WEST METRO
BIKE SHARE FEASIBILITY STUDY

DECEMBER 2017

ACKNOWLEDGMENTS

West Metro Bike Share Feasibility Study

December 2017

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CONTENTS

1. What is Bike Share 1

2. Bike Share Technologies 3

2.1 Smart Dock 3

2.2 Smart Bike 4

2.3 Dockless 5

2.4 Emerging Technologies 6

3. Outreach and Analysis 7

3.1 Online Outreach 7

3.2 Pop-up Outreach 8

3.3 Market Analysis 9

4. Regional Considerations 11

4.1 Red Bike – Cincinnati and Northern Kentucky 13

4.2 Capital Bikeshare 14

5. Bike Share Implementation Recommendations 15

5.1 Option 1 – Join the City of Columbia's Bike Share System 15

5.2 Option 2 – Start a West Metro Bike Share System 15

5.3 Option 3 – Columbia Metro Bike Share 16

LIST OF FIGURES

Figure 1.0-1 U.S. Bike Share Systems as of January 2017 ..... *1*

Figure 1.0-2 Process for Using Bike Share in Four Easy Steps *2*

Figure 2.1-1 LA Metro Bike Share, Los Angeles, CA *3*

Figure 2.2-1 Biketown, Portland, OR *4*

Figure 2.3-1 LimeBike, Seattle,WA *5*

Figure 2.4-1 Zyp Bike Share is an E-Assist Bike Share System in Birmingham, AL *6*

Figure 3.1-1 Respondents' Prior Knowledge of Bike Share (n = 88) *7*

Figure 3.1-2 How Respondents Anticipate Using Bike Share (n = 80) *7*

Figure 3.2-1 Public outreach board used for events in Cayce, West Columbia, and Springdale *8*

Figure 4.0-1 Draft Bike Share Service Area and Station Location Map for Columbia, SC *11*

Figure 4.1-1 Red Bike Stations in Cincinnati and Northern Kentucky (Source: BCycle) *13*

Figure 4.2-1 Figure 4.2-1 | Arlington County Bike Share Trip Pairs *14*

Figure 5.3-1 Options to establish bike share in West Metro *17*

LIST OF TABLES

Table 2.1-1 Smart Dock Review *3*

Table 2.2-1 Smart Bike Review *4*

Table 2.3-1 Dockless Review *5*

Table 3.3-1 Potential Users of a Bike Share System in West Metro *9*

1. What is Bike Share

Bike share is a mobility option that allows users to access a network of bicycles that can be checked out automatically and returned to any station in the system. It is typically made available through a subscription fee that is a few dollars for one-day access and $25 to $150 for annual access, depending on the city. There are bike share programs operating in over 100 cities in the United States, some of which are shown in Figure 1.0-1, and many more in various stages of planning. Bike share has proved to be an effective, low-cost mode of transportation for short trips. Most trips in existing U.S. bike share systems are between 15 and 35 minutes in duration and between one and three miles long. Common trip types include connecting to transit, commuting, social/entertainment trips, and recreation.

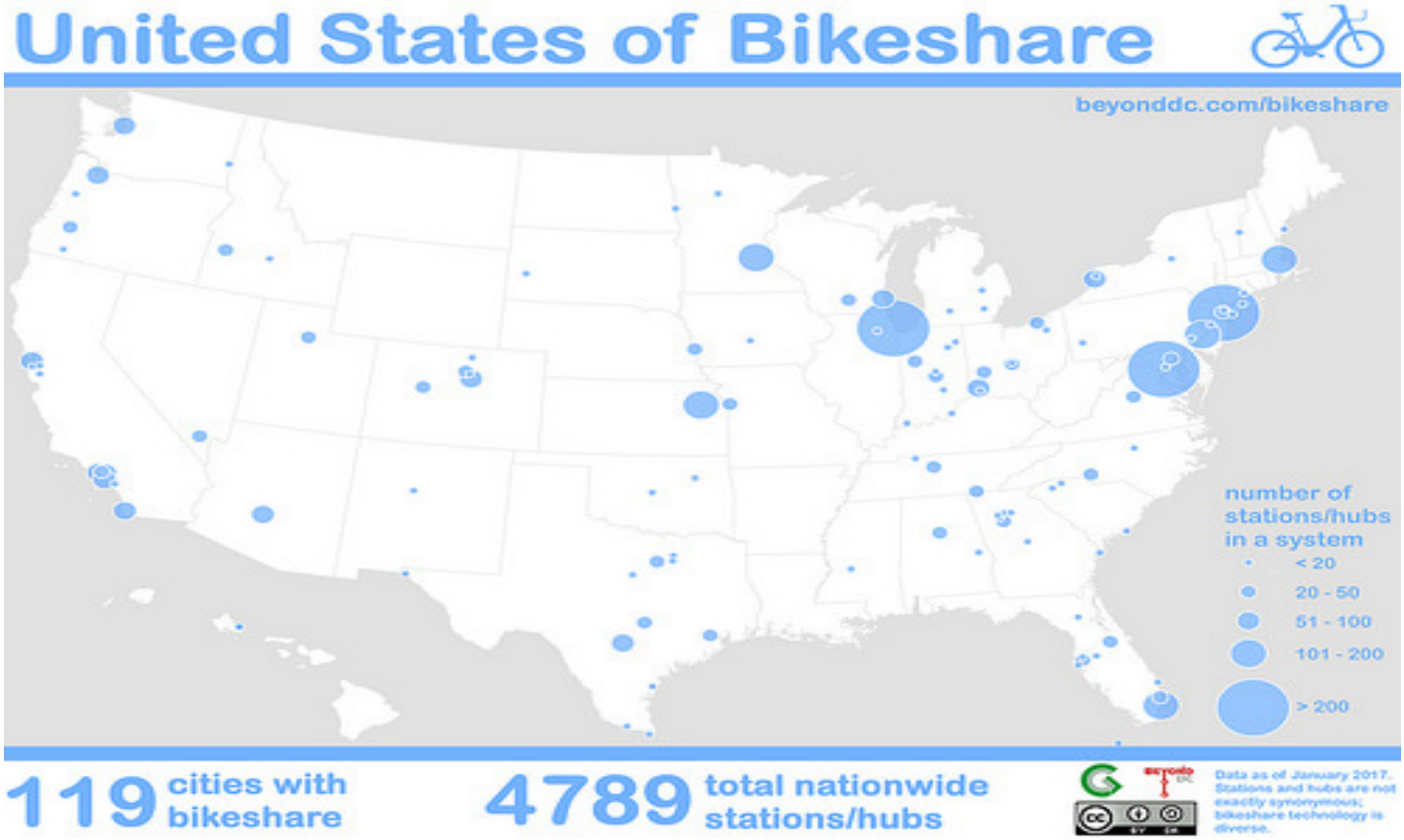

Figure 1.0-1 *U.S. Bike Share Systems as of January 2017*

Bike share being used to access a community's trails and greenways

Bike share is different from bicycle rental in that it functions more like a transit system, encouraging short trips and high turnover by using a fee structure that charges a higher rate the longer a bicycle is checked out. Most existing U.S. bike share programs are automated and do not require on-site staff to assist with the check out or return of bikes. To provide easy access and increase accountability, systems utilize Radio Frequency Identification (RFID), Global Positioning Systems (GPS), and secure payment technologies. The systems are designed to be easy to use, allowing members to sign up online or at a station. They provide comfortable and adjustable bikes to fit most adults. The process for using bike share is shown in **Figure 1.0-2**.

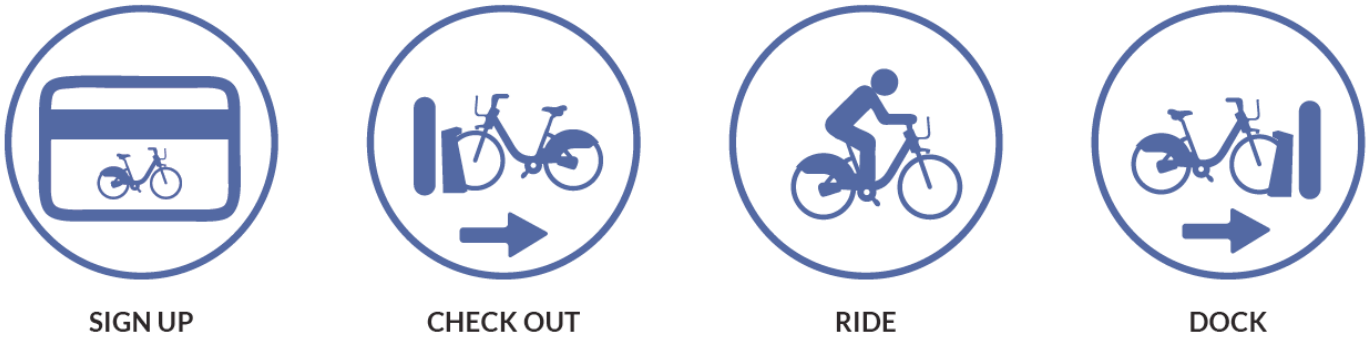

Figure 1.0-2 *Process for Using Bike Share in Four Easy Steps*

2. Bike Share Technologies

Bike share equipment includes the bikes, docks, kiosks, map panels, and other system components needed to make the system function. There are several types of equipment, as well as variations depending on the vendor and any special features, such as additional gearing, custom colors, etc. Equipment features and an equipment vendor are typically selected through a Request for Proposals (RFP) process.

The majority of bike share systems in the U.S. use either "smart dock" or "smart bike" technologies. More recently, there are a number of vendors offering "dockless" bike share. There are also several emerging technologies including electric-assist, smart lock, and lease options.

2.1 Smart Dock

Smart dock systems, like the LA Metro Bike Share program shown on **Figure 2.1-1**, include a computerized terminal where transactions and information are processed to release and lock the bikes at a series of inter-connected docks. In these systems, the locking mechanism and technology is provided at the dock. Although some systems offer independent locks for mid-trip stops, to complete a trip, the user must return the bike to a station.

Figure 2.1-1 *LA Metro Bike Share, Los Angeles, CA*

Smart Dock Review	
Capital Cost	**Operating Cost**
$4,000 to $6,000 per bike (including station)	$1,200 to $2,700 per bike per year
Vendors	
8D, BCycle, Motivate, NextBike, PBSC, Smoove	
System Review	
Pros	**Cons**
• Stations are visible and iconic • Secure locking technology • Organized • Proven and tested technology • Reliable for users to find a bike	• Siting requires long contiguous space • More expensive technology • Relies on more components • More time to implement • Station capacity limitations

Table 2.1-1 *Smart Dock Review*

2.2 Smart Bike

Smart bike systems provide a lock, a transaction terminal, and a GPS unit on each bicycle. This allows more flexibility as to where bicycles can be locked and users sign up and locate bicycles using mobile and web-based applications. Smart bike systems can be set-up with stations (often called "hubs") to look like smart dock systems, however not all stations require transaction terminals. **Figure 2.2-1** shows the smart bike system in Portland, OR. **Table 2.2-1** is a review of Smart Bike systems with capital cost, operating cost, vendors, and a list of pros and cons.[1]

Figure 2.2-1 *Biketown, Portland, OR*

Smart Bike Review	
Capital Cost	**Operating Cost**
$2,500 to $4,500 per bike	$1,200 to $2,700 per bike per year
Vendors	
BCycle, NextBike, Social Bicycles	
System Review	
Pros	**Cons**
• Stations can be made visible and iconic • Secure locking technology • Organized • Proven and tested technology • Reliable for users to find a bike • Flexible for users to park a bike • Flexible, modular, and easier to site	• Moderately expensive technology • Less predictable for operator

1 Capital Cost includes the cost of stations

2.3 Dockless

Dockless systems are the most recent bike share technology in the U.S. These systems do not need any other infrastructure and do not have stations or docks. The bikes include a wheel lock that locks the bike to itself, but cannot be locked to anything else. They use a smart phone app and a Quick Response (QR) code to rent a bike. Dockless systems (**Figure 2.3-1**) are typically owned and operated by a third party for-profit company.

Figure 2.3-1 *LimeBike, Seattle,WA*

Dockless Review	
Capital Cost	**Operating Cost**
Zero cost to cities - costs borne by private operator	Zero cost to cities - costs borne by private operator
Vendors	
Blue GoGo, LimeBikes, Ofo, Spin	
System Review	
Pros	**Cons**
• Flexible for users to park a bike • Easy and fast to implement • Scalable and good for small or large systems • Inexpensive technology and no cost to cities • Easy to access and use	• Less organized • Less agency control • Less proven and tested technology • Less reliable for users to find a bike

2.4 Emerging Technologies

Emerging technologies are being designed to address specific bike share challenges such as topography, access requirements, low-density land use, or up-front funding constraints. Some of these are described below.

Electric-assist ("e-assist") bicycles are becoming more common in bike share and have been implemented in Birmingham, AL (see **Figure 2.4-1**), Richmond, VA, and soon in Sacramento, CA. E-assist bikes provide a boost while pedaling, which can extend the distance that someone can comfortably ride. They may be appealing where there is steep terrain, hot weather conditions, or aging populations that have challenges riding a regular bicycle. E-assist bicycles typically cost more per bike than standard equipment and some cities have launched systems with only part of their fleet as e-assist bikes.

Another emerging technology are vendors that offer a lease option so that a municipality, company, university, or developer pays an annual fee to a company for equipment and operations and does not need to find large up-front capital investments. These systems tend to operate in smaller cities.

Smart lock systems use a smart phone app so that users can rent a bike by unlocking a Bluetooth-enabled U-lock located on the bicycle. These systems do not require stations, kiosks, or docks, and offer a great deal of flexibility to lock the bike when necessary. Smart lock systems can use a matching bike fleet or a mixed fleet of bikes.

Figure 2.4-1 *Zyp Bike Share is an E-Assist Bike Share System in Birmingham, AL*

3. Outreach and Analysis

As part of the Bicycle and Pedestrian Master Plan, the project team conducted outreach events in each of the West Metro communities and online and took those opportunities to gather input on the public's opinion about bike share. The team also conducted a market analysis to consider who would use the system to complement the previous demand analysis that was conducted for the City of Columbia's *Bike Share Feasibility Study* in 2015. The results of this analysis are summarized below.

3.1 Online Outreach

An online survey was conducted as part of the West Metro Bicycle and Pedestrian Master Plan that included questions to gauge interest in a bike share system in the West Metro area. The survey was advertised to residents through municipal websites and the Central Midlands Council of Governments (CMCOG) website and yielded a total of 90 responses. Approximately 90% of respondents live and/or work in Cayce, West Columbia, or Springdale; respondents were nearly evenly split by gender; and all respondents were over 18 years old.

Just over 50% of respondents had seen or ridden bike share in another city (**Figure 3.1-1**). Put another way, almost half of respondents had not ridden or seen a bike share system in another city or had never heard of bike share before the survey. It's likely that outreach, education, and promotion would be needed with any future bike share program.

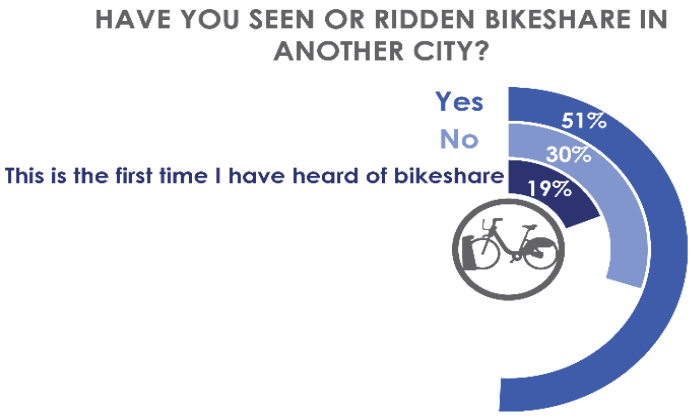

Figure 3.1-1 *Respondents' Prior Knowledge of Bike Share*

Figure 3.1-2 shows that the trip purposes that respondents thought they would most likely use bike share for were recreation (41%), running errands (21%), and going to work or school (15%). For West Columbia and Cayce in particular, the high potential for recreational riding may be an opportunity to link bike share with the Three Rivers Greenway along the Congaree River.

A crowdsourcing map was also made available online to collect public suggestions on where to locate bike share stations in the West Metro area. Only four stations were suggested by three different respondents during the time the survey was open from April to mid-June 2017. Stations were suggested at:

- Cayce Tennis and Fitness Center
- Guignard Park
- Augusta Street at 12th Street
- State Street shops and restaurants

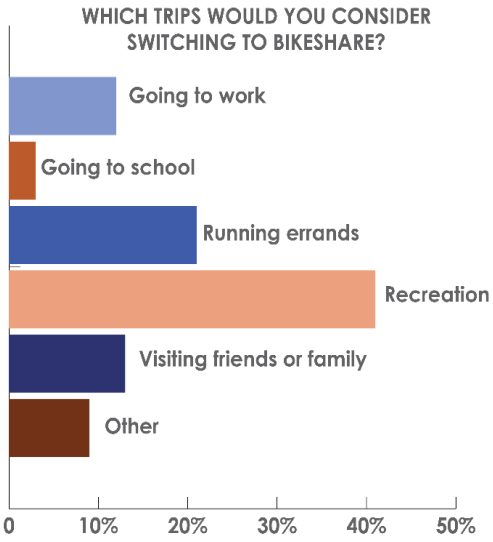

Figure 3.1-2 *How Respondents Anticipate Using Bike Share*

3.2 Pop-up Outreach

In addition to online outreach, in-person outreach was conducted at three events – Rhythm on the River in West Columbia, Festival of the Arts in Cayce, and the Easter Event in Springdale. Project boards (shown in **Figure 3.2-1**) featured two questions about bike share that respondents could provide input. Overall, these questions had very low participation with only 6 people providing input.

Responses were as follows for the two questions:

- "Did you previously know about bike share and/or have you used it in another community?": 3 people responded "yes" and 3 people responded "no."
- "Do you think bike share is a good idea for the West Metro Area?": 4 people responded "yes" and 1 person responded "no."

Figure 3.2-1 *Public outreach board used for events in Cayce, West Columbia, and Springdale*

3.3 Market Analysis

The project team completed a market analysis to determine who would use a bike share program in West Metro. The analysis identified eight potential market segments that are described in **Table 3.3-1**, which shows that there is a moderate user base that could be targeted by the program.

User Segment	Potential	Description
Students	High	Although generally a lower income group, students tend to be early adopters of bike share, given they have more limited transportation alternatives and higher cost sensitivities. Students and younger people are more willing and enabled to embrace the shared economy, social media, and environmental stewardship. There are several students at Midlands Technical College that may take advantage of a bike share system. Although USC is in Columbia, there are a number of destinations in the West Metro area that may attract riders from Columbia as well as several off-campus housing partners in West Columbia and Cayce. The combination of bike share, campus shuttles, transit, and other transportation options could reduce the need to own or use a private automobile.[2]
Residents	Medium	People that live in the West Metro area may use the program for a variety of reasons, including shopping, dining and entertainment, attending events, or recreational riding. These trips could be within West Metro communities or could cross the river to access destinations in Columbia. The most likely commercial districts that would attract these trips in West Metro are State Street south of Meeting Street that has several restaurants and bars and Triangle City at the intersection of 12th Street and B Avenue that has several restaurants and service stores (e.g., laundry, phone sales, banks, etc.).
Commuters	Medium	People that live in West Metro may use the program to travel to or from work either directly or in combination with a transit trip. A large portion of the region's employment is in Columbia and so denser residential developments within a 1- to 3-mile ride of Downtown Columbia could be candidates for bike share stations. The major challenges for the West Metro communities are the low-density and spread-out land use patterns and the lack of comfortable bicycling infrastructure to attract a wider variety of potential users. In terms of connecting bike share with transit – there are two Comet routes that serve West Columbia and Cayce.[3] These are infrequent services and there is an opportunity for bike share to provide on-demand transit service and be a transit option during times when these routes do not run. Also, these routes have no common connection point and bike share could be used to connect the two. Comet could consider modifying the transit schedule to allow for bike share connections between the routes, though this would need to take into account many other considerations, such as peak demand times, headways, and impacts on other routes.
Visitors (1 day or less)	Medium	Short-stay visitors could provide casual users to the program. These people may be residents of Lexington County or that live outside the bike share service area and visit the area for recreation or entertainment (e.g., to take a ride on the Three Rivers Greenway). Another opportunity may be a closed system to connect visitors from Riverbanks Zoo in Columbia to the Riverbanks Botanical Gardens in West Columbia. These are part of the same campus and visitors currently take a shuttle that runs every 5- to 10-minutes. A bike could provide a different visitor experience.[4]
Tourists (>1 day)	Medium	Long-stay visitors are generally visitors from out of town. They may be in town to visit friends and family, to tour one of the college/university campuses, attend sporting events, or participate in a conference. These groups tend to be the least price sensitive and would likely take trips across the river from hotels, the convention center, and meeting facilities in Downtown Columbia. Bike share could also connect visitors and tourists to outdoor recreation opportunities such as tube and kayak rental stores on the Congaree and Saluda Rivers.
Employees	Low	Besides commuters, the bike share program could encourage employees of West Metro communities to make short trips during the day to run errands, attend meetings, go to lunch or post-work gatherings, etc. However, the major employers in West Columbia, Cayce, and Springdale are primarily manufacturing facilities located within industrial areas on the outskirts of the municipalities without a lot of other amenities nearby. There is opportunity for those who work in the service industries within the municipalities to provide an option to run errands, etc. during the day.[5]
Someone Else Pays	Low	This group captures those users that may not have otherwise used the program except that someone else paid for their membership. These could include gifts, sponsored rides, corporate or employer-paid membership, hotel guest service membership, integration with student cards, etc. The biggest opportunity would be to tie bike share membership to student services and off-campus housing for USC.
Supporter	Low	In many cities, there are some members that sign up to support the program, but don't ever activate their membership. This is essentially a donation to the program and typically comes from local supporters of bicycling. Currently Lexington County has a high single occupancy commute rate (84.6%) and a low bike commute rate (less than 3%).[6] The bike culture and commute rate is not quite high enough to yield a substantial number of supporters, but a bike share system paired with increased bike infrastructure could increase the potential for supporters.

Table 3.3-1 *Potential Users of a Bike Share System in West Metro*

2 https://www.sa.sc.edu/ocss/piocl/
3 http://catchthecomet.org/routes/
4 http://www.riverbanks.org/plan-your-visit/visitor-info.shtml
5 S.C. Department of Employment & Workforce. Community Profile Lexington County. 2016.
6 https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF

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4. Regional Considerations

The City of Columbia completed a Bike Share Feasibility Study in 2015, which recommended that a non-profit owned and operated bike share program be established in the downtown and inner neighborhoods of the City and on the University of South Carolina campus.[7] The proposed system map from that study is shown in **Figure 4.0-1**.

The study explored potential demand in the region and found mid-level demand in parts of West Columbia and Cayce just west of the river and generally low demands in the rest of the West Metro study area. It identified "key generators of bike share demand" at the State Street shops and restaurants and the Three Rivers Greenway. The following opportunities and challenges were identified for West Columbia and Cayce in the final report:

Opportunities

- Sidewalks and bike lanes along the Gervais and Blossom Street bridges provide a good connection across the river.
- Restaurants, cafes and taverns on State Street.
- Three Rivers Greenway on the west bank of the river.

Challenges

- Many streets in the area are very car oriented and not especially friendly to bicyclists.
- The various low-density residential neighborhoods and few concentrated job areas make it difficult to sustain bike share.

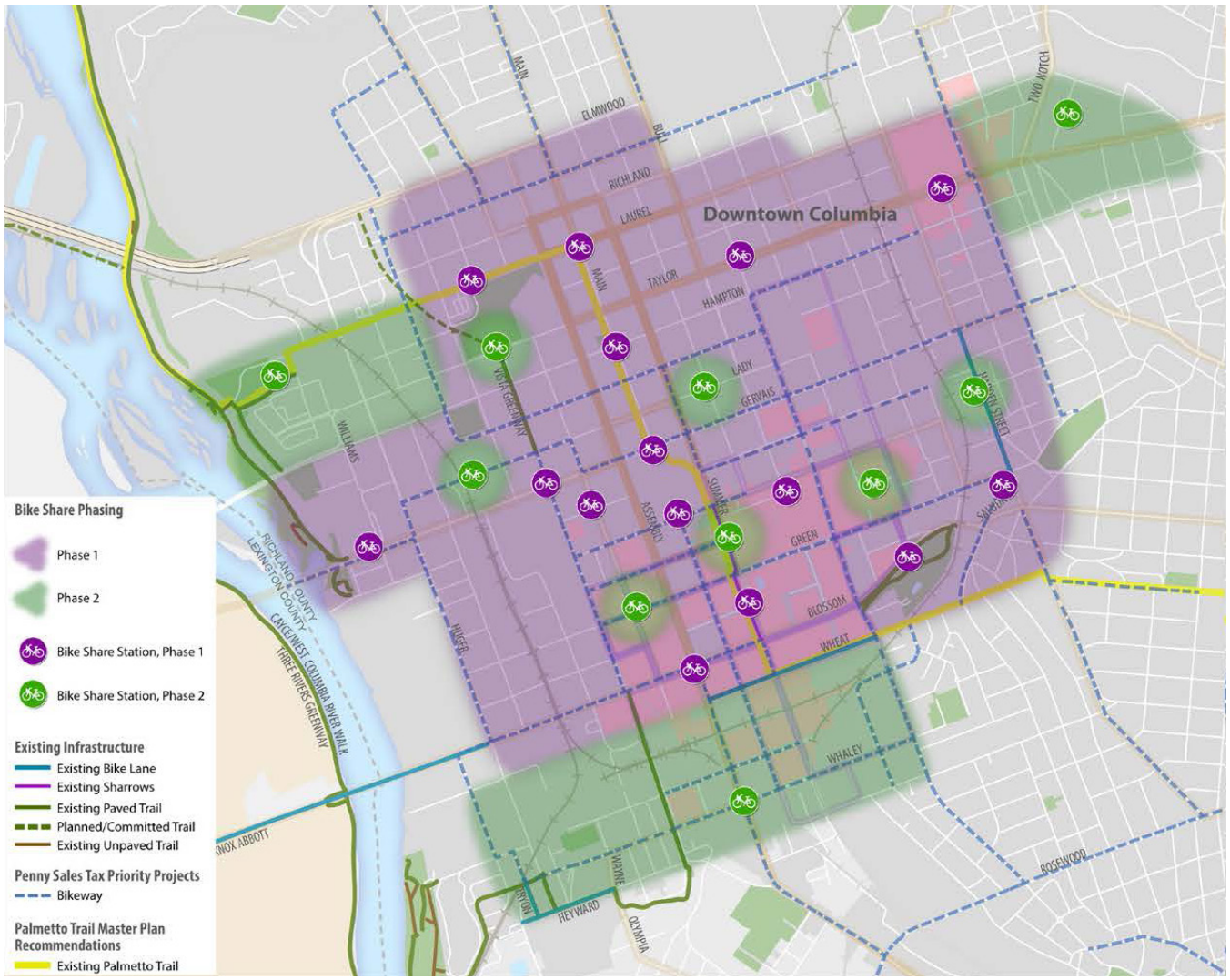

Figure 4.0-1 *Draft Bike Share Service Area and Station Location Map for Columbia, SC (Source: Walk Bike Columbia – Columbia South Carolina Bike Share Plan)*

7 Note that since the feasibility study, the City of Columbia has indicated that it is exploring a city-owned program with a private operator.

In May 2017, the City of Columbia's Planning Department issued a Request for Proposals (RFP) for a vendor to provide bike share equipment and operating services. At the time of this report, the City had not yet entered into a contract with a vendor, but indicated that they are likely to move forward with a smart-dock or smart-bike system that would be owned and managed by the City with a private operator. This model is similar to many other programs around the country, including several that have expanded into other cities and across jurisdictional (and even state) boundaries.

Regional expansion needs to be carefully considered to ensure it adds utility to the system and provides users with a consistent and seamless experience. There are several relevant examples of regional bike share systems that offer case studies for Columbia and the West Metro cities. These include:

- Red Bikes operating in Cincinnati, OH and Covington, Newport, and Bellevue, KY. The program is owned and operated by a non-profit that was established in 2014 specifically to manage the bike share program. New cities enter into an agreement with the non-profit for stations and service to be provided in their community. More information on the system is provided below.
- Capital Bikeshare operating in Washington D.C. and various cities and counties in Maryland and Virginia. The equipment and system assets are owned by each participating city and each city negotiates a contract with the same operator to establish service levels and costs in their community. There is an overarching Memorandum of Understanding (MOU) between all the cities that establishes common elements of the program, the decision-making process, and outlines cost and revenue sharing agreements. Hubway, that operates in Boston, Cambridge, Sommerville, and Brookline, MA operates similarly.
- LA Metro Bikeshare operates in Los Angeles County and is overseen by LA Metro, the region's transit agency. Cities in the region "buy into" the program by entering into a MOU with LA Metro. There is an established cost-sharing agreement that splits capital costs 50%/50% and operating costs 35%/65% between LA Metro and the city. The system is operated for a fee by a third-party operator similar to a transit system.
- Purdue Bike Share started operations on the University of Purdue campus in Indiana but has since expanded into the cities of Lafayette and West Lafayette. Purdue pays a third-party vendor to lease equipment and operate the system. New cities enter into an MOU with Purdue where they provide funding to Purdue to manage the program and pay the same third-party vendor to operate in those cities.

Regional expansion depends on the operating model. For non-profit and privately-operated systems, expansion into new cities is relatively easy because the city wanting to establish service can approach the bike share entity and negotiate a deal to operate the program in their city. The city may need to pay for capital and/or operations or need to bring some other capital to make a compelling case for inclusion, e.g., high demand and potential revenue, access to sponsors, or some other revenue-generating opportunity.

For most agency-owned programs, regional expansion occurs through some form of agreement, typically an MOU, to ensure a regionally consistent program that is seamless to the user. The MOU typically identifies what the common elements of the program are, including but not limited to the same equipment, the same operator, consistent pricing structure, identical branding, name, and color for the system, minimum service levels, etc. As well, the MOU will outline how decisions about the system will be made and how revenues and costs for the program will be shared between the member agencies. It will also outline what elements of the system are more flexible for individual cities, such as the use of sponsorship space on the equipment.

There are however, some examples of where cities have not, or were not able to adequately negotiate terms to be included in a regional program. For example, the City of College Park, MD did not join Capital Bikeshare and instead chose to lease equipment from a different provider. It is unclear if this decision has impacted the success of either program, but users need to have two memberships and may need to switch bikes mid-trip. There is less utility in a program where bikes from one vendor cannot be parked in the docks of another. Similarly, there are two programs operating next to each other in Columbus, OH. The CoGo system operates in Downtown Columbus and is the city-owned bike share program (launched in 2013) and the Ohio State University manages its own program on campus (launched in 2015).

4.1 Red Bike – Cincinnati and Northern Kentucky

Since its launch in the fall of 2014, Red Bike has grown from 29 stations and 263 bicycles to 56 stations and 442 bicycles currently. Less than one year after opening, the bike share system expanded from Downtown Cincinnati across the river into Northern Kentucky. This system now operates in Cincinnati, OH and Covington, Newport, and Bellevue, KY. Some key statistics show that:

- Stations: 12 of the 56 stations (21%) are located in Northern Kentucky. A map of the system is shown on **Figure 4.1-1**.
- Most popular station: Roebling Point (14th most popular overall) – located at the base of the Roebling Suspension Bridge and adjacent to high-density residential apartments.
- Most popular trips:
  - Roundtrips starting and ending at the Newport on the Levee station (4th most popular trip overall)
  - Roundtrips starting and ending at the Roebling Point station (5th most popular trip overall).
  - Roebling Point to the Freedom Center in Downtown Cincinnati (10th most popular trip overall).

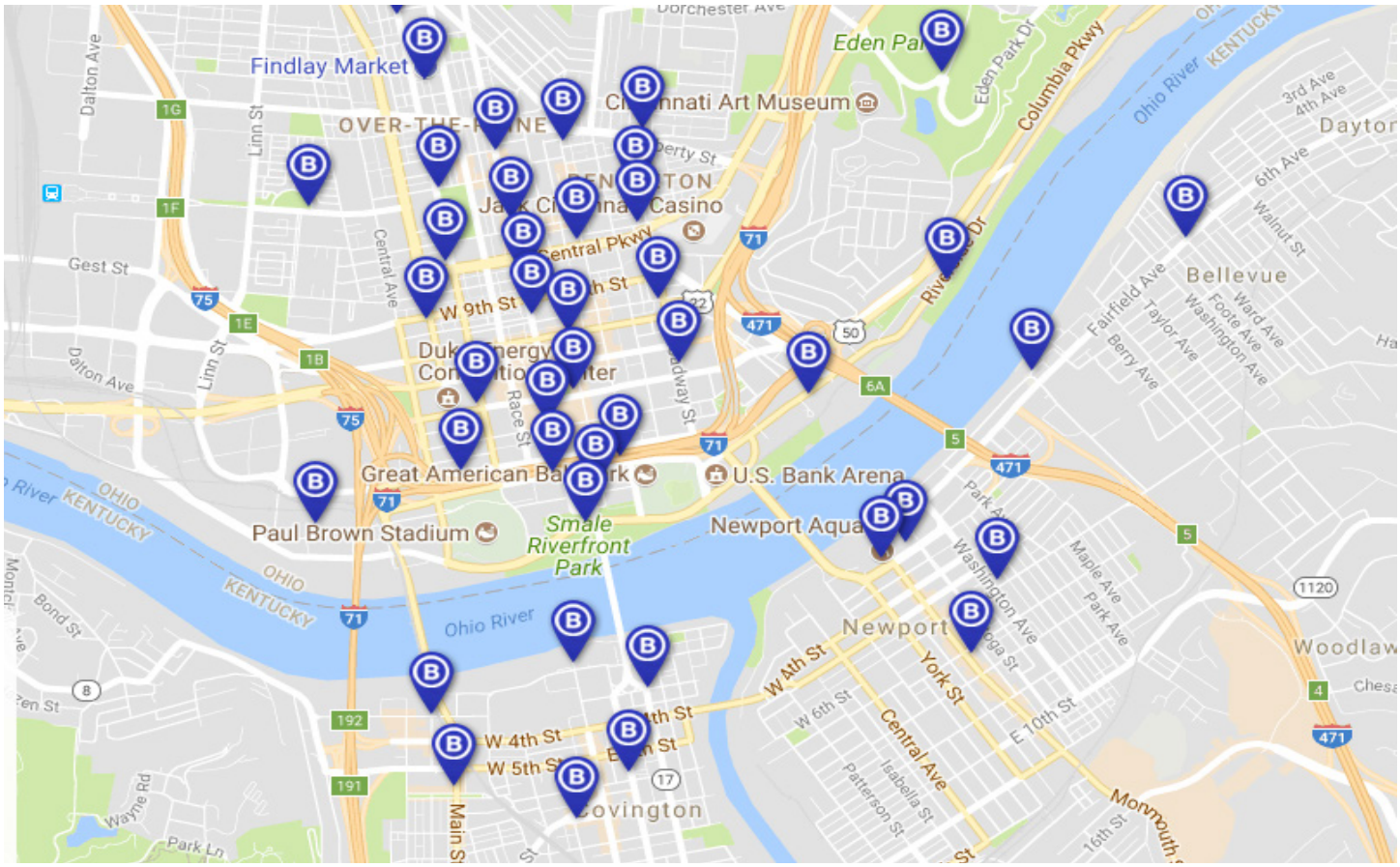

Figure 4.1-1 *Red Bike Stations in Cincinnati and Northern Kentucky (Source: BCycle)*

4.2 Capital Bikeshare

Capital Bikeshare launched in 2010 and operates in the Metropolitan Area of Washington, D.C. It now has over 400 stations and 3,500 bicycles and is one of the nation's largest programs. Capital Bikeshare's service area spans five jurisdictions and is cooperatively owned by the District of Columbia, Arlington County, the City of Alexandria, and Fairfax County in Virginia, and Montgomery County in Maryland. For the sub-system in Arlington:

- Stations: 92 of the 440 stations (21%) are located in Arlington. A map of system ridership is shown on Figure 4.1-3.
- Ridership: approximately 330,000 trips or 10% of total trips started, or ended in Arlington.
- Trip patterns: approximately 60% of Arlington trips started and ended within Arlington County; the other 40% had an origin or destination outside Arlington County.
- Most popular station: Lynn Street & 19th Street (119th most popular overall) – located in a dense neighborhood close to several hotels and Georgetown University.
- Most popular trips:
  - Lincoln Memorial (Washington, DC) to Iwo Jima Memorial/N Meade & 14th St N (Arlington).
  - Aurora Hills Community Ctr/18th & Hayes St (Arlington) to Pentagon City Metro / 12th & S Hayes St (Arlington).
  - Pentagon City Metro / 12th & S Hayes St (Arlington) to Aurora Hills Community Ctr/18th & Hayes St (Arlington).

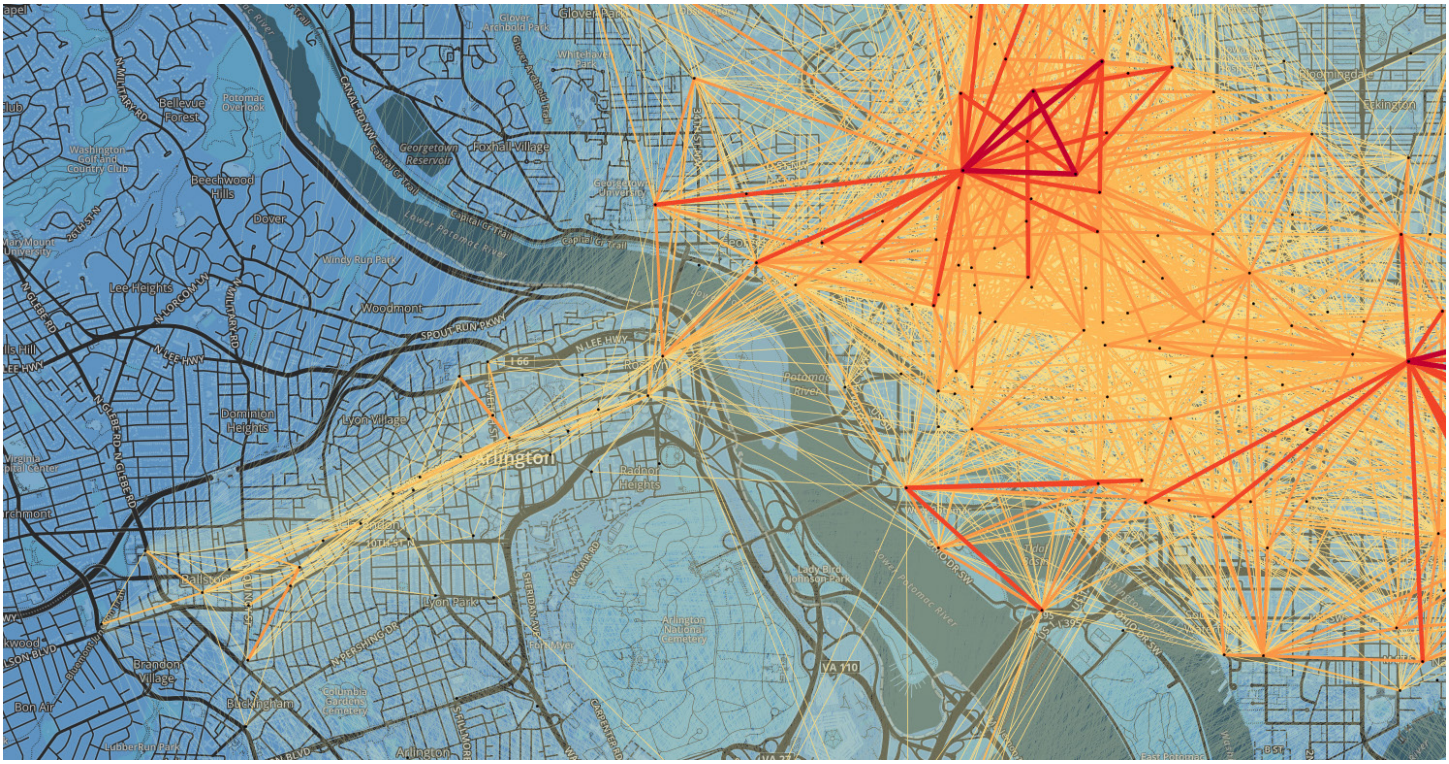

Figure 4.2-1 *Figure 4.2-1 | Arlington County Bike Share Trip Pairs*

5. Bike Share Implementation Recommendations

The regional demand analysis included in the City of Columbia's Bike Share Feasibility Study showed that there is some demand for bike share just on the west side of the Congaree River, but that the rest of the West Metro communities are expected to have low bike share demand. The market analysis presented in Section 4 of this report showed that most potential bike share trips in West Metro would be linked to destinations in Columbia (e.g., commuter trips, riding to meet friends at a restaurant or bar, or students going to classes at USC).

Public outreach showed that although the public was generally supportive of bike share, the response was somewhat underwhelming compared to the response for other parts of the Bicycle and Pedestrian Master Plan, suggesting that perhaps the public feels that projects such as building out bike infrastructure may be of higher priority to West Metro communities. Nevertheless, if the City of Columbia establishes a bike share system, there may be some short-term opportunities to add stations at State Street, the Three Rivers Greenway, at student housing developments in Cayce, and one or two other strategic locations.

Within this context, the project team considered the variety of potential outcomes for Columbia's bike share system and their impact on a bike share system in West Metro. These scenarios are mapped in the flow chart shown in **Figure 5.1-1** and described below. The options consider three key questions:

- Will Columbia launch a bike share program?
- Will there be opportunities for the West Metro communities to join the Columbia program?
- Is there a no-cost option for bike share in West Metro?

5.1 Option 1 – Join the City of Columbia's Bike Share System

If the City of Columbia moves forward with establishing a City-owned and privately-operated bike share program, there may be opportunities for West Metro communities to join the program through an MOU with the City of Columbia. This will likely require that West Metro communities pay the City of Columbia or negotiate directly with the operator for capital and operating costs associated with their stations. Given the funding requirement, stations will need to be well considered and likely placed in the highest demand locations in West Columbia and Cayce.

Advantages:

- This format would best serve most bike share trips from West Metro, which are expected to be connected with Columbia.
- Integrating with the City of Columbia's program would provide a seamless user experience.
- Fewer staff resources would be needed as the City of Columbia is taking on the burden of procurement, implementation, and oversight of the program.

Disadvantages:

- West Metro communities will need to find funding to join the program. Because of these funding requirements, stations will likely be limited to the highest demand locations in West Columbia and Cayce.
- It may be some time before the program in Columbia is established and ready to consider expansion. However, if there is a compelling case for stations west of the river, expansion could be expedited.
- West Metro communities would have no control over the selection of equipment or operating vendor.
- Decision-making protocols and cost and revenue sharing agreements would need to be worked out with the City of Columbia.

5.2 Option 2 – Start a West Metro Bike Share System

In the event that Columbia does not establish a bike share system, the West Metro communities could not join a Columbia system, or can't negotiate suitable terms to join a Columbia system, West Metro could consider starting its own bike share program. A system solely in West Columbia, Cayce, and Springdale will not create sufficient demand to pay for itself and would require funding from sponsorship, advertising, or public subsidy. Staff capacity to launch and oversee the program would need to be created in a public agency or a new non-profit organization.

There may be dockless bike share providers interested in providing a "no cost" system to the West Metro communities, but their larger interest may be a presence in the City of Columbia and there is no physical mechanism to stop bikes from traveling across the river, which could impact the viability of their system and impact their physical environment. This would need to be considered carefully and in consultation with the City of Columbia.

Advantages:

- West Metro communities would have full control over the selection of equipment and operating vendors.
- West Metro communities would have more control over station locations and could more comprehensively cover the tri-cities area.
- There may be vendors interested in providing a dockless bike share system at "no cost" to the West Metro communities.

Disadvantages:

- A system in just the West Metro communities is likely to have low demand and would require private or public funding to sustain operations. There is a public perception risk that this funding could be better spent on other active transportation priorities such as building out the bicycling network.
- The West Metro communities would be responsible for launching the program, which would require capital and operations funding, dedicated staff resources, and an organization/agency willing to take on management and oversight of the system.
- The system would not be integrated with the City of Columbia's system, meaning that users would be limited to travel within the West Metro communities or would need to carry two memberships and switch bikes part-way through a trip.
- A "no cost" dockless bike share system would be privately owned and operated and the West Metro communities would have less control over the program. Dockless operations would likely result in bikes in Columbia, which could impact their program and physical environment.

5.3 Option 3 – Columbia Metro Bike Share

In the event that the City of Columbia does not move forward with a bike share program of its own, there would be an opportunity for a "no cost" dockless bike share provider to come in and run a program on both sides of the river. This sort of program would not be limited to any one geography, potentially providing better coverage of the West Metro communities. However these systems are privately operated, giving public agencies less control over their operation. Additionally, because the bikes lock to themselves, some cities are finding bikes are parked illegally, blocking sidewalks and thoroughfares, or ending up vandalized or parked in unusual places, such as on top of buildings, inside private property, or dumped in rivers and waterways.

Advantages:

- Dockless bike share vendors may provide a system at "no cost" that could operate throughout the region, including in Columbia and the West Metro communities.
- Having one system on both sides of the river would provide the greatest range of destinations and a seamless experience for people traveling between cities.
- No funding would be needed, though some staff resources would still be required to oversee the rollout and permitting of these systems.

Disadvantages:

- A "no cost" dockless bike share program would be privately owned and operated and local governments would have less control over the program.
- Dockless bike share needs to be carefully managed to avoid some of the impacts to the physical environment seen in other cities, such as bike parking clutter and vandalism.

At this stage, it is recommended that the West Metro communities prioritize other aspects of the Bicycle and Pedestrian Master Plan, such as building out a more comprehensive bikeway network. This will give more time to see if the City of Columbia launches a bike share program and the format of that program. If the City does launch a program, there may be logical opportunities to add stations in the highest demand areas west of the river in the near-term. These could be funded by local partners interested in joining the program or could be a formalized effort to expand the program.

If the system in Columbia does not materialize, there may be an opportunity to talk with dockless bike share vendors to determine their interest in entering the market. This should be carefully considered, evaluating the benefits these vendors can bring, but managing their potential impact on the urban environment. Their roll-out should be carefully managed to avoid some of the problems seen in other cities with bicycle clutter and vandalism.

Is Columbia establishing a bike share program?

No

Is there funding and staff capacity to start a bike share program in the West Metro communities?

Yes

Will there be opportunities for West Metro communities to join the Columbia program?

Yes

Option 1:
Set up a Bike Share System in the West Metro Communities

Is there enough demand to support a system in these communities without Columbia?
Demand is expected to be low for trips within only the West Metro communities. Demand would be higher for trips to and from Columbia. Given low demands, farebox recovery is expected to be low and other funding sources would be needed to fill the gap in operating revenues.

What funding is available for capital and operations? If public funds, is this the best use of these funds compared to focusing on more bike infrastructure?
There is likely little support for significant public funds to be used for a bike share program. Grant funding may be available for capital costs, but funding would need to be found through sponsorships, advertising, or other revenues to fill the gap in operating revenues.

Is there interest and capacity to organize and manage the program. How and in what organization would this capacity be created?
Given there are multiple cities in the West Metro region, the most likely candidate to take on the program would be the regional planning agency, the transit agency, or a new non-profit dedicated to bike share. In all cases, funding for new staff positions would be required.

No

Option 2:
Invite dockless bike share to the West Metro Communities

Is there interest from a dockless bike share provider?
Dockless bike share providers have shown interest in operating in smaller and suburban communities. However, it is likely that their interest is in having a presence in Columbia.

If there is a different system in Columbia, dockless bikes will not stay in West Metro communities and will end up in Columbia.
Dockless bike share could compete with a system in Columbia and there may be exclusivity agreements that would require dockless bikes to be removed from Columbia. Bikes will cross the river and so any program in West Metro can expect to impact Columbia.

Who pays for a dockless bike share system?
Dockless bike share is generally free to the host community. These vendors are for-profit companies that make money from user revenues and selling the data generated by the system.

Yes

Option 3:
West Metro Communities join Columbia Bike Share

What is the process for West Metro communities to join the program, e.g., MOU?
This will depend on the business model set-up for the Columbia program. If the City runs the program, there are examples in other cities of other cities entering into an MOU to operate the same program in their city. The MOU would outline any responsibilities and requirements for the West Metro communities.

Are stations in West Metro dependent on certain demand thresholds or other criteria? Who would take on any financial or other obligations to get stations in West Metro communities?
This is likely to be dependent on who pays for stations in West Metro communities. If these cities take on that responsibility, then the Columbia system is more likely to add stations in these communities. If the Columbia system has to take on these responsibilities, they will likely want to confirm the viability of these stations before making this commitment.

Figure 5.3-1 *Options to establish bike share in West Metro*