Share stations is roughly \$600,000; this cost would not include any sidewalk or roadway modifications that may be needed at some locations. In the event these costs are grant-funded as part of the existing program, typically an 11.5% match fund is still expected of the project sponsor (i.e. the City); this match fund would equate to nearly \$70,000 being allocated by the City to the project. In the event that Air District cannot, or chooses not to continue with the program beyond the pilot phase, which ever agency(ies) continues to operate and maintain the system will have to seek funding for operation and maintenance costs; consequently, the implementation of ten medium stations may result in approximately \$48,000 to \$168,000 needed annually for the City's operating budget. This amount would vary depending on revenue generated from memberships and bike usage charges.

Board and Commission Review

The Bicycle and Pedestrian Advisory Commission considered this item on September 18, 2014 (RTC 14-0702). Commissioners voted 5-0 (Attachment 3) to recommend Alternative 2: Monitor the Bay Area Bike Share Pilot Program for resolution of ongoing funding issues at a regional level before re-evaluating the future of a bike share program in Sunnyvale.

The Bicycle and Pedestrian Advisory Commission discussed their concurrence on the viability of a bike share program in Sunnyvale under existing conditions. BPAC members expressed their desire to have starter programs funded by the City, but agreed that costs for implementation, operation, and maintenance for a couple of stations were concerning. The Commission also discussed that staff should consider carbon offset benefits, station location, and bike share programs outside of the Bay Area as part of future studies and to continue communication with Bay Area Bike Share coordinators to emphasize Sunnyvale's interest in the program.

FISCAL IMPACT

One scenario would have Sunnyvale integrated into the existing Bay Area Bike Share program. Currently the pilot project does not have funding secured beyond the pilot phase, which is estimated to run until 2015. If the existing program becomes financially sustainable and Sunnyvale elects to participate, this would mean that the City would have to allocate only a match fund for purchasing and installing bicycles and station equipment. Matching funds would typically be 11%-12% of project costs, roughly \$70,000 annually for a ten-station system (approximately 110 bikes), with operations fully covered by fees and grants. As the future of the existing system is uncertain, the City would have to be prepared to allocate full funding for operating costs in the event the Air District is not able to continue the program and the City wishes to maintain the system in the City. This approach is currently discouraged by Council Fiscal Policy B.4.1.

Under a scenario with the City as the sole project sponsor, the City would be responsible for the full implementation, operation, and maintenance costs of the system. For a ten-station system this would equate to approximately \$600,000 for implementation, and up to \$168,000 in annual operating costs depending on revenue from members.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of

the City Clerk and on the City's website.

ALTERNATIVES

1. Do not actively pursue a bike share program in Sunnyvale.
2. Monitor the Bay Area Bike Share Pilot Program for resolution of ongoing funding issues at a regional level before re-evaluating the future of a bike share program in Sunnyvale.
3. Allocate approximately \$600,000 for the implementation of a City-sponsored bike share program and approximately \$168,000 annual in operation costs
4. Other direction as provided by Council.

BOARD/COMMISSION AND STAFF RECOMMENDATION

Alternative 2: Monitor the Bay Area Bike Share Pilot Program for resolution of ongoing funding issues at a regional level before re-evaluating the future of a bike share program in Sunnyvale.

As the future of a permanent Bay Area Bike Share program is uncertain and MTC has already made a determination that Sunnyvale will not participate in the current planned expansion of Bay Area Bike Share, staff recommends Alternative 2. The Bay Area Bike Share Pilot Program is still in progress. Funding to cover ongoing operating expenses is uncertain and will vary as the existing program matures and participation becomes stable. Sunnyvale's fiscal policies discourage starting new programs with grant funds that could become unsustainable in the long term. Further monitoring of the current pilot program will better position the City to understand long-term operating costs and consider future grant opportunities. Although MTC did not select Sunnyvale for the current pilot program expansion, it agreed to stay in touch regarding Sunnyvale's interest in the program.

The Bicycle and Pedestrian Advisory Commission voted unanimously to recommend Alternative 2.

Prepared by: Carla C. Ochoa, Transportation Engineer

Reviewed by: Manuel Pineda, Director, Public Works

Reviewed by: Robert A. Walker, Assistant City Manager

Approved by: Deanna J. Santana, City Manager

ATTACHMENTS

1. 2014 Council Study Issue: DPW 14-05 Implementation of a Bike Share Program
2. Program profiles listed in the appendices of the *Bike Sharing in the United States: State of the Practice and Guide to Implementation* by Toole Design Group and the Pedestrian and Bicycle Information Center for USDOT Federal Highway Administration
3. Excerpt of the September 18, 2014 draft meeting minutes of the Bicycle and Pedestrian Advisory Commission