

# 2014-15 REGIONAL FLEXIBLE FUND ALLOCATION

## PROJECT NOMINATION NARRATIVE

---

**PROJECT NARRATIVES SHOULD BE KEPT TO 12 PAGES TOTAL PER PROJECT**

### Portland Bike Share

#### *Process*

1. Describe the process used to narrow potential project nominations to select the project(s) being put forward for funding consideration. *(Answer should demonstrate that the process met minimum public involvement requirements per Appendix A)*

Beginning in January 2011, the City's Bicycle Advisory Committee (BAC) and Pedestrian Advisory Committee (PAC) began to consider and suggest possible active transportation projects for the Regional Flexible Funds. Bureau of Transportation staff worked with the advisory committees, conducted analysis and considered projects in the Transportation System Plan (TSP) which best fit the Metro project criteria. On May 13, 2011, staff issued a press release advertising a Public Meeting for June 1, 2011 to discuss potential Active Transportation projects. Five candidate Active Transportation projects were described in the May 13<sup>th</sup> press release and discussed at the June 1<sup>st</sup> public meeting. A summary of that Public Meeting and other public comments have been forwarded to Metro staff.

2. **Describe how you coordinated with regional or other transportation agencies (e.g. Transit, Port, ODOT, Metro, Freight Rail operators, ODOT Region 1, Regional Safety Committee, and Utilities if critical to use of right-of-way) and how it impacted the project location and design.**

PBOT is coordinating the Portland Bike Share project with TriMet staff. PBOT has met three times with TriMet staff to discuss integrating bike sharing and transit, including one meeting with key TriMet Portland Milwaukie Light Rail design staff to integrate bike sharing stations into the Clinton and South Waterfront light rail stations. TriMet staff provided origin and destination data for many transit stops and stations in the Central City. Similar conversations are occurring with Portland Streetcar Inc, which provided a letter of support for the project. Finally, PBOT is working with TriMet, Portland Streetcar and its Parking Operations Division to identify opportunities to share fare media across systems.

3. **Provide a list of stakeholders consulted or targeted during your local process and provide a summary of comments received at your public meeting or other public engagement activities. Please include contact information.**

PBOT received public comment on its bike sharing proposal at the June 1<sup>st</sup> Regional Flexible Funds public meeting, through written comments addressed to the Mayor, City Council and PBOT, petitions submitted by organizations, and written and oral testimony at the August 17<sup>th</sup> City Council hearing on the proposed RFF projects. The table below summarizes public comments on the proposed project:

Summary of Portland Bike Share Public Comments

	<b>Total</b>	Individuals	Organizations	Petition signers
Support	<b>1175</b>	3	15	1157
Oppose	<b>6</b>	5	1	0

The Portland Bike Share proposal received a very large majority of public comments in support of the proposal. If the petition signers are included, 99% of the comments were positive. If the petition signers are removed the calculation, 75% of the public comments were in support of the proposal.

The expressions of support include the state’s bicycling advocacy organization (Bicycle Transportation Alliance), two of Oregon’s largest health care providers (Kaiser and Regence), the city’s largest university and transit destination (Portland State University), one of Oregon’s largest business organizations with 1400 members (Portland Business Alliance), one of Portland service agencies for homeless teens (New Avenues for Youth), and the state’s largest scientific, educational, and cultural resource center for the general public (OMSI). Support focused on bike sharing as an affordable, healthy and environmentally sustainable mode of transportation. Some supporters also noted the opportunity to add vitality to the downtown economy, provide green job opportunities to hard-to-employ populations and to leverage private investment in the City’s bicycle infrastructure.

The six statements of opposition were submitted by five individuals and one organization, the Crestwood Neighborhood Association. Nearly all of these comments expressed an opinion that the funds would be better spent on Barbur Boulevard and/or neighborhoods outside of the Central City. Two commenters also felt that the project was not financially sustainable. One commenter also questioned the project’s efficacy based on the high bike ownership rate in Portland and existing Central City transportation choices and also expressed equity concerns because bike sharing systems usually require the use of credit or debit card.

The appendix identifies the organizations and individuals who submitted public comment on the Portland Bike Share application.

**Location**

1. Describe how you identified the travel corridor/area for the project and how regional and local data relevant to the project criteria support this location as your top priority(s). *(See page 11 for criteria relevant to prioritizing project location)*

Similar to transit, bike sharing requires a connected network of stations and a high density of people living, working and/or visiting the area. In addition, studies from Europe and North America indicate that greatest source of bike share trips are commute and work related trips. PBOT therefore chose the area with the city’s highest concentration of jobs, residences, and commercial activity for Phase One of Portland Bike Share: the Central City. Based on experience across the world, staff anticipates expanding the system to serve a much greater share of Portland in subsequent years as the system matures.

However, the Metro 2040 Growth Concept plan identifies the Central City as the hub of commercial and cultural activity for the region, making it an ideal location to launch bike share. The Central City contains 150,000 jobs and the city's densest census tracts. It includes the state's largest university and many of the region's top tourist destinations. The bike sharing service area includes many of the region's most fully realized mixed use centers, include Northwest, River, University and West End districts. In addition, PBOT is exploring a spur line following the MAX Yellow Line to the Killingsworth TC along with stations at Portland Community College Cascadia campus and pilot satellite stations.

Bike sharing will provide an excellent "last mile" connection for transit users traveling into and within the Central City. The Portland Streetcar eastside line will be complete in fall 2012. Portland Streetcar identified bike share as an excellent intra-loop connection for Streetcar riders, especially on the east side. Portland State University, the region's largest transit destination, has been involved in planning discussions surrounding bike sharing. Portland State University is the city's largest transit destination. In 2013, PSU will begin offering classes, including many in large lecture halls in the Collaborative Life Sciences Building in South Waterfront. PSU Transportation and Parking staff told PBOT staff that bike sharing will be an excellent connection between these two campuses for students who arrive at main campus by transit and need to quickly reach South Waterfront.

TriMet bike planning staff sees bike sharing as a tool to encourage multimodal bike-to-transit and transit-to-bike trips, especially given the limited supply of bike racks on its trains and buses. Especially for riders outside of the Central City, where transit service is less extensive, biking to transit can expand the reach of transit by making transit feasible for more trips while making other transit trips simply quicker and more convenient. More than three-fourths of those surveyed in the TriMet's Bikes on Transit report said that they brought their bicycle onboard in part because their end destination was too far to walk. Of those who de-trained with their bike downtown, 57% of passengers had an end destination of more than a ½ mile from a MAX station. Bike sharing would provide these riders an alternative to bringing their bicycles on board, especially for those boarding at the Beaverton, Sunset and Gresham Transit Centers where TriMet has installed secured, high quality parking. This will likely increase TriMet's bike carrying capacity by freeing up currently used racks by those who choose to use bike sharing.

#### Base project information

1. Corresponding RTP project number(s) for the nominated project (if applicable).

Bike sharing is identified in Metro's Transportation Systems and Management and Operations Plan (TSMO) as a key strategy for several corridors including Corridors 1 (North Portland) and 3 (Central City). The TSMO Plan was adopted as part of the RTP during the 2010 update.

2. Project sponsor agency  
Portland Bureau of Transportation

3. Contact information for: Application lead staff, Project Manager (or assigning manager), Project Engineer (or assigning manager).

Dan Bower, Transportation Options Interim Division Manager, 503-823-5667,  
[dan.bower@Portlandoregon.gov](mailto:dan.bower@Portlandoregon.gov)

4. Description of project extent, design elements and how measurement of project effectiveness after construction is to be completed. *(Metro staff is available to help design measurement methodologies for post-construction project criteria performance)*

Portland Bike Share's primary goals are to attract Portlanders to bicycling, increase the number of bicycling trips, reduce the number of single occupancy vehicle trips and therefore improve Central City circulation. PBOT foresees 350,000 to 500,000 bike sharing trips in the first twelve months of operation.

Bike sharing is a network of publicly owned bicycles available for short-term rental that provides a quick and convenient transportation choice for trips fewer than three miles. There are 238 systems worldwide and 23 operating in North America or slated to open by 2012. Bike sharing is similar to car sharing in that members pay a small fee to have access to a large fleet (of bikes instead of cars) and users must deposit the bicycles at designated spots (in the case of bike sharing, at bike sharing stations) when they finish using the bike. Unlike car sharing, bike sharing allows users to make one-way trips, which significantly increases the number of potential trips.

All of the bicycles within a bike sharing system are branded with a uniform style and color scheme that makes the bikes (and bicycling in general) visually appealing. The bicycles are designed to be used by a wide variety of people, especially those who did not dress with the intention of bicycling. The bicycle seats are adjustable to accommodate people of a broad spectrum of heights and shapes and include step-through frames, fenders, front and back lights, and chain and skirt guards. The bicycles are also designed to withstand 365 day, 24/7 exposure to an urban environment: the bicycles are very sturdy in order to withstand heavy use and the locking mechanism at stations are reinforced in order to deter theft. (Unlike the experience of Paris, where theft and vandalism had plagued their bike sharing system, theft and vandalism have not been issues with North American systems). GPS and RFID technologies are integrated into the bicycles and stations to provide easy check out, to further deter theft, and to allow operators real-time knowledge of the bikes' location.

Each bike share station includes a kiosk where users check out a bicycle. The stations have individual docks where a user takes and returns a bicycle. They may return the bike to any station within the network. Depending on whether the user is already a member or buys a 24 hour membership, users either pay with a credit/debit card or use their bike sharing membership card to check out a bike. Depending on the system, after paying the user either chooses a specific bike or is assigned a bicycle by the kiosk. The stations are portable and do not require excavation to install. Given their low power needs, most systems power their stations solely with solar power and Portland intends to this in its Request for Proposal.

As noted earlier, bike sharing users gain access to the system by buying a long term (annual, month, etc.) or 24 hour membership. The membership may be purchased either at the station or online.. In order to encourage short trips and a recirculation of the bike fleet, pricing structures typically provide the first ½ of trip at no additional cost with an increasing rate for each additional half hour. On most systems users can avoid fees for trips longer than 30 minutes simply by returning the bike into a bike share station and checking out a new bicycle, which restarts the user's free time limit at 30 minutes, and users can do this an unlimited number of times. Users very quickly realize that bike sharing can provide free transportation option once the membership is purchased. In Minneapolis, 97% of long term (monthly and annual) members' trips were under 30 minutes and therefore did not incur any charges beyond the initial membership fee.

Phase one of the Portland bike sharing system will include enough bicycles to provide a high level of service to the Central City plus a potential spur line and pilot satellite stations. Station density will average roughly one station every five city blocks on the west side with more targeted station placement on the east side in order to serve high density employment, residential, and commercial sites, while connecting users to transit stations. Staff is working with TriMet to integrate bike share into close-in Portland-Milwaukie Light Rail station designs and with Portland Streetcar to integrate bike share in its payment systems and fare structure. Station will be placed on sidewalks, plazas, and on-street as space allows. Station placement criteria will include medium and high density locations (residential, commercial, employment, entertainment and residential) transit stations, civic uses, social service sites, and tourist destinations. While the Central City will constitute a large majority of stations, PBOT is also investigating a spur line of stations that would follow the MAX Yellow Line to the Killingsworth TC with additional stations at the Portland Community College Cascade campus. One to three satellite stations are also under consideration.

At this time, PBOT does not plan to operate the bike sharing system. Once the federal funds are secured, the City will engage the private sector and potential sponsors through a traditional RFP process. Prior to releasing the RFP, the City will work with social service agencies and low-income housing providers to identify how the bike share system can best meet the needs of their respective clients. The RFP will outline expectations for the system including a full funding plan, a system warrantee, and an operation, maintenance and service plan. After award of the federal funds, but prior to receiving the funds in fall 2013, the City will work with the selected contractor to identify station locations, system pricing, branding, and marketing.

At this time, PBOT plans to entertain a variety of business models which involve the City owning the system or engaging a vendor in a fee-for-service arrangement. PBOT will assist in the marketing of bike sharing through its large network of resident and employer contacts developed through its award winning SmartTrips program, which has reached over 100,000 residents and served over 600 employers in the last four years. Based on the experience of other US cities with large bike sharing systems, PBOT believes that bike sharing will appeal to people regardless if they own a private bicycle. Indeed, Portland's commute mode split for bicycling is 6% and yet PBOT surveys of residents have found bike ownership rates ranging from 60% - 70%. For much of the population, simply owning a bicycle has not

translated into regular commuting or travel by bicycle. In Minneapolis, 76% of bike sharing members reported owning a bicycle as do 69% of Washington DC's members. Two thirds of Minneapolis' members reported bicycling more since becoming bike sharing members. First and foremost, it is the convenience of bike sharing – the ability to ride a bike immediately and without pre-planning, regardless of the mode used to arrive in the bike sharing service area or how one plans to leave, that has significantly increased bicycle trips in bike sharing cities, regardless of residents' bike ownership status. Both Minneapolis and Washington DC bike sharing members identified convenience as the number one benefit of the respective bike sharing systems.

The market will include Central City residents, those who live within a mile of the service area, Central City workers, university students (Portland State University, Linfield NW annex, Pacific NW College of Art, Art Institute of Portland, and Portland Community College Cascade), business travelers, tourists, along with any metro Portland resident who visits the Central City or other potential service areas. In part because bike sharing uses Smart Card technology for users to access the system, PBOT will have access to an extraordinary amount of data by which to measure Portland Bike Share's effectiveness. Not only will the number of members and trips be able to be measured in exactitude, but also the length of trips, the number of trips to and from each bike sharing station, and the time of day of trips. This allows PBOT the opportunity to make adjustments to station placement in order to maximize ridership and user convenience. If PBOT chooses a business model that does not include City ownership of the bike sharing system, PBOT will require the chosen bike sharing vendor to provide access to user data on a monthly basis and access to members in order to conduct surveys. These surveys will include but be limited to questions on members' frequency of biking since joining bike sharing and satisfaction with the system. This will provide PBOT with near real-time data on usage levels for the system. In addition, PBOT will undertake extensive annual surveys of bike sharing members to also determine usage in conjunction with other modes, helmet use, user demographics, etc. PBOT will also evaluate whether the rate of bike crashes among cyclists has reduced, increased or remained the same.

5. Please provide a purpose and need statement for the project you're nominating.  
(The purpose and need statement should address the criteria as they apply to the project area -e.g. increase non-auto trip access to essential services in the X town center, particularly for the high concentration of Y and Z populations in the project area)

The Portland City Council has identified the importance of the bicycle to meet the City's mobility and climate action goals. The Portland Climate Action plan calls for a 25% bicycle commute mode split by 2030 while reducing the City's drive-alone rate to 30%. The Portland Bicycle Plan for 2030 strives to make the bicycle the preferred mode for trips of three miles. To reach those goals, Portland is pursuing multiple strategies to attract "interested but concerned" Portlanders. With only 6.2% of Portland residents commuting by bicycle today, it is essential that Portland continue to lower bicycling barriers for these potential riders while also investing in new and better facilities across the city. In addition, despite the region's investment in Portland's heralded Central City transit system, air quality in Portland continues to decline and known carcinogens and asthma related emissions such as benzene, which is linked to diesel and gasoline emissions. The largest air toxin concentrations are in Portland's Central City, which houses many of Portland's highest concentrations of low income residents. Mobile source

emissions alone (cars, trucks, and buses) contribute enough emissions to reach 52 times the ambient benchmarks as determined by the Department of Environmental Quality (see map).

Bike sharing offers a very-low emissions network of easy to use, widely available public bicycles available at self-service stations. In Minneapolis, 66% of surveyed bike sharing members reported bicycling more since joining while reducing their driving trips by 19%.

### Highest Priority Criteria

6. Describe how the project improves access to priority destinations mixed-use centers, large employment areas, schools, and essential services for EJ/underserved communities. *(See maps/data on Metro FTP site)*

Bike sharing will provide a high level of bicycle and, therefore, transportation access to the region's densest residential, retail and employment districts which contain 150,000 jobs and approximately 31,000 residents. Most of the districts within Central City are composed almost entirely of mixed use centers. It is the home of the state's largest university student body, Portland State University which is also the region's number one transit destination, along with three other college campuses. It is also contains some of the city's densest census tracts of low-income individuals and contains a high number of organizations serving these populations.

Seven of the nine census tracts served by the proposed bike share system have above average populations of low-income residents. Three census tracts have significantly above average low income populations as defined by Metro's Equity Analysis, representing the densest population of low income residents in the region. Bike share provides an extremely affordable, reliable and convenient transportation option for accessing the region's densest concentrations of essential services. Every Census tract in the proposed bike share service area is above, or significantly above the regional average for concentration of essential services, civic establishments, financial and legal establishments, essential retail, health services, and essential food services.

7. Identify the safety issues in the project area. How does the project design address safety in the area? *(See bike/pedestrian crash map/data on Metro FTP site)*

The Central City has the highest concentration of fatal or near fatal auto crashes with pedestrians or bicyclists (2007-08), as defined by Metro's Equity Analysis. While PBOT will require the bike sharing vendor to provide users information on safe bicycling, PBOT expects that the significant increase in bicyclists and bike trips in the Central City due to bike sharing will reduce the rate of Central City crashes. This is due to the "safety in numbers" phenomenon identified by researcher Peter Jacobsen in 2003 in the *Injury Prevention* journal, which found pedestrian and bicycle crashes to decrease as the number of these trips increased. This has been documented in Portland and other cities across North American and Europe: as the number of bicyclists increase, drivers are more cognizant of bicyclists and drivers are more likely to also be bicyclists and are therefore more cautious when driving.

Another safety concern is in regards to bicycle helmets. State law requires those less than 16 years of age to wear a helmet while riding a bicycle. Portland Bike Share is unlikely to allow those less than 18

years of age to use the system and PBOT is unlikely to require users to wear helmets, although similar to its bicycle programs it will encourage their use. In other US bike sharing cities a majority of bike share users do not wear helmets. One reason that bike sharing has attracted new riders is its convenience: the availability of bikes densely located throughout a service area for public use allows users to make one-way trips without pre-planning – which sometimes means that the user does not have a bike helmet on their person when checking out a bike share bike.

There are several reasons that PBOT is unlikely to require users to wear helmets: improbability of distribution, helmet safety, sanitation and inconvenience to users. Melbourne, Australia is the only city of 230 worldwide with bike sharing systems to require bike sharing users to wear helmets and it is only generating 70 trips/day on its 600 bike system, one of the lowest trip rates for a bike share system of that size. Helmet distribution through vending machines would not only be expensive, but raises serious questions about the structural integrity of these collectively used helmets. A helmet dropped several times can lose its efficacy and there is no feasible way to assess the helmet's safety. Hygiene (imagine a helmet used by 5 different individuals on a hot summer day) is also a great concern. Melbourne has partnered with 7-Eleven to offer \$5 helmets that can be returned for \$3 and are sanitized between uses, which PBOT will explore.

PBOT will encourage users to wear helmets and explore new options to encourage helmet use (e.g., coupons for inexpensive helmets for bike share members). PBOT will follow the emerging best practices from Boston, Washington, Melbourne and other bike sharing cities on partnerships with public and private parties to provide easy access to bike helmets.

At the same time, it is important to recognize that research suggests that bike sharing will be a tremendous asset to the public health of a Portland by providing users a healthy, active form of transportation that outweighs the risk of users not wearing helmets. A recent article in the British Medical Journal compared the public health risks of bike sharing users in Barcelona's very successful bike sharing system (180,000 members) not wearing bicycle helmets and breathing automobile exhaust versus the cardiovascular benefits from increased levels of physical activity. Their analysis found that the risk was miniscule compared with the benefits: a net 12.28 deaths are avoided annually because of Barcelona's bike sharing system.

8. How does the project serve traditionally underserved (minority, low-income, limited English speaking, youth, elderly, disabled) communities? Explain how your project responds to data identifying concentrations of underserved communities and what project elements address the transportation needs of these communities. *(See Transportation Equity maps/data on Metro FTP site for help identifying concentrations of EJ and underserved communities and how well they are served/not served)*

The Portland Bike Share service area includes the densest concentration of low income individuals in the region. Bike share provides an inexpensive, active transportation choice for accessing the region's densest concentrations of essential services. Every Census tract in the proposed bike share service area is above, or significantly above the regional average for concentration of essential services, civic

establishments, financial and legal establishments, essential retail, health services, and essential food services. Seven of the nine census tracts within the Central City bike share service area contain above average populations of low income households, and three tracts are significantly above average as defined by Metro's Equity Analysis.

The Community Cycling Center's *Understanding Barriers to Bicycling* report identified lack of bicycle ownership as a significant barrier to bicycling. Annual memberships in other US bike sharing cities are as low as \$50, which provides access to a bicycle within the service area 365 days a year, 24 hours a day without cost of maintaining or storing the bicycle. Especially for those living in small spaces, storing a bicycle is inconvenient if not impractical. As described earlier, as long as users return the bike within 30 minutes, there are no additional charges, and surveys from other cities find that over 95% of trips by annual members are less than 30 minutes.

Bike sharing also has the potential to provide employment opportunities to Portlanders with little job history. This opportunity led the Executive Director of New Avenues for Youth Ken Cowdery to write the Portland City Council in favor of the Portland Bike Share proposal. PBOT will include in its vendor selection criteria the vendor's plan for hiring people from underserved communities and from hard-to-employ populations. PBOT will work with community organizations and service providers to overcome some of the potential barriers to low income people using bike sharing. For example, bike sharing systems have virtually eliminated theft problems by both designing strong, tamper-proof bike locking systems and by creating user accountability by requiring an electronic payment card to use bike sharing. While the Federal Reserve of Boston's 2010 study found that 94% of U.S. consumers had used some type of payment card, about 25% had not used a credit or debit card. PBOT will work with the chosen vendor and service providers to find innovative ways to reduce barriers to bike sharing use, such as reduced membership costs and the use of pre-payment cards as alternatives to credit and debit cards.

#### High Priority Criteria

9. Describe any outreach that has been conducted with EJ/underserved communities to date. *(Targeted outreach to these communities may be facilitated by Metro during the regional public comment period for comments on project scope. Additional outreach during project development phases (final design, preliminary engineering, etc.) may be a condition of funding approval)*

A majority of the public involvement for the development of the bike sharing concept occurred during the development of PBOT's Bike Plan for 2030. This included nine open houses that were scheduled in the late afternoons and early evenings to try to accommodate people with a variety of work schedules. Certified child care was available at the last six open houses as was Spanish translation. In addition, PBOT staff met with an ad hoc subcommittee of the Bicycle Advisory Committee to discuss various strategies to increase bike sharing access to underserved populations.

Once the funds are secured, but prior to releasing an RFP, PBOT will engage in a robust public outreach process to shape the bike share system. This will include targeted outreach to under-represented

populations. PBOT will seek partnerships with community organizations affiliated with under-served populations to co-sponsor public outreach events to better insure that the voices of a cross-section of Portlanders are included in the conversation.

10. Describe any conflicts with freight/active transportation you've identified in your project area. How does the project design address or provide mitigation to these conflicts?

PBOT anticipates minor or few conflicts between freight and bike sharing users. The majority of bike share trips are likely to occur on the west side of the Central City where there is no freight district as described in the city's Freight Master Plan. The Central Eastside does include a significant freight district and PBOT will incorporate potential freight/bike conflicts in evaluating station locations. Portland Bike Share will also reduce the number of car trips throughout the Central City, thus allowing improved circulation for freight traffic.

11. Does the project design include "last mile" connections? Please explain. (*Last mile connections create safe and comfortable biking and walking routes that directly connect transit stops to nearby origins and destinations, and can include the provision of secure and convenient bicycle parking at stations*)

The Central City serves as the region's largest transit hub with three light rail lines (four by 2015), bike sharing will provide quick and convenient last mile connections and reduce peak capacity issues on trains due to commuters bringing personal bikes on MAX. TriMet's Bikes on Transit report identified that 57% of downtown bound MAX riders who brought their bikes on board had an end destination of more than a half mile from a MAX station. In conjunction with the new Bike and Ride stations at Beaverton, Sunset and Gresham Transit Centers, bike sharing will provide additional last mile options for metro commuters while freeing up the limited space on trains and buses for personal bicycles. PBOT staff is also working with TriMet to incorporate bike sharing into the Portland Milwaukie Light Rail line stations.

12. Describe how the project will lead to an increase in non-auto trips through improvements in the user experience. (*See Appendix C for design elements that improve the user experience*)

Portland Bike Share will provide a new transportation choice for Portlanders: a low cost, healthy and convenient way to travel 24/7 throughout the Central City and the pilot satellite and spur sites. It imparts a distinct, new brand on bicycling that in other North American cities has appealed to people not currently biking or biking very little while providing supplemental bike access to occasional or regular cyclists. The extensive, conspicuous nature of the network increases people's awareness of bicycling. The ability to make spontaneous bicycle trips will increase the number of bicycle trips in the Central City. In Minneapolis, 19% of bike sharing members surveyed said that their previous bike sharing trip replaced a car trip and two-thirds of members reported bicycling more since becoming bike share members. Since opening on September 20<sup>th</sup>, Washington, D.C.'s bike sharing system has generated over 750,000 trips.

13. Does the project serve a high density or projected high growth area? Please explain. (*For high growth areas, explain how the project is coordinated with growth plans to focus or orient future development to maximize use of the project*)

PBOT developed the Portland Bike Share service area to include all of the city's densest, contiguous districts. The service area includes the City's densest residential census tracts including the, Northwest, River and South Waterfront districts. The River and South Waterfront districts are planned and projected to see continued growth; both have surpassed the growth goals identified in Metro's 2040 Growth Concept plan. Bike sharing stations will be placed in dense proximity in each of these areas.

#### Priority Criteria

14. Please describe the outreach/education/engagement element of the project nomination.  
*(Metro Regional Travel Options staff is available to help design an effective and appropriate level of education and marketing for your project nomination)*

PBOT's recent bike sharing outreach and education began in July 2009 when PBOT staff presented at the Bicycle Brown Bag series. PBOT organized two Bike Sharing Demonstration events in August 2009. These events secured the participation the two major North American bike sharing vendors at the time, Bcycle and Bixi, along with two Northwest bike share start-up companies. Events took place at Waterfront Park and the Sunday Parkways in SE Portland, which had 25,000 participants. PBOT estimates approximately over 1,000 people participated in the Bike Share events and PBOT collected nearly 400 written and online surveys as part of the process. PBOT presented bike sharing to its Bicycle Advisory Committee in January 2011. PBOT gave presentations to the Lloyd District Board of Directors (Feb 2011) and its transportation subcommittee (Fall 2010). In June 2011, PBOT held a public meeting that included presentations and feedback on the initial five draft projects, including bike sharing.

Portland's bike share vendor will be selected in part on its demonstrated success at marketing bike share or other active transportation programs. PBOT also intends to leverage its marketing expertise and extensive contacts of residents, employers and commuters from its award-winning Portland SmartTrips programs in order to educate and encourage bike sharing use. Through its SmartTrips Residential program, PBOT has a database of 30,000 Portland residents who have ordered active transportation information. PBOT's SmartTrips Business program has provided transportation resources to over 600 Portland employers and 10,000 employees since 2007. This includes over 130 in the Central City. In addition, the Portland SmartTrips newsletter reaches an additional 25,000 residents seven times a year and the SmartTrips Business *Commuter Central* blog receives over 150,000 hits a year. PBOT will feature bike sharing through all of its media tools and directly engage its participants.

PBOT will also work with its employer contacts to encourage internal marketing of bike sharing and will incorporate bike sharing into the dozens of public presentations it conducts each year. In addition, PBOT will encourage the chosen bike sharing vendor to explore employee bike share membership pass programs similar to those used by TriMet for its popular transit programs.

15. Are there opportunities to leverage other funds or investments with this project? Describe any opportunities you have identified and how you plan to coordinate with other project(s) or leverage other funds.

The Portland Bike Share project is predicated on leveraging significant private money to operate the system. The requested \$2 million capital request for Regional Flexible Funds will be matched by \$2 million in private funds. Nearly all of the US cities with large bike sharing cities have secured a significant amount of private dollars to help fund their bike sharing system. The table summarizes the private money raised for large US bike sharing systems. The level of private investment that PBOT anticipates is in line with these cities.

**Private/Sponsorship Dollars Raised by Major US Bike Sharing Systems**

	# of Bikes	Private Dollars Raised	Notes
Boston	600	\$2,700,000	
Denver	500	\$1,500,000	
Miami Beach	500	\$2,100,000*	<i>Miami negotiated a no-cost contract with vendor, figure based on conservative estimate of system capital and installation costs</i>
Minneapolis	1000	\$2,455,000	
Washington, DC	1000	\$0	<i>DC is releasing a RFP for sponsorship this year</i>

The only large system that has not secured private dollars, Capital Bike Share in Washington, DC, is planning to undertake a process in the near future and expects to break even by Year 4. PBOT has already heard from many private parties interested in sponsoring the bike sharing system and several companies have indicated desire to be a title sponsor. Private sponsors are likely to receive sponsorship recognition in exchange for their financial support of Portland Bike Share. While the exact details of the sponsorship package will be determined in negotiation with the vendor, the sponsorship benefits in Denver and Minneapolis provide sponsors recognition on the bicycles, on the station kiosks, on the web site and on collateral materials: the vendors are not selling advertising but the opportunity to be associated with a popular public asset.

16. Describe how the project may help reduce the need for road and highway expansion. Although in its infancy in North America, major bike sharing systems in Denver, Minneapolis, and Washington DC/Arlington have seen an explosion in bicycle trips. Data from Minneapolis bike sharing members found a 19.4% automobile trip replacement rate and an 8.3% private bicycle trip replacement rate. (In other words, when asked how they would have taken their last bike share trip had bike sharing not been available, 19.4% said they would have driven and 8.3% said they would have ridden their personal bike). Two-thirds of its members reporting biking more since joining. (PBOT anticipates 350,000 – 500,000 bike trips within the first 12 months of operation. Assuming that the auto and private bicycle trip replacement rates are similar to the Minneapolis experience, PBOT estimates this will reduce the number of automobile trips between 62,264 and 88,949 in Portland Bike Share’s first 12 months of operation. This does not take into account bike sharing users who become habituated to bicycling and increase their personal bike use.

**2014-15 REGIONAL FLEXIBLE FUND ALLOCATION**

**Portland Bike Share**

**APPENDIX**

**Budget**

**Summary of Public Testimony**

**Air Toxics Map**

**Bicycle and Pedestrian Central City Crash Map**

## Budget

The attached Portland Bike Share budget covers the purchase, assembly and installation of a 740 bike, 74 station bike sharing system. While the system that is ultimately implemented may vary in size and scope, staff believe a roughly 740 bike system is appropriate for Portland at the outset of this project. A bike sharing system is a very different product with a very different implementation process than the bicycle and pedestrian projects envisioned by Metro when developing the Cost Estimate Workbook. PBOT is therefore not using Metro’s workbook.

In the U.S., local government transportation staff, bike sharing operators and vendors tend to speak of bike sharing system cost as a per-unit cost. The bike sharing station is the unit. PBOT staff research found bike sharing unit costs in the \$45,000 - \$50,000 range. This unit cost for a bike sharing station assumes a 19 dock station with 10 bicycles. This unit cost also encompasses the terminal, map frame, and all other hardware and software items that encompass a ready-to-operate bike sharing system.

Portland Bike Sharing Budget	
Bikes	740
Stations (10 bikes/station)	74
Capital cost	
Cost per station (19 docks, 10 bikes)	\$43,256
Station and bike assembly	\$6,293
Cost per station and assembly	\$49,549
Station and bike assembly for entire system	\$3,666,626
Station Installation for 74 stations	\$142,888
Purchase, Assembly and Installation sub Total	\$3,809,514
Inflation Adjustment (2.5%/year)	\$190,476
<b>Total System Purchase and Installation Costs</b>	<b>\$3,999,990</b>

Depending on the preferred business model and agreements about service and maintenance expectations, operating costs can vary widely across systems. Operations of the Portland Bike Share system will be funded through a combination of membership and rider fees, sponsorships, donations, advertising revenues or other sources; the exact formula for funding operations of the system will be negotiated through the RFP process.

## Summary of Public Testimony

<b>Summary of Testimony on Portland Bike Share</b>		
Support: 15 organizations, 1,160 individuals (1157 through petition)		
Oppose: 2 organizations, 5 individuals (one anonymous)		
<b>Support</b>	<b>Individual Representing Organization</b>	<b>Contact Information</b>
<i>Individuals</i>		
Kiel Johnson		<a href="mailto:kielij@gmail.com">kielij@gmail.com</a>
Randy Miller		
Chris Smith		<a href="mailto:chris@chrissmith.us">chris@chrissmith.us</a>
1048 Online Petition Signatures (via BTA web site)	1048 Individuals	
109 Hard Copy Petition Signatures (via BTA)	109 Individuals	
<i>Organizations</i>		
Bicycle Transportation Alliance	Rob Sadowsky and Gerik Kransky	618 NW Glisan, Ste. 401, 97209, 503-226-0676
BOMA Portland	Susan Stewards	200 SW Market, Suite 1710, 97201, 503-228-9214
Get Around	Steve Guttman	<a href="mailto:gutmann.steve@gmail.com">gutmann.steve@gmail.com</a>
Kaiser	Dave Northfield	503-813-3967
Lloyd District TMA	Rick Williams	503) 236-6441
New Avenues for Youth	Ken Cowdery	1220 SW Columbia, 97201
Portland Oregon Sustainability Institute	Rob Bennett	1600 SW 4th Ave, Suite 110 97201
Portland Streetcar	Michael Powell	1516 NW Northrup St, 97209-2436
Portland Business Alliance	Bernie Bottomly	200 SW Market Street, Suite 150, 97201, 503-275-9750
Regence	Kerry Barnett and Jennifer Elliott	200 SW Market Street, 97207
South Waterfront TMA	Pete Collins	503.972.2830
Travel Portland	Jeff Miller	1000 SW Broadway, Ste. 2300, 97205, 503-275-9750
Under Solen Media	Anna Brones	<a href="http://www.undersolenmedia.com">www.undersolenmedia.com</a>
OMSI	Paul Carlson	1945 SE Water Avenue, 97214
Portland State University	Mark Gregory and Ian Stude	PO BOX 751, 97207-0751, 503-725-9015
<b>Oppose</b>		

<i>Individuals</i>		
Anonymous		
Don Baack		6495 SW Burlingame Pl, 97239, 503-246-2088, baack@q.com
Carla Danley		7412 N Wilbur Avenue, 97217, 503-380-3876, danleycd@yahoo.com
Linda Nettekoven		2018 SE Ladd, 97214, linda@lnettekoven.com
Terry Parker		PO Box 13503, 97213-0503
<i>Organizations</i>		
Crestwood Neighborhood Association	Linda Niles	9506 SW 50th Avenue, 97219 lnniles@stoel.com

# Air Toxics Map

## Cumulative Benchmark Exceedances from On-Road Mobile Emissions, and Proposed Bike Share System Service Area

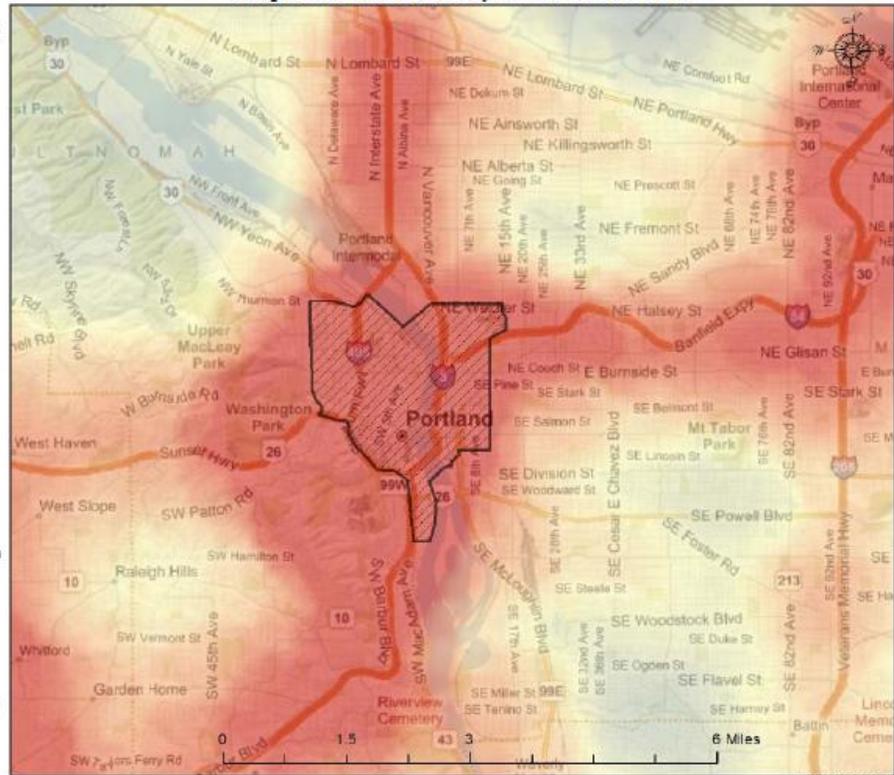
### Portland Air Toxics Solutions



State of Oregon  
Department of  
Environmental  
Quality



Note  
ABC = Ambient Benchmark  
Concentrations  
PATS air toxics from  
on-road mobile source:  
acetaldehyde, acrolein,  
1,3-butadiene, formaldehyde,  
naphthalene, benzene,  
diesel PM, ethylbenzene,  
arsenic, chromium VI,  
manganese, nickel,  
15 - PAH



G:\PortlandAirToxicsSolutions\EJ\_Census2010\MXDofPopMinority\_and\_2017Concentrations\_ab

May 16, 2011

# Bicycle and Pedestrian Crashes

Central City, 2000 – 2009

