

# bike share business plan

Sacramento Metropolitan Air Quality Management District

## **Technical Working Paper #5: Liability, Ordinance, and Policy**



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Ordinance, and Policy*

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## LOCAL ORDINANCES AND POLICIES

Permitting processes, sign ordinances, and helmet laws should all be considered in the implementation of a bike share program. An ordinance permitting cyclists to ride across sidewalks to access bike share stations could also help to encourage bike share use.

## DESIGN STANDARDS AND PERMITTING

Third generation bike share stations have been installed in culturally sensitive areas where public right-of-way is at a premium, such as Washington, D.C.'s National Mall, the Harvard University campus, Boston Common, the New York Public Library and Washington Square, and San Antonio's Alamo Square. Still, the relative novelty of bike share suggests that it will be necessary to form a good working relationship with jurisdiction staff and develop a streamlined permitting process.



An installed B-cycle station (top) and PBSC station (bottom).

Photos: Adam Frucci, [www.gizmodo.com.au](http://www.gizmodo.com.au) (top) and [www.bikearlington.com](http://www.bikearlington.com) (bottom).

The City of Denver assembled a small team, including staff from the Department of Zoning Administration, the Department of Public Works, the Agency for Human Rights and Community Partnerships, Parks and Recreation, as well as Bicycle and Pedestrian Planning staff to work with Denver Bike Sharing (DBS) on locating bike share stations. The goal was to develop mutual understanding between DBS and the various City organizations with interests in the location of the stations. Denver Bike Sharing was able to answer questions about the stations, and the City team helped DBS pre-review potential station locations before they were submitted for official permitting review for Major Encumbrance permits. DBS found this a successful approach, and very few permits were denied.



## OUTDOOR ADVERTISING, BILLBOARDS, AND SIGNS

The cities of Sacramento, West Sacramento, and Davis all have ordinances that regulate the use of signs in their communities. The need for signs at bike share stations to inform the public and users about the system and potentially to raise sponsorship and advertising revenue might require modifications to or new interpretations of these ordinances. Sacramento prohibits signs on curbs, sidewalks, and other public areas.<sup>1</sup> West Sacramento prohibits outdoor general advertising signs (billboards).<sup>2</sup> Davis prohibits signs located in the public right-of-way, unless an encroachment permit is issued.<sup>3</sup> In each jurisdiction, it will be necessary to work with the appropriate authority, such as the planning and design commission, community development department, or community development and sustainability director to ensure a smooth process for including signage, advertising and sponsor recognition on bike share stations.

Any agreements made between the cities and private entities could also impact the ability of the system to raise revenue from advertisers or sponsors from advertising or sponsorship panels on the stations. In Los Angeles, Bike Nation had proposed a private system that would be funded largely through advertising revenue, but experienced an unexpected problem because of a conflict with an existing advertising contract. Outdoor advertisers CBS Outdoor and JCDecaux jointly hold the rights to street furniture advertising in Los Angeles through 2021. Although the contract does not specifically mention bicycle kiosks, a spokeswoman for Los Angeles' Bureau of Street Services has indicated that all advertising in the public right of way is subject to the terms of the contract.<sup>4</sup> Any contracts by the cities of Sacramento, West Sacramento, and Davis that could restrict advertising on street furniture and objects in the public right of way should be reviewed.

## HELMET LAWS

California Vehicle Code 21212 requires all bicyclists and passengers under age 18 to wear an American Society for Testing and Materials (ASTM)- or United States Consumer Product Safety Commission (CPSC)-approved helmet when a passenger or riding upon a bicycle. Because of the difficulty of providing

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<sup>1</sup> Sacramento City Code, Chapter 15.148.630.

<sup>2</sup> West Sacramento Municipal Code, Chapter 17.33.090.

<sup>3</sup> Davis Municipal Code, Chapter 40.26.020.

<sup>4</sup> Nelson, Laura J. "L.A. bike-sharing program hits a snag." *Los Angeles Times*. 26 June 2013.



helmets to users, this might practically restrict the minimum age of bike share users to 18. Davis, Sacramento, and West Sacramento do not have additional requirements for bicycle helmet use. In other locations, such as Seattle, Washington, helmets are required for all cyclists. The Seattle bike share program is planning to proceed with a helmet vending system that will allow users to check out helmets along with their bikes and return them for cleaning and inspection.<sup>5</sup>

## SIDEWALK RIDING

Sacramento, West Sacramento, and Davis all prohibit riding bicycles on sidewalks in at least some areas, particularly the types of areas likely to install bike share stations. Sacramento prohibits sidewalk riding except within residence districts and as part of an established bike route;<sup>6</sup> West Sacramento prohibits sidewalk riding in within a business district;<sup>7</sup> and Davis prohibits sidewalk riding within the central traffic district,<sup>8</sup> bounded roughly by B Street, 1<sup>st</sup> Street, the Southern Pacific railroad right-of-way, and 5<sup>th</sup> Street.

Allowing cyclists to ride safely on sidewalks in order to access a bike share station in these areas could help to encourage bike share use. Denver Bike Sharing worked to change Denver Municipal Code to allow riding bicycles on sidewalks when accessing a B-Station or other parking facility on the same block.<sup>9</sup>

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<sup>5</sup> <http://grist.org/cities/bike-sharing-goes-bigtime-but-can-it-get-over-its-little-helmet-problem/>

<sup>6</sup> Sacramento City Code, Chapter 10.76.010.

<sup>7</sup> West Sacramento Municipal Code, Chapter 10.32.020.

<sup>8</sup> Davis Municipal Code, Chapter 6.02.060.

<sup>9</sup> Denver, Colorado Code of Ordinances. Title II, Chapter 54, Article IX, Division 1, Sec. 54-576.



## SECURITY, SAFETY AND LIABILITY

In the early stages of bike share in the U.S., the media expressed many concerns about the potential for theft of and damage to bikes and stations exposed to the elements and left unattended; the safety implications of providing bicycle access to inexperienced cyclists and visitors unfamiliar to city streets; and the liability that could fall upon equipment manufacturers, bike share system operators, local jurisdictions, and other government agencies or nonprofit organizations. However, these issues have not materialized in U.S. bike share systems to the extent that was feared: theft, vandalism, and damage to bike share equipment has been lower than expected; early data suggest that bike share users are experiencing a lower crash rate than the general cycling population; and system operators have neither been confronted with major liability claims, nor found the burdens of mitigating liability risk to be an insurmountable challenge.

### SECURITY

Although European systems such as Paris' Vélib have experienced difficulties with vandalism and theft, U.S. systems have had very few problems, as shown in **Table 1**. In their first season of operation, Capital Bikeshare, Nice Ride, and Denver B-cycle collectively lost only four bikes.<sup>10</sup>

**TABLE 1 – FIRST SEASON BIKE SHARE LOSS AND DAMAGE**

Bike Share System	Bikes in System	Stolen/Lost	%	Vandalized/Damaged	%
Capital Bikeshare	1,110	2	0.18%	0	0.00%
Denver, B-cycle	500	1	0.20%	1	0.20%
Nice Ride Minneapolis	700	1	0.14%	3	0.43%
Biki (Montreal, QC)	3,000	12	0.40%	75	2.50%
Vélib (Paris, France) <sup>1</sup>	20,600	4,000	19.42%	8,000	38.83%

Vélib reported 8,000 lost/stolen and 16,000 vandalized/damaged bikes in its first two years

<sup>10</sup> Rixey, Rodney A. "Case Studies in Bike Sharing: Lessons for Santa Monica." 2012.



In the first three-and-a-half years of Denver B-cycle's operations, they have lost approximately 11 bikes to theft or damage beyond repair. Approximately 11 tires were slashed, and one dock was damaged to the point of needing replacement. The most common form of damage to the system hardware is graffiti, such as stickers, marker, and paint, on the stations and bikes.

As a preventive measure, requiring members to register and place a deposit or credit card hold before renting a bike provides accountability and a disincentive to steal or lose the bike. The mechanism that locks the bike to the dock is also secure; none of the lost or stolen bikes went missing while docked at the station. A cable lock built into the bike, as in the case of some B-cycle bikes, might help to prevent theft while the bike is not docked at the station, but is not as secure as the station dock.

To combat vandalism, Denver Bike Sharing's rebalancing staff remove graffiti as soon as it is noticed or reported to decrease the vandal's motivation. At a station location that suffered multiple tire slashes, DBS installed a fake video camera as a deterrent. Since the camera was installed, there has been no new major vandalism at that station; however, the tire slashing vandalism accompanied other automobile vandalism and did not appear to specifically target the station, so it is not clear that the camera itself deterred further vandalism; there are no plans for fake cameras at additional stations at this time.

## SAFETY AND LIABILITY

Safety concerns have also been limited. The experience of the Capital Bikeshare system indicates that bike share users have fewer crashes—nearly half as many in the first season of operation—than the general population. None of the Capital Bikeshare crashes resulted in serious injuries, whereas some other bike trips resulted in serious injuries or fatalities.<sup>11</sup> A number of studies conclude that “the more people bike in a community, the less likely they are to collide with motorists ... likely due to motorists becoming more aware or expecting more to be riding bicycles.”<sup>12</sup> Brightly colored bike share bicycles with unique designs that put cyclists in an upright riding position, highly visible stations, and the media attention that accompanies a new bike share system could further increase motorist awareness.

Nevertheless, bike share systems take steps to improve safety and limit liability. Bike share bicycles are typically equipped with front and rear flashing lights, tire reflectors, additional reflective markings,

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<sup>11</sup> <http://www.streetsblog.org/2011/06/16/from-london-to-d-c-bike-sharing-is-safer-than-riding-your-own-bike/>

<sup>12</sup> Egan, Sophie. “Bike Sharing Can Mean Safer Biking.” *New York Times*. 13 June 2013.

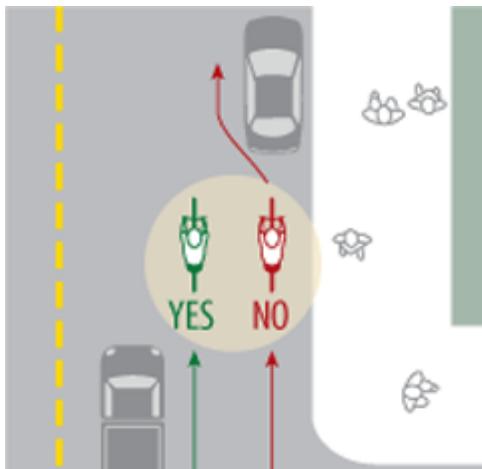


adjustable seats, step-through frames with low centers of gravity, and cable and chain housings to prevent tampering and tangling of clothes. Members also accept a liability waiver and safety warning when registering for the system.

## MAINTENANCE

Regular system maintenance can also contribute to a system’s overall safety record. Denver Bike Sharing inspects every bicycle at least once every two weeks, and tracks maintenance issues and resolutions with system software. Capital Bikeshare’s website also encourages members to be proactive about ensuring bikes are in good riding condition, instructing them to inspect:

- **Air** – Push each tire hard against a curb. If you can flatten it, it needs air.
- **Wheel Spin** – Lift each wheel up and give it a slow spin (spin the back wheel forward so the pedals don't move). Check that the wheel spins freely and doesn't rub against the brake pads or anything else.
- **Tires** – Turn each wheel slowly and look for cuts, bulges, or bubbles.
- **Shifting** – Try all of your gears to make sure the chain shifts smoothly between gears.
- **Brakes** – Check that both brakes are functional.
- **Loose Parts** – Pick up the bike and shake it. You shouldn't hear anything rattling.<sup>13</sup>



“Ride in a straight line” graphic.  
Image: Chicago Cartographics, via  
<https://www.niceridemn.org/safety/>

## EDUCATION AND AWARENESS

Safe bicycling education materials and programs are another strategy for addressing safety concerns. Bike share system websites include safety information and tips for safe riding, such as wearing visible clothing, proper lane positioning, turning, and passing, basic skills for riding in traffic, use of hand signals, and riding with the direction of traffic, avoiding conflicts with opening car doors. Websites also link to external information sources, including bicycling laws, local bicycle maps, and safe riding guides and videos from local and national government and nonprofit transportation and bicycling organizations. Resource organizations for a

<sup>13</sup> <http://www.capitalbikeshare.com/safety>





A safe-riding reminder on CitiBike bicycle.

Photo: DNAinfo/Jill Colvin

Sacramento Area program may include: the Sacramento Area Bicycle Advocates, Sacramento Region Travel Info (511), the Sacramento Transportation Management Association, and the League of American Bicyclists.<sup>14</sup>

System websites also encourage members to take advantage of free safe bicycling courses available from local jurisdictions, transportation agencies, and bicycling organizations, by providing a schedule of upcoming classes. Safe-riding reminders on bike share bikes and kiosks also reinforce safe riding behavior.

## HELMETS

Although bike share programs do not typically require members to wear helmets, the programs encourage helmet use and often provide the option of discounted helmets for members. Capital Bikeshare and Boston Hubway both offer low-cost (less than \$20) helmets to members when they register online; helmets are shipped directly to the member's home or office.<sup>15</sup> Bike share programs also partner with local bike shops and other organizations to provide discounted or subsidized helmets to members. Several Washington, D.C. area bike shops offer 10% discounts on helmets or gloves for Capital Bikeshare members.<sup>16</sup> Boston Hubway has partnered with the City of Boston, the Boston Public Health Commission, and local area bike shops to provide subsidized helmets to members for as little as \$7.99.<sup>17</sup>

## EMERGENCY AND SEVERE WEATHER POLICY

Bike share systems typically suspend service during severe weather for safety reasons. The system can communicate closures and reopenings with members through the system website, social media accounts,

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<sup>14</sup> <http://sacbike.org/for-bike-riders/rules-of-the-road/>; <http://www.sacregion511.org/bicycling/bikeguide.html>;  
<http://www.sacramento-tma.org/Bicycling.html>; <http://www.bikeleague.org/content/ride-smart-0>

<sup>15</sup> <https://www.capitalbikeshare.com/signup>; <https://www.thehubway.com/signup>

<sup>16</sup> <http://www.capitalbikeshare.com/bike-rental-and-helmet-shops>

<sup>17</sup> <http://www.thehubway.com/bike-rental-and-helmet-shops>



and the email provided by members at registration. Once system service is suspended, members can return bikes to any station, but can no longer check out bikes.

## INSURANCE

Insurance policies also help to mitigate risk. Denver Bike Sharing has not found liability to be a major barrier to providing bike share service. In four seasons of operation, the program has had only one minor claim for theft and no lawsuits; insurance premiums have declined over time.

The program does require several forms of insurance, however. DBS spends approximately \$106,000 annually on insurance to manage risk and take care of its employees. \$56,000 covers medical, dental, and vision insurance for employees and the remaining \$50,000 covers liability, property loss, and other insurance, listed at right.

### **Types of Insurance Carried by Denver Bike Sharing**

- Directors and Officers
- Auto
- General Liability
- Excess Liability
- Inland Marine (bikes and stations)
- Property & Loss of Income
- Workers Comp
- Dental and Vision
- Medical

