



Bellevue Bike Share Pilot

Andreas Piller

Associate Transportation Planner

February 13, 2020

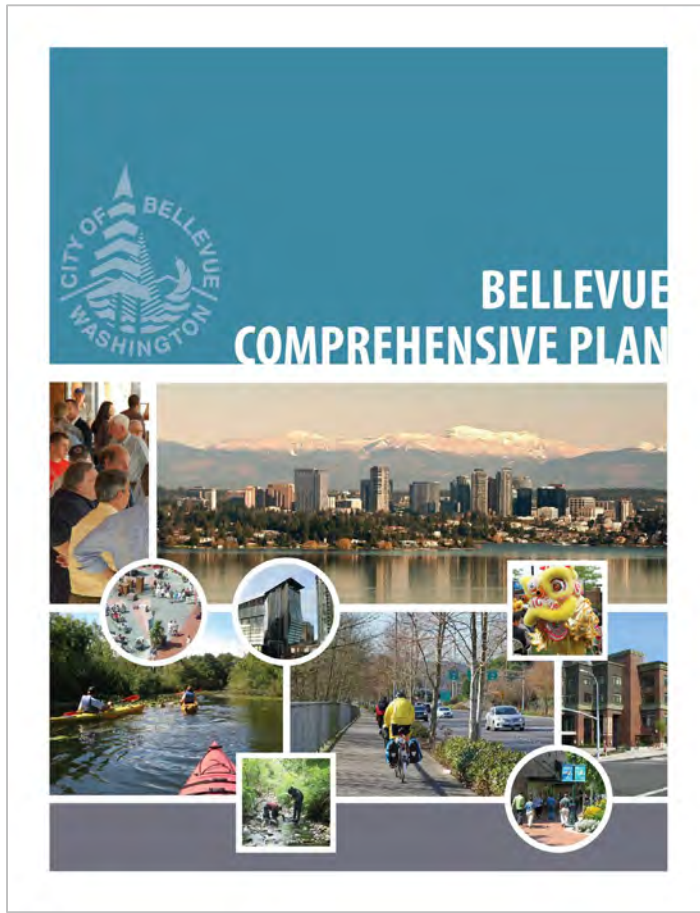
Briefing Purpose

- **Review outcomes of the 2018–19 bike share pilot.**
- **Provide an update on the 2020 shared micromobility permit.**
- **No Commission action is required.**

Agenda

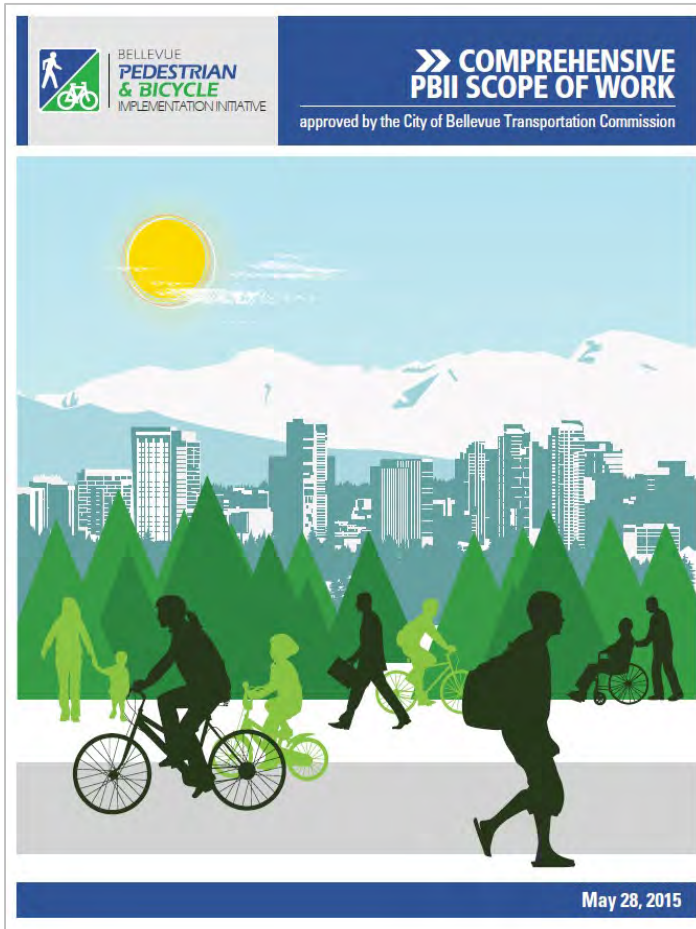
- **Background – 2018-19 Bike Share Pilot**
- **Review/Discussion – Bike Share Pilot Evaluation**
- **Next Steps – 2020 Shared Micromobility Permit**

Background: Policy



- **TR-16. Evaluate and facilitate car-sharing and bike sharing programs.**
- **TR-115. Support establishment and operation of a bicycle sharing program in Bellevue.**

Background: Program

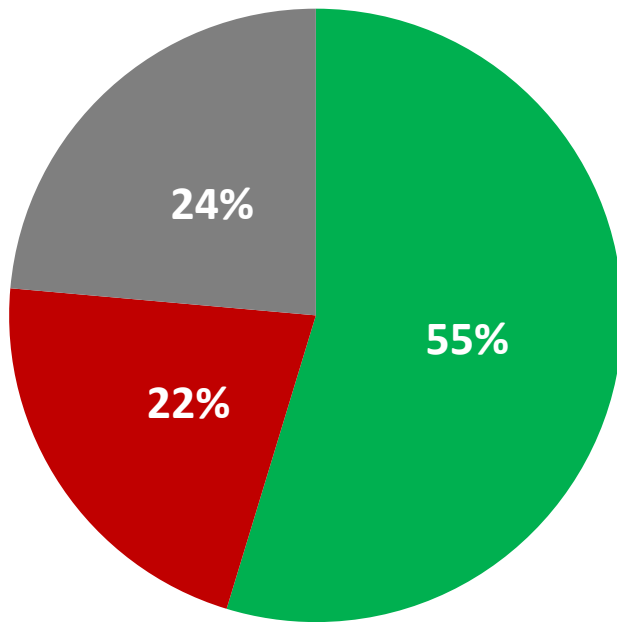


Task 6: Bike Share Feasibility Study & Implementation Strategy

“Provide people in Bellevue access to a bicycle when they want one, without having to worry about storage, security, and maintenance.”

Fall 2017 Bike Share Questionnaire

If a bike share service was available in Bellevue today, would you use bike share in Bellevue?



- Yes, I would use bike share in Bellevue
- No, I would not use bike share
- I don't know

Total Respondents: 816

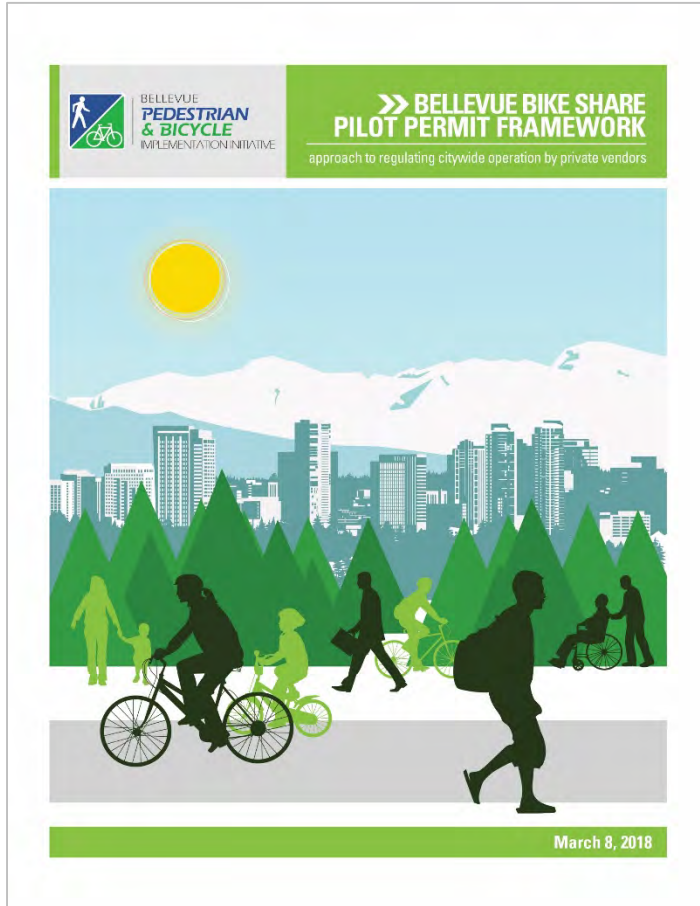
- 52% are Bellevue residents
- 34% work in Downtown Bellevue

Transportation Commission Guidance



- **Be Innovative**
- **Be Flexible**
- **Be Evidence-Based**
- **Provide Options**
- **Start Small**
- **Minimize Clutter**
- **Protect Private Property**
- **Monitor Safety**
- **Ensure Cost Recovery**

Pilot Permit Framework



- **Pilot**
- **Quality**
- **Safety**
- **Parking**
- **Operations**
- **Evaluation**
- **Enforcement**
- **Cost Recovery**
- **Equity**

Pilot Launch: July 31, 2018

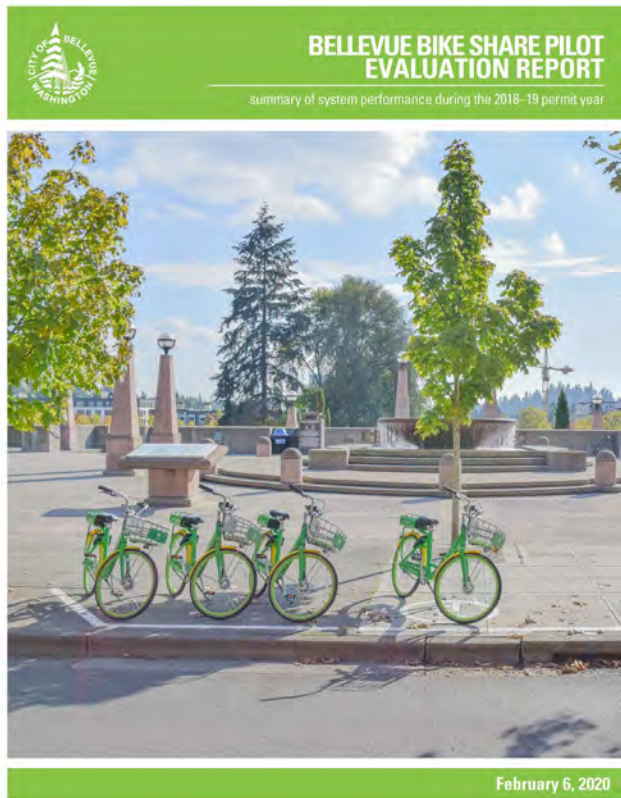




Agenda

- **Background** – 2018-19 Bike Share Pilot
- **Review/Discussion** – Bike Share Pilot Evaluation
- **Next Steps** – 2020 Shared Micromobility Permit

Bike Share Pilot Evaluation Report



• Key Takeaways

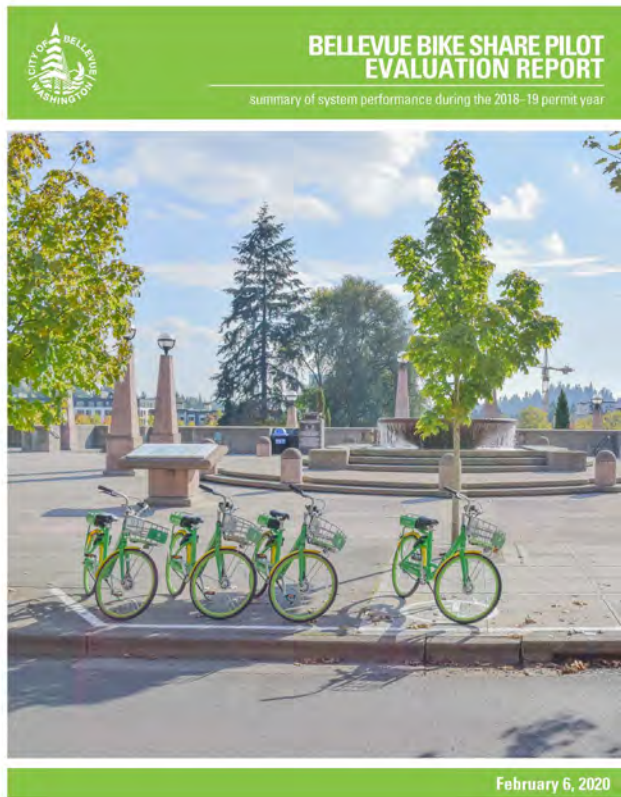
• Quick Facts

• Analysis

- Bike Availability
- System Use
- Safety
- Permit Condition Compliance
- Cost Recovery
- Projections & Comparisons

• Community Engagement

Key Takeaways



- High Quality and Innovation
- Community Asset
- Convenient Access to Bicycles
- Orderly Public Space
- Limited Impact to Parks and Private Property
- Reliable Mobility Option

Community Asset

*“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.”

-Purpose Statement, Pilot Permit Framework

Service Use



- **Trips:**

- **38,310 total**
- **50% in first 3 months (19,110)**
- **15-min average duration**
- **8.75-min median duration**

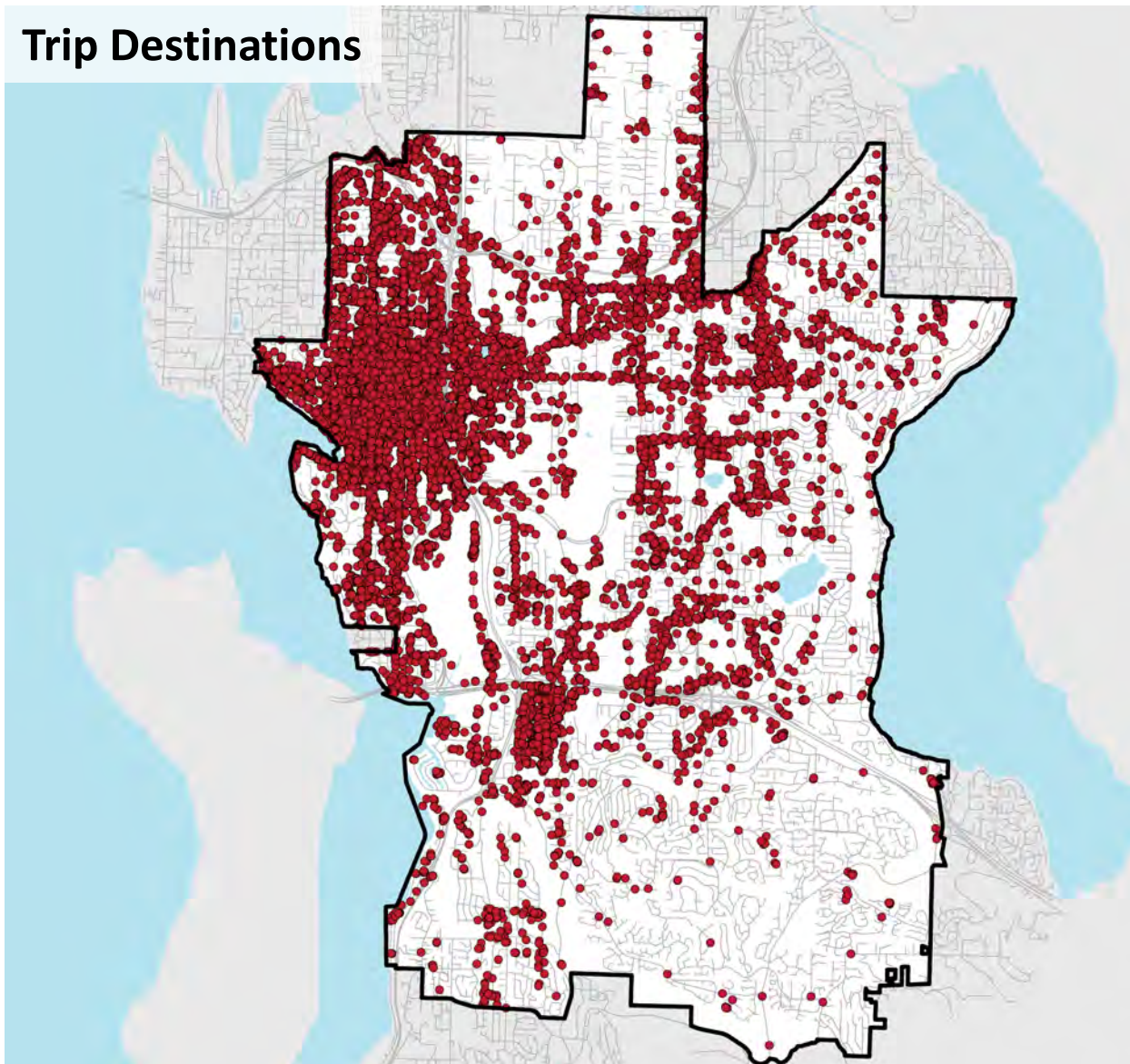
- **Users:**

- **8,540 total**
- **21% took 5+ trips (70% of trips)**
- **15% took 10+ trips (52% of trips)**

Note: Data reflects 7/31/18–5/22/19

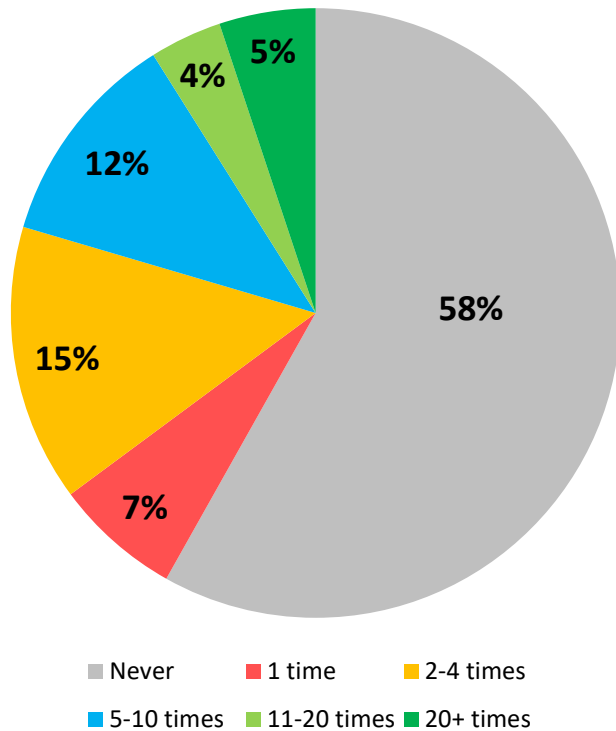
Service Use

Trip Destinations



Public Perception

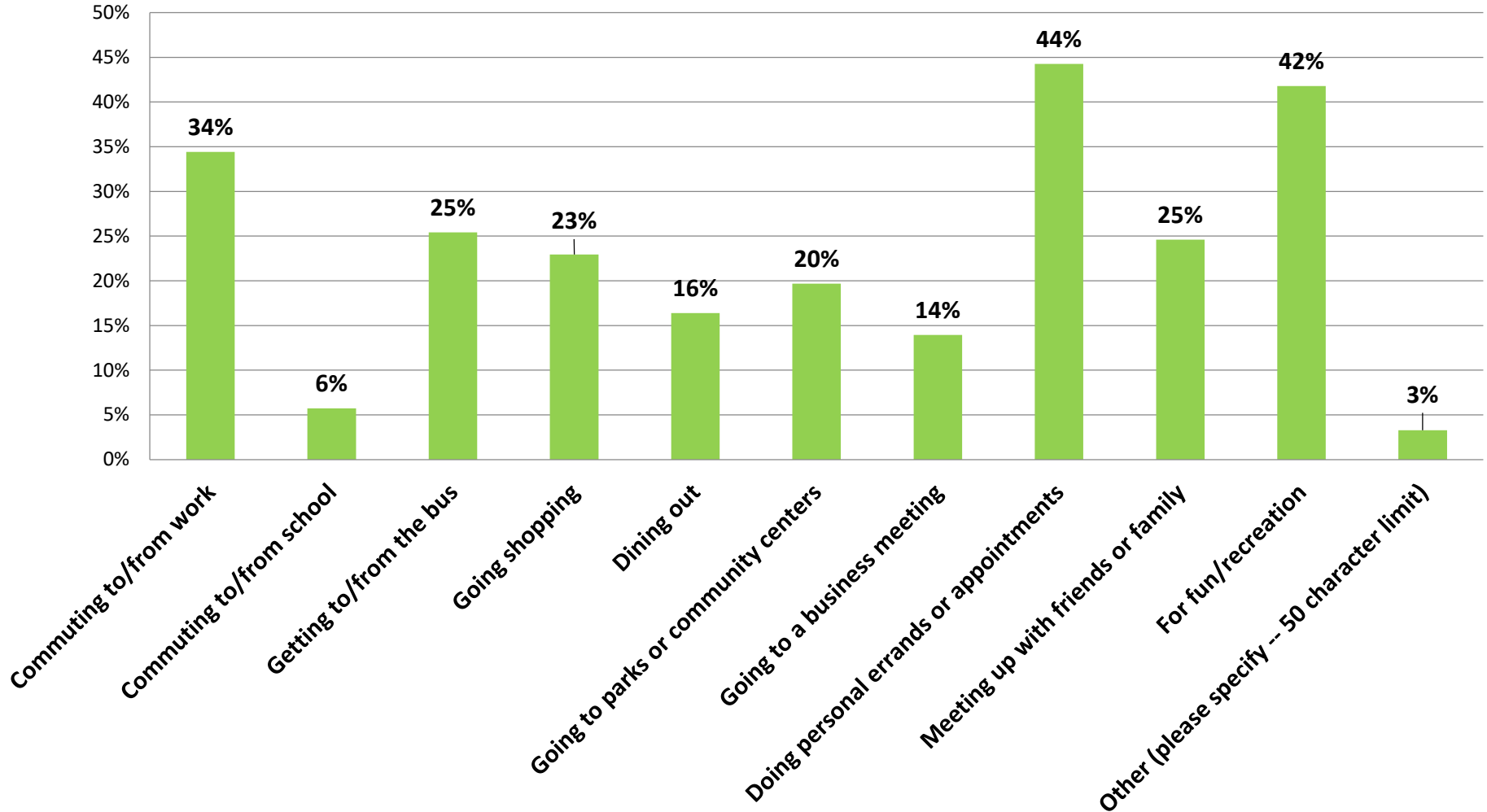
How often have you used bike share in Bellevue?



- **Fall 2019 Questionnaire:**
 - 313 respondents
 - 42% Users / 58% Non-Users
 - 70% live in Bellevue
 - 62% work in Bellevue

Public Perception

For what purposes have you used bike share in Bellevue?



Public Perception

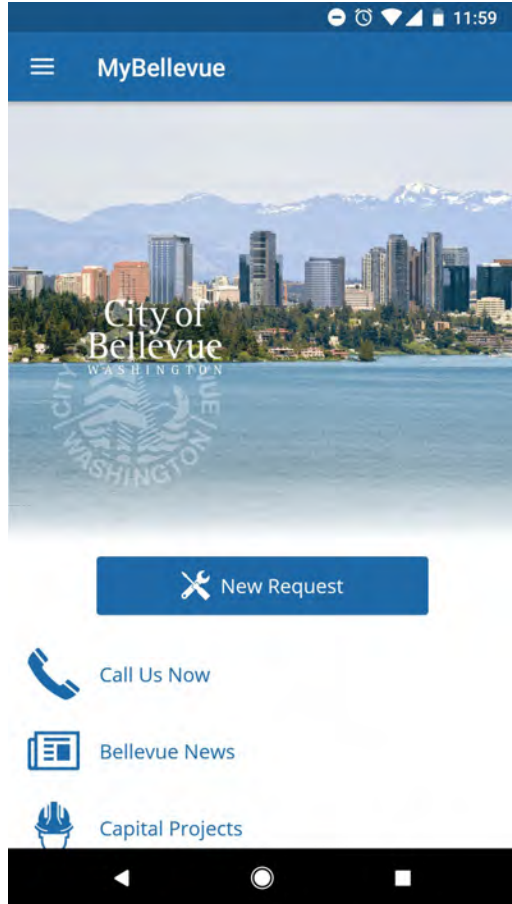
- **Likes:**

- It is convenient
- It is accessible (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

- **Dislikes:**

- Bikes are left everywhere
- Not enough safe bikeways
- Not available when/where people want them
- Bikes are unsightly (“clutter,” “litter”)
- Bikes crowd or block sidewalks
- Not enough bikes available

Customer Service



- **96 Communications**
 - 80% complaints
 - 12% questions
 - 2 vandalism reports
 - 1 hazard report
- **Top Issues:**
 - Bikes Blocking Sidewalk
 - Long-Term Idle Bikes
 - Bikes on Private Property

Convenient Access to Bicycles

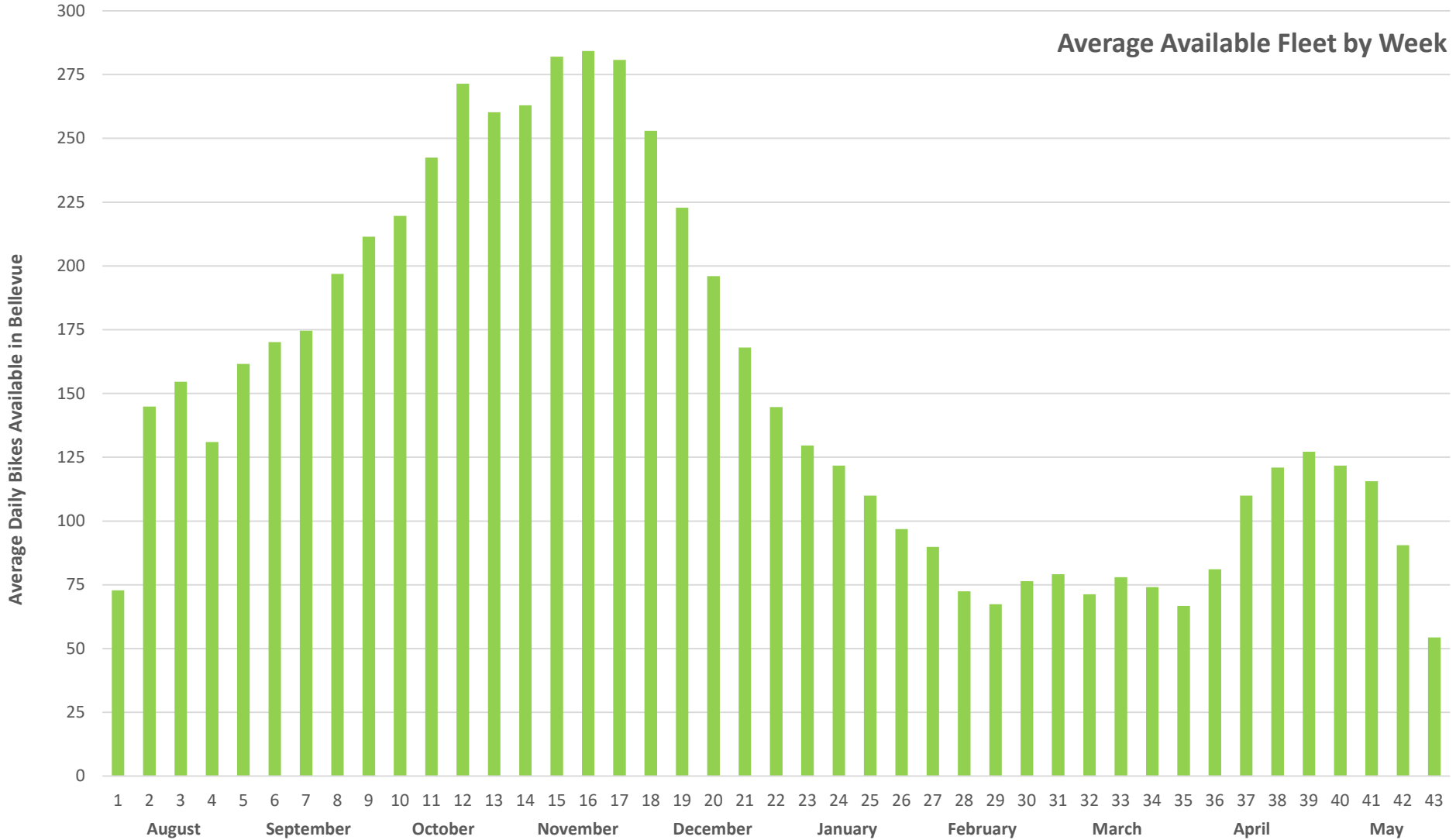
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Fundamentally, the pilot aims to facilitate the convenient provision of bicycles where people want them *while maintaining orderly and accessible public space and minimizing impacts to parks and private property. Bike share should provide a reliable mobility option within and between major activity centers and support access to and from the regional transit network.”*

-Purpose Statement, Pilot Permit Framework

Bike Share Availability

Average Available Fleet by Week









Access to Bike Share

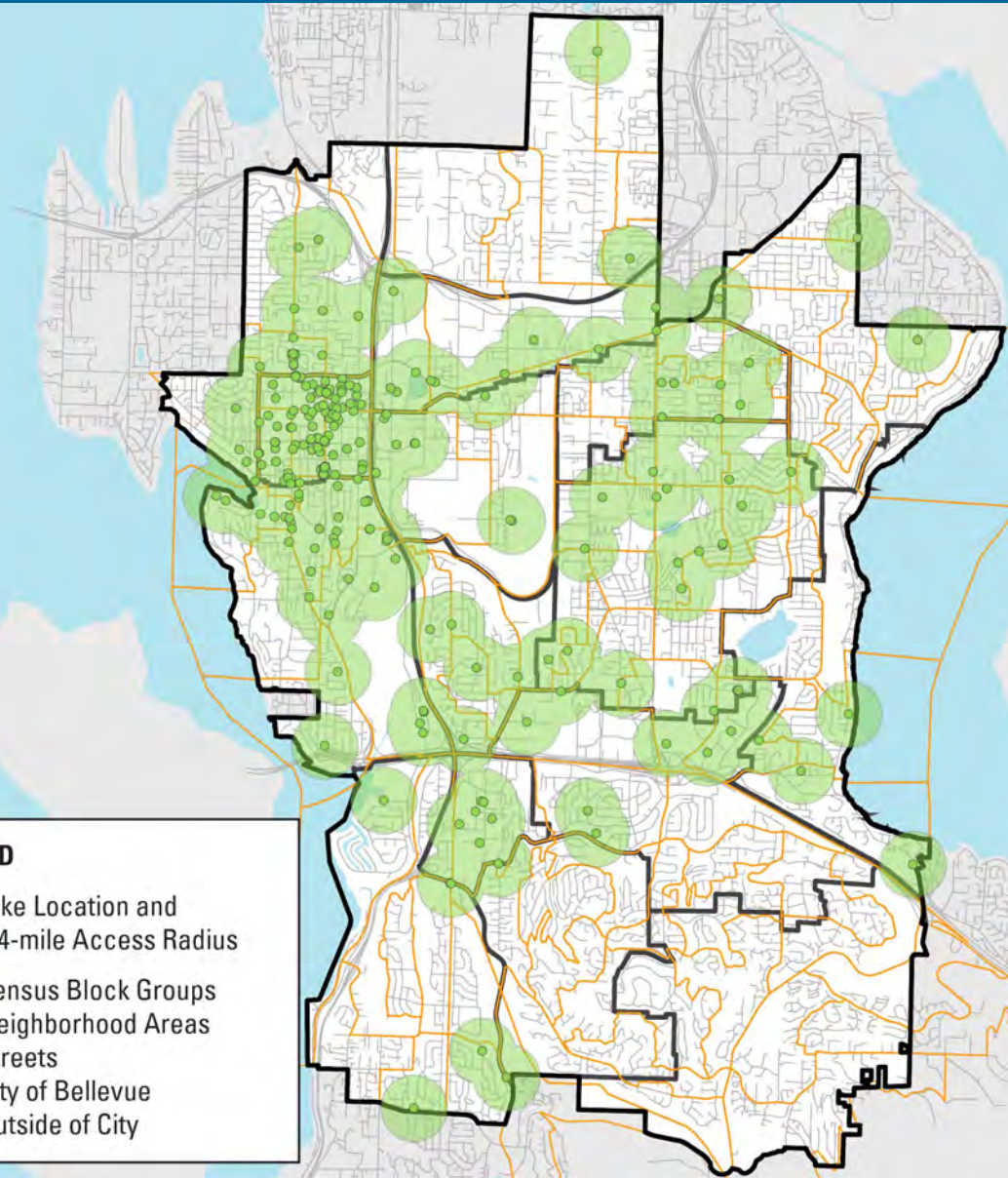
Sample:

October 11, 7am

- 27,588 Residents (19%)
- 142,472 Employees (93%)
- 248 bikes
- 309 trips taken

LEGEND

-  Bike Location and 1/4-mile Access Radius
-  Census Block Groups
-  Neighborhood Areas
-  Streets
-  City of Bellevue
-  Outside of City

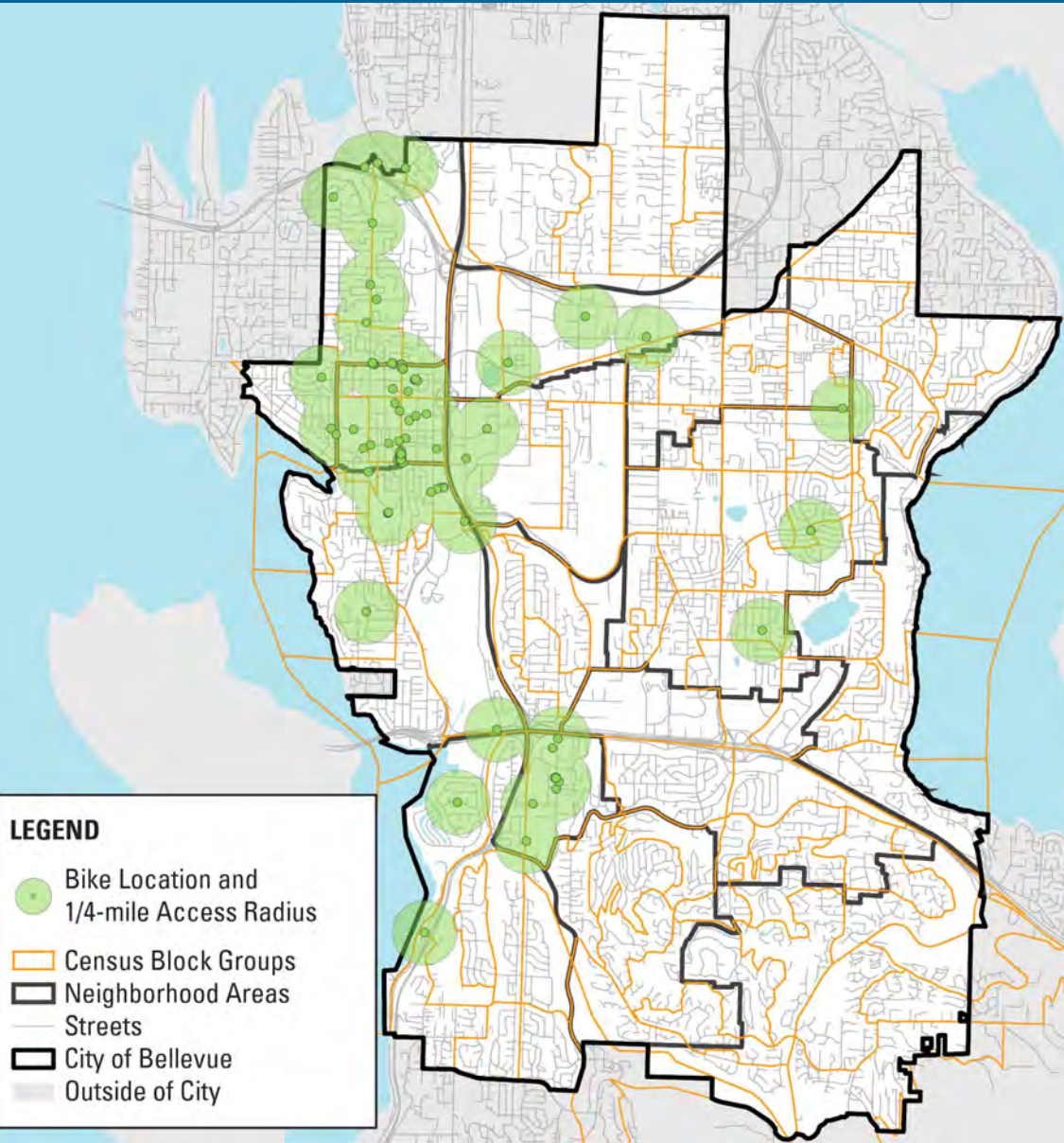


Access to Bike Share

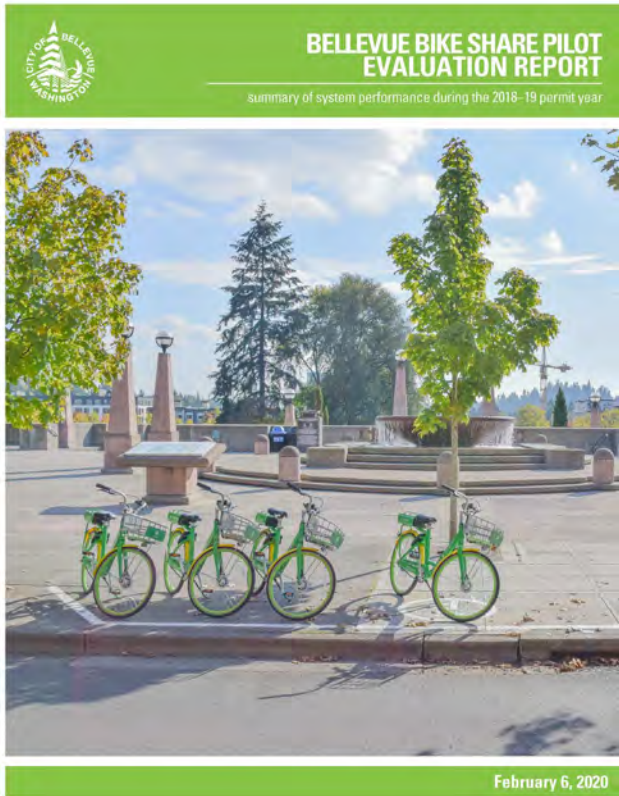
Sample:

January 27, 7am

- 11,981 Residents (8%)
- 103,585 Employees (68%)
- 94 bikes
- 46 trips taken



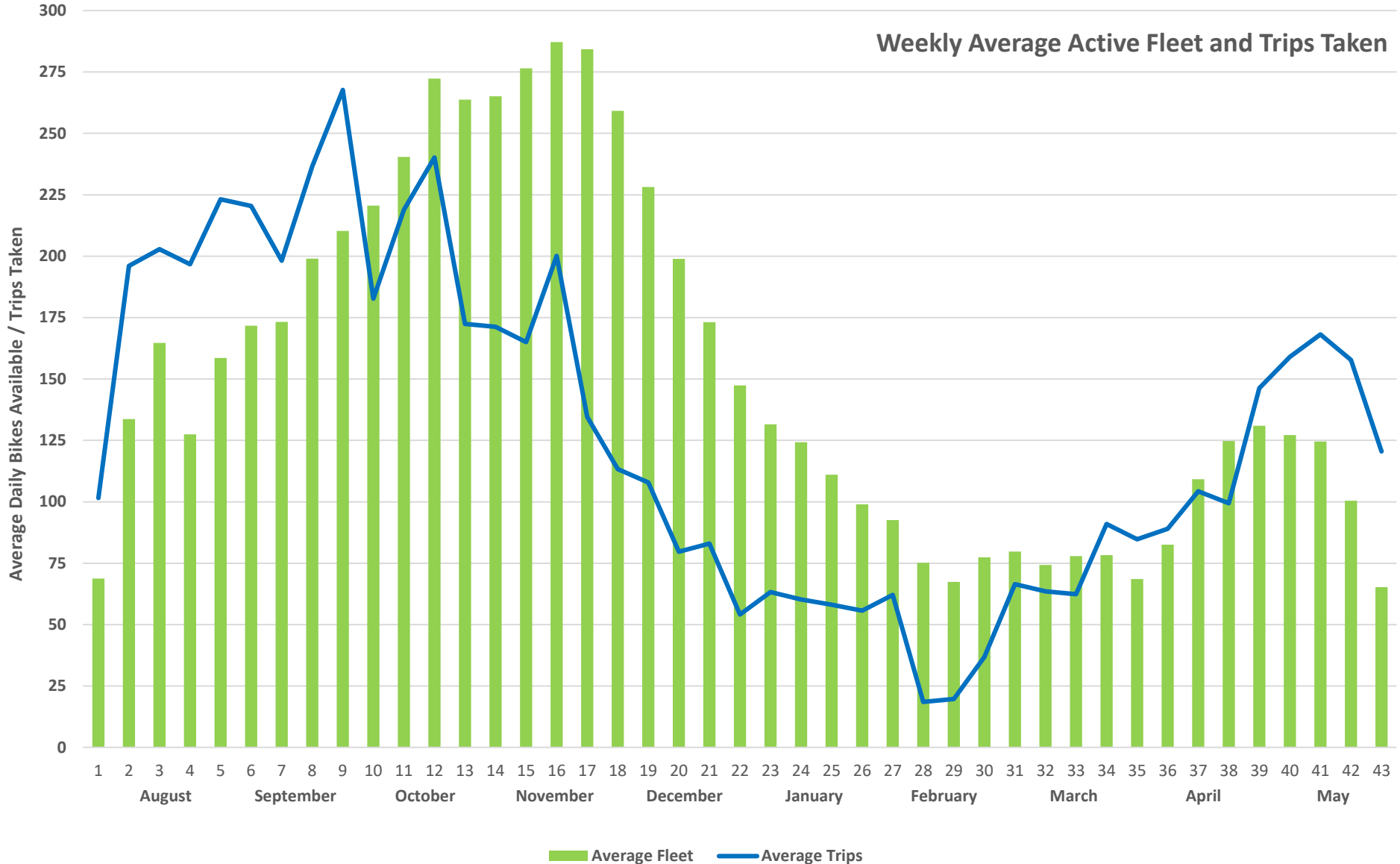
Analysis



- **Bike Availability**
- **System Use**
- **Safety**
- **Permit Condition Compliance**
- **Cost Recovery**
- **Projections & Comparisons**

Daily Trips

Weekly Average Active Fleet and Trips Taken



Trip Origins and Destinations

Neighborhood	Trip Origins		Trip Destinations	
BelRed	1,921	5%	2,032	5%
Bridle Trails	326	1%	361	1%
Cougar Mountain / Lakemont	34	0%	38	0%
Crossroads	899	2%	784	2%
Downtown	20,175	53%	18,358	48%
Eastgate	471	1%	528	1%
Factoria	909	2%	805	2%
Lake Hills	1,486	4%	1,533	4%
Newport	314	1%	384	1%
Northeast Bellevue	241	1%	319	1%
Northwest Bellevue	3,244	8%	3,675	10%
Somerset	55	0%	69	0%
West Bellevue	3,540	9%	3,944	10%
West Lake Sammamish	59	0%	89	0%
Wilburton	1,683	4%	1,825	5%
Woodridge	303	1%	343	1%
Outside Bellevue	2,650	7%	3,223	8%
Total	38,310			

Bike Share as Public Transit



- **Metro Route 246:**
 - **Daily Rides: 290**
 - **Daily Bus Trips: 40**
 - **Weekdays only, 5am–7:30pm**
 - **30-60 minute frequency**
 - **\$1.2M annual operating cost***
 - **\$12.42 per ride**
 - **Fare: \$2.75**

**Reflects annualized data from fall 2011*

Bike Share as Public Transit



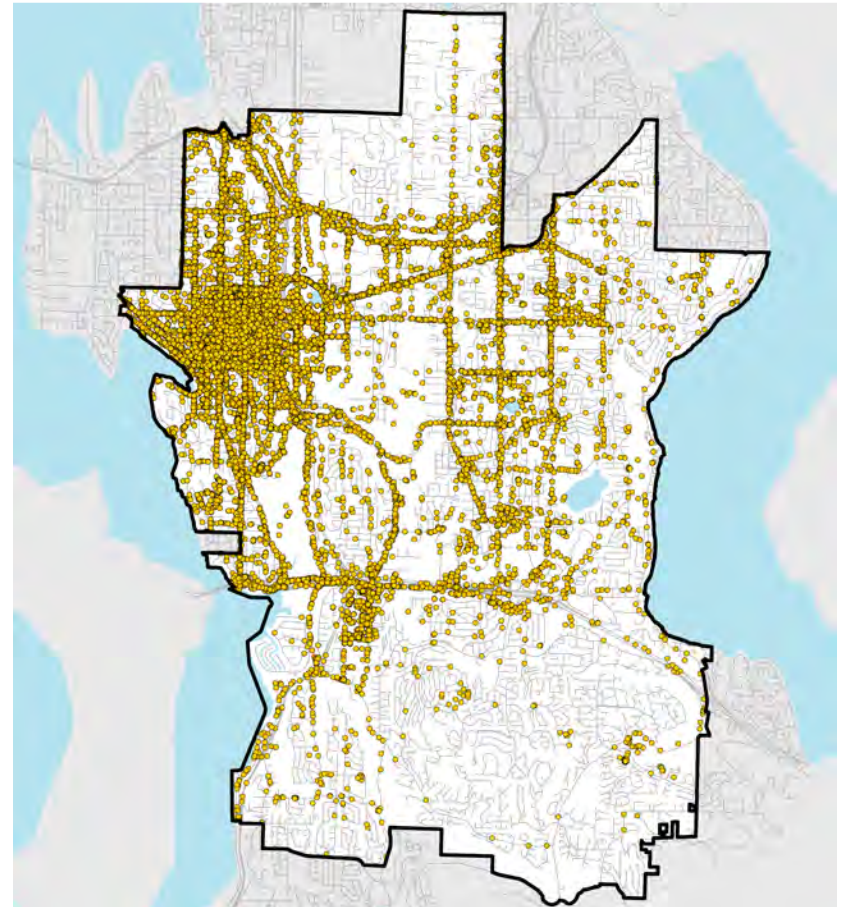
- **Bike Share:**
 - Daily Rides: 201–262
 - Daily Bikes: 150–280
 - 92% of trips 5am–10pm
 - \$920k–1.1M est. annual op. cost
 - \$12.19–15.23 per trip
 - Fare: \$2.31–3.27
- **Assumptions:**
 - Aug–Oct fleet, trip data annualized
 - \$12-15 per bike per day
 - 8.75–15 minute trip duration

Bike Share as Public Transit

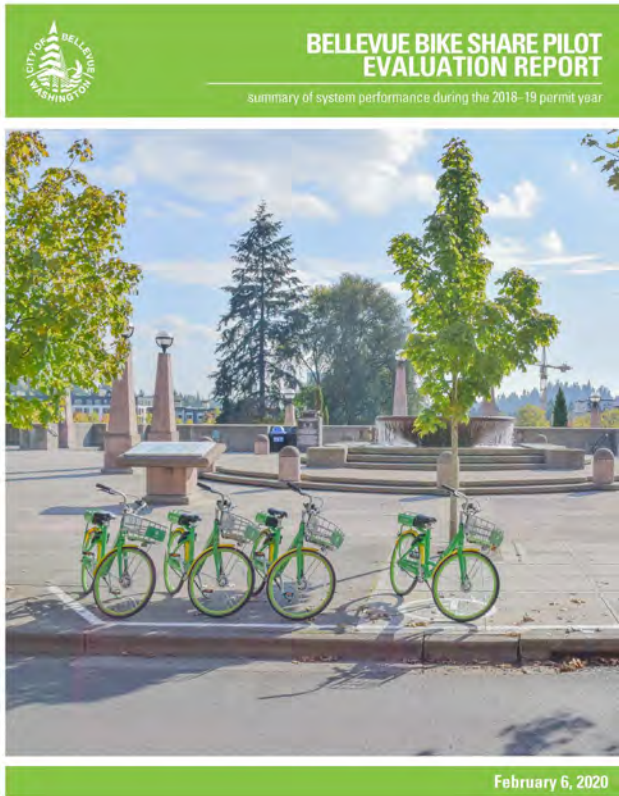
Route 246



Bike Share Waypoints



Analysis



- **Bike Availability**
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- **Safety**
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- **Cost Recovery**
- **Projections & Comparisons**

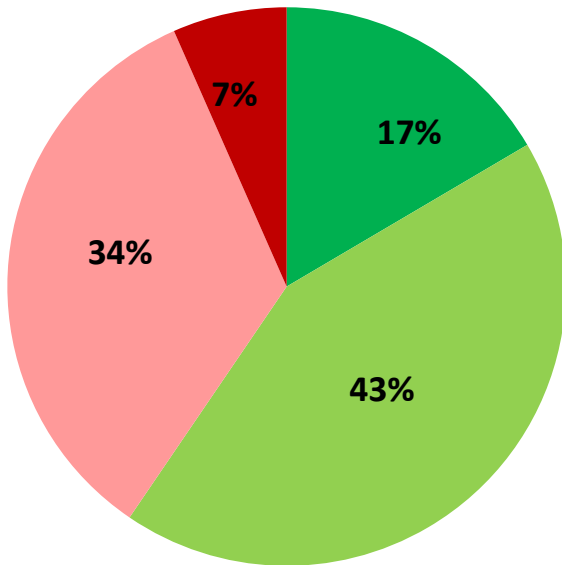
Safety



- **No Police-reported crashes**
- **1 minor crash identified by NORCOM, traffic camera**
- **1 injury crash self-reported via fall 2019 questionnaire**

Fall 2019 Questionnaire – Users

Do you feel that Bellevue is a safe place to ride a bike today?

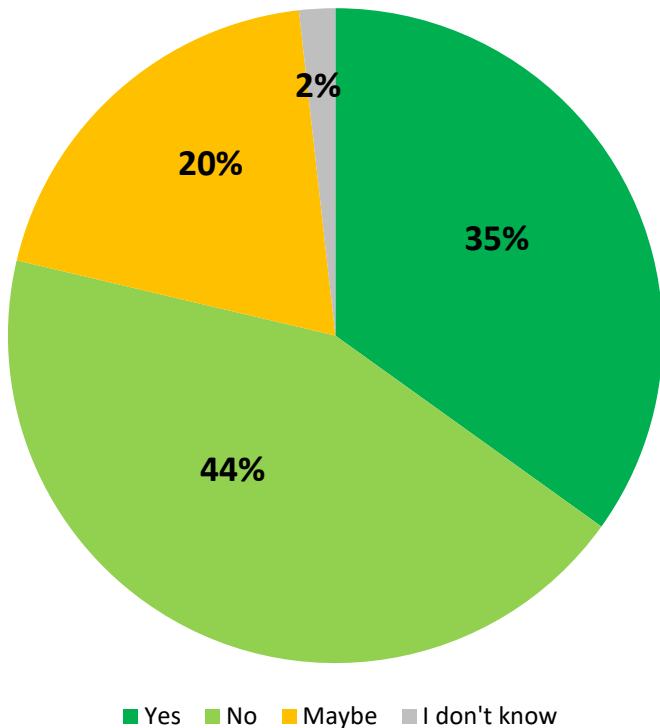


■ Yes, very safe ■ Yes, somewhat safe
■ No, somewhat unsafe ■ No, very unsafe

- **40% of users feel unsafe**
- **Self-identified rider types:**
 - 30% Strong and Fearless
 - 41% Enthusiastic and Confident
 - 28% Interested but Concerned

Fall 2019 Questionnaire – Non-Users

Are you open to trying bike share in Bellevue?



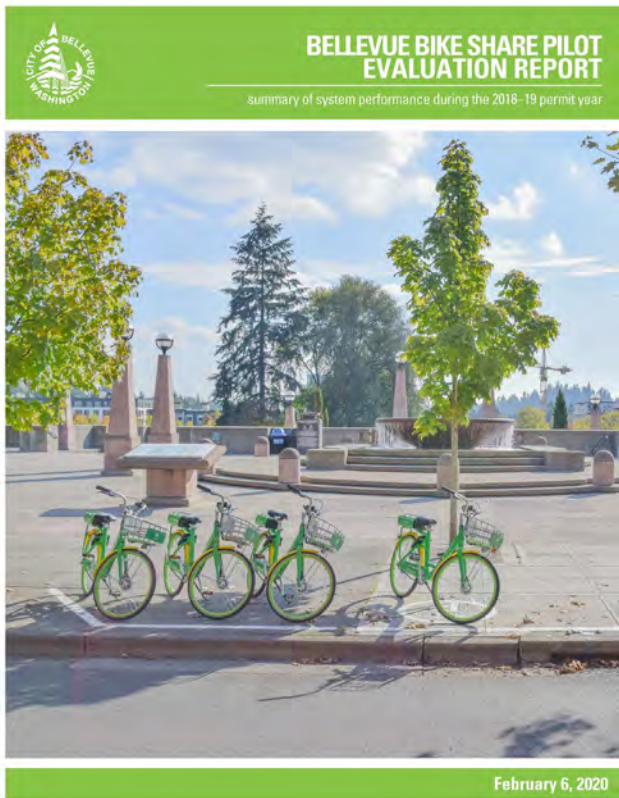
- **2 of top 3 reasons why people do not use bike share in Bellevue relate to safety:**
 - **Lime bikes do not come with a helmet (65% agree)**
 - **I do not feel safe biking in Bellevue (50% agree)**

Fall 2018 Lime User Survey



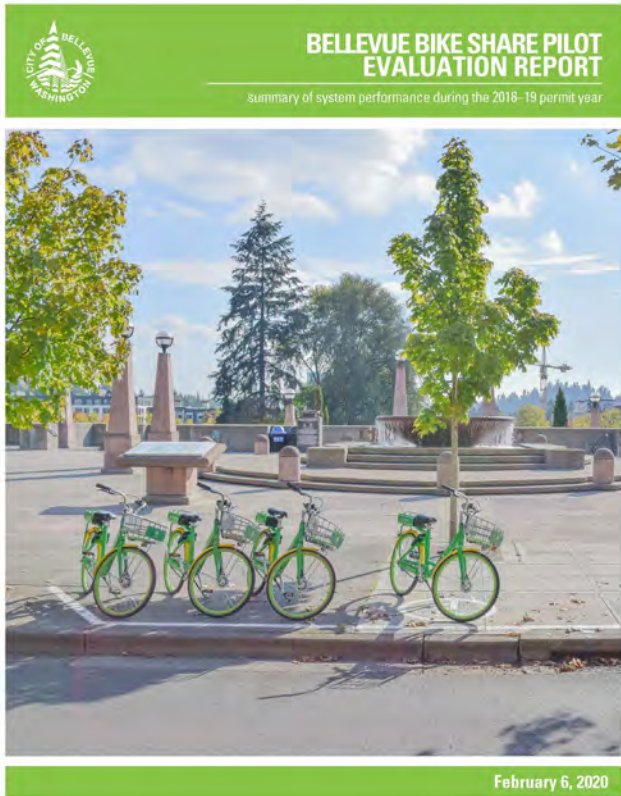
- **111 respondents**
- **72% own a helmet**
- **50% wear it sometimes**
- **29% often or always wear it**
- **Only 2 received free helmets**

Analysis



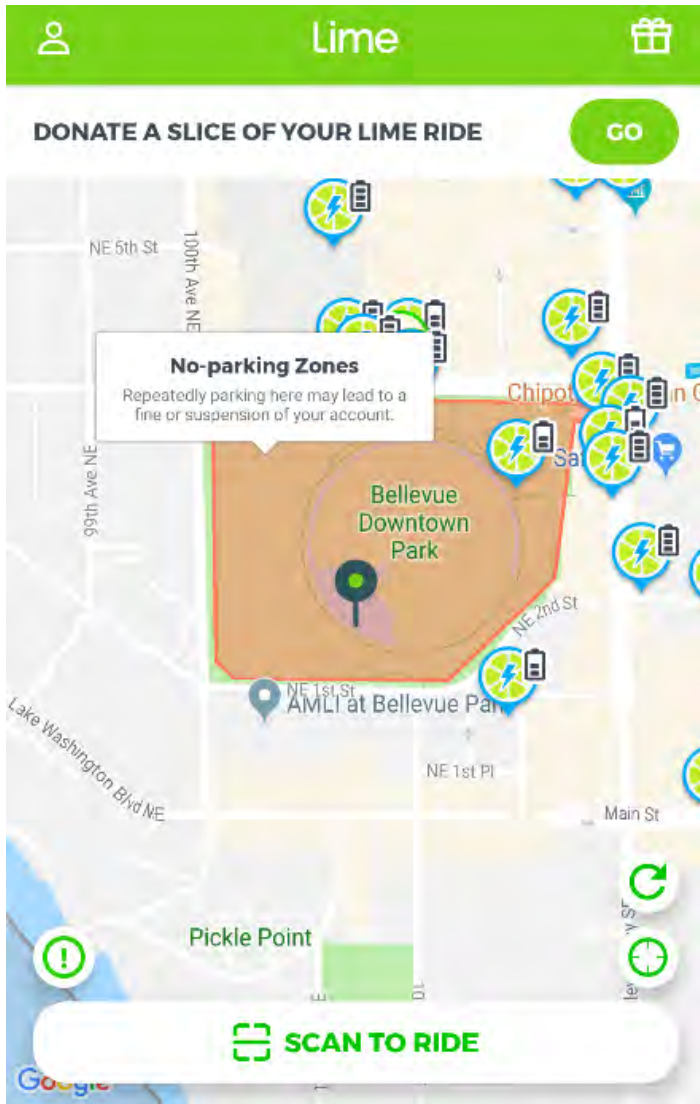
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Permit Condition Compliance



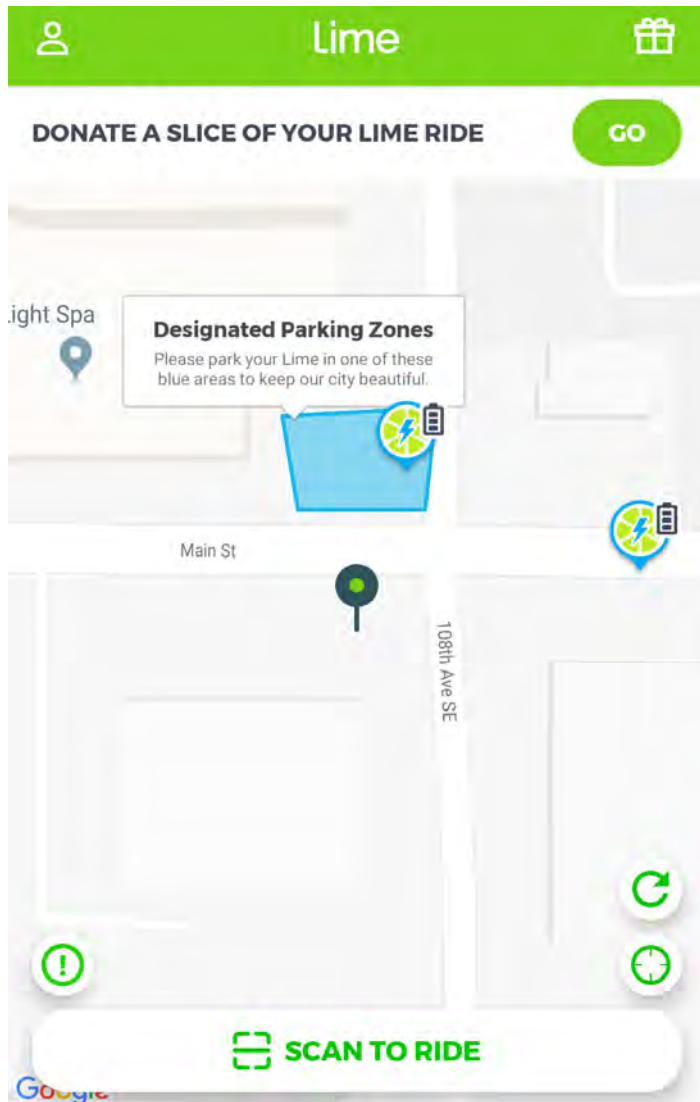
- Right-of-Way Use
- Fleet Size
- Fleet Distribution
- **Parking Management**
- Idle Bike Relocation
- Response to Reported Issues

Parking Management



- **Condition:**
 - Relocate bikes left in No Parking Zones within 24 hrs
- **Outcomes:**
 - 97% of days with bikes in NPZs
 - Average of 5 bikes daily
 - 87% were left for >24 hrs
- **Discussion:**
 - Did not have data to enforce
 - New penalty fee in 2020 permit

Parking Management



- **Condition:**
 - Min. 50% at bike hubs daily
- **Outcomes:**
 - Average of 6% of citywide fleet in bike hubs daily at 7am
 - In Downtown, up to 8 weeks within +/-25% of target
- **Discussion:**
 - Did not have data to enforce
 - New penalty fee in 2020 permit
 - Additional bike hubs planned

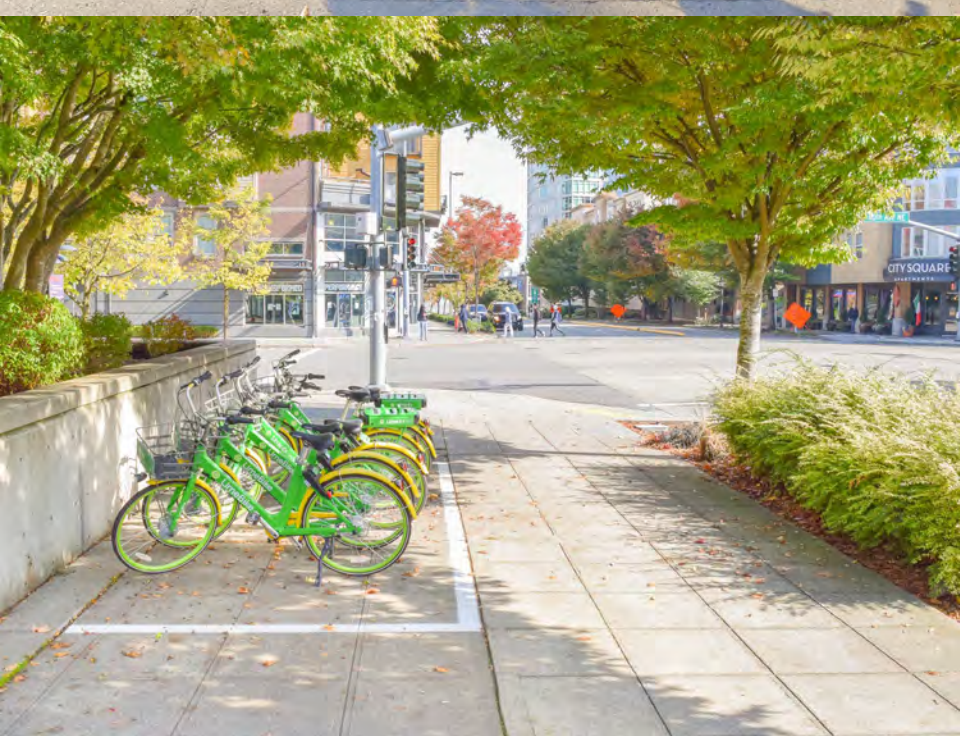
Parking Management



- **UW Student Research:**
 - 38% of bikes misreport location
 - Non-compliance more common outside Downtown
 - 54% of audited bikes were non-compliant
 - 20% were causing a problem
- **Student Recommendations:**
 - Modify some parking rules
 - Partner with businesses for bike hubs on private property









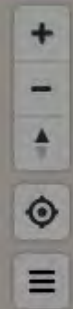
Bikeshare! But Where?



Help us pick good places in your neighborhood to designate as preferred parking areas, called "bike hubs." A good location is one where bikes are convenient to find when you want one and out of the way when you don't. Add your suggestions to the map and comment on locations submitted by other members of your community.

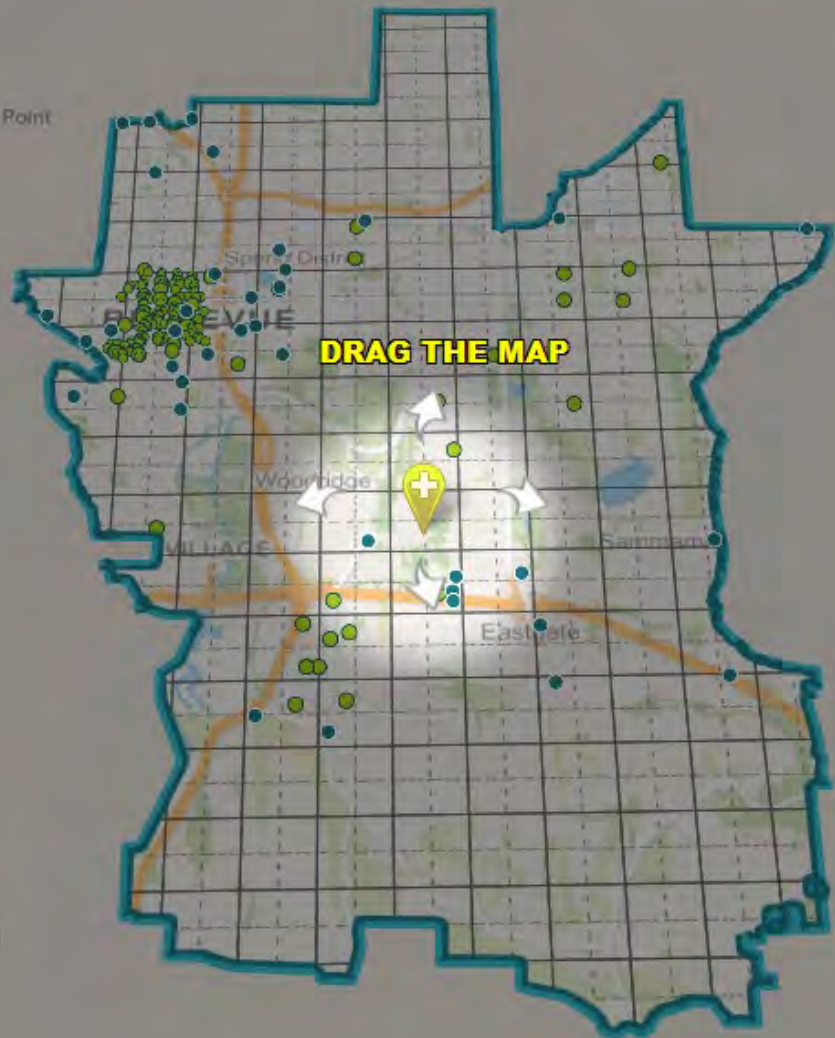
The Transportation Department will review every suggestion submitted, and this map will be updated to share the current status.

To provide more general feedback about bikeshare in Bellevue, take the City's online questionnaire at <https://www.surveymonkey.com/r/bellevuebikeshare>.



Hurits Point

Medina



DRAG THE MAP

Mercor Island

Newcastle

✕ What do you think?

Drag and zoom the map to let us know where you think we should add a bikeshare hub! Fill out the form below to give us some more information about your suggestion:

Add a descriptive title:

Why does this location need bikeshare parking? (optional)

Check all that apply: (optional)

 I live nearby I work nearby I visit often





NO PARKING
FIRE LANE
NO STANDING
OR STOPPING
EXCEPT FOR
EMERGENCY VEHICLES
OR AT THE DISCRETION
OF THE FIRE DEPARTMENT

ASPAIS

NO PARKING
EXCEPT FOR
EMERGENCY VEHICLES
OR AT THE DISCRETION
OF THE FIRE DEPARTMENT

Sturtevant's
SKI MART

Jimmy's **Auto Upholstery**

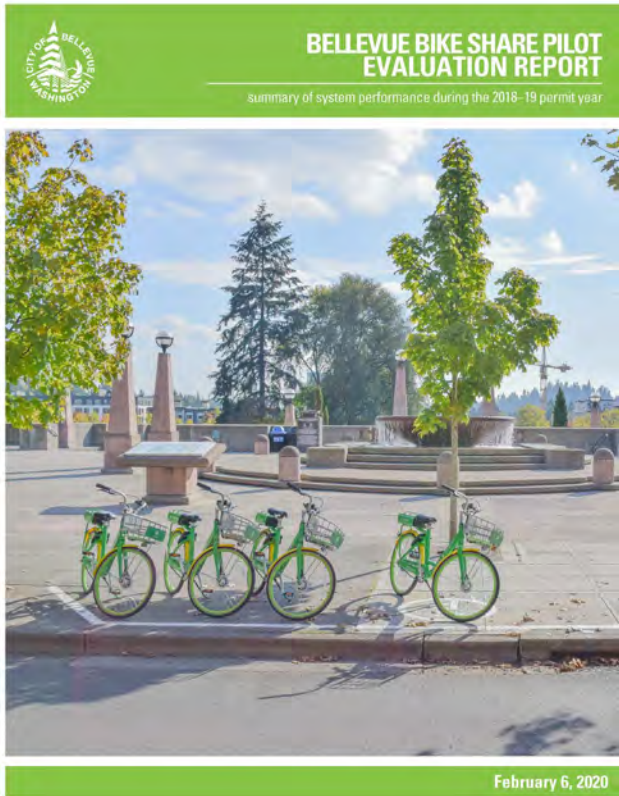
Edward Jones | INVESTMENTS

Inkredible T-SHIRTS

STURTEVANT'S
SKI MART
PARKING
ONLY



Analysis



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Cost Recovery

- **Fees paid to City by Lime:**
 - \$220 – Permit Application Fee
 - \$40,000 – Pilot Management Fee
- **Costs Reimbursed by State:**
 - \$40,000 - TRAC research contract
 - \$2,000 - Mapseed contract

- **Pilot Costs: \$96,041**
 - \$5,775 – Customer Service
 - \$14,477 – Bike Hubs
 - \$18,737 – Other Administration
 - \$57,052 – Evaluation
- **Net Cost to City: \$14,041**

Agenda

- **Background** – 2018-19 Bike Share Pilot
- **Review/Discussion** – Bike Share Pilot Evaluation
- **Next Steps** – 2020 Shared Micromobility Permit

2020 Permit



- **Build on lessons learned**
- **Flexible to innovation**
- **Lower barrier to entry**
- **Improve alignment with goals**
- **ROW-based fees**
- **Values-based incentives**
- **Use industry data standards**

Shared Micromobility

TYPES OF POWERED MICROMOBILITY VEHICLES¹

	Powered Bicycle	Powered Standing Scooter	Powered Seated Scooter	Powered Self-Balancing Board	Powered Non-Self-Balancing Board	Powered Skates
Center column	Y	Y	Y	Possible	N	N
Seat	Y	N	Y	N	N	N
Operable pedals	Y	N	N	N	N	N
Floorboard / foot pegs	Possible	Y	Y	Y	Y	Y
Self-balancing ²	N	N	N	Y	N	Possible

Improve Alignment with Goals



- **GPS Field Tests**
- **Bike Hub Trip End Target**
- **Out-of-Hub Penalty Fee**
- **No Parking Area Penalty Fee**

Values-Based Incentives



- **Safety - Helmets On-Vehicle**
- **Sustainability - Green Fleet**
- **Equity - Affordable Housing**

Next Steps



- **Finalize SOPs**
- **Accept 2020 permit applications**
- **Contract new data analyst**
- **Mobility Data Collaborative**
- **Plan engagement event in spring**



Bellevue Bike Share Pilot

Andreas Piller

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