# **BELLEVUE BIKE SHARE PILOT EVALUATION REPORT**



summary of system performance during the 2018–19 permit year



February 6, 2020

# Summary

# Background

The City of Bellevue launched a one-year bike share pilot on July 31, 2018. Lime was the only permitted operator for the full pilot period, providing electric-assisted bikes for use citywide for a \$1 unlock fee plus \$0.15 per minute. Preferred parking areas, called "bike hubs," were designated throughout Downtown and in activity centers across the city to facilitate convenient and reliable service and encourage responsible parking practices.

The bike share pilot actualizes policies from Bellevue's Comprehensive Plan, adopted in August 2015, which direct the Transportation Department to "evaluate and facilitate car-sharing and bike sharing programs" (TR-16) and "support the establishment and operation of a bicycle sharing program in Bellevue" (TR-115). Recognizing that dockless bike share presents a unique set of political, administrative, and technical challenges, staff engaged with the Transportation Commission, Bellevue Downtown Association (BDA), Chamber of Commerce, and broader community to determine how to permit such services in Bellevue. The City's Transportation Commission shaped the goals and strategies contained in the <u>Pilot Permit Framework</u> in winter 2018, and permit conditions were then developed in spring 2018 in under authority granted to the Transportation Director in the Right-of-Way Use Code.



# Purpose

The Pilot Permit Framework includes the following statement of purpose:

The City aims to implement a bike share pilot consistent with the Bellevue brand of high quality and innovation, providing an asset the community would use and value. Fundamentally, the pilot aims to facilitate the convenient provision of bicycles where people want them while maintaining orderly and accessible public space and minimizing impacts to parks and private property. Bike share should provide a reliable mobility option within and between major activity centers and support access to and from the regional transit network.

How did outcomes align with these intentions? Evaluation was an important element of the pilot. As a condition of their permit, Lime was required to provide anonymized mobility data to the City to support operations oversight, assess performance, inform infrastructure planning, and provide insights to help refine permit conditions and improve service delivery in subsequent years. Mobility data is derived from the GPS units affixed to each bicycle in the deployed fleet, providing time and location information for bikes, trips, and operator actions like fleet rebalancing. Analysis of this mobility data forms the core of this evaluation report. This is supplemented with the results of questionnaires, field observations, and other assessments.

Key takeaways on the next pages summarize the outcomes of the bike share pilot relative each element of the pilot's statement of purpose, drawing insights from all evaluation efforts. The rest of the report provides additional information about specific topic areas, such as trip patterns, safety, and permit condition compliance.

# Key Takeaways

## High Quality and Innovation

E-Bikes Only

- When Bellevue's e-bike share pilot began in July 2018, only a few other cities in North America had dockless electric bike share services, and even fewer were e-bike only—nearly all were pedal-only (non-electric). Dockless pedal bikes have since largely disappeared, and many station-based systems are adding e-bikes to their fleet or transitioning to e-bikes entirely.
- Asked to describe what they liked about the pilot, about 5 percent of respondents to the City's fall 2019 online questionnaire specifically wrote about the e-bikes and how they help climb hills, extend range, and make riding more enjoyable.
- When asked in the same questionnaire how the City could help make bike share more useful to them, 43 percent of respondents suggested that the City should provide shared e-scooters. In a fall 2018 survey of Lime users, 59 percent said they would like to see e-scooters in Bellevue, while 18 percent said they only wanted to use e-bikes.

**Parking Management** 

- Designated preferred parking areas, called "bike hubs," were installed at 15 locations in Downtown on the day of system launch, and the network was expanded to 50 locations across the city by fall 2018. These painted boxes had only begun being installed in a few cities in summer 2018 but have since become a popular low-cost strategy to help manage dockless bikes and scooters nationwide.
- Lime did not implement the incentives to which they committed to encourage users to park at bike hubs. Consequently, only 9% of all trips ended within 50 feet of a bike hub, and 16% ended within 75 feet of a bike hub.
- An online interactive map was launched in November 2019 that invites the to help decide where new bike hubs should be installed in 2020.





## **Community Asset**

Service Usage

- From July 31, 2018 to May 22, 2019, 38,310 trips were taken by 8,540 unique users. Data is still being verified for the final months of the pilot, but preliminary Lime data indicates that more than 45,000 trips were taken by over 9,500 unique users in total during the one-year pilot.
- From August through October, an average of more than 200 trips were taken every day. Although ridership declined significantly during the winter months, people used bike share every day of the pilot.
- About 53 percent of all trips were taken in Downtown, but people took bike share trips in every part of Bellevue, including more than 1,300 trips that began and 1,600 trips that ended in the city's lowest density residential neighborhoods.
- More than 1,700 users (21%) took 5 or more bike share trips, accounting for 70 percent of all trips taken in Bellevue, and 729 users (15%) took more than 10 trips, accounting for 52 percent of all trips taken.
- The BKR travel demand model estimates that 65 percent of the 505,000 motor vehicle trips made fully within Bellevue every day are less than 3 miles in length, and among those, the average distance is just 1.4 miles. About 78 percent of bike share trips were 3-18 minutes in duration, and 29 percent were between 10-15 minutes in duration. At 10 miles per hour, the mean bike share trip distance may be estimated at about 2.5 miles (a 15-minute trip), and the median trip distance may be estimated at about 1.5 miles (an 8.75-minute trip). Bike share has the potential to be a useful mobility option for thousands of local trips and can serve a significant role in helping the city achieve its mode share targets.

#### **Public Perception**

- Asked what they like about the bike share pilot, respondents to the City's fall 2019 online questionnaire (n=313) wrote that it is convenient, accessible—particularly in Downtown—and provides a welcome mobility option that is fast, flexible, fun, and sustainable. About 20 percent said they did not like anything about the pilot, but this is significantly less than the share who had not used the service (58%). Nearly 7 percent of respondents said they like that bike share is available in Bellevue even though they do not use it themselves.
- Asked for what purposes they have used bike share in Bellevue, at least a few respondents selected every trip purpose presented as options. Five purposes were selected by more than 25 percent of respondents: doing personal errands or appointments (44%), for fun/recreation (42%), commuting to/from work (34%), getting to/from the bus (25%), and meeting up with friends or family (25%).
- Asked what they dislike about the bike share pilot, respondents wrote that the bikes are left everywhere, are unsightly—commonly using the terms "clutter" and "litter"—and crowd or block sidewalks. However, others feel there were not enough bikes available, that they were not available when and where people wanted them, and that the city needs more safe bikeways to support bike share and bicycling in general.
- Members of the public contacted the Transportation Department 97 times. Most instances were to request that bikes be relocated, either because they had been idle for a long time or on private property.

### **Convenient Access to Bicycles**

**Bike Availability** 

- Bikes were available to use anywhere in Bellevue; no neighborhoods were excluded from the service area. However, targets were established to focus bike distribution to areas where demand was expected to be higher, to support access to public transit, and to provide at least some degree of useful service to each activity center. Further, because dockless bicycles can be deployed and parked anywhere, their convenience in a given location is always changing.
- Downtown is the neighborhood where the most bikes were available throughout the pilot. Even though Downtown accounted for about a third of the citywide available fleet for most of the pilot, the number of bikes on the street changed significantly, ranging from about 50 bikes in August to 110 in November, dropping to just 12 bikes in late January, and returning to about 30 in the spring.
- Only four other neighborhoods typically had 10 or more bikes available daily: West Bellevue and Northwest Bellevue, BelRed, and Wilburton.



Bike Proximity to People

- The variation in fleet size and distribution described above has a significant impact on how many people can conveniently access bike share.
- Based on bicycle locations and 7am or 7pm on eighteen sample days, between 8,600–32,200 residents were within a quarter-mile of a bike share bicycle, with an average of about 18,900 residents. This equates to about 6–23 percent, or an average of 13 percent of the city's population.
- Based on the same samples, at least one bike was available in census block groups containing about 91,500–142,500 jobs (60–93%), with an average of about 123,500 jobs (81%). Due to the size of census block groups, and because a single bike in a given block group may result in thousands of jobs counted, this figure is less representative of actual access than the estimate for population.
- Asked how the City could make bike share more useful, the two actions with the most support were to provide more bikes near workplaces (63% agree or strongly agree) and provide more bikes near bus stops (48% agree or strongly agree).



# **Orderly Public Space**

Bike Hubs

- In a fall 2018 survey of Lime users, 78 percent of respondents (n=131) indicated that they understood how to use bike hubs, and 64 percent had seen them in the city.
- In a questionnaire

**Misparked Bikes** 

- Field study by students at the University of Washington found that 17% of the 96 bikes observed in spring 2019 were blocking sidewalks, 14% were parked on unpaved surfaces like landscaping or grass, and 5–10 bikes were found at sidewalk corners, next to hydrants, or blocking curb ramps.
- When asked to select their biggest concern about bike share in Bellevue from a list of options, 13 percent of respondents to the fall 2019 questionnaire identified parked bikes blocking sidewalks—ranking behind unsafe streets for people bicycling (28%), unsightliness of abandoned bikes (14%), assorted write-in concerns (14%), and no concerns (13%).

## Limited Impact to Parks and Private Property

Parks

- All City-owned parks were designated as No Parking Areas, which were geocoded and depicted as red areas in Lime's app. Tapping on the red areas in-app generated a notification stating: "No-parking Zones. Repeatedly parking here may lead to a fine or suspension of your account."
- Despite this, 1,226 trips (3%) were ended in city parks. Downtown Park was the most common park destination, with 569 trips ending there (46% of all trip ends at parks).
- Bikes were observed in parks at 7am on nearly every day of the pilot evaluation period—288 out of 296 days—and 87 percent of those bikes had been there for more than 24 hours.
- Focusing on parks where bike share trips commonly ended during the pilot, the Transportation Department will work with the Parks & Community Services Department to identify acceptable locations where bike hubs can be installed to provide convenient places for bike share users to park bicycles when visiting city parks, accommodating demand while better managing impacts.

**Private Property** 

- Due to GPS inaccuracy, the number of bikes parked outside of the public right-of-way cannot be reliably evaluated using mobility data.
- Among the communications to the Transportation Department during the pilot, reports of bikes left on private property, especially commercial properties, were among the most common. Several Downtown property owners contacted the City multiple times to report separate instances of bikes left on their property.
- Field study by students at the University of Washington found that 24% of the 96 bikes observed in spring 2019 were on private property—the most common compliance issue.

## **Reliable Mobility Option**

Service Consistency

- The total number of bikes available in Bellevue varied significantly over the course of the pilot, ranging from a weekly average of 54 to 284 bikes available at 7am daily. The most bikes were available in late summer and fall 2018, and the fewest were available during winter 2019.
- Lime began reducing the fleet during the week of Thanksgiving 2018 and continued removing bicycles through mid-February 2019—from a high of 302 bikes down to just 65 citywide. The number of bikes available citywide remained less than 100 through mid-April.
- There were no major changes to other aspects of the service—the bike, app, and cost of a trip were all consistent throughout the pilot period.
- Bike maintenance is another factor to consider. Lime provided records for the maintenance actions they took on bikes deployed in Bellevue; however, it is not known how many

# Safety

## Crashes

The Transportation Department is aware of two crashes involving people using bike share in Bellevue. This suggests a collision rate of approximately 1 per 22,000 trips and an injury rate of approximately 1 per 45,000 trips.

- No collisions were reported by Lime.
- Police were not aware of any crashes involving bike share users having been reported during the bike share pilot.
- One crash was identified by NORCOM. The person using bike share was riding along a sidewalk, and a person driving struck the bike share user while exiting a driveway. The bike share user did not remain on the scene.
- One respondent of the fall 2019 online questionnaire reported that they had been in a collision while using bike share in Bellevue. They indicated that they went to the hospital with a fractured hip and reported the incident to the Police.

The discrepancy in the above suggests opportunity to improve how crashes involving bike share users are documented and reported. Users may not report a crash to the operator, Police do not currently have a uniform method to flag and report the crash distinct from others involving people bicycling, and the Transportation Department's crash database does not currently account for all crashes that Fire and EMS respond. The City's Vision Zero Action Plan includes a strategy to "work with partner safety agencies to develop a more complete crash database," part of the "Partnerships" pillar of the Safe Systems approach.



# Permit Condition Compliance

The Transportation Department developed the Bike Share Pilot Permit Special Conditions to manage and oversee dockless bike share services operating in Bellevue during the 2018–19 pilot. This section identifies permit conditions related various aspects of the service and the targets established to measure compliance, presents data collected during the pilot and its limitations, and explains how the City used these insights.

# **Right of Way Use**

**Condition PI-1** – This permit is valid and applicable only to uses within the City of Bellevue Public Rightof-Way. Any other permissions or approvals to use other public property, such as parks or transit centers, or private property, such as publicly-accessible plazas or campuses, shall be the responsibility of the permittee to secure.

- **Outcome:** Over the course of 296 days of service (7/31/18 5/22/19), there were 35,087 trips completed with destinations in Bellevue. More than half of those (53% or 18,764 bikes) logged GPS locations outside of the right-of-way.
- **Discussion:** GPS data imprecision makes these calculations very unreliable. While the magnitude of the result suggests that bikes were sometimes—and perhaps often—parked outside of the right-of-way by users, data suggests that a comparable percentage of bikes were deployed and/or rebalanced by Lime outside of the right-of-way, suggesting that the GPS error plays a major role in this statistic. The Transportation Department was not notified of any instances when Lime deployed bikes on private property without the property owner's permission.

# Fleet Size and Distribution

#### Minimum Fleet Size

**Condition PI-16** – All permitted operators shall maintain a minimum active fleet of 100 bicycles by the 60th (sixtieth) day following system launch.

- **Outcome:** There were 13 weeks when Lime's average weekly available fleet was less than 100 bikes—weeks 26 through 36, from January 21–April 7, and weeks 42 and 43, from May 13–22.
- Discussion:
  - The minimum fleet condition was included in the permit conditions due to a concern that very small, unproven companies might obtain a permit, deploy a small fleet of bicycles in Bellevue, then abandon them after going out of business. Requiring that at least 100 bikes be deployed was meant to help ensure that applicants were serious about providing a service at a time when rapid market expansion was the core business strategy of many dockless bike share companies across North America.
  - The City's permit conditions included no means by which a permitted operator could be compelled to increase their fleet. Lime's decision to reduce their fleet for the winter and their inability to maintain 100 bikes in Bellevue for several weeks reflected the company's business considerations and operations challenges. Upon the City's request, Lime temporarily increased their fleet above 100 bikes in the spring but did not maintain that threshold consistently through the remainder of the pilot period.
  - As the lone permitted operator, during a period when the City was concluding its pilot and preparing the revised permit for 2020, Lime was permitted to continue operating despite the reduced fleet to maintain at least some service during the transitional period.

#### Maximum Fleet Size

**Condition PI-13** – Permittee acknowledges that the cumulative active fleet size for all permitted operators is 400 bicycles at system launch.

• **Outcome:** Lime never met or exceeded the maximum allowed fleet. The maximum number of bikes deployed was 302 on November 11, 2018.

#### **Distribution to Service Areas**

**Condition OP-13:** Permitted operators shall regularly rebalance their active fleet to service areas according to the targets established for each type as follows:

- (a) Activity Centers More than 50 percent of active fleet
  - (i) Priority Activity Center At least 25 percent and no more than 50 percent of the active fleet allocated to Activity Centers shall be distributed to Downtown.
  - (ii) Other Activity Centers At least 10 percent of the active fleet allocated to Activity Centers shall be distributed to each other area including BelRed, Crossroads, Eastgate, Factoria, and Wilburton/Hospital.
- (b) Frequent Transit Network (FTN) Bus Stops At least 10 percent of active fleet
- (c) Neighborhoods At least 15 percent of active fleet
- Outcome:

- Activity Centers in aggregate were undersupplied, Downtown was oversupplied relative to the other Activity Centers, and nearly twice as many bikes were deployed in both the FTN and Neighborhood geographic areas as were required.
- There were 5 weeks when the minimum target for Activity Centers was not achieved.
- There were 34 weeks when the maximum target for Downtown was exceeded, including the first twelve and last seventeen weeks of the evaluation period. The maximum target was exceeded by more than 25% for eleven of the non-compliant weeks.

#### • Discussion:

- Geographic area targets for fleet distribution were established to: (1) ensure that the
  majority of the fleet would be deployed to activity centers, where they were more likely to
  be used and less likely to sit idle long-term, (2) provide a functional level of service to all
  activity centers, offering people the opportunity to demonstrate the level of demand for
  bike share service in different parts of the city, and (3) position bike share as a viable first/last-mile option for connecting to/from transit.
- Following guidance to be flexible with distribution targets, deviation of up to +/-10% was considered "compliant," and deviation of 25% or more was required to warrant enforcement action.
- The data required to take enforcement action was not available in the first months of the pilot when distribution to Downtown was too high relative to other Activity Centers. When data was available in December, the fleet distribution was meeting targets within the compliance threshold.
- When distribution to Downtown again exceeded the relative targets—for 17 consecutive weeks from late January through May—the weekly average fleet citywide never exceeded 131 bikes and was below 100 bikes for 11 of those weeks. Under these circumstances, the Transportation Department deemed it imprudent to enforce distribution requirements that would have reallocated the limited number of bikes out of the area with the greatest potential to generate ridership.
  - To encourage bike share use, pilot data suggests that distribution targets for each activity center may be counterproductive, however well-intentioned—at least until the areas with the greatest demonstrated demand are sufficiently supplied. These targets increase the cost to the company of providing service and may be a deterrent for operators to serve the city at all.

## Parking

#### **Designated Preferred Parking Areas**

**Condition OP-15** – Permitted operators shall rebalance at least 50 percent of their active fleet to within or near bike hubs in Activity Centers where they are available on a regular basis to ensure reliable service and maintain an orderly Public Right-of-Way.

- **Outcome:** On average, only about 6 percent of all bikes available in Bellevue were located at or near designated preferred parking areas, called "bike hubs," daily at 7am. The data available does not identify which hubs the bikes were located at, so compliance could not be measured precisely. However, even if all of the bikes at hubs were located at hubs in Downtown, there would only have been 1 week when the target was achieved and 7 additional weeks when the number of bikes at hubs was within the +/- 25 percent compliance threshold, with an average of about 20 percent of Downtown bikes at hubs daily.
- Discussion:
  - This data was not yet available to the program manager during the pilot period, so it was not possible to take enforcement action based on this information.
  - Lime never implemented the incentives to which they committed to encourage users to park at bike hubs, but there was no mechanism in the permit conditions to effectively penalize that non-compliance. A penalty fee has been incorporated in the 2020 permit conditions to address this issue.

#### **No Parking Areas**

**Condition PA-11** – Permitted operators shall use geofencing to establish No Parking Areas in city-owned parks as specified by Attachment E – Geofenced No Parking Areas, and they shall:

- (a) depict these areas on their mobile application map;
- (b) propose and apply financial disincentives to discourage bike share users from parking in these areas;
- (c) automatically receive notifications when bikes are left in these areas, assumed to be non-hazard obstructions unless separately reported otherwise by the City or any other individual or entity;
- (d) relocate bicycles left in these areas according to requirements specified in the "Operations – Rebalancing and Relocation" section (within 24 hours when not an obstruction hazard see OP-19).
- **Outcome:** Out of 296 days of service—from July 31, 2018 through May 22, 2019—there were only 8 days (3%) when there were zero bikes in No Parking Areas during the daily 7am count. On average, about 5 bikes were parked in No



Parking Areas at 7am daily, and most (87%) were left there for more than 24 hours.

• Discussion:

- This data was not yet available to the program manager during the pilot period, so it was not possible to take enforcement action based on this information.
- Lime did depict the areas in their app and notified users via the app when they ended trips in these areas. However, Lime never implemented the financial disincentives to which they committed to discourage users from leaving bikes in defined No Parking Areas, and there was no mechanism in the permit conditions to effectively penalize that non-compliance. A penalty fee has been incorporated in the 2020 permit conditions to address this issue.

#### Idle Bike Relocation

**Condition OP-17** – Any bicycle not parked within or near a bike hub, if it is not rented for six consecutive days, must be relocated to a bike hub before 7:00 AM on the following day.

- Outcome:
  - During every week of the pilot, there were always at least a few bikes, and sometimes more than 100, that had remained idle for more than 7 consecutive days.
  - The percentage of bikes in the city that were idle for more than 7 days was significantly higher during the second trimester, averaging 48% of the average available fleet at 7am, compared to only 20% in the first trimester and 26% in the third trimester.
  - Many more bikes sat idle for more than 7 days when parked outside of bike hubs than when parked at/near bike hubs (within 50 feet). For example, there were 176 days (59%) with zero >7-day idle bikes at/near bike hubs, but there was only 1 day with zero >7-day idle bikes outside of bike hubs.
  - Nearly a quarter (23%) of bikes idle for more than 7 days were in Downtown, and the vast majority (86%) of those were outside of bike hubs.
  - Half of all bikes that remained idle for more than 7 days were in residential neighborhoods where no bike hubs had been designated to which the idle bikes could be rebalanced without being relocated to an activity center.

#### • Discussion:

- This data was not yet available to the program manager during the pilot period, so it was not possible to take enforcement action based on this information.
- Data suggests that bikes parked outside of bike hubs—that is, away from strategically selected locations in the densest, most active parts of Bellevue—tend to result in bikes remaining idle for longer more frequently. More bike hubs are planned throughout the city to establish convenient locations for bikes to be accessed, parked, and rebalanced to, reducing the number left idle outside of designated locations in the future.

# **Cost Recovery**

**Goal:** Recover all costs incurred to the city to administer, support, and oversee privately owned and operated bike share services.

The following table summarizes all costs incurred by the bike share pilot from approximately June 2018 through December 2019, including Transportation Planning staff time, labor and materials for bike hub installation, and contracts for data evaluation and community engagement. The table also reflects the costs reimbursed by Connecting Washington funds, which were allocated by the State Legislature to Eastside communities to plan and implement bike share systems.

Category	Cost	State Funds	City Costs
Planning			
State Funding Agreement	\$2,332		\$2,332
Bike Hub Planning	\$1,822		\$1,822
Bike Hub Engagement Tool	\$4,832	-\$2,000	\$2,832
Field Work			
Bike Hub Installation	\$5,974		\$5,974
Bike Hub Materials	\$1,849		\$1,849
Evaluation			
TRAC Research Contract	\$40,000	-\$40,000	\$0
Mobility Data Analysis	\$16,032		\$16,032
Coordination with UW Classes	\$1,020		\$1,020
Administration			
Customer Service	\$5,775		\$5,775
Lime Meetings	\$874		\$874
Assorted Administration	\$15,530		\$15,530
Total	\$96,041	-\$42,000	\$54,041

Lime paid two fees to obtain their permit to operate in Bellevue during the 2018-19 pilot:

- TE permit application fee \$220 per the 2018 fee schedule
- Pilot Management Fee \$40,000 for reimbursement of
  - (a) one-time costs, including materials and labor for installing preferred parking areas;
  - (b) ongoing costs, including staff time for oversight, data review, coordination with operators, responding to public communications, and community engagement.

The unrecovered net cost to the City was therefore approximately \$14,000. This can be attributed largely to unanticipated challenges with the evaluation and related staffing changes. Products and practices created during the pilot are generally transferrable to ongoing administration of an annual permit, and lessons learned will help to reduce the staff time required to manage and monitor the program in the future.

# **Projections and Comparisons**

## **Unrealized Potential**

The first four months of the pilot provide the most useful data demonstrating demand for dockless bike share in Bellevue. From July 31 through November 30, 2018, Lime steadily increased the supply of bikes available in Bellevue from 50 to 300. During this time, bike share use averaged over 200 trips daily.

In November 2018, with weather conditions worsening and ridership declining—as was anticipated based on seasonal trends in other markets—Lime began withdrawing bikes from Bellevue, ultimately reducing the fleet to less than 100 bikes from mid-January through early April. The City anticipated that bikes would be returned in the spring as weather conditions improved, meeting or exceeding the fleet deployed in the fall. Instead, Lime maintained only about 100 bikes in Bellevue for the remainder of the evaluation period. Although ridership increased somewhat in April and May 2019, the limited fleet hampered the service's utility, and weekly ridership never again matched the levels achieved from August through mid-November.

What if circumstances had been different? Suppose Lime had maintained a more consistent fleet throughout the winter despite the reduced number of trips per bike per day. Suppose they had redeployed the fleet of 260+ bikes from fall 2018 in late spring and summer 2019. How might that have changed the number of total trips taken?

Based on the observed patterns during the first trimester, some inferences can be made about what might have happened if service had remained more consistent throughout the pilot:

- If service had been maintained through the winter, an additional 11,100 trips may have been taken from December through April 2019—double the observed winter ridership. This estimate reflects some seasonal decline, but significantly less than occurred when compounded with reduced bicycle access.
- If service in late spring and early summer 2019 had matched that provided in fall 2018, and if that level of service and ridership continued from late May through July 31, 2019—a period for which verified ridership data is not yet available—an additional 15,600 trips may have been taken during the final months of the pilot.
- Together, these estimations result in a hypothetical annual total of about 65,000 trips—over 26,000 (70%) more than observed during the pilot evaluation period.

This estimate does not reflect any assumed growth in demand as the service matures, nor growth in the fleet beyond what was already provided, nor operator optimization of fleet distribution to match observed trip patterns. It simply offers a hypothetical annual ridership total based on seasonally comparable performance that was unrealized due to reduced service.

# **Community Engagement**

# City Online Questionnaire - Fall 2019

# **Respondent Profile**

- 313 total respondents
  - 58% have never used bike share in Bellevue
  - 20% have used bike share five or more times in Bellevue
- 70% are Bellevue residents
  - Of those, 30% live in Downtown and 14% live in West Bellevue.
  - Among non-residents, 33% live in Seattle and 18% live in Kirkland.
- 62% work in Bellevue
  - Of those, 66% work in Downtown.
  - Among those that work outside Bellevue, 34% work in Seattle and 30% do not work.
- Respondent ages are nearly equally distributed across the 25-34, 35-44, 45-54, and 55-64 age groups with about 20% each.
- More than half (56%) of respondents identify as male, nearly a third (31%) as female, and 12% chose not to provide their gender.
- Two-thirds (66%) of respondents identify as white/Caucasian, 11% as Asian/Asian American, and 3% as Latino/Hispanic. Respondents are not a good reflection of the racial demographics of Bellevue.
  - Asked how they typically get to work, school, or other places they travel regularly, respondents:
    - 54% drive alone
    - 45% use public transit
    - 36% walk or roll
    - 27% ride their own bicycle
    - 20% carpool or vanpool
    - 10% use bike share
    - 7% use ridehail, rideshare, or taxi services

## Non-Users (n=182)

- Two of the top three reasons why people do not use bike share in Bellevue relate to safety.
  - 1. Lime bikes do not come with a helmet (35% strongly agree / 30 % agree)
  - 2. I use my own bike, so I do not need bike share (28% strongly agree / 27% agree)
  - 3. I do not feel safe biking in Bellevue (24% strongly agree / 26% agree)
- 35% are open and 20% may be open to trying bike share in Bellevue.

### Users (n=131)

- Asked for what purposes they have used bike share in Bellevue, at least a few respondents selected every trip purpose presented. Five purposes were selected by more than 25% of respondents: Doing personal errands or appointments (44%), for fun/recreation (42%), commuting to/from work (34%), getting to/from the bus (25%), and meeting up with friends or family (25%).
- More than a third of respondents indicated that bike share replaced car-based trips (24% personal car, 9% rideshare), but nearly half (49%) used bike share to replace walking trips.
- Two of the top four reasons respondents chose to use bike share reflect perceived benefits relative to driving: "I did not have to search or pay for car parking" (50% strongly agree / 28% agree) and "It helped me avoid traffic congestion" (38% strongly agree / 35% agree).
  - The other two top reasons: "It was the most enjoyable travel option" (43% strongly agree / 31% agree) and "It was the most flexible travel option" (36% strongly agree / 37% agree).
- Most respondents who used bike share feel that Bellevue is a very (17%) or somewhat (43%) safe place to ride a bike; however, more than 40% feel it is an unsafe place to ride a bike today.
  - Nearly an equal share of respondents self-identified as "Strong and fearless" (30%) and "Interested but concerned" (28%) riders. Thus, about 12% of riders who are "Enthusiastic and confident" do not feel that Bellevue is a safe place to ride today.

#### All Respondents

- All respondents were asked to describe what they have liked about bike share in Bellevue in a few words. The most common themes—other than "Nothing"—were:
  - It is convenient
  - It is accessible/available (particularly in Downtown)
  - It provides welcome mobility options and flexibility
  - That it exists in Bellevue at all
  - It is sustainable
  - It is fast
  - The electric-assisted bikes
  - All respondents were also asked to describe what they have disliked about bike share in Bellevue. The most common themes were:
    - The bikes are left everywhere
    - There are not enough safe bikeways in the city
    - The bikes are not available when and/or where people want them
    - The bikes crowd and block sidewalks
    - The bikes are unsightly ("clutter" and "litter" were commonly used terms)
    - There are not enough bikes
    - The bikes had maintenance issues and/or dead batteries
- Asked to identify their biggest concern about bike share in Bellevue, 28% of respondents selected "Streets are unsafe for people bicycling."
- Asked how the City could help make bike share more useful to them, the action with the strongest support was to "provide shared e-scooters" (27% strongly agree, 16% agree).
  - Two other actions had more support overall though: "provide more bikes at bus stops" (24% strongly agree, 38% agree) and "provide more bikes near my work" (17% strongly agree, 31% agree).

- People were presented with 18 images of bikes parked in various locations across Bellevue and asked to identify all of those they think are parked appropriately. A few takeaways emerged:
  - People understand that painted areas on sidewalks are meant for bike share, but they're less certain when the space is on-street (photo 1 below,top left).
  - People understand that bike racks are acceptable and blocking the sidewalk is not, but people are less sure about parking bikes on a sidewalk in the landscape zone feel even when it does not block the walkway (photo 2 below, below top right).
  - Most people think it is appropriate to park on the grass next to a sidewalk, yet the pilot permit conditions would deem this non-compliant because it is not on a "paved or other improved hard surface." In this case, the condition is overly restrictive and warranted reconsideration, as this is the only viable place to park at this location (photo 3 below, bottom left).
  - Education is warranted to better explain how to park appropriately in residential neighborhoods, as there is uncertainty about whether it is okay to park on the lawn of a private home or to park adjacent the curb on the street (photo 4 below, bottom right).

